Oracle® Communications Unified Communications Suite

Installation and Configuration Guide

Release 7 Update 1

July 2015

ORACLE

Oracle Communications Unified Communications Suite Installation and Configuration Guide, Release 7 Update 1

Copyright © 2007, 2015, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

1. Deployment Examples . . . 6
    Communications Suite on a Single Host . . . 7
    Communications Suite on a Single Host (Red Hat Linux) . . . 49
        Red Hat Linux Start and Stop Scripts for Communications Suite . . . 80
2. Get the Software . . . 88
3. Oracle Communications Calendar Server for CALDAV Clients Initial Configuration . . . 90
4. Communications Suite Initial Configuration . . . 94
5. Communications Suite Installation Flowchart . . . 95
6. Communications Suite Installation Guide . . . 103
    commpkg - General Syntax and Commands . . . 111
    commpkg info Usage . . . 113
        commpkg info altroot Sample Session . . . 115
        commpkg info Sample Session . . . 130
    commpkg install Usage . . . 150
    commpkg uninstall Usage . . . 153
    commpkg verify Usage . . . 155
    Communications Suite Directory Server Setup Script (comm_dssetup.pl) . . . 156
        DSsetup 6.4-6.03 Sample Session - Existing Directory Server 7.0 Instance for Schema 1 165
        DSsetup 6.4-6.03 Sample Session - Existing Directory Server 7.0 Instance for Schema 2 187
        DSsetup 6.4-6.03 Sample Session - Fresh Directory Server 7.0 Instance for Schema 1 . . 206
        DSsetup 6.4-6.03 Sample Session - Fresh Directory Server 7.0 Instance for Schema 2 . . 267
        DSsetup Sample Session - Existing Directory Server 6.3.1 Instance for Schema 1 . . . 333
        DSsetup Sample Session - Existing Directory Server 6.3.1 Instance for Schema 2 . . . 355
        DSsetup Sample Session - Fresh Directory Server 6.3.1 Instance for Schema 1 . . . 377
        DSsetup Sample Session - Fresh Directory Server 6.3.1 Instance for Schema 2 . . . 437
    Configuration Worksheets - comm_dssetup.pl Script . . . 502
    Configuration Worksheets - Convergence . . . 503
    Configuration Worksheets - Delegated Administrator . . . 507
    Configuration Worksheets - Indexing and Search Service . . . 509
    Configuration Worksheets - Instant Messaging . . . 513
    Configuration Worksheets - Messaging Server . . . 520
    Configuration Worksheets - Oracle Communications Calendar Server . . . 521
    Configuration Worksheets - Oracle Communications Calendar Server for CALDAV Clients . . 523
    Configuring a Communications Suite Host to be Multi-Homed . . . 525
    Configuring Individual Ports . . . 531
    Connector for Microsoft Outlook Installation Guide . . . 532
    Installation Worksheets - Directory Server . . . 533
    Installation Worksheets - Oracle iPlanet Web Server . . . 534
    Installing Communications Suite on Solaris Zones . . . 535
    Oracle Communications Calendar Server Pre-Installation Planning . . . 538
    Sample Session - Communications Suite Install Using ALTROOT . . . 540
    Sample Session - Communications Suite Simple Install and Uninstall . . . 675
    Shared Components . . . 821
        listPackages for Red Hat Linux 4 . . . 822
        listPackages for Red Hat Linux 5 x64 . . . 829
        listPackages for Red Hat Linux 5 x86 . . . 838
        listPackages for Solaris OS 9 SPARC . . . 844
        listPackages for Solaris OS 10 SPARC . . . 853
        listPackages for Solaris OS 10 x64 . . . 864
    Uninstalling Communications Suite in Silent Mode . . . 875
    Using the ALTROOT Command-Line Argument . . . 877
    Installing Communications Suite Using Silent Mode . . . 880
    Verifying the GlassFish Server Version . . . 883
7. Communications Suite Installation Scenarios . . . 884

8. Communications Suite Upgrade Guide . . . 885
Calendar Server 6.3 Upgrade . . . 888
commpkg upgrade Usage . . . 895
commpkg upgrade Sample Session . . . 898
Connector for Microsoft Outlook Upgrade Guide . . . 972
Delegated Administrator Upgrade . . . 975
Upgrading Customized Service Packages in Delegated Administrator . . . 977
Upgrading Customized Service Packages in Delegated Administrator 6.4 . . . 980
Instant Messaging Upgrade . . . 983
Messaging Server Upgrade . . . 985
Upgrading Calendar Server 6.3 in an HA Environment . . . 992
Upgrading Communications Suite in Silent Mode . . . 994
Upgrading Convergence . . . 997
Upgrading Indexing and Search Service . . . 999
Upgrading to Instant Messaging in an HA Environment . . . 1000
Upgrading to Messaging Server in an HA Environment . . . 1001
9. Installation Scenario - Access Manager . . . 1004
10. Installation Scenario - Convergence . . . 1006
11. Installation Scenario - Delegated Administrator . . . 1011
12. Installation Scenario - Directory Server . . . 1013
13. Installation Scenario - GlassFish Server . . . 1016
14. Installation Scenario - Indexing and Search Service . . . 1019
About Apache HTTP Server Version 2 . . . 1028
check_conf.sh Usage . . . 1029
configure_etc.pl Usage . . . 1030
configure_web_node Usage . . . 1032
Preparing Messaging Server for Indexing and Search Service Integration . . . 1033
setup Usage . . . 1041
verify_conf.pl Usage . . . 1044
15. Installation Scenario - Instant Messaging Server . . . 1045
16. Installation Scenario - Instant Messaging Server Multiplexor . . . 1047
17. Installation Scenario - Message Store . . . 1049
18. Installation Scenario - Message Transfer Agent . . . 1051
19. Installation Scenario - Messaging Multiplexor . . . 1053
20. Installation Scenario - Messaging Server Webmail Server . . . 1055
21. Installation Scenario - Oracle Communications Calendar Server Back End . . . 1058
22. Installation Scenario - Oracle Communications Calendar Server for CALDAV Clients . . . 1060
Configuring the Oracle Communications Calendar Server for CALDAV Clients Document Store . 1067
Oracle Communications Calendar Server for CALDAV Clients init-config Syntax . . . 1070
Oracle Communications Calendar Server for CALDAV Clients Post Configuration . . . 1071
Running the Oracle Communications Calendar Server for CALDAV Clients config-mysql Script . 1076
To Configure Oracle Communications Calendar Server for CALDAV Clients to Use LDAP Schema 1 . . . 1078
23. Installation Scenario - Oracle Communications Calendar Server Front End . . . 1080
24. Release Notes . . . 1082
Communications Suite Compatibility Issues . . . 1083
Communications Suite Component Products Release Notes . . . 1085
Communications Suite Supported Web Containers . . . 1119
Connector for Microsoft Outlook Release Notes . . . 1120
Convergence Release Notes . . . 1138
Delegated Administrator Release Notes . . . 1154
Indexing and Search Service Release Notes . . . 1169
Instant Messaging Release Notes . . . 1179
Messaging Server Release Notes . . . 1198
Oracle Communications Calendar Server for CALDAV Clients Release Notes . . . 1206
Oracle Communications Calendar Server Release Notes . . . 1214
Verifying the Correct JDK Version to Support Access Manager . . . 1245

25. What's New 1246
26. Installing the Desktop Deployment Toolkit 1262
27. Convergence Initial Configuration 1265
28. Delegated Administrator Initial Configuration 1277
29. Preserving Delegated Administrator Customizations During Upgrades 1299
30. Indexing and Search Service Initial Configuration 1303
31. Instant Messaging Initial Configuration 1310
32. Messaging Server Initial Configuration 1311
Messaging Server Sun Cluster HA Agent Initial Configuration 1324
33. Oracle Communications Calendar Server Initial Configuration 1325
Database Migration Utilities for Oracle Communications Calendar Server 1326
Migrating Oracle Communications Calendar Server Users to a Different Domain 1341
Oracle Communications Calendar Server Initial Runtime Configuration Program 1349
Configuring Oracle Communications Calendar Server Front End and Back End 1357
Oracle Communications Calendar Server Post-Configuration Tasks 1359

Chapter 1. Deployment Examples

Oracle Communications Unified Communications Suite Deployment Examples Version 7 Update 1

Communications Suite on a Single Host

Deployment Example: Oracle Communications Unified Communications Suite on a Single Host Version 7 Update 1

This deployment example describes how to install Communications Suite 7 Update 1 software on one computer for a functioning deployment. This document is intended for any evaluator, system administrator, or installation technician who wants to install and evaluate the services delivered by these components.

> **Note**
> Installing the back-end messaging, calendar, and address book servers on the same system is not the optimal configuration, nor does it provide the best performance. This example deployment is not intended for production purposes. Use this configuration for evaluation and for training purposes only. Performance is better if you install services on separate machines.

- About This Deployment Example
- Installing the Example
- Installing Communications Suite Components
- Installing and Configuring Directory Server
- Installing and Configuring GlassFish Server
- Configuring Components
- Creating Additional User Accounts and Groups
- Known Issues and Limitations

About This Deployment Example

This section provides an overview of this deployment scenario, the hardware and software used, and the procedures you follow to install, configure, and use this deployment.

Topics:

- Installation Overview
- Implementation Specifications for This Example
- Installation Time Estimates
- Installation Notes and Recommendations
- Summary of Installation and Configuration

Installation Overview

This scenario results in a functioning deployment suited for the evaluation and testing of **Oracle Communications Unified Communications Suite 7 Update 1**. These instructions are not intended to act as a replacement for the individual component documentation, but to merely guide the evaluator through an initial installation.

What Components Are Installed?

This example guides you through installing the following Communications Suite and Java Enterprise System components:

- Messaging Server 7 Update 4
- Calendar Server 7 Update 1
- Calendar Server 6.3
- Instant Messaging 8 Update 3
- Directory Server 11gR1
- GlassFish Server 2.1.1 Patch 1 with HADB support
- Delegated Administrator 7
- Convergence 2
- Indexing and Search Service 1 Update 1
- All Shared Components

The example installation in this document uses the following data that you change according to your installation and test machine:

- Domain name: `comms.beta.com`
- Host name: `wireless` (running Solaris OS 10)
- Fully qualified (external) host name: `wireless.comms.beta.com`
- Password: `adminpass` used for all passwords

This example installs all of the software on a single system. Adjust host names accordingly if you install the components on multiple systems.

Recommended Ports

For convenience, this example uses a set of recommended ports. If you use different ports, be sure to make the changes consistently throughout the installation. For example, this document uses port 4848 for the GlassFish Server admin port. If you decide to use port 3333 instead, be sure to change it everywhere 4848 occurs in the deployment example. See Table 3 for more information.

Implementation Specifications for This Example

This section describes implementation specifications for this example.

Table 1 Evaluation Host Hardware and Software Requirements

Component	Platform Requirement
CPU	SPARC
RAM	2 Gbytes or more
Disk Space	2.2 Gbytes or more free disk space for installed software. 4 Gbytes additional disk space may be needed for temporary storage of Communications Suite zip files.
Software	Solaris 10 OS. This example uses an installation based on Solaris OS 10 Update 6.
Users	Provisioned with test users.

Table 2 Client Software Requirements

Component	Platform Requirement
Browser	Firefox 3.6 or later, Internet Explorer 7.x or later, Safari 4.x

Table 3 Server Configuration Information

Component	Install Notes	Install Location	Database Location	Port Name

GlassFish Server 2.1.1	Installed separately. Required for Convergence	`/opt/SUNWappserver`	Not Applicable	HTTP Port
				Admin Port
				HTTPS Por
Directory Server 11gR1	Installed separately. This version is not included with Identity Management Suite.	`/opt/SUNWdsee`	`/var/opt/SUNWdsee`	Directory Server Por
				LDAP Port
				SSL Port
Messaging Server 7 Update 4	Installed by using Communications Installer. Additional configuration required.	`/opt/sun /comms/messaging64`	`/var/opt/sun /comms/messaging64`	Webmail P (HTTP)
				SMTP Port
				POP Port
				IMAP Port
Calendar Server 6.3	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/ comms/calendar/SUNWics5`	`/var/opt/sun /comms/calendar /SUNWics5`	WCAP Por (HTTP)
Instant Messaging 8 Update 3	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/im`	`/var/opt/SUNWiim`	XMPP Port
				Multiplexed XMPP Port
				Admin Port
				XMPP Serv Port

GlassFish Server 2.1.1	Installed separately. Required by Calendar Server 7 Update 1	`/opt/SUNWappserverCS`	Not applicable	HTTP Port
				Admin Port
				HTTPS Po
Calendar Server 7 Update 1	Installed by using Communications Installer. Additional configuration required.	`/opt/sun /comms/davserver`	`/var/mysql/caldav`	HTTP Port
				Admin Port
				HTTPS
GlassFish Message Queue	Installed by Communications installer. Additional configuration required.	`/etc/imq`	Not applicable	JMQ Port
MySQL Server 5.1	Installed by Communications installer. Additional configuration required.	`/opt/mysql`	`/var/mysql/caldav`	MySQL Po
Convergence 2	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/iwc`	`/var/opt/sun /comms/iwc`	Server Instance HTTP Port
				Administrat Server Por
Indexing and Search Service 1 Update 1	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/jiss`		HTTP Port
				Administrat Server Por

Installation Time Estimates

The following table provides time estimates for installing this example.

Table 4 Installation Time Estimates

Activity	Estimate
Install Solaris OS	2 hours
Install Communications Suite software	1 hour
Configure software	3 hours
Total	6 hours (average)

As part of the configuration, you use Delegated Administrator to add group and user data to Messaging Server and Calendar Server.

> **Note**
> Communications Suite 7 Update 1 is supported on Solaris OS 10. This example uses Solaris OS 10 Update 6.

Installation Notes and Recommendations

1. With Solaris 10, ftp might not work for certain accounts.
   These accounts are listed in `/etc/ftpd/ftpusers`. Just remove the account from this list (for example, `root`) and you will be able to ftp as that user.
2. Use `gzip -d` or `gunzip` to decompress the `*.gz` files.

Expected User Input

During installation, your are prompted for various input. User input is indicated by text of the form **. The following table helps you plan for the types of information you must provide during installation.

Table 5 Information Input During Installation

User Input	User Input Action
<enter>	Just hit enter, but verify that the default value shown makes sense.
<sample-password>	Any password, minimum of 8 characters in length, suitable for evaluation purposes. These instructions assume that anywhere **<sample-password>** is specified, you will enter the same value each time.
<fully-qualified-hostname>	For example, assuming that the host name is `abc`, and the domain name is `demo.xyz.com`, then this value would be `abc.demo.xyz.com` .
<full-cookie-domainname>	For example, assuming that the full domain name is `demo.xyz.com`, then this value would be `.demo.xyz.com` (note the inclusion of the leading `".`").

Summary of Installation and Configuration

Installing and configuring this example involves the following high-level steps:

1. Preparing the system for Communications Suite
2. Running the Communications Installer to install the Communications Suite component software
3. Installing and configuring Directory Server 11gR1
4. Installing and configuring GlassFish Server 2.1.1

5. Preparing Directory Server for Communications Suite
6. Configuring Delegated Administrator 7 and Communications CLI
7. Configuring Messaging Server 7 Update 4
8. Configuring Calendar Server 7 Update 1
9. Configuring Instant Messaging 8 Update 3
10. Configuring Convergence 2
11. Configuring Indexing and Search Service 1 Update 1
12. Configuring users
13. (Optional) Configuring Calendar Server 6.3

These installation steps result in a suitable deployment to evaluate and test Communications Suite 7 Update 1. These instructions are not intended to act as a replacement for the individual component documentation, but to merely guide the evaluator through an initial installation.

Installing the Example

This section describes how to install and configure components on a single machine for evaluation purposes. Some components are configured after installation, using component configuration tools.

> **Note**
> Unless otherwise indicated, all of the examples and instructions in this document assume that you are logged in as `root`.

This section contains the following topics:

- Checking Installation Requirements
- Getting the Necessary Software

Checking Installation Requirements

Before you install components, use the steps in this section to make sure the computer on which you are installing is ready.

To Check System Requirements

The computer should meet the following requirements:

- These instructions assume all actions are performed by the `root` user.
- The computer must have 2.1 GB free disk space for the zip files and zip image. Recommendation: Have the image already unzipped.

To Check DNS

Verify that DNS is running and configured properly:

1. Make sure that the `/etc/resolv.conf` file has name server entries with the IP addresses of valid name servers. For example:

   ```
   domain comms.beta.com
   nameserver 192.168.100.22
   nameserver 192.168.100.23
   nameserver 192.168.100.24
   nameserver 192.168.100.25
   ```

2. Make sure that the `/etc/hosts` file has an entry for the fully qualified host name of the server. This fully qualified host name should be listed before the non-fully qualified host name. For example:

```
10.1.82.52 wireless.comms.beta.com wireless loghost
```

3. Make sure that the `/etc/nsswitch.conf` file is configured to use files first to resolve host names. The hosts line in the `nsswitch.conf` file should list files first in its entry:

   ```
   hosts: files dns nis [NOTFOUND=return]
   # OR (if NIS is not used)
   hosts: files dns
   ```

Getting the Necessary Software

To Get the Software

- Get the Software from the Communications Suite 7 Update 1 download site.

Installing Communications Suite Components

Deploying Communications Suite components is a two-step process. You first install the software then you configure the individual servers.

This section contains the following topics:

- Before You Begin
- Installing Communications Suite 7 Update 1 Software

Before You Begin

Before you configure the Communications Suite software, you need to create the `mailsrv` user and disable the `sendmail` process. The `mailsrv` user is used to configure Messaging Server.

- Messaging Server requires a mail server user, which must exist before you can finish the installation. You can skip this step, because the group and user are created during the configuration time. However, you might want to create the `mailsrv` user yourself as shown below. For this installation, use the `useradd` command to create a user with username `mailsrv` and group `mail`. You use this ID in Step 2 in the Configuring Messaging Server section.

Type the following commands to create the user `mailsrv` with a user ID of `7633`, a group ID of `mail`, and a user home directory of `/export/home/mailsrv`. (These commands assume that the `/export/home` directory already exists.)

```
groupadd mail
useradd -u 7633 -g mail -d /export/home/mailsrv -m mailsrv
```

> **Note**
> If the `mailsrv` user is already in use, this could be an indication that `mailsrv` is not a local user as required by the Messaging Server. Messaging Server requires a local user and group and not one defined in a naming service such as NIS. You should create a different user such as `mailsrv2` but be sure to change the reference to that user when prompted for the mail server username. For example:
>
> ```
> # useradd -u 7633 -g mail -d /export/home/mailsrv2 -m mailsrv2
> ```

To Disable sendmail

- Prior to configuring Messaging Server, use the following procedures to kill the `sendmail` process and prevent it from starting during bootup.

```
svcadm disable sendmail
```

> **Note**
> If end users (or system utilities, for example, `cron`) send messages through `sendmail` clients, you can configure Messaging Server to work with those clients over protocol. Users can continue to use the UNIX sendmail client. See Handling sendmail Clients.

Installing Communications Suite 7 Update 1 Software

This section describes how to install the Communications Suite software on your host.

To Install the Communications Suite Software

1. Create a `/temp/CS7U1` directory, unzip the Communications Suite 7 Update 1 software zip file in this directory, then run the Communications Suite 7 Update 1 Installer.

   ```
   # cd /temp/CS7U1
   # ./commpkg install
   ```

2. Accept the License Agreement by typing **yes** when prompted.
3. Accept the default Install location: `/opt/sun/comms`
4. Select the following components for installation.
   - Messaging Server (64bit) 7u4 (7.4-18.01)
   - Comms DSsetup 6.4 (6.4-6.03)
   - Calendar Server (CALDAV) 7u1 (7.1-1.11)
   - Instant Messaging 8u3 (8.3-03.10)
   - Convergence 2 (2.0-0.06)
   - Indexing and Search Service 1u1 (1.1-4.4501)
   - Comms Delegated Administrator 7 (7.0-3.00)
   - Calendar Server 6.3 (6.3-23.01)
     This corresponds to selections 1, 2, 3, 4, 5, 6, 7, and 10.
5. The installation script prompts for a series of options. You might not be prompted for all options, depending on your system.
   The following table shows how to respond to the configuration options:
   Table 6 Values for NSS, Java Help Runtime, Message Queue, and Service Tags Options

Option	[Default Value]	Enter:
Change pkg versions for NSS/NSPR/JSS	[n]	**y**
Change pkg versions for Service Tags	[n]	**y**
Change pkg versions for Message Queue	[n]	**y**

6. Press RETURN when prompted to continue.
   The installation Proceeds.
7. You are reminded to set a password for the MySQL root USER.
   You do this later when installing Calendar Server 7 Update 1.
8. Press RETURN when prompted to continue.

Installing and Configuring Directory Server

Directory Server 11gR1 is the preferred version. Before you proceed, make sure that you get the Directory Server 11gR1 software.

1. Check for the existence of the `/opt/SUNWdsee` directory.
   If this directory does not exist, type the follow command to create the directory:

```
mkdir /opt/SUNWdsee
```

2. Create the `/temp/DS` directory and copy the Directory Server 11gR1 compressed software to this directory, uncompress and untar the compressed software, then install Directory Server.

```
mkdir /temp/DS
mv V21883-01.zip /temp/DS
cd /temp/DS
unzip V21883-01.zip
cd ODSEE_ZIP_Distribution
unzip -qq sun-dsee7.zip -d /opt/SUNWdsee
```

   The installation installs the Directory Server software in the specified location, `/opt/SUNWdsee`.

3. Create your Directory Server instance.

```
mkdir /var/opt/SUNWdsee
cd /opt/SUNWdsee/dsee7/bin
./dsadm create -p 389 -P 636 /var/opt/SUNWdsee/dsins1
Choose the Directory Manager password: adminpass
Confirm the Directory Manager password: adminpass
```

4. Start your Directory Server instance.

```
./dsadm start /var/opt/SUNWdsee/dsins1
```

5. Create the user and group suffix **`o=isp`** by using the `dsconf` command.
   The syntax is:

```
./dsconf create-suffix "o=isp"
```

6. When prompted, type **Y** to accept the certificate.
7. When prompted, type **`adminpass`** for the Directory Manager password.
8. Test your Directory Server instance.

```
# ldapsearch -1 -b "" -s base "objectclass=*" vendorName
vendorVersion
dn:
vendorName: Sun Microsystems, Inc.
vendorVersion: Sun-Directory-Server/11.1.1.3.0
```

Note
If you are running Directory Server's version of `ldapsearch`, use the following command:

```
<installprefix>/dsee7/dsrk/bin/ldapsearch -b "" -s base
"objectclass=*" vendorName vendorVersion
```

9. Continue with the next section.

Installing and Configuring GlassFish Server

GlassFish Server 2.1.1 Patch 1 with HADB is the primary web container used by Convergence and Indexing and Search Service.

1. Create the `/temp/GLASSFISH` directory, copy the GlassFish Server 2.1.1 Patch 1 bits to this directory, then launch the installer.

```
cd /temp/GLASSFISH
chmod u+x sges_ee-2_1_1-solaris-sparc-ml.bin
./sges_ee-2_1_1-solaris-sparc-ml.bin -console
```

2. When prompted, press Enter to continue.
3. Accept the License Agreement by typing **`yes`** when prompted.
   The installation script prompts for a series of options. The following table shows how to respond to the configuration options:
   Table 7 GlassFish Server Settings

Option	[Default Value]	Enter:
Installation Directory	[/opt/SUNWappserver]	*accept default*
Create Directory or Choose New	Create Directory	*accept default*
Install Node Agent	[yes]	**no**
Install High Availability Database Server	[no]	*accept default*
Install Load Balancing Plugin	[no]	*accept default*
Install Domain Administration Server	[yes]	*accept default*
Install Sample Applications	[yes]	*accept default*
Install or reuse Java 2 SDK	[Install]	**Reuse** (as long as correct version)
Path to Java 2 SDK 1.5.0 or greater	[/usr/jdk/instances/jdk1.6.0]	*accept default*
Admin User	[admin]	*accept default*
Admin User's Password	-	**adminpass**
Master Password for SSL Certificate	—	**adminpass**
Admin Port	[4848]	*accept default*
HTTP Port	[8080]	**80**
HTTPS Port	[8181]	*accept default*
Enable Updatecenter client	[yes]	*accept default*
Upgrade from previous AS version	[no]	*accept default*

4. Select 1. Install Now.
   The installation proceeds.
5. When the installation completes, press Return to exit.
6. Edit the `/opt/SUNWappserver/domains/domain1/config/domain.xml` file to change the

Java Message Queue (JMQ) port from 7676 to 37676
change:

```
<jms-host admin-password="admin" admin-user-name="admin"
host="wireless.comms.beta.com"
name="default_JMS_host" port="7676"/>
```

to:

```
<jms-host admin-password="admin" admin-user-name="admin"
host="wireless.comms.beta.com"
name="default_JMS_host" port="37676"/>
```

Note
By default, Glassfish Server starts a bundled instance of JMQ on port 7676. This port assignment conflicts with the instance of JMQ used by Indexing and Search Service. For this reason, you need to change the port of the Glassfish JMQ instance uses to avoid any future conflict.

7. Start GlassFish Server:

```
# /opt/SUNWappserver/bin/asadmin start-domain domain1
```

8. When prompted, type:
   username: **`admin`**
   admin password: **`adminpass`**
   master password: **`adminpass`**
9. Perform the following steps to save the `admin` username and password so they don't need to be provided each time Application Server is started. (You must still type the master password.)

```
cd /opt/SUNWappserver/bin/
./asadmin login
```

10. Type **`admin`** and **`adminpass`** as the username and password when prompted.
11. Continue with the next task.

To Verify GlassFish Server

In your web browser, open a URL for GlassFish Server. The URL is:
`http://`*fully-qualified-hostname*

In this example, type:
http://wireless.comms.beta.com

Configuring Components

This section describes how to run the individual component configuration utilities to perform initial software configuration.

This section contains the following topics:

- Preparing the Directory
- Configuring Delegated Administrator and Communications CLI

- Configuring Messaging Server
- Configuring Calendar Server 7
- Configuring Instant Messaging
- Configuring Convergence
- Configuring Indexing and Search Service 1
- (Optional) Configuring Calendar Server 6.3

Preparing the Directory

This section explains how to prepare the Directory Server LDAP schema.

To Apply Schema 2 to Your Directory Tree

1. Change to the directory where the `comm_dssetup` script is located and run the script, for example:

```
cd /opt/sun/comms/dssetup/sbin
/usr/bin/perl comm_dssetup.pl
```

2. Type **y** to continue.
   The perl script prompts for a series of options. The following table shows how to respond to the prompts.
   Table 8 Values for comm_dssetup.pl Script

Option	[Default Value]	Enter:
Directory server root	[/var/opt/SUNWdsee/dsins1]	*accept default*
Directory Manager DN	[cn=Directory Manager]	*accept default*
Directory Manager Password	-	**adminpass**
Use directory server for users/groups	[Yes]	*accept default*
Users/Groups base suffix	[o=isp]	*accept default*
Schema type?	[1]	**2**
Confirm Schema Type	[n]	**y**
Update the schema files?	[yes]	accept default
Configure new indexes?	[yes]	accept default
Reindex new indexes?	[yes]	accept default

3. Confirm your choices and type **y** to continue.
   The `comm_dssetup` proceeds.
4. When prompted, type **y** to continue with the script.
   Continue with the next step after `comm_dssetup` completes and the Successful Completion message is displayed.

Configuring Delegated Administrator and Communications CLI

This section describes configuring Delegated Administrator console and utility, which provide user management.

To Configure Delegated Administrator

1. Set the `JAVA_HOME` environment variable.
   For example, if you are running `csh`, type:

```
setenv JAVA_HOME /usr/jdk/latest
```

If you are running `sh` or `bash`, type:

```
export JAVA_HOME=/usr/jdk/latest
```

2. Change to the directory where the configuration script was installed and run the script, for example:

```
cd /opt/sun/comms/da/sbin
./config-commda
```

3. Click Next in the Welcome window.
4. Accept the default for the Directory to store Configuration and Data Files: `/var/opt/sun/comms/da`.
   If the directory does not exist, click Create Directory to create the directory.
5. Install Delegated Administrator Utility, Console, and Server.
   The installation script prompts for a series of options. The following table shows how to respond to the configuration options:
   Table 9 Values for config-commda Script

Option	[Default Value]	Enter:
DA Server Hostname	[wireless.comms.beta.com]	*accept default*
DA Server Port	[8080]	**80**
Default Domain	[comms.beta.com]	*accept default*
Default SSL Port	[443]	*accept default*
Web Container	[Web Server 6.x]	**App Server 8.x and up**
Install Root Directory (for DA Console)	[/opt/SUNWappserver/appserver]	**/opt/SUNWappserver**
Domain Directory	[/var/opt/SUNWappserver/domains/domain1]	**/opt/SUNWappserver/dor**
Domain Root Directory	[/var/opt/SUNWappserver/domains/domain1/docroot]	**/opt/SUNWappserver/dor**
Server Target Name	[server]	*accept default*
Virtual Server Identifier	[server]	*accept default*
Server Instance HTTP Port	[80]	*accept default*

Administration Server Port	[4849]	**4848**
Administrator User ID	[admin]	*accept default*
Administrator Password	-	**adminpass**
Secure Administration Server Instance?	[checked]	*accept default*
Default Domain Separator	[@]	*accept default*
Access Mode	Direct LDAP	*accept default*
Web Container (DA Server)	[Web Server 6.x]	**App Server 8.x and up**
Install Directory (for DA Server)	[/opt/SUNWappserver/appserver]	**/opt/SUNWappserver**
Domain Directory	[/var/opt/SUNWappserver/domains/domain1]	**/opt/SUNWappserver/dor**
Document Root Directory	[/var/opt/SUNWappserver/domains/domain1/docroot]	**/opt/SUNWappserver/dor**
Server Target Name	[server]	*accept default*
Virtual Server Identifier	[server]	*accept default*
Server Instance HTTP Port	[80]	*accept default*
Administration Server Port	[4849]	**4848**
Administrator User ID	[admin]	*accept default*
Administrator Password	-	**adminpass**
Secure Administration Server Instance?	[checked]	*accept default*
URL of Directory Server	[ldap://wireless.comms.beta.com:389]	*accept default*
Bind As	[cn=Directory Manager]	*accept default*

Password	-	**adminpass**
LDAP Username	[daAdmin]	*accept default*
LDAP Password	-	**adminpass**
Organization DN	[o=comms.beta.com,o=isp]	**o=comms.beta.com,o=is**
Top Level Admin for Default Organization	[admin]	*accept default*
Password	-	**adminpass**
Load Sample Service Packages	-	**Yes (Checked)**
Load Sample Organizations	-	**Yes (Checked)**
Preferred Mailhost for Sample	[wireless.comms.beta.com]	*accept default*

6. Click Configure Now.
   The script begins to run.
7. When the panel displays "All Tasks Passed," click Next to continue.
   Two warnings appear: one reminds you to restart the GlassFish Server; the other reminds you to enable the mail and calendar services in the domain. The next steps complete these steps.
8. Click Close to exit the Delegated Administrator Configuration wizard.
9. Restart the GlassFish Server.

```
cd /opt/SUNWappserver/bin
./asadmin stop-domain domain1
./asadmin start-domain domain1
```

10. Modify the mail and calendar domains, and create users by using the `commadmin` utility:

```
/opt/sun/comms/da/bin/commadmin domain modify -D admin -w adminpass -n
comms.beta.com \
-d comms.beta.com -S mail,cal,im -H wireless.comms.beta.com -B
wireless.comms.beta.com

/opt/sun/comms/da/bin/commadmin user create -D admin -F John -l jdoe -L
Doe -d comms.beta.com \
-w adminpass -W demo -S mail,cal,im -E jdoe@comms.beta.com -H
wireless.comms.beta.com \
-B wireless.comms.beta.com

/opt/sun/comms/da/bin/commadmin user create -D admin -F Calendar -l
calmaster -L Master \
-d comms.beta.com -w adminpass -W adminpass -S mail,cal -E
calmaster@comms.beta.com \
-H wireless.comms.beta.com -B wireless.comms.beta.com

/opt/sun/comms/da/bin/commadmin user create -D admin -F Calendar7 -l
calmaster7 -L Master \
-d comms.beta.com -w adminpass -W adminpass -S mail,cal -E
calmaster7@comms.beta.com \
-H wireless.comms.beta.com -B wireless.comms.beta.com
```

You can create as many users as you like at this point.

To Log in to Delegated Administrator

1. In your web browser, open a URL for Delegated Administrator. The URL for Delegated Administrator is:
   `http://`*fully-qualified-hostname*`:`*app-server-port*`/da`
   In this example, type:
   http://wireless.comms.beta.com/da
2. Log in using `admin` and `adminpass` as the user ID and password.
3. After verifying that you can access Delegated Administrator, log out.
4. Continue with the next section.

Configuring Messaging Server

This section describes configuring Messaging Server.

To Configure Messaging Server

1. Change to the directory where the Messaging Server `configure` script is stored, then run the script, for example:

   ```
   cd /opt/sun/comms/messaging64/sbin
   ./configure
   ```

   The Configuration Wizard appears. Read the introductory information and proceed by clicking Next.

2. Verify the following:
   - Directory to store config/data files: [`/var/opt/sun/comms/messaging64`]
   - Name of the mail server Unix user: username [`mailsrv`]
     You might need to change to `mailsrv2` if this was the actual user created previously.
   - Fully qualified host name of messaging server, FQHN: [`wireless.comms.beta.com`]
3. The installation script prompts for a series of options. The following table shows how to respond to the configuration options:

Table 10 Values for Messaging Server configure Script

Option	[Default Value]	Enter:
Default Mail Domain Name	[comms.beta.com]	*accept default*
Hostname for LDAP Directory Server	[localhost]	**wireless.comms.beta.com**
LDAP Administrator Login	[cn=Directory Manager]	*accept default*
Password	-	**adminpass**
Postmaster email address	[admin@comms.beta.com]	**jdoe@comms.beta.com**
Password for Server Administration	-	**adminpass**

4. The Messaging Server configuration proceeds.
5. Start Messaging Server:

```
cd /opt/sun/comms/messaging64/bin/
./start-msg
```

6. Continue with the next section to configure Calendar Server 7.

Configuring Calendar Server 7

1. Install a second instance of GlassFish that runs on port 8080.

```
cd /temp/Glassfish
./sges_ee-2_1_1-solaris-sparc-ml.bin -console
```

2. Press Enter to continue when prompted.
3. Accept the License Agreement by typing **yes** when prompted.
   The installation script prompts for a series of options. The following table shows how to respond to the configuration options:
   Table 11 Values for Calendar Server 7 Update 1 configure Script

Option	[Default Value]	Enter
Installation Directory	[/opt/SUNWappserver]	**/opt/SUNWappserverCS**
Create Directory or Choose New	Create Directory	*accept default*
Install Node Agent	[yes]	**no**
Install High Availability Database Server	[no]	*accept default*
Install Load Balancing Plugin	[no]	*accept default*
Install Domain Administration Server	[yes]	*accept default*
Install Sample Applications	[yes]	*accept default*
Install New or Reuse existing Java 2 SDK	[Install Java 2 SDK]	**Reuse existing** (as long as correct version)
Path to Java 2 SDK Version 1.5.0 or greater	[/usr/jdk/instances/jdk1.6.0]	*accept default*
Admin User	[admin]	*accept default*
Admin User's Password	--	**adminpass**
Master Password (for SSL Certificate)	--	**adminpass**
Admin Port	[38295]	**6080**
HTTP Port	[38292]	**8080**
HTTPS Port	[38298]	*accept default*
Enable Updatecenter client	[yes]	*accept default*
Upgrade from previous AS version	[no]	*accept default*

4. Confirm that you would like to "Install Now" when prompted.
   The installation proceeds.
5. Change the JMQ port from 7676 to 47676.

```
cd /opt/SUNWappserverCS/domains/domain1
cd config
vi domain.xml
```

   Change port 7676 to 47676.

6. Start the GlassFish Server.

```
# /opt/SUNWappserverCS/bin/asadmin start-domain domain1
Starting Domain domain1, please wait.
Default Log location is
/opt/SUNWappserverCS/domains/domain1/logs/server.log.
Please enter the admin user name>admin
Please enter the admin password>adminpass
Please enter the master password>adminpass
```

7. Set up the MySQL database for Calendar Server 7:

```
# cd /opt/mysql/mysql
# rm -rf data
# rm -rf /var/lib/mysql
# /opt/mysql/mysql/scripts/mysql_install_db --user=mysql
--ldata=/var/mysql
```

8. Create the `/etc/my.cnf` file with the following content.

```
[mysqld]
basedir = /opt/mysql/mysql
datadir = /var/mysql
default-storage-engine = InnoDB
character-set-server = utf8
```

9. Install the MySQL startup script.

```
# cp /opt/mysql/mysql/support-files/mysql.server /etc/init.d/mysql
```

10. Start MySQL.

```
# /etc/init.d/mysql start
```

11. Change the MySQL root password and remove test databases.

```
# /opt/mysql/mysql/bin/mysqladmin -u root password adminpass
# /opt/mysql/mysql/bin/mysql_secure_installation
```

12. Answer "y" to all questions except "Change the root password."
    No need to change the root password since this was already done. The `mysql_secure_installation` script:
    - Removes anonymous users
    - Disallows root login remotely
    - Removes test database and access to it
    - Reloads privilege tables
13. Create the MySQL user and caldav database.

```
# /opt/mysql/mysql/bin/mysql -u root -p
Enter password: adminpass
mysql> CREATE DATABASE caldav CHARACTER SET = UTF8;
mysql> CREATE USER 'caldav'@'localhost' IDENTIFIED BY 'caldav';
mysql> SET PASSWORD FOR 'caldav'@'localhost' =
PASSWORD('adminpass');
mysql> GRANT ALL ON caldav.* TO 'caldav'@'localhost';
mysql> exit
```

14. Configure MySQL to start automatically upon reboot.

```
# ls -l /etc/rc3.d    (If there is no S99mysql, create a symbolic
link)
# ln -s /etc/init.d/mysql /etc/rc3.d/S99mysql
```

15. Set the `JAVA_HOME` environment variable.
    For example, if you ar running `csh`:

    ```
    # setenv JAVA_HOME /usr/jdk/latest
    ```

16. Change directories to where the configuration script was installed and run the Calendar Server 7 configuration script:

    ```
    cd /opt/sun/comms/davserver/sbin
    ./init-config
    ```

17. Click Next at the Welcome page.
18. Directory to store configuration and data files [/var/opt/sun/comms/davserver]
19. Configure Calendar Server 7.
    The installation script prompts for a series of options. The following table shows how to respond to the configuration options:
    Table 12 Values for Calendar Server 7 Update 1 configure Script

Option	[Default Value]	Enter
Host Name	[wireless]	*accept default*
DNS Domain Name	[comms.beta.com]	*accept default*
MySQL Server Host Name	[localhost]	*accept default*
MySQL Server Port Number	[3306]	*accept default*
MySQL Database User ID	[caldav]	*accept default*
MySQL Database User Password	--	**adminpass**
Calendar Database Name	[caldav]	*accept default*
Directory to Store Documents	[/var/opt/sun/comms/davserver/db]	*accept default*
Application Server Install Directory	[/opt/SUNWappserver]	**/opt/SUNWappserverCS**
Application Server Domain Directory	[/opt/SUNWappserverCS/domains/domain1]	*accept default*

Application Server Document Root Directory	[/opt/SUNWappserverCS/domains/domain1/docroot]	*accept default*
Appserver Instance Name	[server]	*accept default*
Virtual Server Identifier	[server]	*accept default*
Instance HTTP Port	[8080]	**8080**
Administration Server Port	[4848]	**6080**
Administrator User ID	[admin]	*accept default*
Administrator Password	--	**adminpass**
Secure Administration Server Instance	checked	*accept default (Is Secure)*
URI Path	[/]	**/davserver**
Directory Server LDAP URL	[ldap://wireless.comms.beta.com:389]	*accept default.*
Bind DN	[cn=Directory Manager]	*accept default.*
Bind Password	--	**adminpass**
DC Tree suffix	[o=isp]	*accept default.*
Default Domain Name	[comms.beta.com]	*accept default*
Organization DN	[o=comms.beta.com,o=isp]	*accept default*
SMTP Server Host Name	[wireless.comms.beta.com]	*accept default*
SMTP Server Port Number	[25]	*accept default*
Calendar Administrator User ID	[calmaster]	**calmaster7**
Calendar Administrator User Password	--	**adminpass**

20. Click the "Configure Now" button to configure Calendar Server 7.

21. After the configuration is complete, click Next to continue.
22. Click Next to continue.
23. Click Close to quit the Calendar Server configuration wizard.
24. Restart the GlassFish Server.

```
# cd /opt/SUNWappserverCS/bin
# ./asadmin stop-domain domain1
# ./asadmin start-domain domain1
```

25. Configure a Lightning client to use this new server.
    The Calendar Server URL format for your test user is:

```
http://<fully-qualified-server-name>:8080/davserver/dav/home/<usernam
```

For example:

```
http://wireless.comms.beta.com:8080/davserver/dav/home/jdoe/calendar/
```

Alternatively, you can configure Apple iCal to access this calendar. The server URI is as follows:

```
http://<fully-qualified-server-name>:8080/davserver/dav/principals/<u
```

For example:

```
http://wireless.comms.beta.com:8080/davserver/dav/principals/jdoe/
```

Configuring Instant Messaging

This section shows you how to run the Instant Messaging configurator script.

To Configure Instant Messaging

1. Change to the directory where the configuration script was installed then run the configurator script.
   For example:

```
cd /opt/sun/comms/im/sbin
./configure
```

   The Components Selection page appears.

2. Verify that both Server components and Client components are selected for configuration, then click Return to continue.
   The configuration wizard prompts for a series of options.
3. Respond to the series of options as follows.
   After each question, you are prompted if you want to go back to previous panel. Always accept the default answer of no unless you need to make a change to a previous answer.
   The following table shows how to respond to the configuration options:
   Table 13 Values for Instant Messaging configure Script

Option	[Default Value]	Enter:

Use AM for Single-Sign-On	[no]	*accept default*
Use AM for Policy	[no]	*accept default*
Wher to Store IM User Data	[On the file system]	**In the directory**
Runtime User ID	[inetuser]	*accept default*
Runtime Group ID	[inetgroup]	*accept default*
Runtime Directory	[/var/opt/SUNWiim]	*accept default*
Create User ID	[Choose New]	**Create User ID**
Create Runtime Directory	[Choose New]	**Create Directory**
Domain Name	[comms.beta.com]	*accept default*
XMPP Port	[5222]	*accept default*
Multiplexed XMPP Port	[45222]	*accept default*
XMPP Server Port	[5269]	*accept default*
Disable Server (enable only multiplexor)	[no]	*accept default*
LDAP Host Name	[wireless.comms.beta.com]	*accept default*
LDAP Port Number	[389]	*accept default*
SSL Enabled	[no]	*accept default*
Base DN	[dc=comms,dc=beta,dc=com]	**o=isp**
Bind DN	--	**cn=Directory Manager**
Bind Password	--	**adminpass**
Enable Email Integration	[yes]	*accept default*
SMTP Server	[wireless.comms.beta.com]	*accept default*
Enable Email Archiving	[yes]	*accept default*
Deploy Messenger Resources	[yes]	*accept default*

Codebase	[http://wireless.comms.beta.com:80/im]	*accept default*
Enable Audio	[no]	**yes**
Webcontainer Path	--	**/opt/SUNWappserver**
Web Administration URL	--	**https://wireless.comms.beta.com:4**
Web Administrator User Id	[admin]	*accept default*
Web Administrator Password	--	**adminpass**
Deploy IM HTTP Gateway	[yes]	**no**
Deploy IM IMPS Gateway	[yes]	*accept default*
Context Root	[http://wireless.comms.beta.com:80/imps]	**http://wireless.comms.beta.com:80**
Webcontainer Path	[/opt/SUNWappserver]	*accept default*
Web Administration URL	[https://wireless.comms.beta.com:4848/]	*accept default*
Web Administrator User Id	[admin]	*accept default*
Web Administrator Password	--	**adminpass**
Enable Calendar Agent	[no]	*accept default*
Enable local component	[no]	*accept default*
Enable SMS Gateway	[no]	*accept default*
Enable local component	[no]	*accept default*
Enable MSN Gateway	[no]	*accept default*
Enable local component	[no]	*accept default*
Enable AIM Gateway	[no]	*accept default*

Enable local component	[no]	*accept default*
Enable YIM Gateway	[no]	*accept default*
Enable local component	[no]	*accept default*
Start Services After Successful Configuration	[yes]	**no**
Start Services When System starts	[yes]	**no**

4. The Instant Messaging configuration begins.
   It could take a while to complete the configuration. When the configuration is complete, continue to the next step.
5. Edit the iim.conf file to prepare for Convergence.

```
# cd /etc/opt/SUNWiim/default/config
# cp iim.conf iim.conf.orig
# vi iim.conf
```

   You will add the new httpbind and avatar component JIDs to this file by making the following changes/additions:

```
iim_server.components =
"agent-calendar,httpbind,smppbind,msn_gateway,aim_gateway,yim_gateway
= "true"

! httpbind component (HTTP/XMPP Gateway)
! ======================================

iim_agent.httpbind.enable = "true"
httpbind.jid = "wireless.httpbind.comms.beta.com"
httpbind.password = "adminpass"

! avatar component
! =====================================
iim_agent.avatar.enable = "true"
avatar.jid = "wireless.avatar.comms.beta.com"
avatar.password = "adminpass"
```

6. Edit the `iim.conf` file to enable Hosted Domain Schema 2 support.

```
! whether to use Identity Server for policy storage, default to no
(iim_ldap)
!iim.policy.modules = "iim_ldap"
iim.policy.modules = "iim_ldap_schema2"
iim_ldap.schema2.domain_config_root = "o=isp"
```

7. Start the Instant Messaging server.

For example:

```
/opt/sun/comms/im/sbin/imadmin start
```

8. If you choose to monitor the SMF logs, they are located in the `/var/svc/log` directory. The log name is `application-sunim:default.log`.
9. Continue with the next section.

To Log in to Instant Messaging

1. In your web browser, open a URL for Instant Messaging. The URL for Instant Messaging is:
   `http://`*fully-qualified-hostname*`:`*port*`/im`
   In this example, type:
   http://wireless.comms.beta.com/im
2. Continue with the next section to configure Convergence.

Configuring Convergence

This section describes how to configure Convergence by using the `init-config` command.

1. Run the Convergence configuration script.

```
cd /opt/sun/comms/iwc/sbin
./init-config
```

2. Read the Software Requirements and click Next to continue.
3. Directory to store Configuration and Data Files [/var/opt/sun/comms/iwc]
   The Components Selection page appears.
4. Verify that Mail Service, Calendar Service, and Instant Messaging Service are selected for configuration, then click Next to continue.
   The configuration wizard prompts for a series of options. The following table shows how to respond to the configuration options:
   Table 14 Values for Convergence configure Script

Option	[Default Value]	Enter:
Host Name	[wireless]	*accept default*
DNS Domain Name	[comms.beta.com]	*accept default*
GlassFish Server Install Directory	[/opt/SUNWappserver]	*accept default*
Domain Directory	[/opt/SUNWappserver/domains/domain1]	*accept default*
Document Root Directory	[/opt/SUNWappserver/domains/domain1/docroot]	*accept default*
Server Target Name	[server]	*accept default*
Virtual Server Identifier	[server]	*accept default*
Server Instance HTTP Port	[8080]	**80**

Administration Server Port	[4848]	*accept default*
Administrator User ID	[admin]	*accept default*
Administrator Password	-	**adminpass**
Secure Administration Server Instance	Checked	**Checked**
URI Path	[iwc]	*accept default*
Enable Hosted Domain Support	checked	*accept default*
Directory Server LDAP URL	[ldap://wireless.comms.beta.com:389/]	*accept default*
Bind DN	[cn=Directory Manager]	*accept default*
Bind Password	-	**adminpass**
DC Tree suffix	[o=isp]	*accept default*
Default Domain Name	[comms.beta.com]	*accept default*
Webmail Server Host Name	[wireless.comms.beta.com]	*accept default*
Webmail Server Port Number	[8990]	*accept default*
Access in SSL mode	unchecked	*accept default (Not secure)*
Webmail Admin User ID	[admin]	*accept default*
Admin Password	-	**adminpass**
Calendar Server Version	[CS 7 and up]	*accept default*
Calendar Server Host Name	[wireless.comms.beta.com]	*accept default*
Calendar Server Port	[80]	**8080**
Calendar Server Service URL	[/davserver/wcap]	*accept default*
Access in SSL mode	unchecked	*accept default (Not secure)*
Administrator User ID	[calmaster]	**calmaster7**
Administrator User Password	-	**adminpass**

Instant Messaging Server Domain Name	[comms.beta.com]	*accept default*
Instant Messaging Server Host Name	[wireless.comms.beta.com]	*accept default*
Server Port	[5269]	*accept default*
httpbind Component JID	[wireless.httpbind.comms.beta.com]	*accept default*
Password	-	**adminpass**
Avatar Component JID	[wireless.avatar.comms.beta.com]	*accept default*
Password	-	**adminpass**
Convergence Administrator Username	[admin]	*accept default*
Password	-	**adminpass**

5. Click Configure Now to configure Convergence.
6. Click Next when the configuration is complete.
7. Click Next to continue.
8. Click Close to quit the Convergence configuration wizard.
9. In your web browser, open a URL for Convergence and log in as a test user.
   The URL for Convergence is:
   `http://`*`fully-qualified-hostname`*`/iwc`
   In this example, type:
   http://wireless.comms.beta.com/iwc

Configuring Indexing and Search Service 1

1. Enable the NTP service for the Messaging Server and Indexing and Search Service host machine.

```
# svcs ntp
STATE          STIME    FMRI
disabled       Aug_16   svc:/network/ntp:default

# svcadm enable ntp
# svcs ntp
STATE          STIME    FMRI
maintenance    16:35:43 svc:/network/ntp:default
```

2. Configure the IMQ broker on Messaging Server.

```
vi /etc/imq/imqbrokerd.conf
```

   The following changes will most likely be necessary:

```
AUTOSTART=YES
ARGS=-vmargs -Xmx1024m
RESTART=YES
```

3. Check for the existence of the `/var/imq/instances/imqbroker/props/config.properties` file. If it does not exist, start the IMQ broker to generate it.

```
# cd /var/imq/instances/imqbroker/props
/var/imq/instances/imqbroker/props: No such file or directory
# /etc/init.d/imq start
```

4. Edit the following information at the bottom of the `/var/imq/instances/imqbroker/props/config.properties` file.

```
# cd /var/imq/instances/imqbroker/props
# vi config.properties

Edit the bottom of this file and make sure the following lines are
included:
-------------
imq.portmapper.backlog=-1
imq.destination.DMQ.truncateBody=true
imq.autocreate.reaptime=7200
imq.autocreate.destination.maxNumProducers=-1
imq.autocreate.destination.limitBehavior=REMOVE_OLDEST
imq.jms.max_threads=2000
```

5. Restart the IMQ broker to pick up the changes.

```
# /etc/init.d/imq stop
# /etc/init.d/imq start
```

6. Create the JMQ user by using the `imqusermgr` command.

```
# cd /usr/bin
# ./imqusermgr add -u jmquser -p adminpass -g user
User repository for broker instance: imqbroker
User jmquser successfully added.
```

7. Reset the default account passwords.

```
# ./imqusermgr update -u admin -p adminpass
User repository for broker instance: imqbroker
Are you sure you want to update user admin? (y/n)[n] y

User admin successfully updated.
#  ./imqusermgr update -u guest -p adminpass
User repository for broker instance: imqbroker
Are you sure you want to update user guest? (y/n)[n] y
User guest successfully updated.
```

8. Set the `local.store.notifyplugin configutil` parameter to include a JMQ notification named `index`.

```
# cd /opt/sun/comms/messaging64/bin
# ./configutil -o local.store.notifyplugin
```

If a response is returned, such as `lib/libibiff$ms-internal$`, append the new JMQ notification to existing one, for example:

```
./configutil -o local.store.notifyplugin -v
'lib/libibiff$ms-internal$lib/libjmqnotify$index'
```

If no response is returned, execute the following command:

```
# ./configutil -o local.store.notifyplugin -v
'/opt/sun/comms/messaging64/lib/libjmqnotify$index'
```

9. Configure the index JMQ notification plugin by using the `configutil` command.

```
# ./configutil -o local.store.notifyplugin.index.annotatemsg.enable
-v 0
# ./configutil -o local.store.notifyplugin.index.changeflag.enable
-v 1
# ./configutil -o local.store.notifyplugin.index.copymsg.enable -v
1
# ./configutil -o local.store.notifyplugin.index.debuglevel -v 0
# ./configutil -o local.store.notifyplugin.index.deletemsg.enable
-v 0
# ./configutil -o local.store.notifyplugin.index.destinationtype -v
queue
# ./configutil -o local.store.notifyplugin.index.expungemsg.enable
-v 1
# ./configutil -o local.store.notifyplugin.index.jmqhost -v
127.0.0.1
# ./configutil -o local.store.notifyplugin.index.jmqport -v 7676
# ./configutil -o local.store.notifyplugin.index.jmqpwd -v
adminpass
# ./configutil -o local.store.notifyplugin.index.jmqtopic -v
INDEXMS
# ./configutil -o local.store.notifyplugin.index.jmquser -v jmquser
# ./configutil -o local.store.notifyplugin.index.loguser.enable -v
0
# ./configutil -o local.store.notifyplugin.index.maxbodysize -v
262144
# ./configutil -o local.store.notifyplugin.index.maxheadersize -v
16384
# ./configutil -o local.store.notifyplugin.index.msgflags.enable -v
0
# ./configutil -o local.store.notifyplugin.index.msgtypes.enable -v
0
# ./configutil -o local.store.notifyplugin.index.newmsg.enable -v 1
# ./configutil -o local.store.notifyplugin.index.noneinbox.enable
-v 1
# ./configutil -o local.store.notifyplugin.index.persistent -v 0
# ./configutil -o local.store.notifyplugin.index.priority -v 4
# ./configutil -o local.store.notifyplugin.index.purgemsg.enable -v
0
# ./configutil -o local.store.notifyplugin.index.readmsg.enable -v
0
# ./configutil -o local.store.notifyplugin.index.updatemsg.enable
-v 1
# ./configutil -o local.store.notifyplugin.index.ttl -v 3600000
# ./configutil -o local.store.notifyplugin.msgflags -v 1
```

10. Restart Messaging Server and verify that the JMQ index plugin is working.

```
# ./stop-msg
# rm /opt/sun/comms/messaging64/log/imap
# ./start-msg
<You should see entries similar to these:>

----------
[18/Aug/2010:15:11:02 -0700] mailhost imapd[19507]: General Notice:
jmqNotify plugin loaded: index [18/Aug/2010:15:11:02 -0700]
mailhost imapd[19507]: General Notice: jmqnotify: connecting index
[18/Aug/2010:15:11:07 -0700] mailhost imapd[19507]: General Notice:
jmqnotify: index connected
[18/Aug/2010:15:11:07 -0700] mailhost imapd[19507]: General
Warning: Oracle Communications Messaging Exchange Server IMAP4
7u4-18.01 64bit (built Jul 15 2010) starting up
```

11. Verify that the IMQ broker started up cleanly.

```
# cat /var/imq/instances/imqbroker/log/log.txt
<You should see entries similar to these:>
----------
[18/Aug/2010:19:51:32 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65220->jms:63268. Count: service=1 broker=1
[18/Aug/2010:19:51:33 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65223->jms:63268. Count: service=2 broker=2
[18/Aug/2010:19:51:34 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65226->jms:63268. Count: service=3 broker=3
[18/Aug/2010:19:51:34 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65228->jms:63268. Count: service=4 broker=4
[18/Aug/2010:19:51:35 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65232->jms:63268. Count: service=5 broker=5
```

12. Verify that the Messaging Server has producers connected to `INDEXMS`.

```
# imqcmd list dst
Username: admin
Password: adminpass

Listing all the destinations on the broker specified by:

-------------------------
Host         Primary Port
-------------------------
localhost    7676

-----------------------------------------------------------------------
Name      Type    State      Producers        Consumers
Msgs
                             Total  Wildcard  Total  Wildcard
Count  Remote  UnAck  Avg Size
-----------------------------------------------------------------------
Queue  RUNNING  24     -         0      -         0      0       0
0.0
mq.sys.dmq   Queue  RUNNING  0      -         0      -         0
0       0      0.0

Successfully listed destinations.
```

13. Prepare the Messaging Server to forward IMAP SEARCH queries to Indexing and Search Service.

```
# cd /opt/sun/comms/messaging64/bin
# ./configutil -o service.imap.indexer.hostname -v
wireless.comms.beta.com
# ./configutil -o service.imap.indexer.port -v 80
# ./configutil -o service.imap.indexer.enable -v 0
# ./configutil -o store.indexeradmins -v indexeradmin
```

14. Restart Messaging Server.

```
# ./stop-msg
# ./start-msg
```

Change directories to where the configuration script was installed and run the configuration script:

```
cd /opt/sun/comms/jiss/bin
./setup.sh
```

The installation script prompts for a series of options. The following table shows how to respond to the configuration options:

Table 15 Values for Indexing and Search configure Script

Option	[Default Value]	Enter
Fully qualified domain name of system (hostname)	--	**wireless.comms.beta.com**

User under which all JISS services will run (iss.user)	[jiss]	*accept default*
Group under which all JISS services will run (iss.group)	[jiss]	*accept default*
Location to store the Lucene indexes (iss.store.dir)	[/var/opt/sun/comms/jiss/index]	*accept default*
Location of attachment data (iss.data.dir)	[/var/opt/sun/comms/jiss/attach]	*accept default*
Location of JISS log files (iss.log.dir)	[/var/opt/sun/comms/jiss/logs]	*accept default*
Location of Java (java.home)	[/usr/jdk/latest]	*accept default*
User/Group Directory Server format (mail.ldap)	[none]	**wireless.comms.beta.com:38**
User/Group Base DN format (mail.basedn)	[none]	**o=isp**
Schema Level (mail.schemalevel)	[none]	**2**
User/Group Default Domain (mail.defaultdomain)	[none]	**comms.beta.com**
User/Group Directory Manager DM (mail.searchbind)	[cn=Directory Manager]	*accept default*
User/Group Directory Manager password (mail.searchbind.password)	[none]	**adminpass**
Messaging Server store hostname (mail.server)	[none]	**wireless.comms.beta.com**
Comma-delimited list of mail server IPs (mail.server.ip)	[none]	**Enter IP address of wireless.comms.beta.com such as 192.18.49.94**
Read-only store admin username (mail.imap.admin.username)	[indexeradmin]	*accept default*
Read-only store admin password (mail.imap.admin.password)	[none]	**adminpass**
Messaging Server IMAP port (mail.imap.port)	[143]	*accept default*
Messaging Server JMQ broker (mail.imq)	[none]	**wireless.comms.beta.com:76**
JMQ notification user (mail.imq.user)	[jmquser]	*accept default*
JMQ notification user's password (mail.imq.password)	[none]	**adminpass**

Directory location of the appserver (appserv.dir)	[/opt/SUNWappserver]	*accept default*
Appserver web port (appserv.web.port)	[8080]	**80**
Appserver admin port (appserv.admin.port)	[4848]	*accept default*
Appserver admin user (appserv.admin.user)	[admin]	*accept default*
Appserver admin user's password (appserv.admin.password)	[none]	**adminpass**
JISS JMQ broker hostname (imq.host)	[none]	**wireless.comms.beta.com**
JISS JMQ broker port (imq.port)	[7676]	*accept default*
Username for JISS JMQ broker (iss.imq.user)	[jmquser]	*accept default*
Password for JISS JMQ user (iss.imq.password)	[none]	**adminpass**
Password for admin user on JISS JMQ broker (iss.imq.admin.password)	[none]	**adminpass**
JISS Directory Server host (ldap)	[none]	**wireless.comms.beta.com**
JISS Directory Server port (ldap.port)	[389]	*accept default*
JISS Directory Manager DN format (java.naming.security.principal)	[cn=Directory Manager]	*accept default*
JISS Directory Server password (ldap.password)	[none]	**adminpass**
Storeui access method (iss.storeui.access.method)	[disk]	*accept default*

15. Restart GlassFish Server.

```
./asadmin stop-domain domain1
./asadmin start-domain domain1
```

16. Bootstrap existing users to create their index by using the following command:

```
./indexSvcBootstrap.sh --user --host --port 143 --runoptimizer true
```

In this example, type the following command:

```
cd /opt/sun/comms/jiss/indexapi/scripts
./indexSvcBootstrap.sh --user jdoe --host wireless.comms.beta.com
--port 143 --runoptimizer true
```

17. Test that search works.
    Type the URL of the Search UIs in your browser and log in as a user.
    - The URL for the Restful service is: `http://`*fully-qualified-server-name*`/rest`
      For this example, type: **http://wireless.comms.beta.com/rest**
    - The URL for the Searchui is: `http://`*fully-qualified-server-name*`/searchui`
      For this example, type: **http://wireless.comms.beta.com/searchui**
    - In each case, log in as user `jdoe`. The password is `demo`.
18. Configure Messaging Server to use Indexing and Search Service:

```
# cd /opt/sun/comms/messaging64/bin
# ./configutil -o service.imap.indexer.enable -v 1
# ./stop-msg
# ./start-msg
```

19. Configure Convergence to use Indexing and Search Service:

```
cd /opt/sun/comms/iwc/sbin
./iwcadmin -w adminpass -o ISS.enable -v true
./iwcadmin -w adminpass -o ISS.host -v wireless.comms.beta.com
./iwcadmin -w adminpass -o ISS.port -v 80
./iwcadmin -w adminpass -o ISS.proxyadminid -v indexeradmin
./iwcadmin -w adminpass -o ISS.proxyadminpwd -v adminpass
```

20. Increase processor threads to support Convergence and Indexing and Search Service in the same web container.

```
mpstat | grep -v CPU | wc -l
cd /opt/SUNWappserver/bin
./asadmin set
server.http-service.request-processing.thread-count=(2 x number of
CPUs from command above)
Please enter the admin user name: admin
Please enter the admin password: adminpass
```

21. Restart the GlassFish Server.

```
# ./asadmin stop-domain domain1
# ./asadmin start-domain domain1
```

(Optional) Configuring Calendar Server 6.3

This section shows you how to run the Calendar Server 6.3 configuration script and how to verify the Calendar Server 6.3 configuration.

1. Change to the directory where the configuration script was installed then run the configuration script, for example:

```
cd /opt/sun/comms/calendar/SUNWics5/cal/sbin
./csconfigurator.sh
```

2. Click Next at the Welcome page.
   The configuration wizard prompts for a series of options. The following table shows how to respond to the configuration options:
   Table 16 Values for Calendar Server csconfigure Script

Option	[Default Value]	Enter:
LDAP Server Host Name	[wireless.comms.beta.com]	*accept default*
LDAP Server Port	[389]	*accept default*
Directory Manager DN	[cn=Directory Manager]	*accept default*
Directory Manager Password	-	**adminpass**
Enable Virtual Domains support	checked	*accept default*
Virtual Domains settings: Default domain	[comms.beta.com]	*accept default*
Calendar Administrator Username	[calmaster]	*accept default*
Calendar Administrator Password	-	**adminpass**
Calendar Administrator Email address	[calmaster@comms.beta.com]	*accept default*
Site administrator	[Yes]	*accept default*
Setup a Front End/Back End deployment	unchecked	*accept default*
Email Alarms	[Enabled]	*accept default*
Administrator Email Address	[calmaster@comms.beta.com]	*accept default*
SMTP Host Name	[wireless.comms.beta.com]	*accept default*
Service Port	[80]	**3080**

Maximum Sessions	[5000]	*accept default*
Maximum Threads	[20]	*accept default*
Number of server processes	[1]	*accept default*
Runtime User ID	[icsuser]	*accept default*
Runtime Group ID	[icsgroup]	*accept default*
Start Calendar Server after successful configuration	unchecked	*accept default*
Start Calendar Server on system startup	checked	**Uncheck**
Config Directory	[/etc/opt/sun/comms/calendar/SUNWics5/config]	*accept default*
Database Directory	[/var/opt/sun/comms/calendar/SUNWics5/csdb]	*accept default*
Attachment Store Directory	[/var/opt/sun/comms/calendar/SUNWics5/astore]	*accept default*
Logs Directory	[/var/opt/sun/comms/calendar/SUNWics5/logs]	*accept default*
Temporary Files Directory	[/var/opt/sun/comms/calendar/SUNWics5/tmp]	*accept default*
Enable Archive	Checked	*accept default*
Archive Directory	[/var/opt/sun/comms/calendar/SUNWics5/csdb/archive]	*accept default*
Enable Hot Backup	Checked	*accept default*
Hot Backup Directory	[/var/opt/sun/comms/calendar/SUNWics5/csdb/hotbackup]	*accept default*
Keep archives for (in days)	[Minium: 3, Maximum: 6]	*accept default*
Keep hot backups for (in days)	[Minium: 3, Maximum: 6]	*accept default*
Same as archive checkbox	Checked	*accept default*

3. Click Configure Now to configure Calendar Server.
4. Click Next when the configuration is complete.
5. Click Details to verify that all packages configured correctly. Click Close to exit the configurator.
6. Edit the `ics.conf` file to set calendar alarms and other default preferences.

```
cd /etc/opt/sun/comms/calendar/SUNWics5/config
cp ics.conf ics.conf.orig
vi ics.conf
```

7. Remove the comments from the following values to enable Calendar Server alarms:

```
caldb.serveralarms.url = "enp:///ics/customalarm"
caldb.serveralarms.contenttype = "text/xml"
```

8. Consider changing the following values:

```
calstore.default.timezoneID = "America/Los_Angeles"
service.calendarsearch.ldap = "no"
service.http.ui.enable = "y"
service.http.renderhtml = "yes"
```

9. Change the Calendar ACL:
   From
   `calstore.calendar.default.acl = "@@o^a^r^g;@@o^c^wdeic^g;@^a^fs^g;@^c^g;@^p^r^g"` to
   `calstore.calendar.default.acl = "@@o^a^r^g;@@o^c^wdeic^g;@^a^rfs^g;@^c^g;@^p^r^g"`
10. (Optional) If you changed the `calstore.default.timezoneID` in the `ics.conf` file, make the following edit to the `/opt/sun/comms/calendar/SUNWics5/cal/html/en/default_user_prefs.xml` file:

```
<userpref name="icsTimeZone" default_value="America/Los_Angeles" />
```

11. (Optional) To change the default time zone in Delegated Admininstrator, edit the `DomainCalendarService.xml` and `UserCalendarService.xml` files in the `/opt/sun/comms/da/lib/services` directory.
    These files control users' default time zones created by using Delegated Administrator.
    - In these files, change the value of the time zone:

      ```
      America/Denver
      ```

      to `America/Los_Angeles` (or your preferred time zone).

12. Start the Calendar Server daemons, for example:

```
cd /opt/sun/comms/calendar/SUNWics5/cal/sbin
./stop-cal
./start-cal
```

Creating Additional User Accounts and Groups

This section describes how to create additional users accounts and groups. Users and groups created in this fashion work with Communications Services products.

To Create Users and Groups

The following example shows how to create users using the Delegated Administrator command-line utility and also how to create a group consisting of the users created.

1. Run the following Delegated Administrator commands.

```
# /opt/sun/comms/da/bin/commadmin user create -D admin -F Demo -l demo1
-L One -d comms.beta.com -w adminpass -W demo -S mail,cal,im -E
demo1@comms.beta.com -H wireless.comms.beta.com -B
wireless.comms.beta.com

# /opt/sun/comms/da/bin/commadmin user create -D admin -F Demo -l demo2
-L Two -d comms.beta.com -p 80 -w adminpass -W demo -S mail,cal,im -E
demo2@comms.beta.com -H wireless.comms.beta.com -B
wireless.comms.beta.com

# /opt/sun/comms/da/bin/commadmin group create -D admin -G Demostaff -d
comms.beta.com -w adminpass -S mail -E Demostaff@comms.beta.com -H
wireless.comms.beta.com -o calmaster -m demo1 -m demo2
```

2. Bootstrap the users you just created to create their index by using the following commands:

```
# cd /opt/sun/comms/jiss/indexapi/scripts
# ./indexSvcBootstrap.sh --user demo1 --host
wireless.comms.beta.com --port 143 --runoptimizer true
# ./indexSvcBootstrap.sh --user demo2 --host
wireless.comms.beta.com --port 143 --runoptimizer true
```

> **Note**
> Creating groups using the Delegated Administrator command-line interface will guarantee that these groups will be recognized as LDAP groups that can be searched on using Instant Messenger. They can also be used to send email to the entire group.

To Use Delegated Administrator to Create Users

An alternative to using the Delegated Administrator command-line utility to create users is to use the Delegated Administrator console.

Prior to using Delegated Administrator, check the `resource.properties` file to make sure users will be created using options consistent with your usage. Because this example uses a hosted domain scenario, you do not need to edit this file to make changes. If you do want to make changes, perform the following steps.

1. Change to the `/var/opt/sun/comms/da/WEB-INF/classes/sun/comm/cli/server/servlet` directory and edit the `resource.properties` file.
   - The default settings for `servicepackage` refresh rates are:

```
servicepackage-ttlhours=5
servicepackage-ttlminutes=0
```

These parameters establish the time between service packages refreshes. In this demo scenario, service packages do not change very often so there is no need to refresh them every five minutes. Instead, change the rate to refresh service packages every five hours. Making this change improves Delegated Administrator performance. If you later decide to change the refresh rate to 20 hours, set `servicepackage-ttlhours` to 20, that is, `servicepackage-ttlhours=5`.

- The default setting for calender ID type is set using the `switch-caltype` variable as follows:

```
switch-caltype=hosted
```

The caltype can be either `hosted` or `legacy`. When `caltype` is set to `hosted`, users that are created through Delegated Administrator are created as *uid@domain* rather than *uid*.

2. If you make any changes to the `resource.properties` file, restart GlassFish Server.
3. The first time you use Delegated Administrator, you must add service packs to the organization that contains your users:
   - In your web browser, open the URL for Delegated Administrator.
     In this example, type: **`http://wireless.comms.beta.com/da/DA/Login`**
4. Log in as `admin`. The password is `adminpass`.
   - Click the check box next to `comms.beta.com organization`, then click the Allocate Service Package button.
     The Allocate Service Package window appears with a list of service packages organized within a set of three pages. Near the top of this list is a Compare button. To the right of this button is a button that maps the three pages into a single view.
   - Click the Single Page button.
   - Select the desired service packages then click Next.
     The `earth`, `mars`, `mercury`, and `venus` choices are appropriate for this example, since they have mail and calendar services enabled. If you want to include Instant Messaging, choose the `mailcalendarimsample` package. Each service package has a different mail quota.
   - Accept the Mail Service defaults, then click Next.
   - If you chose a service package that contains Calendar, type the Calendar Host **`wireless.comms.beta.com`** and **`No`** for Anonymous Login. Then click Next.
   - Select the quantity of each service pack desired then click Next.
     A quantity of 100 is appropriate for this example.
   - Review your choices and click Finish to create the service packages.
     Once the service packs have been allocated for the domain, you can add users to the domain.
   - Click the domain link. That is, click `comms.beta.com`.
   - Click the New button to create a new user within this domain.
   - Type a First Name (such as **`Demo`**), a Last Name (such as **`Five`**), a Display Name (such as **`Demo Five`**), then click Next.
   - You do not need to type postal information. Click Next again.
   - Select a service pack for this user, for example, `earth`, then click Next.
   - Type the email address, for example, **`demo5@comms.beta.com`**. The Mail Delivery Option should be Local Inbox. Leave the remaining fields blank then click Next.
   - Choose your calendar preferences, select your preferred timezone, then click Next.
   - If you selected a service package that includes Instant Messaging, you can leave the "User Roster" entry box blank.
   - Type the Login ID and Password then click Next.
     In this example, Login ID is **`demo5`** and password is **`demo`**.
   - Verify the user information then click Finish to create the user.

Known Issues and Limitations

For more information about known issues, see Release Notes.

Communications Suite on a Single Host (Red Hat Linux)

Deployment Example: Oracle Communications Unified Communications Suite on a Single Host (Red Hat Linux) Version 7 Update 1

This deployment example describes how to install Communications Suite 7 Update 1 software on a single Red Hat Enterprise Linux 5 (64-bit) server for a functioning deployment. This document is intended for any evaluator, system administrator, or installation technician who wants to install and evaluate the services delivered by these components.

> **Note**
> Installing the messaging, calendar, instant messaging, and address book services on the same system is not the optimal configuration, nor does it provide the best performance. This example deployment is not intended for production purposes. Use this configuration for evaluation and for training purposes only. Performance is improved when services are deployed across multiple systems.

- Comparison to Communications Suite 7 Guide
- About This Deployment Example
- Installing the Example
- Installing Communications Suite Components
- Configuring Communications Suite Components
- Enabling service start-up on boot
- Hosted domain configuration and creation
- Single host installation tuning tips
- Known Issues and Limitations

Comparison to Communications Suite 7 Guide

Each new release or update of Communications Suite provides additional functionality which in-turn is reflected by modifications to the Single Host install guide to make best use of this functionality.

The following is a brief overview of the changes made to the guide.

- IMAP-IDLE configuration steps removed
  - Messaging Server enables IMAP-IDLE by default
- Red Hat Enterprise Linux 5.3 64-bit is the default operating system
  - Directory Server 7 has added support for Red Hat Enterprise Linux 5.3
- Calendar Server 7 (CalDAV) is installed by default
  - Convergence 2 is now able to interoperate with Calendar Server 7
  - Calendar Server 6.3 is no longer installed

New features for Communications Suite 7 Update 1 can also be found in the Communications Suite 7 Update 1 Release Notes.

About This Deployment Example

This section provides an overview of this deployment scenario, the hardware and software used, and the procedures you follow to install, configure, and use this deployment.

This section contains the following topics:

- Installation Overview
- Implementation Specifications for This Example
- Installation Time Estimates
- Installation Notes and Recommendations
- Summary of Installation and Configuration

Installation Overview

This scenario results in a functioning deployment suited for the evaluation and testing of Communications Suite 7 Update 1 on Red Hat Enterprise Linux 5.3. These instructions are not intended to act as a replacement for the individual component documentation, but to merely guide the evaluator through an initial installation.

What Components Are Installed?

This example guides you through installing the following Communications Suite and pre-requisite components:

- Messaging Server 7 Update 4
- Calendar Server 7 Update 1
- Instant Messaging Server 8 Update 3
- Oracle Directory Server Enterprise Edition 11gR1
- GlassFish Enterprise Server 2.1.1 Patch 01
- Delegated Administrator 7 Patch 3
- Convergence 2
- All Shared Components

The example installation in this document uses the following data that you change according to your installation and test machine:

- Domain name: `comms.beta.com`
- Host name: `demo` (running Red Hat Enterprise Linux 5.3 64-bit)
- Fully qualified (external) host name: `demo.comms.beta.com`
- Password: `adminpass` used for all passwords except the `amldapuser` password

This example installs all of the software on a single system. Adjust host names accordingly if you install the components on multiple systems.

Recommended Ports

For convenience, this example uses a set of recommended ports. If you use different ports, be sure to make the changes consistently throughout the installation. For example, this document uses port 4848 for the Application Server admin port. If you decide to use port 3333 instead, be sure to change it everywhere 4848 occurs in the deployment example. See Table 3 for more information.

Implementation Specifications for This Example

This section describes implementation specifications for this example.

Table 1 Evaluation Host Hardware and Software Requirements

Component	Platform Requirement
CPU	x86 64-bit
RAM	2 Gbytes or more
Disk Space	2.1 Gbytes or more free disk space for installed software. 1.5 Gbytes additional disk space may be needed for temporary storage of Communications Suite zip files.
Software	Red Hat Linux Enterprise Linux 5.3 64-bit.
Users	Provisioned with test users.

Table 2 Client Software Requirements

Component	Platform Requirement
Browser	Firefox 3.6.x, Internet Explorer 7.x, 8.x

Table 3 Server Configuration Information

Component	Install Notes	Install Location	Database Location	F
Glassfish 2.1.1	Installed separately. Required for Convergence, Delegated Administrator, Instant Messaging Java Client and Calendar Server	`/opt/sun/appserver`	`/opt/sun/appserver/domains/domain1`	H
				A
				H
Directory Server 11gR1	Installed separately.	`/opt/sun/directory`	`/var/opt/sun/dsins1`	D F
				L
				S
Messaging Server 7 Update 4	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/messaging`	`/var/opt/sun/comms/messaging`	V (
				S
				F
				I

Instant Messaging 8 Update 3	Installed using Communications Installer. Additional configuration required.	`/opt/sun/comms/im`	`/var/opt/sun/comms/im`	X
				M X
				S F
MySQL 5.1	Installed using Communications Installer. Additional configuration required		`/var/lib/mysql`	D
Calendar Server 7	Installed using Communications Installer. Additional configuration required.	`/opt/sun/comms/davserver`	`/var/opt/sun/comms/davserver`	C

Installation Time Estimates

The following table provides time estimates for installing this example.

Table 4 Installation Time Estimates

Activity	Estimate
Install Red Hat Linux Operating System	2 hours
Install Communications Suite, Application Server and Directory Server	1 hour
Configure software	3 hours
Total	6 hours (average)

As part of the configuration, you will use Delegated Administrator to add users for Messaging Server, Calendar Server and Instant Messaging Server.

Installation Notes and Recommendations

1. Use `gzip -d` or `gunzip` to decompress the `*.gz` files.
2. Use unzip to decompress the `*.zip` files.

Expected User Input

During installation, your are prompted for various input. User input is indicated by text of the form **<user-input>**. The following table helps you plan for the types of information you must provide during installation.

Table 5 Information Input During Installation

User Input	User Input Action
<enter>	Just hit enter, but verify that the default value shown makes sense.
<sample-password>	Any password, minimum of 8 characters in length, suitable for evaluation purposes. These instructions assume that anywhere **<sample-password>** is specified, you will enter the same value each time.
<amldapuser-password>	Same criteria as **<sample-password>**, but must be different from **<sample-password>**.
<fully-qualified-hostname>	For example, assuming that the host name is `abc`, and the domain name is `demo.xyz.com`, then this value would be `abc.demo.xyz.com` .
<full-cookie-domainname>	For example, assuming that the full domain name is `demo.xyz.com`, then this value would be `.demo.xyz.com` (note the inclusion of the leading "`.`").

Summary of Installation and Configuration

Installing and configuring this example involves the following high-level steps:

1. Preparing the system for Communications Suite
2. Running the Communications Suite Installer to install Messaging Server, Calendar Server, Instant Messaging, Delegated Administrator and Convergence.
3. Installing and configuring Directory Server 11gR1
4. Installing and configuring Glassfish 2.1.1
5. Deploying and enabling the Directory Server Control Center
6. Configuring Delegated Administrator and Communications CLI
7. Configuring Messaging Server
8. Configuring MySQL Server
9. Configuring Calendar Server
10. Configuring Instant Messaging Server
11. Configuring Convergence

These installation steps result in a suitable deployment to evaluate and test Communications Suite 7 Update 1. These instructions are not intended to act as a replacement for the individual component documentation, but to merely guide the evaluator through an initial installation.

Installing the Example

This section describes how to install and configure components on a single machine for evaluation purposes. Some components are configured after installation, using component configuration tools.

> **Note**
> Unless otherwise indicated, all of the examples and instructions in this document assume that you are logged in as the **root** user.

This section contains the following topics:

- Checking Installation Requirements
- Getting the Necessary Software
- Before You Begin
- Installing Communications Suite 7 Update 1 Software
- Installing and Configuring Directory Server 11gR1

- Installing and Configuring Glassfish 2.1.1

Checking Installation Requirements

Before you install components, use the steps in this section to make sure the computer on which you are installing is ready.

To Check System Requirements

The computer should meet the following requirements:

- These instructions assume all actions are performed by the `root` user unless mentioned otherwise.
- The computer must have 1.5 GB free disk space for the zip files and zip image.

To Check DNS

Verify that DNS is running and configured properly:

1. Make sure that the `/etc/resolv.conf` file has name server entries with the IP addresses of valid name servers. For example:

   ```
   domain comms.beta.com
   nameserver 192.168.100.22
   nameserver 192.168.100.23
   nameserver 192.168.100.24
   nameserver 192.168.100.25
   ```

2. Make sure that the `/etc/hosts` file has an entry for the fully qualified host name of the server. This fully qualified host name should be listed before the non fully qualified host name. For example:

   ```
   10.1.82.52 demo.comms.beta.com wireless demo
   ```

3. Make sure that the `/etc/nsswitch.conf` file is configured to use files first to resolve host names. The hosts line in the `nsswitch.conf` file should list files first in its entry:

   ```
   hosts: files dns nis [NOTFOUND=return]
   # OR (if NIS is not used)
   hosts: files dns
   ```

To Check for Sufficient Number of File-Descriptors

The default installation of Red Hat Enterprise Linux 5.3 uses 1,024 file descriptors, which is insufficient for the correct operation of Communications Suite 7 Update 1. A Communications Suite 7 Update 1 system needs the maximum file descriptors set to 16,384.

1. In a terminal window, as `root` user, verify the number of file descriptors.
   `ulimit -n`
2. If this number is less than 16,384 you will need to increase the value.
3. To change the number of file descriptors, add the following to the `/etc/sysctl.conf` file. Or, if the parameter is already set, increase the value to 16384.
   `fs.file-max = 16384`
4. Add the following two lines to the `/etc/security/limits.conf` file.

   ```
   # Increase max file descriptors
   * - nofile 16384
   ```

> **Note**
> Be careful when editing configuration files to not introduce extra spaces and lines, as this could cause errors. If you do accidentally type extra spaces, try copying existing lines and then overwriting them (by pasting) to get rid of any extra spaces. Using a text editor that displays hidden characters can also help.

5. Either reboot the system for the value to take effect or run the following command:
   `sysctl -p /etc/sysctl.conf`
6. In a new terminal window, as `root` verify the change.
   `ulimit -n`

To Enable Process Core Dumps

Red Hat Enterprise Linux disables process core dumps by default. Process core dumps are essential for tracing the root cause behind a process crashing. The following guide provides steps on enabling process core dumps:

How can core dumps be enabled for daemons (services) in Red Hat Enterprise Linux?

Getting the Necessary Software

To Get the Software

- Get Communications Suite, Glassfish and Directory Server.

Installing Communications Suite Components

Deploying Communications Suite components is a two-step process. You first install the software and the shared components then you configure the individual server components.

This section contains the following topics:

- Before You Begin
- Installing Communications Suite 7 Update 1 Software

Before You Begin

Before you configure the Communications Suite software, you need to create the `mailsrv` user and disable the `sendmail` process. The `mailsrv` user is used to configure Messaging Server.

- Messaging Server requires a mail server user, which must exist before you can finish the installation. You can skip this step, because the group and user are created during the configuration time. However, you might want to create the `mailsrv` user yourself as shown below. For this installation, use the `useradd` command to create a user with username `mailsrv` and group `mail`. You use this ID later when configuring Messaging Server.

Type the following commands to create the user `mailsrv` with a user ID of `7633`, a group ID of `mail`, and a user home directory of `/export/home/mailsrv`. (These commands assume that the `/export/home` directory already exists.)

```
groupadd mail
useradd -u 7633 -g mail -d /export/home/mailsrv -m mailsrv
```

Note
If the `mailsrv` user is already in use, this could be an indication that `mailsrv` is not a local user as required by the Messaging Server. Messaging Server requires a local user and group and not one defined in a naming service such as NIS. You should create a different user such as `mailsrv2` but be sure to change the reference to that user when prompted for the mail server username. For example:

```
# useradd -u 7633 -g mail -d /export/home/mailsrv2 -m
mailsrv2
```

Installing Communications Suite 7 Update 1 Software

This section describes how to install the Communications Suite software on your host.

1. Create the /tmp/CS7U1/ directory, move the Communications Suite 7 software (CommsR7u1-linux_x86.zip) to this directory and extract the files.

```
cd /tmp/CS7U1
unzip CommsR7u1-linux_x86.zip
```

2. Run the Communications Suite installer.

```
./commpkg install
```

3. Press Return to continue when prompted.
4. Review the license and type **c** to continue when prompted.
   You can also type **s** to skip the license display.
5. Accept the License Agreement by typing **yes** when prompted.
6. Accept the default Install location: `/opt/sun/comms`
7. Select the following components for installation (1,2,3,4,5,7,).

```
2.     Messaging Server (64bit) 7u4 (7.4-18.01)
3.     Comms DSsetup 6.4 (6.4-6.03)
4.     Calendar Server (CALDAV) 7u1 (7.1-1.11)
5.     Instant Messaging 8u3 (8.3-03.10)
6.     Convergence 2 (2.0-0.06)
8.     Comms Delegated Administrator 7 (7.0-3.00)
```

   The installation proceeds.

8. Press Return when prompted to continue.
9. Continue with the next section.

Installing and Configuring Directory Server 11gR1

To Install the Zip Version of Directory Server 11gR1

1. Move the downloaded Directory Server 7 zip file `V21900-01.zip` to a temporary location, such as `/tmp/DSEE11gR1`.
2. Unzip the file.

```
unzip V21900-01.zip
```

3. Deploy the DSEE 11gR1 software to the `/opt/sun/directory` directory.

```
cd ODSEE_ZIP_Distribution
unzip sun-dsee7.zip
mv dsee7/ /opt/sun/directory
```

4. Create a new directory server instance in the `/var/opt/sun/directory/dsins1` directory.

```
mkdir -p /var/opt/sun/directory/
cd /opt/sun/directory/bin
./dsadm create /var/opt/sun/directory/dsins1
```

5. When prompted, type **`adminpass`** for the Directory Manager password.
6. Create the user and group suffix **`o=isp`**.

```
cd /opt/sun/directory/bin
./dsadm start /var/opt/sun/directory/dsins1
./dsconf create-suffix "o=isp"
```

7. When prompted, type **Y** to accept the certificate.
8. When prompted, type **`adminpass`** for the Directory Manager password.
9. Continue with the next section.

Installing and Configuring Glassfish 2.1.1

Glassfish 2.1.1 is the primary web container used by Convergence, Delegated Administrator, Directory Service Control Center, and Instant Messaging.

1. Move the downloaded Glassfish 2.1.1 installer `sges_ee-2_1_1-linux-ml.bin` to a temporary location, such as `/tmp/GF211`.
2. Launch the installer.

```
cd /tmp/GF211
chmod u+x ./sges_ee-2_1_1-linux-ml.bin
./sges_ee-2_1_1-linux-ml.bin -console -javahome /usr/java/default/
```

3. When prompted, press Enter to continue.
4. Accept the License Agreement by typing **yes** when prompted.
   The installation script prompts for a series of options. The following table shows how to respond to the configuration options:
   Table 6 Application Server Settings

Option	[Default Value]	Enter:
Installation Directory	[/opt/SUNWappserver]	**/opt/sun/appserver**
Create Directory or Choose New	Create Directory	*accept default*
Install Node Agent	[yes]	*accept default*
Install High Availability Database Server	[no]	*accept default*
Install Load Balancing Plugin	[no]	*accept default*
Install Domain Administration Server	[yes]	*accept default*
Install Sample Applications	[yes]	**no**
Java Configuration	[1. Install Java 2 SDK (5.0)]	**2. Reuse existing Java 2 SDK**
Existing JDK Location	[/usr/java/jdk1.6.0_20]	**/usr/java/latest**
Admin User	[admin]	*accept default*
Admin User's Password	–	**adminpass**
Master Password for SSL Certificate	—	**adminpass**
Admin Port	[4848]	*accept default*
HTTP Port	[8080]	**80**
HTTPS Port	[8181]	**443**
Enable Updatecenter client	[yes]	**no**
Upgrade from previous AS version	[no]	*accept default*

5. Select `Install Now` at the Ready to Install screen.
   The installer begins to install the software.
6. Edit the `/opt/sun/appserver/domains/domain1/config/domain.xml` file to change the Java Message Queue (JMQ) port from 7676 to 37676
   change:

```
<jms-host admin-password="admin" admin-user-name="admin"
host="demo.comms.beta.com" name="default_JMS_host" port="7676"/>
```

   to:

```
<jms-host admin-password="admin" admin-user-name="admin"
host="demo.comms.beta.com" name="default_JMS_host" port="37676"/>
```

   Note
   By default, Glassfish Application Server starts a bundled instance of JMQ on port 7676. This port assignment conflicts with the instance of JMQ used by Indexing and Search Service. For this reason, you need to change the port of the Glassfish JMQ instance uses to avoid any future conflict.

7. Start the Application Server:

```
cd /opt/sun/appserver/bin
./asadmin start-domain domain1
```

8. When prompted, type:
   username: **`admin`**
   admin password: **`adminpass`**
   master password: **`adminpass`**
9. Perform the following steps to save the `admin` username and password so they don't need to be provided each time Application Server is started. (You must still type the master password.)

```
cd /opt/sun/appserver/bin
./asadmin login
```

10. Type **`admin`** and **`adminpass`** as the username and password when prompted.
11. Continue with the next section.

> Be sure to add the GlassFish Server administrative port (4848) to your firewall configuration. Otherwise, you cannot access the GlassFish Server console from a host located outside the firewall.

To Deploy and Enable Directory Server Control Center (DSCC)

The Directory Server Control Center is a web-based GUI used to configure and administer Directory Server instances.

1. Enable the DSCC registry.

```
cd /opt/sun/directory/bin/
./dsccsetup initialize
```

2. When prompted, press Enter to continue.
3. Accept the License Agreement.
4. At the `Choose password for Directory Service Manager` prompt, type **`adminpass`** (the default password).
5. Edit the `/opt/sun/appserver/domains/domain1/config/server.policy` file to add the following required DSCC permissions:

```
// Permissions for Directory Service Control Center
grant codeBase
"file:${com.sun.aas.instanceRoot}/applications/j2ee-modules/dscc7/-"
java.security.AllPermission;
};
```

6. Restart Application Server.

```
cd /opt/sun/appserver/bin
./asadmin stop-domain domain1
./asadmin start-domain domain1
```

7. Type the master password when prompted: **`adminpass`**
8. Access the Application Server administration console using a web-browser at the following

location:
`https://`*fully-qualified-hostname*`:`*admin-port*`/`
In this example, type:
`https://demo.comms.beta.com:4848/`

9. Log in by using the `admin` username and `adminpass` password.
10. To deploy application from the `dscc7.war` file, select **Applications** then **Web Applications** from the left-hand menu in the Administration Console.
11. Select the **Deploy** option from the Web Applications menu.
12. Select `Local packaged file or directory that is accessible from the Application Server`.
13. Type the full path of the DSCC war file: **`/opt/sun/directory/var/dscc7.war`**.
14. Click the OK button at the bottom of the page.
15. Log out of the Administration Console once the DSCC deployment has completed.

To Register the existing Directory Server Instance in DSCC

1. Add the Directory Server Instance to DSCC

```
cd /opt/sun/directory/bin
./dsccreg add-server /var/opt/sun/directory/dsins1
```

2. Type the DSCC administrator's password when prompted: **`adminpass`**
3. Type the "cn=Directory Manager" password when prompted: **`adminpass`**
4. At the prompt advising that Directory Server will be restarted, enter: **`y`**

To Access the Directory Server Instance in DSCC

1. Access the DSCC console at the following location:
http://_fully-qualified-hostname_:_application-server-port_/dscc7
In this example, type:
http://demo.comms.beta.com/dscc7
2. Log in by using the `admin` username and `adminpass` password.
3. Log out of the DSCC interface.
4. Proceed to Installing Communications Suite Components for instructions on how to install and configure Communications Suite components.

Configuring Communications Suite Components

This section describes how to run the individual component configuration utilities to perform initial software configuration.

This section contains the following topics:

- Preparing the LDAP Directory Server
- Configuring Delegated Administrator and Communications CLI
- Configuring Messaging Server
- Configuring MySQL Server
- Configuring Calendar Server
- Configuring Instant Messaging Server
- Configuring Sun Convergence
- Creating Additional User Accounts and Groups

Preparing the LDAP Directory Server

This section explains how to prepare the Directory Server LDAP schema.

To Apply Schema 2 to Your Directory Tree

1. Change the directory where the `comm_dssetup script` is located and run the script, for example:

```
cd /opt/sun/comms/dssetup/sbin/
./comm_dssetup.pl
```

2. Type **y** to continue.
   The perl script prompts for a series of options. The following table shows how to respond to the prompts.
   Table 7 Values for comm_dssetup.pl Script

Option	[Default Value]	Enter:
Directory server root	[/opt/sun/directory/var/dscc6/dcc]	**/var/opt/sun/directory**
Directory server instance	[dsins1]	*accept default*
Directory Manager DN	[cn=Directory Manager]	*accept default*
Directory Manager Password	-	**adminpass**
Use directory server for users/groups	[yes]	*accept default*
Users/Groups base suffix	[o=isp]	*accept default*
Schema type?	[1]	**2**
Confirm Schema Type?	[n]	**y**
Update the schema files?	[yes]	*accept default*
Configure new indexes?	[yes]	*accept default*
Reindex new indexes?	[yes]	*accept default*

3. Confirm your choices and type **y** to continue.
   The `comm_dssetup` script proceeds.
4. When prompted, type **y** to continue with the script.
5. Continue with the next section after `comm_dssetup` completes and the Successful Completion message is displayed.

Configuring Delegated Administrator and Communications CLI

This section describes configuring Delegated Administrator console and utility, which provide user and group management.

To Configure Delegated Administrator

1. Change to the directory where the configuration script was installed and run the script, for example:

```
cd /opt/sun/comms/da/sbin
./config-commda -nodisplay
```

2. Select Enter in the Welcome window.
3. Accept the default, `/var/opt/sun/comms/da`, for the Directory to store Configuration and Data Files:
   If the directory does not exist, select `Create Directory` to create the directory.
4. Install `Delegated Administrator Utility`, `Console`, and `Server`.

The installation script prompts for a series of options. The following table shows how to respond to the configuration options:

Table 8 Values for config-commda Script

Option	[Default Value]	Enter:
DA Web-Container Hostname	[demo.comms.beta.com]	*accept default*
DA Web-Container Port	[8080]	**80**
Default Domain	[comms.beta.com]	*accept default*
Default SSL Port	[443]	*accept default*
Web Container	[Web Server 6.x/WEB]	**APP8**
Install Directory (for DA Console)	[/opt/sun/appserver]	*accept default*
Domain Directory	[/var/opt/sun/appserver/domains/domain1]	**/opt/sun/appserver/domair**
Doc Root Directory	[/var/opt/sun/appserver/domains/domain1/docroot]	**/opt/sun/appserver/domair**
Server Target Name	[server]	*accept default*
Virtual Server Identifier	[server]	*accept default*
Server Instance HTTP Port	[80]	*accept default*
Administration Server Port	[4849]	**4848**
Administrator User ID	[admin]	*accept default*
Administrator Password	-	**adminpass**
Secure Administration Server Instance?	[yes]	*accept default*
Default Domain Separator	[@]	*accept default*
Directory Server Interface	[DL]	*accept default*

Web Container	[Web Server 6.x/WEB]	**APP8**
Install Directory (for DA Server)	[/opt/sun/appserver]	*accept default*
Domain Directory	[/var/opt/sun/appserver/domains/domain1]	**/opt/sun/appserver/domair**
Doc Root Directory	[/var/opt/sun/appserver/domains/domain1/docroot]	**/opt/sun/appserver/domair**
Server Target Name	[server]	*accept default*
Virtual Server Identifier	[server]	*accept default*
Server Instance HTTP Port	[80]	*accept default*
Administration Server Port	[4849]	**4848**
Administrator User ID	[admin]	*accept default*
Administrator Password	-	**adminpass**
Secure Administration Server Instance?	[yes]	*accept default*
URL of Directory Server	[ldap://demo.comms.beta.com:389]	*accept default*
Bind As	[cn=Directory Manager]	*accept default*
Password	-	**adminpass**
Internal LDAP user (daAdmin) Password	-	**adminpass**
Organization DN	[o=comms.beta.com,o=isp]	*accept default*
Top Level Admin for Default Organization	[admin]	*accept default*
Password	-	**adminpass**
Load Sample Service Packages	[yes]	*accept default*

Load Sample Organizations	[yes]	**no**

5. Select **1** - Configure Now.
   The script begins to run.
6. When the panel displays "All Tasks Passed," hit enter to continue.
7. Select **2. Done** to exit the Delegated Administrator Configuration wizard.
8. Modify the default domain to provide mail, calendar and IM services.

```
cd /opt/sun/comms/da/bin/
./commadmin domain modify -D admin -w adminpass -d comms.beta.com
-S mail,cal,im \
-H demo.comms.beta.com -B demo.comms.beta.com
```

9. Create a test user account with a username of `jdoe` and password of `demo` by using the `commadmin` utility:

```
./commadmin user create -D admin -w adminpass -S mail,cal,im -H
demo.comms.beta.com -B demo.comms.beta.com \
-F John -L Doe -l jdoe -W demo -d comms.beta.com -E
jdoe@comms.beta.com
```

   You can create as many users as you like at this point.

10. Continue with the next procedure.

To Log in to Delegated Administrator

1. In your web browser, open a URL for Delegated Administrator.
   http://_fully-qualified-hostname_:_app-server-port_/da/
   In this example, type:
   http://demo.comms.beta.com:80/da
2. Log in using **admin** and **adminpass** as the user ID and password.
3. After verifying that you can access the Delegated Administrator GUI interface, log out.
4. Continue with the next section to configure Messaging Server

Configuring Messaging Server

This section describes configuring Messaging Server.

To Configure Messaging Server

1. Change to the directory where the Messaging Server configure script is stored, then run the script, for example:

```
cd /opt/sun/comms/messaging64/bin
./configure
```

   The Configuration Wizard appears. Read the introductory information and proceed.

2. The installation script prompts for a series of options.
   The following table shows how to respond to the configuration options:
   Table 9 Values for Messaging Server configure Script

Option	[Default Value]	Enter:
Path for Data and Configuration Files	[/var/opt/sun/comms/messaging64]	*accept default*
Messaging Server Unix user	[mailsrv]	*accept default*
Messaging Server Unix group	[mail]	*accept default*
Fully qualified local hostname	[demo.comms.beta.com]	*accept default*
Default mail domain name	[comms.beta.com]	*accept default*
Hostname for LDAP Directory Server	[localhost]	*accept default*
LDAP administrator login	[cn=Directory Manager]	*accept default*
LDAP administrator password	-	**adminpass**
Mail address for postmaster notices	[admin@comms.beta.com]	**jdoe@comms.beta.com**
Password for server administration	-	**adminpass**

3. Start Messaging Server.

```
cd /opt/sun/comms/messaging64/bin
./start-msg
```

4. Continue with the next section to configure Calendar Server.

Configuring MySQL Server

CalDAV server stores calendar data in a MySQL 5.1 database. This section steps through the configuration of the MySQL database so that it can be used by the CalDAV server software.

1. Create the `/etc/my.cnf` MySQL configuration file.

```
[mysqld]
basedir = /usr
datadir = /var/lib/mysql
default-storage-engine = InnoDB
character-set-server = utf8
```

2. Set ownership of `/etc/my.cnf`

```
chown mysql:mysql /etc/my.cnf
```

3. Configure MySQL Root password

```
/usr/bin/mysqladmin -u root password adminpass
/usr/bin/mysqladmin -u root -h demo.comms.beta.com password
adminpass
```

4. Secure MySQL install by running the `/usr/bin/mysql_secure_installation` command. The following table shows how to respond to the configuration options:

Table 10 MySQL Secure Installation Settings

Option	[Default Value]	Enter:
Current password for root	-	**adminpass**
Change the root password	[Y]	**n**
Remove anonymous users	[Y]	*accept default*
Disallow root login remotely	[Y]	*accept default*
Remove test database and access to it	[Y]	*accept default*
Reload privilege tables now	[Y]	*accept default*

5. Create MySQL user and CalDAV server database

```
/usr/bin/mysql -u root -p
Enter password: adminpass
mysql> CREATE DATABASE caldav CHARACTER SET = UTF8;
mysql> CREATE USER 'caldav'@'localhost' IDENTIFIED BY 'adminpass';
mysql> GRANT ALL ON caldav.* TO 'caldav'@'localhost';
mysql> exit
```

6. Enable MySQL on boot

```
chkconfig --add mysql
```

Configuring Calendar Server

1. Run the Calendar Server configuration wizard

```
cd /opt/sun/comms/davserver/sbin/
./init-config -nodisplay
```

2. The installation script prompts for a series of options.
   The following table shows how to respond to the configuration options:
   Table 11 CalDAV Settings

Option	[Default Value]	Enter:
Configuration and data files directory	[/var/opt/sun/comms/davserver]	*accept default*
Components to be configured	[Oracle Communications Calendar Server]	*accept default*
Host Name	[demo]	*accept default*
DNS Domain Name	[comms.beta.com]	*accept default*
MySQL Server Host Name	[localhost]	*accept default*
MySQL Server Port Number	[3306]	*accept default*

Database User ID	[caldav]	*accept default*
Database User Password	-	**adminpass**
Calendar Database Name	[caldav]	*accept default*
Document Files Directory	[/var/opt/sun/comms/davserver/db]	*accept default*
Application Server Install Directory	[/opt/sun/appserver]	*accept default*
Application Server Domain Directory	[/opt/sun/appserver/domains/domain1]	*accept default*
Application Server Document Root Directory	[/opt/sun/appserver/domains/domain1/docroot]	*accept default*
Application Server Instance Name	[server]	*accept default*
Virtual Server Identifier	[server]	*accept default*
Application Server Instance HTTP Port	[8080]	**80**
Administration Server Port	[4848]	*accept default*
Administrator User ID	[admin]	*accept default*
Administrator Password	-	**adminpass**
Administration Server instance running in the secure mode	[yes]	*accept default*
URI Path for Sun Java Calendar Server 7	[/]	**/davserver**
Ldap URL	[ldap://demo.comms.beta.com:389]	*accept default*
Bind DN	[cn=Directory Manager]	*accept default*
Bind Password	-	**adminpass**
DC Tree Suffix	[o=isp]	*accept default*
Default Domain Name	[comms.beta.com]	*accept default*
Organization DN	[o=comms.beta.com,o=isp]	*accept default*
SMTP Server Host Name	[demo.comms.beta.com]	*accept default*
SMTP Server Port Number	[25]	*accept default*

Administrator User ID	[calmaster]	*accept default*
Administrator Password	-	**adminpass**

3. Select `Configure Now` to configure Calendar Server.
4. Select `Next` when the configuration program completes.
5. Continue with the next section to configure Instant Messaging Server.

Testing Calendar accounts

The CalDAV server has an account-browser. This can be used to verify that the account is functional and provides various other details for the account. The account-browser can be accessed at the following location:

http://_fully-qualified-hostname_:_app-server-port_/davserver/browse/h/_domain_/_username_/calendar/

For example, to access the `jdoe` user account details use the following URL:

http://demo.comms.beta.com/davserver/browse/h/comms.beta.com/jdoe/calendar/

CalDAV clients can be configured to access the CalDAV server by using the following URL:

http://_fully-qualified-hostname_:_app-server-port_/davserver/dav/h/_domain_/_username_/calendar/

For example, to access the `jdoe` user account use the following URL:

http://demo.comms.beta.com/davserver/dav/h/comms.beta.com/jdoe/calendar/

Additional information on configuring CalDAV clients can be found here in the Configuring CalDAV Clients for Calendar Server 7 documentation.

Configuring Instant Messaging Server

This section shows you how to run the Instant Messaging configurator script.

To Configure Instant Messaging Server

1. Change to the directory where the configuration script was installed then run the configurator script, for example:

```
cd /opt/sun/comms/im/sbin
./configure --nodisplay
```

2. Select **Next/Enter** at the Welcome page.
   The Components Selection page appears.
3. Select both `Server` and `Client` components for configuration.
4. The configuration wizard prompts for a series of options. The following table shows how to respond to the configuration options:
   Table 12 Values for Instant Messaging configure Script

Option	[Default Value]	Enter:
Use AM for Single-Sign-On	[no]	*accept default*
Use AM for Policy	[no]	*accept default*

IM User Properties store location	[1. On the file system]	**2. In the directory**
User ID	[inetuser]	*accept default*
Group ID	[inetgroup]	*accept default*
Runtime Directory	[/var/opt/sun/im]	**/var/opt/sun/comms/im**
Create User ID?	[2. Choose New]	**1. Create User ID**
Create Directory?	[2. Choose New]	**1. Create Directory**
Domain Name	[comms.beta.com]	*accept default*
XMPP Port	[5222]	*accept default*
Multiplexed XMPP Port	[45222]	*accept default*
XMPP Server Port	[5269]	*accept default*
Disable Server (enable only multiplexor)	[no]	*accept default*
LDAP Host Name	[demo.comms.beta.com]	*accept default*
LDAP Port Number	[389]	*accept default*
SSL Enabled	[no]	*accept default*
Base DN	[dc=comms,dc=beta,dc=com]	**o=isp**
Bind DN	-	**cn=Directory Manager**
Bind Password	-	**adminpass**
Enable Email Integration	[yes]	*accept default*
SMTP Server	[demo.comms.beta.com]	*accept default*
Enable Email Archiving	[yes]	*accept default*
Deploy Messenger Resources	[yes]	*accept default*
Codebase	[http://demo.comms.beta.com:80/im]	*accept default*
Enable Audio	[no]	**yes**
Webcontainer Path	-	**/opt/sun/appserver**
Web Administration URL	-	*https://demo.comms.beta.com:4848/*

Web Administrator User Id	[admin]	*accept default*
Web Administrator Password	-	**adminpass**
Deploy IM HTTP Gateway	[yes]	**no**
Deploy IM IMPS Gateway	[yes]	**no**
Enable Calendar Agent	[no]	*accept default*
Enable local component	[no]	*accept default*
Enable SMS Gateway	[no]	*accept default*
Enable local component	[no]	*accept default*
Enable MSN Gateway	[no]	*accept default*
Enable local component	[no]	*accept default*
Enable AIM Gateway	[no]	*accept default*
Enable local component	[no]	*accept default*
Enable YIM Gateway	[no]	*accept default*
Enable local component	[no]	*accept default*
Start Services After Successful Configuration	[yes]	**no**
Start Services When System starts	[yes]	**no**

5. At the Configuration Summary page, select **Done** to exit.
6. Edit the `/opt/sun/comms/im/config/iim.conf` file using your preferred editor, e.g. `vi`, to prepare for the Convergence web-interface.
   Add the new httpbind and avatar component JIDs to this file by making the following changes/additions:

```
! known components/agent. Add yours as needed
!iim_server.components =
"agent-calendar,httpbind,smppbind,msn_gateway,aim_gateway,yim_gateway
=
"agent-calendar,httpbind,smppbind,msn_gateway,aim_gateway,yim_gateway
= "true"

! httpbind component (HTTP/XMPP Gateway)
! ======================================
iim_agent.httpbind.enable = "true"
httpbind.jid = "demo.httpbind.comms.beta.com"
httpbind.password = "adminpass"

! avatar component
! ======================================
iim_agent.avatar.enable = "true"
avatar.jid = "demo.avatar.comms.beta.com"
avatar.password = "adminpass"
```

Note
The `httpbind.jid` and `avatar.jid` strings are in the form <host>.httpbind.<domain> and <host>.avatar.<domain> respectively as this will be the value auto-generated during upcoming Convergence configuration stage.

Enable Hosted Domain Schema 2 support by making the following changes/additions:

```
! whether to use Identity Server for policy storage, default to no
(iim_ldap)
!iim.policy.modules = "iim_ldap"
iim.policy.modules = "iim_ldap_schema2"
iim_ldap.schema2.domain_config_root = "o=isp"
```

7. Start the Instant Messaging server.

```
cd /opt/sun/comms/im/sbin/
./imadmin start
```

8. Continue with the next procedure.

To Log into the Sun Instant Messaging Java Client

1. In your web browser, open the URL for the Sun IM Java Client and log in as a test user:
   `http://`*fully-qualified-hostname*`:`*app-server-port*`/im`
   In this example, type:
   http://demo.comms.beta.com:80/im
2. Click the "Start" button.
3. Log into the Sun Java IM client using **jdoe** and **demo** as the User Name and Password.
4. After verifying that you can access the Sun Java IM client, exit the client.

Configuring Sun Convergence

This section describes how to configure Sun Convergence by using the `init-config` command.

1. Change to the directory where you installed the Convergence then run the configuration utility, for example:

```
cd /opt/sun/comms/iwc/sbin
./init-config -nodisplay
```

2. Select **Next/Enter** at the Welcome page.
3. Accept the default value for the Directory to store Configuration and Data Files: `/var/opt/sun/comms/iwc`
   If the directory does not exist, select Create Directory to create the directory.
4. Configure the `Mail`, `Calendar` and `Instant Messaging` Services.
5. The configuration wizard prompts for a series of options. The following table shows how to respond to the configuration options:
   Table 13 Values for Convergence configure Script

Option	[Default Value]	Enter:
Host Name	[demo]	*accept default*
DNS Domain Name	[comms.beta.com]	*accept default*
Application Server Install Directory	[/opt/sun/appserver]	*accept default*
Domain Directory	[/opt/sun/appserver/domains/domain1]	*accept default*
Document Root Directory	[/opt/sun/appserver/domains/domain1/docroot]	*accept default*
Server Target Name	[server]	*accept default*
Virtual Server Identifier	[server]	*accept default*
Server Instance HTTP Port	[8080]	**80**
Administration Server Port	[4848]	*accept default*
Administrator User ID	[admin]	*accept default*
Administrator Password	-	**adminpass**
Secure Administration Server Instance	[yes]	*accept default*
URI Path	[/iwc]	*accept default*
Enable Hosted Domain Support	[yes]	*accept default*

Directory Server LDAP URL	[ldap://demo.comms.beta.com:389/]	*accept default*
Bind DN	[cn=Directory Manager]	*accept default*
Bind Password	-	**adminpass**
DC Tree suffix	[o=isp]	*accept default*
Default Domain Name	[comms.beta.com]	*accept default*
Webmail Server Host Name	[demo.comms.beta.com]	*accept default*
Webmail Server Port Number	[8990]	*accept default*
Webmail Server Running In Secure Mode?	[no]	*accept default*
Webmail Server Admin User ID	[admin]	**admin@comms.beta.com**
Webmail Server Admin Password	-	**adminpass**
Calendar Server Version	[7]	*accept default*
Calendar Server Host Name	[demo.comms.beta.com]	*accept default*
Calendar Server Port Number	[80]	*accept default*
Calendar Server Running In Secure Mode?	[no]	*accept default*
Calendar Server Service URI	[/davserver/wcap]	*accept default*
Calendar Server Admin User ID	[calmaster]	**calmaster@comms.beta.com**
Calendar Server Admin Password	-	**adminpass**

Instant Messaging Server Domain Name	[comms.beta.com]	*accept default*
Instant Messaging Server Host Name	[demo.comms.beta.com]	*accept default*
Server Port	[5269]	*accept default*
httpbind Component JID	[demo.httpbind.comms.beta.com]	*accept default*
Password	-	**adminpass**
Avatar Component JID	[demo.avatar.comms.beta.com]	*accept default*
Password	-	**adminpass**
Convergence Administrator Username	[admin]	*accept default*
Password	-	**adminpass**

6. Select **1. Configure Now** to configure Sun Convergence.
7. Once the configuration is completed, exit the configuration tool.
8. Continue with the next procedure.

1. Restart Application Server.

```
cd /opt/sun/appserver/bin
./asadmin stop-domain domain1
./asadmin start-domain domain1
```

To Log into the Sun Convergence Client

1. In your web browser, open a URL for Sun Convergence and log in as a test user. The URL for Sun Convergence is:
   `http://`*fully-qualified-hostname*`:`*app-server-port*`/iwc`
   In this example, type:
   http://demo.comms.beta.com:80/iwc
2. Log in using **jdoe** and **demo** as the user ID and password.
3. After verifying that you can access the Sun Convergence Client, log out.

Creating Additional User Accounts and Groups

This section describes how to create additional users accounts and groups.

To Create Users and Groups using CLI

The following example shows how to create two new users (`demo1` and `demo2`) with the password `demo` using the Delegated Administrator command-line utility and also how to create a the mailing and calendar group (Demostaff@comms.beta.com) consisting of the newly created users.

```
cd /opt/sun/comms/da/bin
./commadmin user create -D admin -w adminpass -S mail,cal,im -H
demo.comms.beta.com -B demo.comms.beta.com \
-F Demo -L One -l demo1 -W demo -d comms.beta.com -E
Demo.One@comms.beta.com
./commadmin user create -D admin -w adminpass -S mail,cal,im -H
demo.comms.beta.com -B demo.comms.beta.com \
-F Demo -L Two -l demo2 -W demo -d comms.beta.com -E
Demo.Two@comms.beta.com
./commadmin group create -D admin -w adminpass -S mail,cal -H
demo.comms.beta.com -j demo.comms.beta.com \
-G Demostaff -d comms.beta.com -E Demostaff@comms.beta.com -o jdoe -m
demo1 -m demo2
```

To Use the Delegated Administrator GUI to Create Users

An alternative to using the Delegated Administrator command-line utility to create users is to use the Delegated Administrator web-based GUI. The high-level steps for creating users with Delegated Administrator are:

1. The first time you use the Delegated Administrator GUI, you must add service packs to the organization that contains your users:
   - In your web browser, open the URL for Delegated Administrator.
     In this example, type:
     http://demo.comms.beta.com:80/da
   - Log in using **admin** as the Login ID and **adminpass** as the Password.
   - Click the check box next to comms.beta.com organization, then click the `Allocate Service Package` button.
   - The Allocate Service Package window appears with a list of service packages organized within a set of three pages. Near the top of this list is a Compare button.
   - To the right of this button is a button that maps the three pages into a single view. Click the Single Page button.
   - Select the desired service packages then click Next. The `mailcalendarimsample` service package is appropriate for this example, since this package enables the mail, calendar and instant messaging services.
   - Accept the Mail Service defaults, then click `Next`.

     > **Note**
     > If the Preferred Mail Host value is not set to the mail server host name `demo.comms.beta.com` in the Mail Service Details screen, close the window, log out of the Delegated Administrator GUI and return to the start of these steps.

   - If you chose a service package that contains Calendar, type the Calendar Host **`demo.comms.beta.com`** and **`Yes`** for Anonymous Login. Then click `Next`.
   - Select the quantity of each service pack desired then click `Next`. A quantity of 100 is appropriate for this example.
   - Review your choices and click `Finish` to create the service packages.
   - Once the service packs have been allocated for the domain, you can add users to the domain.
2. Click the domain link. That is, click the `comms.beta.com` link
3. Click the `New` button to create a new user within this domain. The New User window should appear.
4. Type a First Name (such as **`Demo`**), a Last Name (such as **`Five`**), a Display Name (such as **`Demo Five`**), then click Next.

5. You do not need to type postal information. Click `Next` again.
6. Select a service pack for this user (as added earlier), for example, `mailcalendarimsample`, then click `Next`.
7. Type the email address, for example, **`Demo.Five@comms.beta.com`**. The Mail Delivery Option should be Local Inbox. Leave the remaining fields blank then click `Next`.
8. For the Calendar Service Details page, select your preferred timezone, then click `Next`.
9. For the IM Service Details page, leave the User Roster field blank and click `Next`.
10. Type the Login ID and Password then click Next. In this example, Login ID is `demo5` and password is `demo`.
11. Verify the user information then click `Finish` to create the user.

Enabling service start-up on boot

The following guide steps through the process of enabling Communications Suite 7 Update 1 services to start automatically on boot and stop automatically on shut-down.

Communications Suite 7 Update 1 Start and Stop Scripts (Linux)

Hosted domain configuration and creation

Hosted Domains, or Virtual Domains as they are also referred to, is a mechanism used to administrate and deliver services for users, groups and resources within a unique name-space. Each hosted domain can have different domain-level preferences, different Convergence customizations and be administrated within Delegated Administrator by different user accounts if required.

In a hosted domain installation, each domain shares the same instance of Messaging Server, Instant Messaging Server, Calendar Server, Convergence etc. This approach greatly reduces any overhead associated with using multiple hosted domains on a single server.

Create new hosted domain using Delegated Administrator

During the installation and configuration of Communications Suite 7 Update 1, an initial Default Domain of `comms.beta.com` is created. The creation of additional hosted domains can be achieved using either the Delegated Administrator CLI `commadmin` utility or the Delegated Administrator GUI interface.

Delegated Administrator CLI
Run the following command sequence to create the new hosted domain `hosted.domain.com` using the Delegated Administrator command-line utility.

```
cd /opt/sun/comms/da/bin/
./commadmin domain create -D admin -w adminpass -d hosted.domain.com -S
mail,cal,im \
-H demo.comms.beta.com -B demo.comms.beta.com
```

Delegated Administrator GUI

Follow these steps to create the new hosted domain `hosted.domain.com` using the Delegated Administrator GUI interface.

1. In your web browser, open the URL for Delegated Administrator.
   In this example, type:
   http://demo.comms.beta.com:80/da
2. Log in using **admin** as the Login ID and **adminpass** as the Password.
3. Click on the `New Organization` button. The `New Organization` window should then appear.
4. In the Organization Information step, enter the new hosted domain `hosted.domain.com` in the

Organization Name field then click the `Next` button.

5. You do not need to type Contact Information. Click `Next` again.
6. In the Account Information step, enter the new hosted domain `hosted.domain.com` again then click `Next`.
7. At this point you will assign Service Packages to the domain using these steps:
   - To the right of this button is a button that maps the three pages into a single view. Click the Single Page button.
   - Select the desired service packages then click Next. The `mailcalendarimsample` service package is appropriate for this example, since this package enables the mail, calendar and instant messaging services.
   - Accept the Mail Service defaults, then click `Next`.

     > **Note**
     > If the Preferred Mail Host value is not set to the mail server host name `demo.comms.beta.com` in the Mail Service Details screen, close the window, log out of the Delegated Administrator GUI and return to the start of these steps.

   - If you chose a service package that contains Calendar, type the Calendar Host **`demo.comms.beta.com`** and **`Yes`** for Anonymous Login. Then click `Next`.
   - Select the quantity of each service pack desired then click `Next`. A quantity of 100 is appropriate for this example.
   - Review your choices and click `Finish` to create the service packages.
   - Once the service packs have been allocated for the domain, you can continue.
8. Verify the new hosted domain information then click `Finish` to create the domain.

Configure Convergence for the new hosted domain

Each new hosted domain must be manually registered with the Convergence Instant Messaging gateway so that users in this domain are able to access the Instant Messaging interface within Convergence.

1. Edit `/opt/sun/comms/iwc/config/httpbind.conf` with your preferred editor
2. Add the new domain to `default.domains` option. For example if your new hosted domain was `hosted.domain.com` your `defaults.domain` configuration line would resemble the following:

   ```
   default.domains=comms.beta.com hosted.domain.com
   ```

3. Restart Application Server.

   ```
   cd /opt/sun/appserver/bin
   ./asadmin stop-domain domain1
   ./asadmin start-domain domain1
   ```

4. Type the master password when prompted: **`adminpass`**

Add new users to new hosted domain

Refer to the Creating Additional User Accounts and Groups steps. Substitute in the newly created hosted domain name `hosted.domain.com` for every instance of the `comms.beta.com` domain in the steps.

Users in the newly created hosted domain log into the Convergence and UWC/Communications Express interface using the `uid@hosted-domain-name` format in the user login field.

Single host installation tuning tips

- Use memory-mapped tmpfs file system for temporary server files

Red Hat Enterprise Linux 5 by default provides the `/dev/shm` memory-mapped temporary file system:

```
[root@comms sbin]# df -k /dev/shm
Filesystem           1K-blocks      Used Available Use% Mounted on
tmpfs                   387596    121488    266108  32% /dev/shm
```

Messaging Server, Directory Server and Instant Messaging server can all be configured to relocate temporary files to a memory-mapped file-system to reduce the number of I/O operations that are recorded to permanent storage.

Messaging Server

1. Relocate the mboxlist temporary database files to the temporary file-system.

```
cd /opt/sun/comms/messaging64/bin
./configutil -o store.dbtmpdir -v /dev/shm/msg-demo/
```

2. Restart Messaging Server

```
cd /opt/sun/comms/messaging64/bin
./stop-msg
./start-msg
```

Directory Server
Relocate the directory server temporary database files to the temporary file-system.

1. Stop directory server

```
cd /opt/sun/directory/bin
./dsadm stop /var/opt/sun/directory/dsins1/
```

2. Edit `/var/opt/sun/directory/dsins1/config/dse.ldif`

```
replace:
nsslapd-db-home-directory: /var/opt/sun/directory/dsins1/db

with:
nsslapd-db-home-directory: /dev/shm/slapd-demo/
```

3. Start Directory Server

```
cd /opt/sun/directory/bin
./dsadm start /var/opt/sun/directory/dsins1/
```

Instant Messaging Server
Relocate the Instant Messaging server temporary "scratch" files to the temporary file-system.

1. Stop the Instant Messaging Server

```
cd /opt/sun/comms/im/sbin
./imadmin stop
```

2. Edit `/opt/sun/comms/im/config/iim.conf` and add the following line:

```
iim_server.scratch_directory = "/dev/shm/iim-demo/"
```

3. Start the Instant Messaging Server

```
cd /opt/sun/comms/im/sbin
./imadmin start
```

Known Issues and Limitations

For more information about known issues, see Communications Suite 7 Update 1 Release Notes.

Red Hat Linux Start and Stop Scripts for Communications Suite

Red Hat Linux Start and Stop Scripts for Oracle Communications Unified Communications Suite Version 7 Update 1

Topics:

- Background
- Service Scripts

Background

The products that make up Oracle Communications Unified Communications Suite need to be started in a specific order to ensure that any pre-requisite services are enabled prior to the product starting. This ordering is especially important when starting the products when booting the server.

The ordering of the product start-up is as follows:

1a. Directory Server (relies on network interface availability)
1b. MySQL Server (relies on network interface availability)
2. Messaging Server (relies on Directory Server for user-group information)
3. Instant Messaging Server (relies on Directory Server for user-group information, and Messaging Server for SMTP)
4. Application Server (relies on Messaging, MySQL, Instant Messaging services availability)

When the server is shut-down, the ordering is reversed.

Red Hat Linux provides the `chkconfig` utility to control the ordering of the product start-up and shut-down. A good explanation of the Red Hat Linux `chkconfig` functionality is available here:

http://www.linuxjournal.com/article/4445

The logs of each product being started/stopped during of the boot-up and shut-down is stored in `/var/log/boot.log` file on the server.

Service Scripts

Each product requires a service script to start and stop the processes correctly. The following service scripts are designed to be used with a Communication Suite 7 system that has been installed and configured as per the Communications Suite on a Single Host (Red Hat Linux) guide.

> **Note**
> The scripts will need to be modified as appropriate if the products were not installed in the default locations.

Directory Server

The following is the service script for Sun Directory Server.

/etc/init.d/Sun_DirSvr

```
#!/bin/sh
#
# Sun_DirSvr - boot script to start/stop Sun Java System Directory
Server
#
#
# Following stuff is necessary for chkconfig (Red Hat 6.x)
#
# chkconfig: 345 60 05
# description: starts and stops Sun Java System Directory Server
instances
#   in /var/opt/sun/directory/dsins1 and /opt/sun/directory/var/dcc/ads
#

# Set the maximum number of file-descriptors to a more appropriate value
ulimit -n 16384

me=`basename $0`
instance_ldap_path="/var/opt/sun/directory/dsins1"
instance_dscc_path="/opt/sun/directory/var/dcc/ads"
cacao_path="/opt/sun/directory/ext/cacao_2"
deploy_path="/opt/sun/directory/"
# See how we were called.
case "$1" in
  start)
        echo "Starting Sun Java System Directory Server instance in
$instance_ldap_path :"
        $deploy_path/bin/dsadm start $instance_ldap_path
        echo "Starting Sun Java System Directory Server instance in
$instance_dscc_path :"
        $deploy_path/bin/dsadm start $instance_dscc_path
        echo "Starting Sun Java System Directory Server cacao agent :"
        $cacao_path/cacao/bin/cacaoadm start

# this line necessary for Red Hat 6.x
        touch /var/lock/subsys/$me
        echo
        ;;

  stop)
        echo "Stopping Sun Java System Directory Server instance in
$instance_ldap_path :"
        $deploy_path/bin/dsadm stop $instance_ldap_path
        echo "Stopping Sun Java System Directory Server instance in
$instance_dscc_path :"
        $deploy_path/bin/dsadm stop $instance_dscc_path
        echo "Stopping Sun Java System Directory Server cacao agent :"
        $cacao_path/cacao/bin/cacaoadm stop

# this line necessary for Red Hat 6.x
        rm -f /var/lock/subsys/$me
        echo
        ;;

  *)
        echo "Usage: $me { start | stop }"
```

```
        exit 1
        ;;
```

```
esac

exit 0
```

Once you have created the above service script, set the file and user permissions as follows to ensure that the script can be started on boot.

```
chown root:sys /etc/init.d/Sun_DirSvr
chmod 0744 /etc/init.d/Sun_DirSvr
```

Enable the script using `chkconfig` so that it is run on boot and shut-down.

```
chkconfig --add Sun_DirSvr
```

MySQL Server

Enable the script using `chkconfig` so that it is run on boot and shut-down.

```
chkconfig --add mysql
```

Sun Messaging Server

Messaging Server provides a suitable script that can be put into place by running the following commands:

```
cp /var/opt/sun/comms/messaging64/install/Sun_MsgSvr /etc/init.d/

chown root:sys /etc/init.d/Sun_MsgSvr
chmod 0744 /etc/init.d/Sun_MsgSvr
```

Enable the script using `chkconfig` so that it is run on boot and shut-down.

```
chkconfig --add Sun_MsgSvr
```

Instant Messaging Server

When Instant Messaging Server is configured, the configuration process places a script in `/etc/init.d` . In this case this script isn't appropriate and we will disable it use the script defined in this guide.

```
rm /etc/rc?.d/???soim
```

The following is the replacement service script for Sun Instant Messaging Server.

/etc/init.d/Sun_IMSvr

```
#!/bin/sh
#
# Sun_IMSvr - boot script to start/stop Sun Instant Messaging Server
#
#
# Following stuff is necessary for chkconfig (Red Hat 6.x)
#
# chkconfig: 345 93 10
# description: starts and stops Sun Instant Messaging Server
#   in /opt/sun/comms/im
#

# Set the maximum number of file-descriptors to a more appropriate value
ulimit -n 16384

me=`basename $0`
deploy_path="/opt/sun/comms/im"

# See how we were called.
case "$1" in
  start)
        echo "Starting Sun Instant Messaging Server in $deploy_path :"
        $deploy_path/sbin/imadmin start 2>/dev/null

# this line necessary for Red Hat 6.x
        touch /var/lock/subsys/$me
        echo
        ;;

  stop)
        echo "Stopping Sun Instant Messaging Server in $deploy_path :"
        $deploy_path/sbin/imadmin stop 2>/dev/null

# this line necessary for Red Hat 6.x
        rm -f /var/lock/subsys/$me
        echo
        ;;

  *)
        echo "Usage: $me { start | stop }"
        exit 1
        ;;
esac

exit 0
```

Once you have created the above service script, set the file and user permissions as follows to ensure that the script can be started on boot.

```
chown root:sys /etc/init.d/Sun_IMSvr
chmod 0744 /etc/init.d/Sun_IMSvr
```

Enable the script using `chkconfig` so that it is run on boot and shut-down.

```
chkconfig --add Sun_IMSvr
```

Sun Application Server

Sun Application Server will by default prompt the user for a `master password` when it is started. This prevents automated start-up on boot. Sun Application Server provides a mechanism to hard-code the `master password` in a password file.

For this guide, create the following password file. The `adminpass` value in the file should match the master password which is usually provided when starting Sun Application Server.

/opt/sun/appserver/config/.aspasswd

```
AS_ADMIN_MASTERPASSWORD=adminpass
```

Change the permissions on the password file to be read-only by the root user for security.

```
chown root:sys /opt/sun/appserver/config/.aspasswd
chmod 400 /opt/sun/appserver/config/.aspasswd
```

The following is the service script for Sun Application Server.

/etc/init.d/Sun_AppSvr

```
#!/bin/sh
#
# Sun_AppSvr - boot script to start/stop Sun Application Server
#
#
# Following stuff is necessary for chkconfig (Red Hat 6.x)
#
# chkconfig: 345 95 15
# description: starts and stops Sun Application Server in
#   in /opt/sun/appserver/
#

# Set the maximum number of file-descriptors to a more appropriate value
ulimit -n 16384

me=`basename $0`
deploy_path="/opt/sun/appserver/"
passwd_file="/opt/sun/appserver/config/.aspasswd"

# See how we were called.
case "$1" in
  start)
        echo "Starting Sun Application Server in $deploy_path :"
        $deploy_path/bin/asadmin start-domain --passwordfile
$passwd_file

# this line necessary for Red Hat 6.x
        touch /var/lock/subsys/$me
        echo
        ;;

  stop)
        echo "Stopping Sun Application Server in $deploy_path :"
        $deploy_path/bin/asadmin stop-domain

# this line necessary for Red Hat 6.x
        rm -f /var/lock/subsys/$me
        echo
        ;;

  *)
        echo "Usage: $me { start | stop }"

        exit 1
        ;;
esac

exit 0
```

Once you have created the above service script, set the file and user permissions as follows to ensure that the script can be started on boot.

```
chown root:sys /etc/init.d/Sun_AppSvr
chmod 0744 /etc/init.d/Sun_AppSvr
```

Enable the script using `chkconfig` so that it is run on boot and shut-down.

```
chkconfig --add Sun_AppSvr
```

Chapter 2. Get the Software

Get the Software to Install an Oracle Communications Unified Communications Suite Deployment Version 7 Update 1

Topics:

- Communications Suite Software
- Dependent Component Product Software
- Notes and Caveats
- Licensing Information

Communications Suite Software

To install a Communications Suite 7 Update 1 deployment, download the necessary software from http://edelivery.oracle.com/.

1. At the Welcome screen, click the Continue link in the first paragraph.
   The Export Validation page is displayed.
2. Type in your information, click the check box that you have read the Trial License and Export Restrictions, and click the second check box to accept the Export Restrictions.
3. Click Continue.
4. From the drop-down menu, select Oracle Communications Applications and platform then click Go.
   A list of items is displayed.
5. Select Oracle Communications Unified Communications Suite 7 Update 1 Media Pack and then click Continue.
   A set of Communications Suite downloads is displayed.
6. Click Download for the component you need.
   Mobile Synchronization Server and Connector for Microsoft Outlook are separate downloads.

Dependent Component Product Software

In addition, you might need some or all of the following dependent component products, which you obtain separately.

Required Software

- Sun GlassFish Enterprise Server 2.1.1 with HADB
  Log in to My Oracle Support to obtain the platform-specific version of Sun GlassFish Enterprise Server 2.1.1 with HADB. Search for the following patch IDs. If these patches are superceded by another patch, use the more recent patch.
  - Solaris SPARC: 128643-24
  - Solaris x86: 128644-24
  - Red Hat Linux: 128645-24

- Oracle Directory Server Enterprise Edition 11gR1 (select Oracle Fusion Middleware product pack), then select the Oracle Fusion Middleware 11g Media Pack, then select ODSEE for download)
- MySQL 5.1 (required for Calendar Server 7 Update 1) is included in the Communications Suite

Media Pack.

Optional Software

> **Note**
> As of Communications Suite 7 Update 1, support for Access Manager and Sun OpenSSO has been deprecated. See: Deprecated Support of Access Manager and Sun OpenSSO.

- Sun Java Enterprise System 5 Update 1
  Download the JES 5 Update 1 distro to obtain Web Server 7.0 software.

For more information about Communications Suite 7 Update 1 component product dependencies, see Requirements for Communications Suite 7 Update 1.

Notes and Caveats

> If you order a Communications Suite DVD, it only contains Communications Suite software. The DVD does not contain Directory Server, Java ES, GlassFish, or OpenSSO software.

Licensing Information

For more information regarding entitlements (RTU and support) and licensing, see Communications Suite Licensing Information.

Chapter 3. Oracle Communications Calendar Server for CALDAV Clients Initial Configuration

< Back to Installation Scenario - Calendar Server

Oracle Communications Calendar Server for CALDAV Clients Initial Configuration
Version 7 Update 1

After you install the Calendar Server software by using the Communications Suite installer, you must configure Calendar Server to complete the installation. You perform this initial runtime configuration by running the Calendar Server configuration program, `init-config`.

1. If you haven't done so already, run the `comm_dssetup.pl` script, which is installed by the Communications Suite installer, to prepare the Directory Server LDAP.
   See Communications Suite Directory Server Setup Script (comm_dssetup.pl).

   > **Note**
   > You can use LDAP Schema 1. Some additional steps are necessary after configuring Directory Server and Calendar Server 7 Update 1. See Configuring Calendar Server 7 Update 1 to Use LDAP Schema 1 step.

2. Configure Calendar Server by running the `init-config` command and responding to the prompts.
   After you install the Calendar Server software, you must configure the Calendar Server to complete the installation. You perform this initial runtime configuration by running the Calendar Server configuration program, `init-config`.
   a. Log in as or become superuser (`root`).

      > **Note**
      > Log in as "`su -`" when running `init-config` if you installed GlassFish Server with secure mode.

   b. Change to the *cal-svr-base*`/sbin` directory.
      The default installation directory is `/opt/sun/comms/davserver`.
   c. Run the script.
      See Oracle Communications Calendar Server init-config Syntax for more information.

      ```
      ./init-config
      ```

      For example, to run the configuration script in command-line mode, run the following command:

      ```
      ./init-config -nodisplay
      ```

   d. Respond to the prompts that appear on each panel.

> **Note**
> For the text of the information contained in the various questions presented by the script, refer to the Configuration Worksheets - Oracle Communications Calendar Server.

i. Panel 1: Select the Directory to store the configuration and data files.
The default directory is `/var/opt/sun/comms/davserver`.

ii. Panel 2: Select Components to be Configured.
The default is Oracle Communications Calendar Server 7 Update 1.

iii. Panel 3: Network Connection.
Type your host name and DNS domain name.

iv. Panel 4: MySQL Server Configuration Details.
Type the following information:
   - MySQL Server host name (default: localhost)
   - Port number (default: 3306)
   - Runtime userID (default: `caldav`)
   - Password
   - Default calendar database (default: `caldav`)
     A pop-up message appears if you do not have the correct value entered for the MySQL Server:

     ```
     Unable to connect to the MySQL server: <hostname>:3306.
     This may result in an incomplete configuration, if you
     accept the current MySQL server host and port details.
     Select Accept if you want to continue configuration using
     the current values.
     ```

     You can click either the Accept or Choose New button.

v. Panel 5: Specify the directory for the document (attachment) store.
The default is `/var/opt/sun/comms/davserver/db`.

vi. Panel 6: Application Server Configuration Details.
Type the following information:
   - Installation Directory (default: `/opt/SUNWappserver`)
   - Domain Directory (default: `/opt/SUNWappserver/domains/domain1`)
   - Document Root Directory (default: `/opt/SUNWappserver/domains/domain1/docroot`)
   - Server Target Name: (default: `server`)
   - Virtual Server Identifier (default: `server`)
   - Server Instance HTTP Port (default: 8080)

vii. Panel 7: Application Server: Administration Instance Details.
Type the following information:
   - Administration Server Port (default: 4848)
   - Administrator User ID (default: `admin`)
   - Administrator Password
   - Secure Administration Server Instance (selected by default)
     The "Secure Administration Server Instance" setting identifies if GlassFish Server is configured for secure mode, and thus determines how Calendar Server ought to contact GlassFish Server.

viii. Panel 8: URI Path.
The default URI path is `/`. Type a different value if you are using your GlassFish container for more applications. For example, you might use `/davserver`, or `/cal`, and so forth. Using `/` as the URI path replaces the GlassFish Server's main `index.html`, thus, the GlassFish welcome page no longer is displayed at `http://`*host*`:`*port*.

ix. Panel 9: User/Group Directory Server Details.
Type the following information:
   - LDAP URL (default: `ldap://`*hostname*`:389`)

- Bind DN (default: `cn=Directory Manager`)
- Bind Password
  A pop-up message appears if you do not have the latest version of `comm_dssetup.pl`. You must use at least `comm_dssetup.pl` 6.4 version 1.04.
  A pop-up message also appears if you do not have the correct value entered for the Directory Server:

```
Could not connect to LDAP server.  Error code 91.
Connect Error.
```

  If this message appears, click Choose New.

> **Note**
> Use the LDAP URL that points to the non-SSL LDAP port. If you need SSL communication between Calendar Server and Directory Server, you can do so as a post-configuration step.

x. Panel 10: DC Tree Suffix.
   The default is `o=dav`.
xi. Panel 11: Default Domain Name.
   Type the Domain Name on which your host resides.
xii. Panel 12: Notification Mail Server Configuration Details.
   Type the following information:
   - Mail Server Host Name (default: *hostname*`.`*domainname*)
     Mail Server Port Number (default: 25)
xiii. Panel 13: CalDAV Server Administrator.
   Type the user name (the default is `calmaster`) and the password.

> **Notes**
> - To enable SSL communication between Calendar Server and Directory Server, you can do so as a post-configuration step. See Oracle Communications Calendar Server for CALDAV Clients Post Configuration for more information.
> - Currently, the default setting for the timezone (`davcore.serverdefaults.tzid`) is configured based on the tzid of the host where Calendar Server is deployed.

3. Click Configure Now to configure Calendar Server.
   Up to now the screens have been gathering data needed for the configuration and performing some validity checking. You can go back and redo the configuration information at this point, or start the configuration.
4. The Sequence Completed Screen appears.
   This panel provides a running update of all the tasks and the disposition (passed or failed). When the message "All Tasks Passed", the configuration has finished. Check the log files indicated to see if there are any error messages.
5. Click Next when the configuration program completes.
   The Configuration Summary Screen appears.
6. Click Details to view the details of the configuration log or Close to exit the configuration program.
7. If you are configuring Calendar Server 7 Update 1 for LDAP Schema 1, see To Configure Oracle Communications Calendar Server for CALDAV Clients to Use LDAP Schema 1.
8. Restart GlassFish Server, for example:

```
# /opt/SUNWappserver/bin/asadmin stop-domain domain1
Domain domain1 stopped.
# /opt/SUNWappserver/bin/asadmin start-domain domain1
Please enter the admin user name>
Please enter the admin password>
Please enter the master password>
Redirecting output to
/opt/SUNWappserver/domains/domain1/logs/server.log
Domain domain1 started.
```

9. Return to the Installation Scenario - Oracle Communications Calendar Server to verify the installation.

Chapter 4. Communications Suite Initial Configuration

Oracle Communications Unified Communications Suite Initial Configuration
Version 7 Update 1

This page automatically lists the initial configuration information you need when installing Communications Suite components. Use the following information to perform the initial configuration after installing the Communications Suite software.

Page: Convergence Initial Configuration

Page: Delegated Administrator Initial Configuration

Page: Indexing and Search Service Initial Configuration

Page: Instant Messaging Initial Configuration

Page: Messaging Server Initial Configuration

Page: Oracle Communications Calendar Server for CALDAV Clients Initial Configuration

Page: Oracle Communications Calendar Server Initial Configuration

Page: Oracle Communications Calendar Server Post-Configuration Tasks

Page: To Configure Oracle Communications Calendar Server for CALDAV Clients to Use LDAP Schema 1

Chapter 5. Communications Suite Installation Flowchart

Oracle Communications Unified Communications Suite Installation Flowchart
Version 7 Update 1

Topics:

- What This Flowchart Does
- Before Using This Flowchart
- Communications Suite Installation Flowchart: First Decisions
- Communications Suite Installation Flowchart: Messaging Server
- Communications Suite Installation Flowchart: Calendar Server 6.3
- Communications Suite Installation Flowchart: Calendar Server 7 Update 1
- Communications Suite Installation Flowchart: Instant Messaging
- Communications Suite Installation Flowchart: Convergence
- Communications Suite Installation Flowchart: Indexing and Search Service

What This Flowchart Does

- Provides a decision tree for deploying Communications Suite products and the additional products that support Communications Suite.
- Directs you to specific sets of installation instructions based on your decisions.

This flowchart focuses on your logical deployment; that is, it emphasizes the software products and functional components that make up Communications Suite.

By functional component, we mean one piece of software that can be installed separately from other Communications Suite software on one host or one Solaris zone. A simple product like Delegated Administrator can be treated as one functional component. A complicated product like Messaging Server typically comprises several components: the message store, MTA, and so on.

This flowchart does *not* offer guidelines for designing your physical hardware configurations. It assumes you can map functional components to specific hosts or Solaris zones on which you will install the software. For each component, follow the linked installation instructions.

The installation instructions are meant as best practices. They are the recommended path for installing and configuring our products. You may choose to tweak these instructions because your deployment differs in some respects from the assumptions made here. Other paths may work for you. But these instructions, and in particular the *sequence* of tasks described here, are recommended.

For general installation information about Communications Suite 7 Update 1, see Communications Suite Installation Guide.

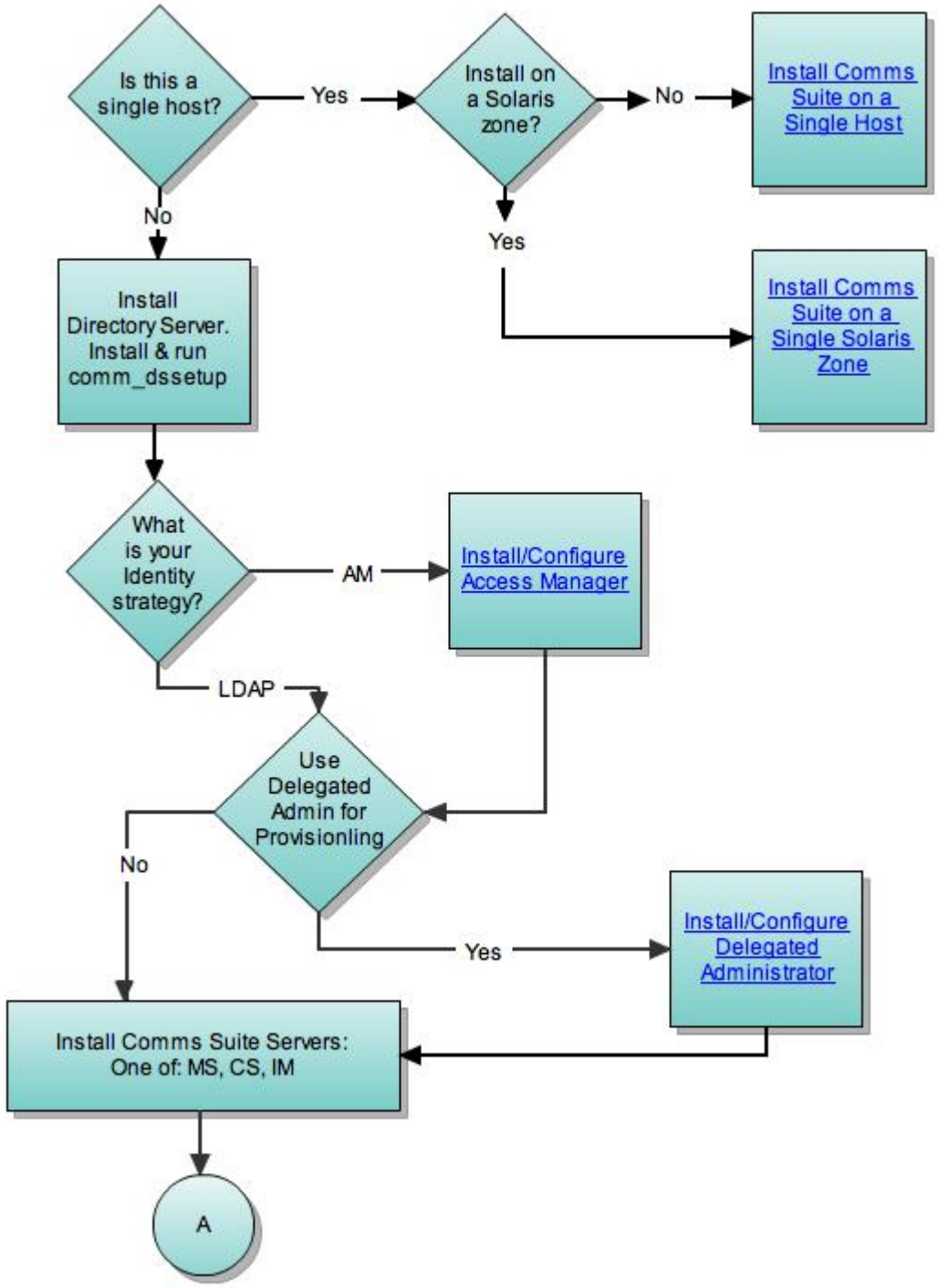
Before Using This Flowchart

- Read the Communications Suite Deployment Planning Guide.
- Review the Communications Suite 7 Update 1 Component Dependencies table. This table

answers the question: To install a particular Communications Suite product, which other components do you need?

For example, suppose you want to install Messaging Server and use a third-party IMAP client. Do you need to install Convergence? Answer: No. Do you need Access Manager? Answer: No. You *can* install Access Manager for SSO but you also can use the Messaging Server (Trusted Circle) SSO.

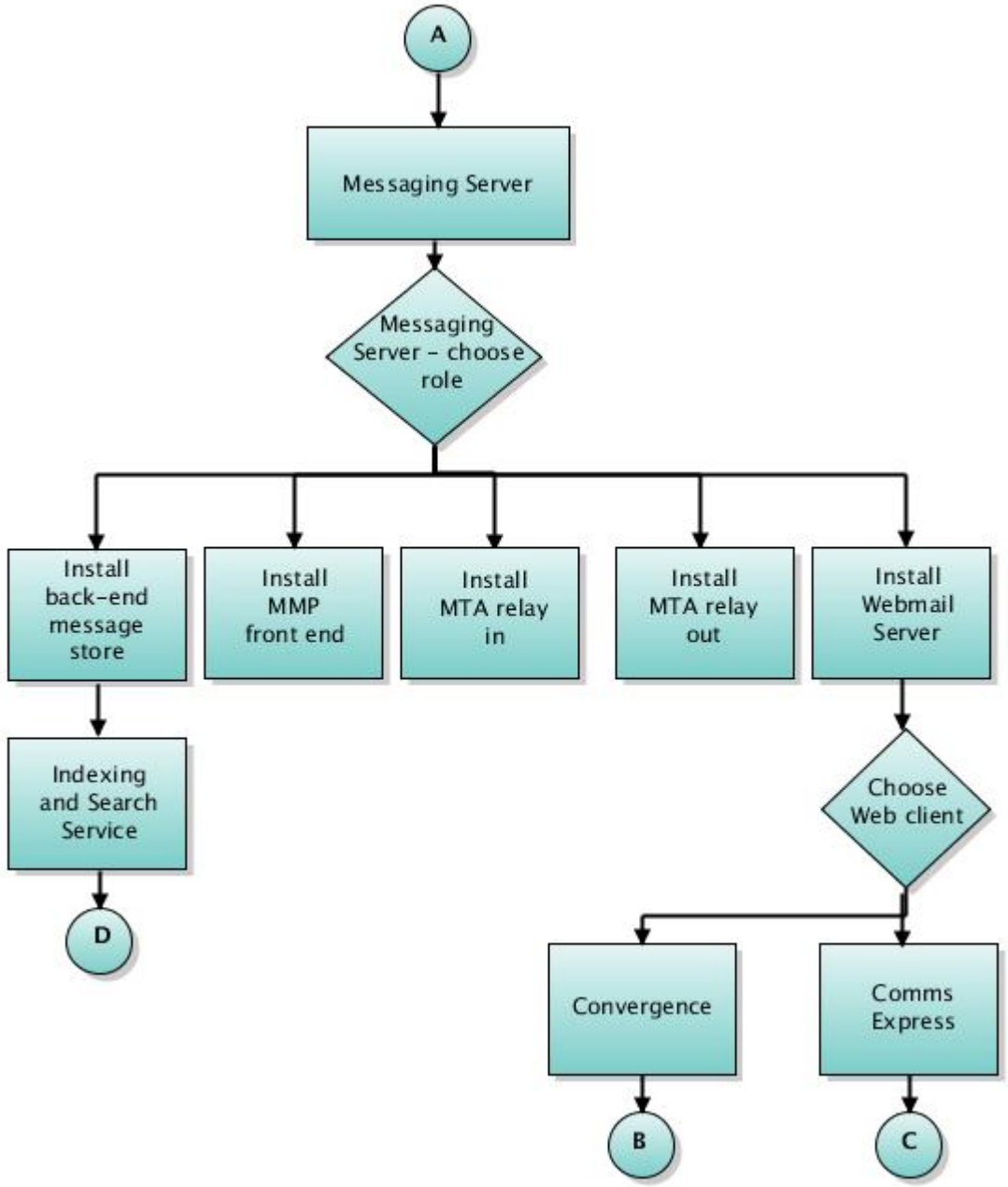
Communications Suite Installation Flowchart: First Decisions



Communications Suite Installation Flowchart: Messaging Server

Install and configure Messaging Server before you configure Calendar Server and Instant Messaging.

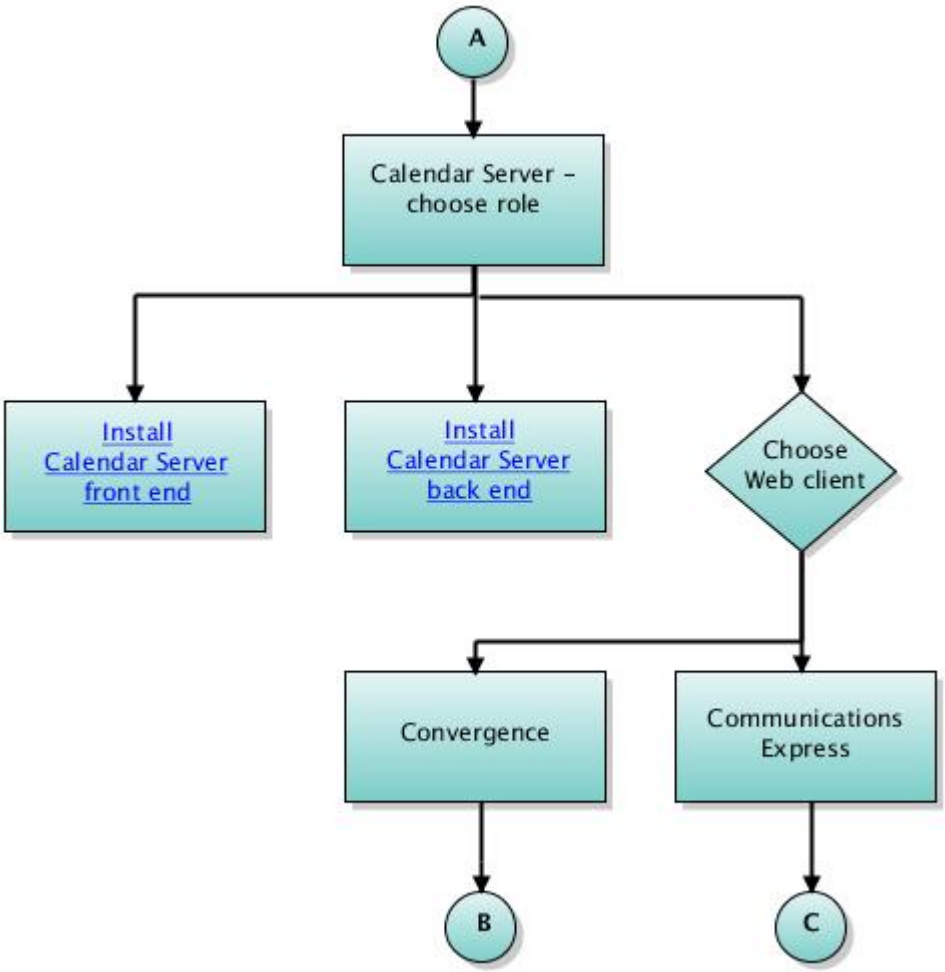
First install the Messaging Server back-end message store(s). Next, install the MTAs, MMP front ends, and Webmail Servers.



Communications Suite Installation Flowchart: Calendar Server 6.3

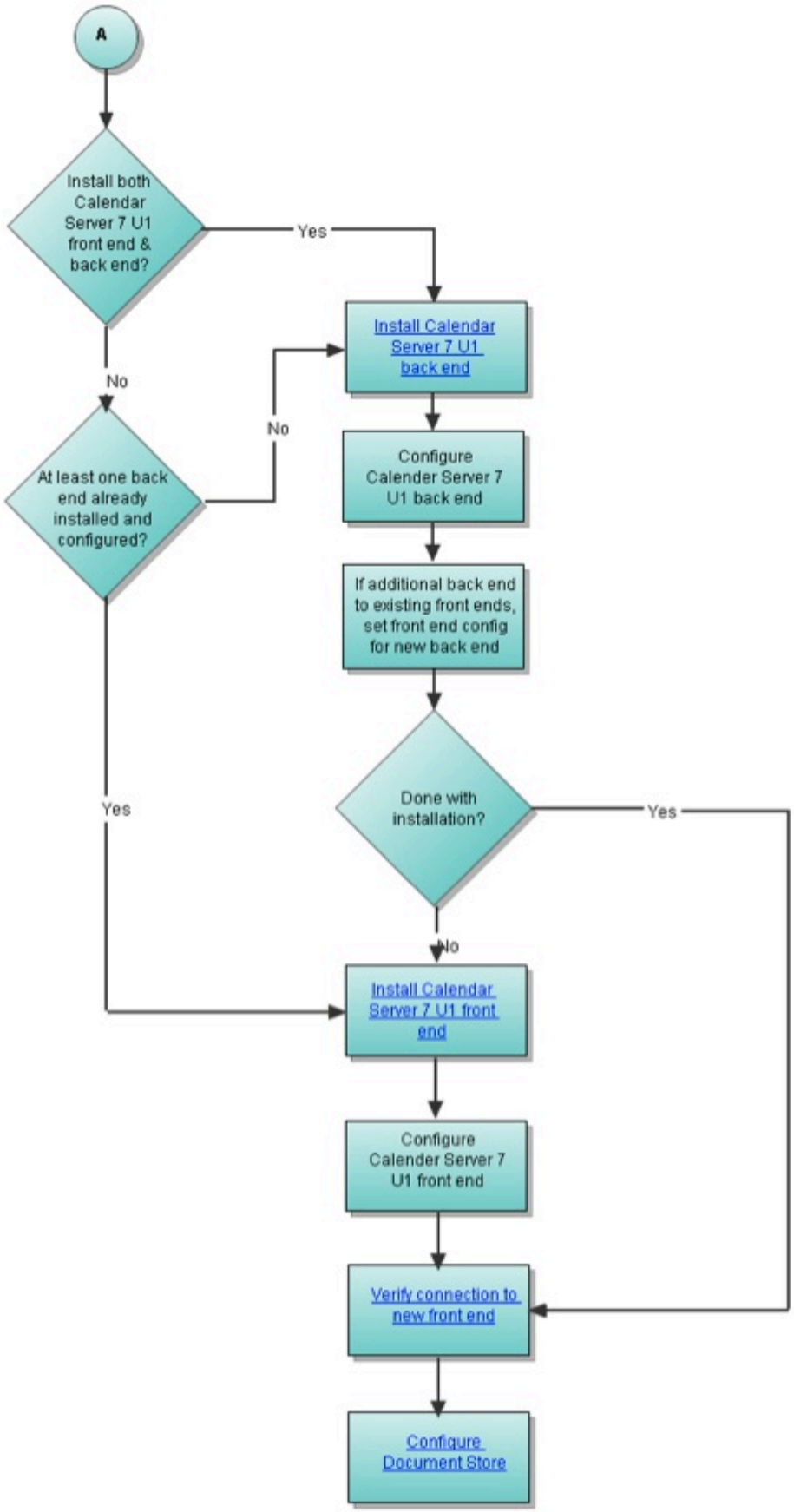
As of Communications Suite 7, Calendar Server 6.3 has been deprecated.
If you are not installing Convergence, you should no longer be installing Calendar Server 6.3. Instead, install Calendar Server 7.

We recommend that you first install the Calendar Server back-end component, then the front end.



Communications Suite Installation Flowchart: Calendar Server 7 Update 1

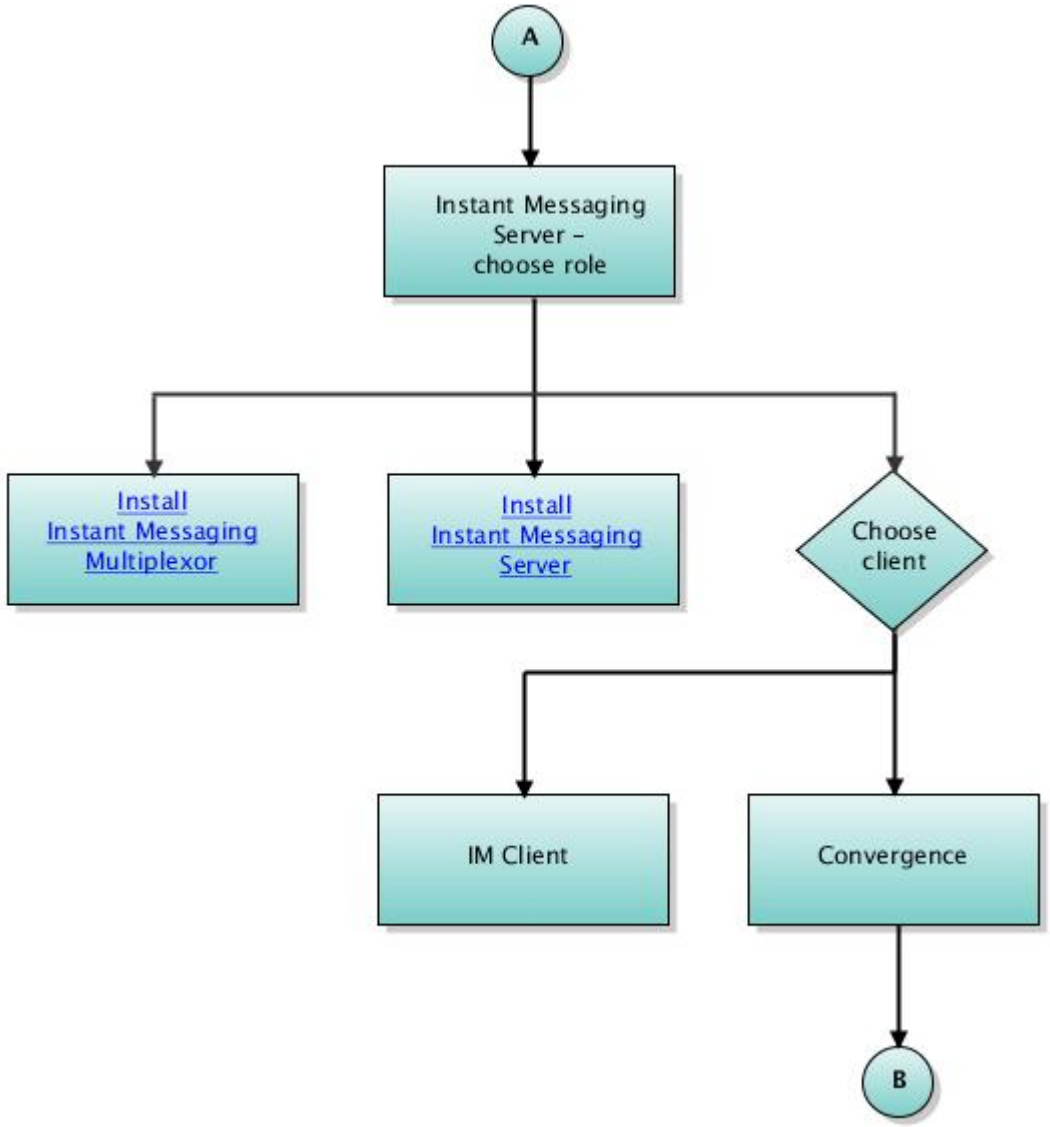
You can install both a Calendar Server 7 Update 1 front end and back end on the same host, or on different hosts.



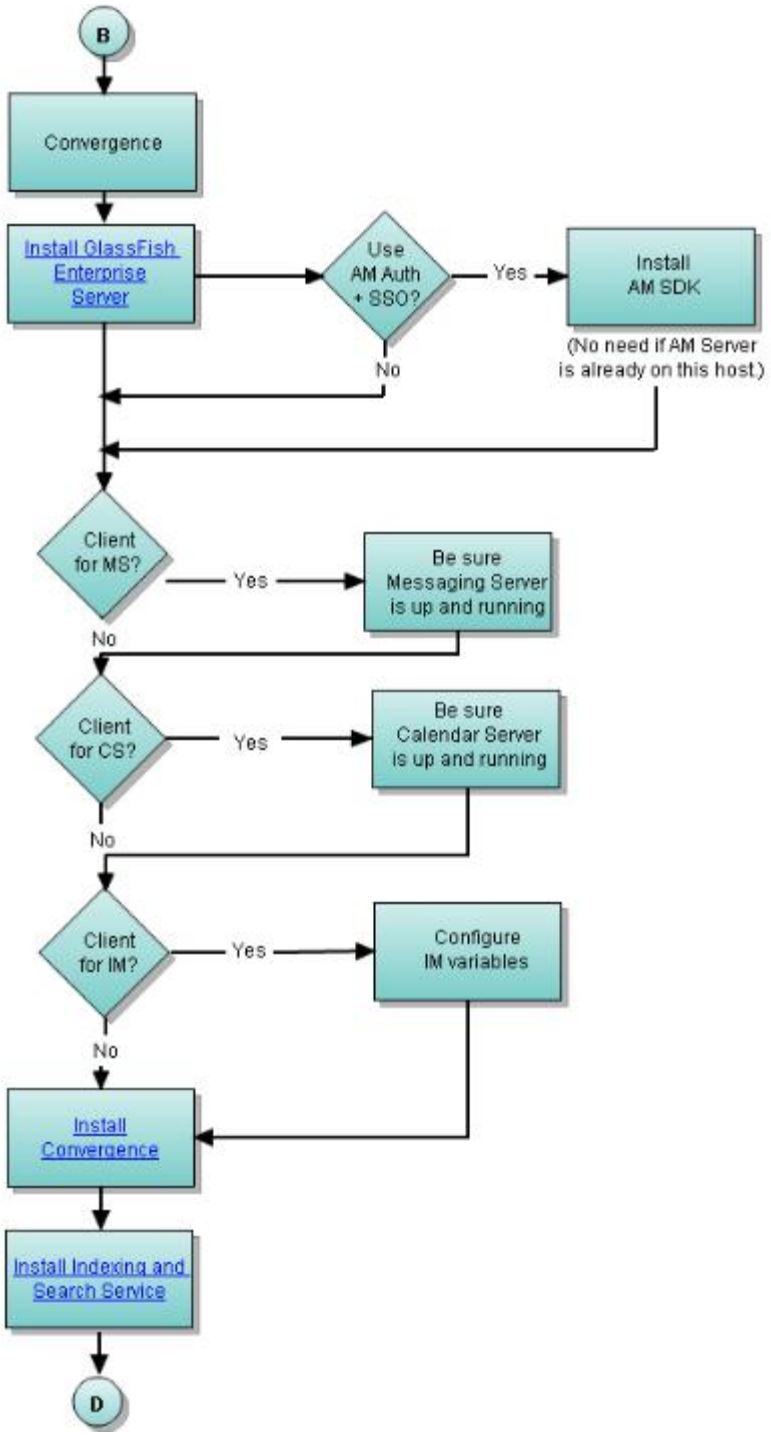
Communications Suite Installation Flowchart: Instant Messaging

As a best practice, before you configure Instant Messaging, install and configure Messaging Server and Calendar Server; the IM configuration uses these services.

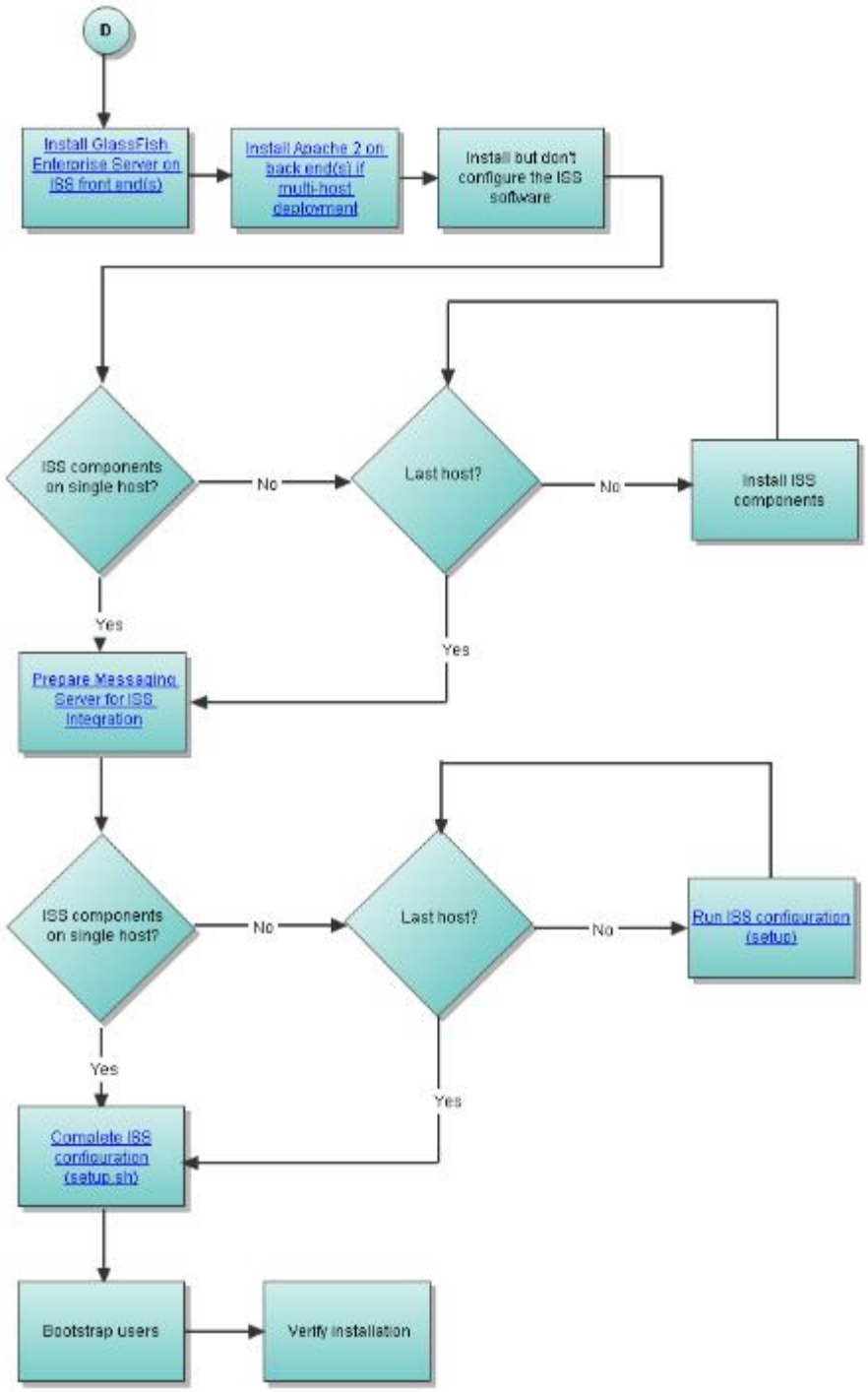
We also recommend that you first install the Instant Messaging Server, then the Instant Messaging Multiplexor.



Communications Suite Installation Flowchart: Convergence



Communications Suite Installation Flowchart: Indexing and Search Service


D
Install GlassFish Enterprise Server on ISS front end(s)
Install Apache 2 on back end(s) if multi-host deployment
Install but don't configure the ISS software
ISS components on single host?
No
Last host?
No
Install ISS components
Yes
Yes
Prepare Messaging Server for ISS Integration
ISS components on single host?
No
Last host?
No
Run ISS configuration (setup)
Yes
Yes
Complete ISS configuration (setup.sh)
Bootstrap users
Verify installation

Chapter 6. Communications Suite Installation Guide

Oracle Communications Unified Communications Suite Installation Guide
Version 7 Update 1

The following information is intended for any evaluator, system administrator, or software technician who wants to install any portion of the Communications Suite software.

Topics:

- Oracle Communications Unified Communications Suite Installation Overview
- Installing Communications Suite
- Uninstalling Communications Suite
- Getting Information About Which Products Are Installed

See also:

- Connector for Microsoft Outlook Installation Guide

Oracle Communications Unified Communications Suite Installation Overview

This information describes how to install specific Communications Suite products on a specific machine (a machine can mean either a computer or a Solaris Zone). It describes the product installation tasks required for new deployments and upgrades. The following table shows the products that are available in the installer software.

Oracle Communications Unified Communications Suite Products and Components Version 7 Update 1

Product	Version
Oracle Communications Messaging Exchange Server	7 Update 4
Oracle Communications Instant Messaging Server	8 Update 3
Convergence	2
Oracle Communications Calendar Server for CALDAV Clients	7 Update 1
Delegated Administrator for Oracle Communications Unified Communications Suite	7 (latest patch)
Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite	7.3 Update 1 (latest patch)
Oracle Communications Calendar Server	6.3 (latest patch)
Indexing and Search Service for Oracle Communications Unified Communications Suite	1 Update 1
Sun Java System Communications Sync	Removed
Messaging Server HA Agent (MS_SCHA)	7
Calendar Server HA Agent (CS_SCHA)	6.3
Instant Messaging HA Agent (IM_SCHA)	7.3
Dssetup for Oracle Communications Unified Communications Suite (`comm_dssetup`)	6.4 (latest patch)

The Communications Suite installer does *not* install Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite, although the product is included with the distribution.

For installation instructions for Connector for Microsoft Outlook, see Installing Connector for Microsoft Outlook.

This information assumes that you have already made your architectural and design decisions and that you know which products you want to install, the number of machines in your deployment, and the number of front-end and back-end servers. If you are still in the planning or evaluating process, or if you do not have an existing architecture or design, refer to Communications Suite Deployment Planning Guide.

To upgrade your current Communications Suite deployment, refer to Communications Suite Upgrade Guide.

Evaluating Communications Suite

To help you install and evaluate the product, see the following information:

- Deployment Example: Communications Suite 7 Update 1 on a Single Host
- Deployment Example: Communications Suite 7 Update 1 on a Single Host (Red Hat Linux)

Communications Suite Multi-host Deployment

If you are planning a multi-host deployment, you may appreciate the features available in the Enterprise Messaging Reference Architecture (EMRA) Toolkit, a multi-host install and configuration tool. You can also refer to Deployment Example: Sun Java Communications Suite 6 on Multiple Hosts.

Communications Suite Flowchart and Installation Scenarios

Use the Communications Suite Installation Flowchart to guide you to specific installation scenarios. The flowchart can help in the following ways:

- Provides a decision tree for installing Communications Suite products and the Java System products that support Communications Suite
- Directs you to specific sets of installation instructions based on your decisions

Use the Communications Suite Installation Scenarios to select a product-based or component-based set of high-level instructions.

Installing Communications Suite

The information in this section describes the steps to install Communications Suite products. These steps provide a high-level process flow for installing any or all of the Communications Suite products.

1. Check that your platform and operating system support Communications Suite.

Recommended platforms for Oracle Communications Unified Communications Suite are:

Operating System	CPU	Comments
Solaris OS 10	SPARC, x64	Minimum recommended version: Solaris OS 10 10/09 (Update 9) See the Solaris 10 10/09 Release and Installation documentation for more information.
Red Hat Linux 5.3 Update 3 64-bit	x64	See the Red Hat Enterprise Linux documentation for more information.

For details, see this list of operating system and platform requirements.

In addition, certain Communications Suite products have minimum disk and memory requirements. For more information, refer to Memory and Disk Space Requirements for Communications Suite.

> **Note**
> The following products require that you have Java 1.6 installed: Sun GlassFish Enterprise Server 2.1.1, Calendar Server 7 Update 1, Indexing and Search Service 1 Update 1, and Instant Messaging 8 Update 3.

2. Install the Non-Communications Suite Products required to run Communications Suite.

Which products are required to support the Communications Suite products?

The Product Version Compatibility Requirements for Communications Suite 7 Update 1 table lists the products and versions that are compatible with the Communications Suite 7 Update 1 products.

For products needed to deploy Convergence, see the Product Version Compatibility Requirements for Convergence.

> **Note**
> GlassFish Message Queue 4.4 Update 1 is a shared component to the Communications Suite installer and is only installed when you install a dependent product, such as Messaging Server or Indexing and Search Service. It does not explicitly appear in the list of items to install, upgrade, or uninstall in the Communications Suite installer. The Communications Suite installer also installs Network Security Services (NSS) and other shared components.

How Do You Install the Non-Communications Suite Products?

The Communications Suite installer does *not* install software products that are not included with the Communications Suite software. To install these additional products, perform the following steps:

1. Download the software.
   For links to download sites, go to Get the Software.
2. Install GlassFish Server 2.1.1 with High-Availability Database (HADB) software by using the instructions in Installation Scenario - GlassFish Server.
3. Install Directory Server 7 by using the instructions in Installation Scenario - Directory Server.
4. Install the following optional products by running the Java ES 5 Update 1 installer:
   - Access Manager 7.1: Delegated Administrator 7 no longer requires Access Manager. Only install Access Manager if you are using it for particular features of Instant Messaging Server.
   - Web Server 7.0: In general, you should use GlassFish instead of Web Server.

To install Access Manager or Web Server, follow the instructions in the Sun Java Enterprise System 5 Update 1 Installation Guide for UNIX.

Here are other information sources and methods for installing these products:

- Sun Java System Web Server 7.0 Update 1 – See the Installation and Migration Guide.
- Access Manager Server – Either run the JES 5 Update 1 Installer or deploy a single WAR file. For details, see the Access Manager Postinstallation Guide. You can also find installation instructions in this Access Manager deployment example.

> **Note**
> If you are installing Access Manager 7.1 on a Red Hat Linux system, verify that a compatible version of the Java Development Kit (JDK) is installed. For details, see Verifying the Correct JDK Version to Support Access Manager.

3. Define and set up additional requirements for individual Communications Suite products.

In addition to the generic suite requirements, some products have specific requirements. For details about individual product requirements, see the Release Notes.

Messaging Server 7 Update 4

- You must ensure that Domain Name System (DNS) is running and configured properly. For details, see DNS configuration.
- Recommended file systems for the message store are listed in Message Store File Systems.
- Make sure that you do not configure conflicting port numbers when various components are running on a single machine. For a list of port numbers used by Messaging Server, see Default Port Numbers.

Calendar Server 7 Update 1

Install the Oracle Communications Calendar Server for CALDAV Clients back-end database first. Then, install and configure the Oracle Communications Calendar Server for CALDAV Clients front end.

Calendar Server 6.3

> **As of Communications Suite 7, Oracle Calendar Calendar Server 6.3 (formerly Sun Java System Calendar Server 6.3) has been deprecated.**
> If you are not using Convergence 1, you should no longer be installing Calendar Server 6.3. Instead, install Oracle Communications Calendar Server for CALDAV Clients, which is supported by Convergence 2.

Set up Calendar Server 6.3 administrator accounts and plan for Calendar Server hosted domains. For details, see Calendar Server Pre-Installation Planning.

4. Install Communications Suite products.

After you have complied with the previous platform and software requirements, complete these steps:

1. Download the software.
   To download Communications Suite, including the installer, go to Get the Software.
2. Run the installer.
   The installer is a single unified utility called `commpkg`. It installs (but does not configure) the Communications Suite products. The `commpkg` utility does all the necessary preparation work before installing the product software on the system. As `root`, run the following command:
   `./commpkg install`

For details about other "power user" features of the `commpkg` installer, see the following information:

- `commpkg install` Usage
- Installing Communications Suite Using Silent Mode
- Using the ALTROOT Command-Line Argument
- Installing Communications Suite on Solaris Zones
- commpkg - General Syntax and Commands

Sample Sessions: Running commpkg

The following examples document output from running `commpkg`:

- Sample Session - Communications Suite Simple Install and Uninstall.
- Sample Session - Communications Suite Install Using altroot
- commpkg upgrade Sample Session

5. Prepare Directory Server for Communications Suite (run comm_dssetup.pl).

All Communications Suite components require that you run the `comm_dssetup.pl` script against Directory Server. For example:

```
cd <INSTALLROOT>/dssetup/sbin
./comm_dssetup.pl
```

For details, see Communications Suite Directory Server Setup Script (comm_dssetup.pl).

> **Note**
> If you install or upgrade Directory Server *before* you run the Communications Suite installer, the Directory Server installation process might place a previous version of `comm_dssetup.pl` on your system. You must use the current version of `comm_dssetup.pl` provided by the Communications Suite installer. However, if a previous version of `comm_dssetup.pl` is installed then the Communications Suite installer cannot install a new version with the `commpkg install` command. Instead, run the `commpkg upgrade` command to upgrade to the latest version of `comm_dssetup.pl`.

6. Gather information needed to configure Communications Suite products.

Before you run a configuration program, you need to gather specific configuration information for each product. Use the following worksheets:

- Configuration Worksheets - Convergence
- Configuration Worksheets - Messaging Server
- Configuration Worksheets - Oracle Communications Calendar Server for CALDAV Clients
- Configuration Worksheets - Oracle Communications Calendar Server
- Configuration Worksheets - Instant Messaging
- Configuration Worksheets - Delegated Administrator
- Configuration Worksheets - Indexing and Search Service

7. Create initial configurations for the individual Communications Suite products.

For each Communications Suite product, you must run a separate configuration program. Each configuration program creates an initial runtime configuration to make the product operational. The program provides a generic, functional server configuration, which you can refine by customizing the configuration.

You should usually configure the back-end servers before configuring clients. Client configurations require that certain server attributes be defined.

Delegated Administrator 7

Run the initial configuration program:

INSTALLROOT`/da/sbin/config-commda`

For detailed instructions, see Delegated Administrator Initial Configuration.

Messaging Server 7 Update 4

Run the initial configuration program:

INSTALLROOT`/messaging64/bin/configure`

For detailed instructions, see Messaging Server Initial Configuration.

Calendar Server 7 Update 1

Run the initial configuration program:

INSTALLROOT`/sbin/init-config`

For detailed instructions, see Oracle Communications Calendar Server for CALDAV Clients Initial Configuration.

Sun Java System Calendar Server 6.3

Run the initial configuration program:

- For Solaris OS: *INSTALLROOT*`/calendar/SUNWics5/cal/sbin/csconfigurator.sh`
- For Red Hat Linux: *INSTALLROOT*`/calendar/calendar/sbin/csconfigurator.sh`

For detailed instructions, see Oracle Communications Calendar Server Initial Configuration.

Indexing and Search Service 1 Update 2

Run the initial configuration program:

INSTALLROOT`/bin/setup`

For detailed instructions, see Indexing and Search Service Initial Configuration. As of Indexing and Search Service 1 Update 2, the `setup.sh` configuration program was renamed to simply `setup`.

Instant Messaging 8 Update 3

Run the initial configuration program:

INSTALLROOT`/im/sbin/configure`

For detailed instructions, see Instant Messaging Initial Configuration.

Convergence 2

Run the initial configuration program:

INSTALLROOT`/iwc/sbin/init-config`

For detailed instructions, see Convergence Initial Configuration.

Messaging Server Sun Cluster HA Agent 7.0

Run the initial configuration program:

msg-scha-base`/bin/init-config`

This command registers the HA agent with the Sun Cluster HA software. You must have the Sun Cluster HA software installed prior to issuing this command.

For more information about configuring the Messaging Server Sun Cluster HA agent, see Configuring Messaging Server for High Availability.

Calendar Server Sun Cluster HA Agent

Run the initial configuration program:

cs-scha-base`/bin/init-config`

This command registers the HA agent with the Sun Cluster HA software. You must have the Sun Cluster

HA software installed prior to issuing this command.

For more information about configuring the Calendar Server Sun Cluster HA agent, see Configuring Calendar Server Software for High Availability (Failover Service).

Instant Messaging Sun Cluster HA Agent

Run the initial configuration program:

im-scha-base`/bin/init-config`

This command registers the high availability (HA) agent with the Sun Cluster HA software. You must have the Sun Cluster HA software installed before you issue this command.

For more information about configuring the Instant Messaging Sun Cluster HA agent, see Configuring Instant Messaging for High Availability.

Uninstalling Communications Suite

To uninstall the Communications Suite products that are installed on the local machine, run the following commands:

```
cd <INSTALLROOT>/CommsInstaller/bin
./commpkg uninstall
```

For detailed instructions, see the following information:

- commpkg uninstall Usage
- Uninstalling Communications Suite Using Silent Mode
- commpkg - General Syntax and Commands

Getting Information About Which Products Are Installed

To determine the Communications Suite software components installed on the machine, run the following command:

```
./commpkg info --verbose
```

For details about the `commpkg info` command, see the following information:

- commpkg info Usage
- commpkg - General Syntax and Commands

To determine which version of GlassFish Server you have installed, see Verifying the GlassFish Server Version.

commpkg - General Syntax and Commands

Communications Suite Installer: General Syntax and Commands Version 7 Update 1

The Communications Suite installer, `commpkg`, comprises several commands (verbs) that enable you to install, uninstall, and upgrade Communications Suite products and shared components.

Topics:

- Communications Suite Installer Syntax
- Communications Suite Installer Commands

Communications Suite Installer Syntax

The following syntax applies to the Communications Suite installer in general:

```
commpkg [general options] verb [verb-specific options]
```

Communications Suite Installer General Options

The *general options* for the installer are:

Option	Description
`-? or --help`	Displays Help.
`-V or --version`	Displays the Communications Suite Installer version.
`--OSversionOverride`	Overrides the operating-system version check.
`--fixEntsys [y|n]`	Fixes an invalid Sun Java Enterprise System (Java ES) `entsys symlink`, making the link point to the latest Java version upgraded by `commpkg`. The Java ES symlink is located in `/usr/jdk/entsys-j2se`. Choose `--fixEntsys y` to fix the Java ES symlink to the Java files. If you do not specify this switch, `commpkg` prompts you if the symlink is invalid. However, in silent mode, the default is *not* to fix the symlink (the equivalent of using a value of n). To fix the symlink in silent mode, type `commpkg install --fixEntsys y --silent` *`INPUTFILE`* on the command-line.

You need to be logged in as superuser (`root`) to run the installer.

Communications Suite Installer Verbs

The *verb* is one of the following:

Verb	Description
`install`	Performs Communications Suite installation
`uninstall`	Performs Communications Suite uninstallation
`info`	Displays Communications Suite information
`upgrade`	Performs Communications Suite upgrade
`verify`	Verifies installed products

Communications Suite Installer Commands

For information about the `commpkg` commands (verbs) and their options, see

- `commpkg install` Usage
- `commpkg upgrade` Usage
- `commpkg uninstall` Usage
- `commpkg info` Usage
- `commpkg verify` Usage

commpkg info Usage

commpkg info Usage
Version 7 Update 1

The `commpkg info` command obtains information about the following items:

- The paths (`installroots`) where Communication Suite products are installed
- The products that are installed in those paths

To use the command, as `root`, invoke `commpkg info`. You can also use the command to repair the software list by adding known `installroots` and deleting incorrect `installroots` in the software list.

Topics:

- Communications Suite Installer Verbs
- commpkg info Syntax
- commpkg info Options
- commpkg info Sample Sessions

Communications Suite Installer Verbs

For information about the `commpkg` general syntax, other commands and options, see:

- commpkg - General Syntax and Commands

commpkg info Syntax

`commpkg info` [*options*] [*installroot* | *name*]

The *`installroot`*|*`name`* specifies an `installroot` or name from the software list. The name is a friendly, shorthand name in the software list that indicates the `installroot` to use. If you enter a name that does not exist in the software list, an error results. If no `installroot` or name is specified, the `commpkg info` command prints information on all the `installroots` listed in the software list.

If `installroot` is specified and does not exist in the software list, and is a valid alternate root, the `commpkg info` command adds the `installroot` to the software list.

To specify the default root, use `"/"` or `""`. The friendly name for the default root is `""`.

commpkg info Options

The following options are used by the `commpkg info` command:

`commpkg install` options	Description
`-? or --help`	Displays Help.
`-V or --version`	Displays version of Communications Suite components.
`--clean`	Removes entries in the software list. If *installroot* | *name* is specified, the option removes the entry from the software list. If no *installroot* | *name* is specified, the option removes all entries from the software list.
`--listPackages`	Lists the packages that make up each Communications Suite product, shared component, and OS auxiliary product. This option also displays the mnemonic for each Communications Suite product or component such as `comm_dssetup.pl`.
`--verbose`	Prints product information installed in the `installroots`. To print information for a specific `installroot`, run this command as follows: `commpkg info --verbose` *installroot*

commpkg info Sample Sessions

- Sample `commpkg info` session
- Sample `commpkg info` session using an alternate root

commpkg info altroot Sample Session

commpkg info altroot Sample Session

This sample session shows the output of `commpkg info` with an alternate root (altroot) installation for Communications Suite 7 Update 1 products:

Topics:

- Summary of Commands Run
- Session

Summary of Commands Run

```
112 pwd
   113 hostname
   114 uname -a
   115 ./commpkg info
   116 ./commpkg info --verbose
   117  ./commpkg info --verbose --includeSC
```

Session

```
(112 root) pwd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
(113 root) hostname
darkpaladin
(114 root) uname -a
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
(115 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20100806113443.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
```

```
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /opt/ci-7u1
  NAME: <none>
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/ci-7u1/messaging64
           Build Date: 20100715
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/ci-7u1/dssetup
           Build Date: 20091123
  Product: Calendar Server (CALDAV) 7u1
           Version: 7.1-1.11
           Basedir: /opt/ci-7u1/davserver
           Build Date: 20100716
  Product: Instant Messaging 8u3
           Version: 8.3-03.10
           Basedir: /opt/ci-7u1/im
           Build Date: 20100622
  Product: Convergence 2
           Version: 2.0-0.06
           Basedir: /opt/ci-7u1/iwc
           Build Date: 20100726
  Product: Indexing and Search Service 1u1
           Version: 1.1-4.4501
           Basedir: /opt/ci-7u1/jiss
           Build Date: 20100618
  Product: Comms Delegated Administrator 7
           Version: 7.0-3.00
           Basedir: /opt/ci-7u1/da
           Build Date: 20100715
  Product: Messaging Server Sun Cluster HA agent 7.0
           Version: 7.0-0.03
           Basedir: /opt/ci-7u1/msg_scha
           Build Date: 20080519
  Product: Instant Messaging Sun Cluster HA agent 7.3
           Version: 7.3-01.02
           Basedir: /opt/ci-7u1/im_scha
           Build Date: 20080403
  Product: Calendar Server 6.3
           Version: 6.3-23.01
           Basedir: /opt/ci-7u1/calendar
           Build Date: 20100624
  Product: Calendar Server Sun Cluster HA agent 6.3
           Version: 6.3-1.01
           Basedir: /opt/ci-7u1/cs_scha
           Build Date: 20080331

(116 root) ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20100806113655.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
```

```
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /opt/ci-7u1
  NAME: <none>
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/ci-7u1/messaging64
           Build Date: 20100715
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 64
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWmessaging-server-64 7.0,REV=2008.06.20
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/ci-7u1/dssetup
           Build Date: 20091123
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server (CALDAV) 7u1
           Version: 7.1-1.11
           Basedir: /opt/ci-7u1/davserver
           Build Date: 20100716
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWdavserver    7.0,REV=2009.08.27
  Product: Instant Messaging 8u3
           Version: 8.3-03.10
           Basedir: /opt/ci-7u1/im
           Build Date: 20100622
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
```

```
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiim          8.0,REV=2008.12.04
            PRESENT  SUNWiimin        8.0,REV=2008.12.04
            PRESENT  SUNWiimm         8.0,REV=2008.12.04
            PRESENT  SUNWiimjd        8.0,REV=2008.12.04
            PRESENT  SUNWiimid        8.0,REV=2008.12.04
            PRESENT  SUNWiimc         8.0,REV=2008.12.04
            PRESENT  SUNWiimd         8.0,REV=2008.12.04
            PRESENT  SUNWiimgw        8.0,REV=2008.12.04
Product: Convergence 2
          Version: 2.0-0.06
          Basedir: /opt/ci-7u1/iwc
          Build Date: 20100726
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u1
          Version: 1.1-4.4501
          Basedir: /opt/ci-7u1/jiss
          Build Date: 20100618
          getVersion UNAME: SunOS
          getVersion ARCH: all
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjiss         1.0,REV=2009.09.09
Product: Comms Delegated Administrator 7
          Version: 7.0-3.00
          Basedir: /opt/ci-7u1/da
          Build Date: 20100715
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWcommda       7.0,REV=2009.03.31
Product: Messaging Server Sun Cluster HA agent 7.0
          Version: 7.0-0.03
          Basedir: /opt/ci-7u1/msg_scha
          Build Date: 20080519
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWmessaging-server-scha 7.0,REV=2008.05.19
Product: Instant Messaging Sun Cluster HA agent 7.3
          Version: 7.3-01.02
          Basedir: /opt/ci-7u1/im_scha
          Build Date: 20080403
          getVersion UNAME: SunOS
```

```
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.34
  Product: Calendar Server 6.3
            Version: 6.3-23.01
            Basedir: /opt/ci-7u1/calendar
            Build Date: 20100624
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWics5         6.0,REV=2003.11.14.18.12.58
              PRESENT  SUNWica5         6.0,REV=2003.11.14.18.12.58
  Product: Calendar Server Sun Cluster HA agent 6.3
            Version: 6.3-1.01
            Basedir: /opt/ci-7u1/cs_scha
            Build Date: 20080331
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWscics        6.3,REV=2008.03.31.18.10.20

(117 root) ./commpkg info --verbose --includeSC
-- LOGFILE: /tmp/CommsInstaller_20100806113917.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
  Product: NSS/NSPR/JSS 4.8.4
            Version: 4.3.2
            Basedir: /
            Build Date: none
            getVersion UNAME: none
            getVersion ARCH: none
            getVersion BITS: none
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWjss          4.2.4,REV=2006.11.16.20.40
              PRESENT  SUNWpr           4.6.4,REV=2006.11.16.20.40
              PRESENT  SUNWprd          4.6.4,REV=2006.11.16.20.40
              PRESENT  SUNWtls          3.11.4,REV=2006.11.16.20.40
              PRESENT  SUNWtlsd         3.11.4,REV=2006.11.16.20.40
              PRESENT  SUNWtlsu         3.11.4,REV=2006.11.16.20.40
```

```
Product: Simple Authentication and Security Layer 2.19
         Version: 2.19
         Basedir: /
         Build Date: none
         getVersion UNAME: none
         getVersion ARCH: none
         getVersion BITS: none
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWsasl         2.17,REV=2004.04.06.15.24
Product: LDAPCSDK6 6.0
         Version: 6.02
         Basedir: /
         Build Date: none
         getVersion UNAME: none
         getVersion ARCH: none
         getVersion BITS: none
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWldapcsdk-libs 6.00,REV=2006.12.11.00.08
           PRESENT  SUNWldapcsdk-dev 6.00,REV=2006.12.11.00.08
Product: LDAPCSDK6 Tools 6.0
         Version: 6.02
         Basedir: /opt/SUNWdsee
         Build Date: none
         getVersion UNAME: none
         getVersion ARCH: none
         getVersion BITS: none
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWldapcsdk-tools 6.00,REV=2006.12.11.00.08
Product: International Components for Unicode ICU2,ICU3
         Version: 10/Generic
         Basedir: /usr
         Build Date: none
         getVersion UNAME: none
         getVersion ARCH: none
         getVersion BITS: none
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWicu          1.2,REV=2005.01.06.14.13
Product: JDK 1.6.0
         Version: 1.6.0_20/1.6.0_20-b02
         Basedir: /usr
         Build Date: none
         getVersion UNAME: none
         getVersion ARCH: none
         getVersion BITS: none
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWj6rt         1.6.0,REV=2006.11.29.05.57
           PRESENT  SUNWj6rtx        1.6.0,REV=2006.11.29.04.58
           PRESENT  SUNWj6dev        1.6.0,REV=2006.11.29.05.57
           PRESENT  SUNWj6dvx        1.6.0,REV=2006.11.29.04.58
           PRESENT  SUNWj6cfg        1.6.0,REV=2006.11.29.05.57
Product: Java Help Runtime 2.0
```

```
          Version: 2.0/FCS
          Basedir: /usr
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjhrt         2.0,REV=2006.10.31
            PRESENT  SUNWjhdev        2.0,REV=2006.10.04
            PRESENT  SUNWjhdem        2.0,REV=2006.10.04
            PRESENT  SUNWjhdoc        2.0,REV=2006.10.04
Product: Message Queue 4.4
          Version: 4.4.1.0
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiqr          4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiqu          4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiqdoc        4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiquc         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqum         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqjx         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqfs         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqcrt        4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqcdv        4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqlen        4.4,REV=2009.08.27.08.33
Product: Message Queue Localization 4.4
          Version: 4.4.1.0
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWfiqu         4.4,REV=2009.10.01.09.42.14
            PRESENT  SUNWfiquc        4.4,REV=2009.10.01.09.42.16
            PRESENT  SUNWdiqu         4.4,REV=2009.10.01.09.42.59
            PRESENT  SUNWdiquc        4.4,REV=2009.10.01.09.43.03
            PRESENT  SUNWjiqu         4.4,REV=2009.10.01.09.45.16
            PRESENT  SUNWjiquc        4.4,REV=2009.10.01.09.45.18
            PRESENT  SUNWeiqu         4.4,REV=2009.10.01.09.43.44
            PRESENT  SUNWeiquc        4.4,REV=2009.10.01.09.43.47
            PRESENT  SUNWkiqu         4.4,REV=2009.10.01.09.44.30
            PRESENT  SUNWkiquc        4.4,REV=2009.10.01.09.44.32
            PRESENT  SUNWciqu         4.4,REV=2009.10.01.09.46.01
            PRESENT  SUNWciquc        4.4,REV=2009.10.01.09.46.03
            PRESENT  SUNWhiqu         4.4,REV=2009.10.01.09.46.48
            PRESENT  SUNWhiquc        4.4,REV=2009.10.01.09.46.50
Product: LDAPJDK 4.19
          Version: 4.21
```

```
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWljdk         1.0,REV=2004.10.11.06.02
Product: Instant Messaging API 8
          Version: 8.0-00
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiimdv        8.0,REV=2008.12.04
Product: MySQL 5.1.36
          Version: none
          Basedir: /opt/mysql
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  mysql            5.1.36
Product: Service Tags 1.1.4
          Version: 1.1.4.1
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWservicetagr  1.1.4,REV=2008.03.21.07.54
            PRESENT  SUNWservicetagu  1.1.4,REV=2008.03.21.07.54
            PRESENT  SUNWstosreg      1.1.4,REV=2008.03.21.07.54
Product: CommsInstaller 7u1
          Version: 7.1-0.06
          Basedir: /opt/sun/comms/CommsInstaller
          Build Date: 20100726
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWcomms        7.1,REV=2010.07.26
Product: MySQL Marker 1.0
          Version: 1.0-0.01
          Basedir: /var/opt/CommsInstaller/Markers/MYSQL
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
```

```
            getVersion BITS: none
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWcomms-mysql-marker 1.0,REV=2009.09.09

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /opt/ci-7u1
  NAME: <none>
  Product: Messaging Server (64bit) 7u4 64bit
            Version: 7.4-18.01
            Basedir: /opt/ci-7u1/messaging64
            Build Date: 20100715
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 64
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWmessaging-server-64 7.0,REV=2008.06.20
  Product: Comms DSsetup 6.4
            Version: 6.4-6.03
            Basedir: /opt/ci-7u1/dssetup
            Build Date: 20091123
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server (CALDAV) 7u1
            Version: 7.1-1.11
            Basedir: /opt/ci-7u1/davserver
            Build Date: 20100716
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWdavserver    7.0,REV=2009.08.27
  Product: Instant Messaging 8u3
            Version: 8.3-03.10
            Basedir: /opt/ci-7u1/im
            Build Date: 20100622
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
```

```
            PRESENT  SUNWiim          8.0,REV=2008.12.04
            PRESENT  SUNWiimin        8.0,REV=2008.12.04
            PRESENT  SUNWiimm         8.0,REV=2008.12.04
            PRESENT  SUNWiimjd        8.0,REV=2008.12.04
            PRESENT  SUNWiimid        8.0,REV=2008.12.04
            PRESENT  SUNWiimc         8.0,REV=2008.12.04
            PRESENT  SUNWiimd         8.0,REV=2008.12.04
            PRESENT  SUNWiimgw        8.0,REV=2008.12.04
Product: Convergence 2
         Version: 2.0-0.06
         Basedir: /opt/ci-7u1/iwc
         Build Date: 20100726
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u1
         Version: 1.1-4.4501
         Basedir: /opt/ci-7u1/jiss
         Build Date: 20100618
         getVersion UNAME: SunOS
         getVersion ARCH: all
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWjiss         1.0,REV=2009.09.09
Product: Comms Delegated Administrator 7
         Version: 7.0-3.00
         Basedir: /opt/ci-7u1/da
         Build Date: 20100715
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWcommda       7.0,REV=2009.03.31
Product: Messaging Server Sun Cluster HA agent 7.0
         Version: 7.0-0.03
         Basedir: /opt/ci-7u1/msg_scha
         Build Date: 20080519
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWmessaging-server-scha 7.0,REV=2008.05.19
Product: Instant Messaging Sun Cluster HA agent 7.3
         Version: 7.3-01.02
         Basedir: /opt/ci-7u1/im_scha
         Build Date: 20080403
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
```

```
          Package Status/Name/Version:
            PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.34
Product: Calendar Server 6.3
          Version: 6.3-23.01
          Basedir: /opt/ci-7u1/calendar
          Build Date: 20100624
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWics5         6.0,REV=2003.11.14.18.12.58
            PRESENT  SUNWica5         6.0,REV=2003.11.14.18.12.58
Product: Calendar Server Sun Cluster HA agent 6.3
          Version: 6.3-1.01
          Basedir: /opt/ci-7u1/cs_scha
          Build Date: 20080331
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWscics        6.3,REV=2008.03.31.18.10.20
Product: NSS/NSPR/JSS 4.8.4
          Version: 4.3.2
          Basedir: /opt/ci-7u1/
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjss          4.2.4,REV=2006.11.16.20.40
            PRESENT  SUNWpr           4.6.4,REV=2006.11.16.20.40
            PRESENT  SUNWprd          4.6.4,REV=2006.11.16.20.40
            PRESENT  SUNWtls          3.11.4,REV=2006.11.16.20.40
            PRESENT  SUNWtlsd         3.11.4,REV=2006.11.16.20.40
            PRESENT  SUNWtlsu         3.11.4,REV=2006.11.16.20.40
Product: Simple Authentication and Security Layer 2.19
          Version: 2.19
          Basedir: /opt/ci-7u1/
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWsasl         2.17,REV=2004.04.06.15.24
Product: LDAPCSDK6 6.0
          Version: 6.02
          Basedir: /opt/ci-7u1/
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
```

```
          Package Status/Name/Version:
            PRESENT  SUNWldapcsdk-libs 6.00,REV=2006.12.11.00.08
            PRESENT  SUNWldapcsdk-dev 6.00,REV=2006.12.11.00.08
Product: LDAPCSDK6 Tools 6.0
          Version: 6.02
          Basedir: /opt/ci-7u1/directory
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWldapcsdk-tools 6.00,REV=2006.12.11.00.08
Product: International Components for Unicode ICU2,ICU3
          Version: 10/Generic
          Basedir: /opt/ci-7u1/usr
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWicu          1.2,REV=2005.01.06.14.13
Product: JDK 1.6.0
          Version: 1.6.0_20/1.6.0_20-b02
          Basedir: /opt/ci-7u1/usr
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWj6rt         1.6.0,REV=2006.11.29.05.57
            PRESENT  SUNWj6rtx        1.6.0,REV=2006.11.29.04.58
            PRESENT  SUNWj6dev        1.6.0,REV=2006.11.29.05.57
            PRESENT  SUNWj6dvx        1.6.0,REV=2006.11.29.04.58
            PRESENT  SUNWj6cfg        1.6.0,REV=2006.11.29.05.57
Product: Java Help Runtime 2.0
          Version: 2.0/FCS
          Basedir: /opt/ci-7u1/usr
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjhrt         2.0,REV=2006.10.31
            PRESENT  SUNWjhdev        2.0,REV=2006.10.04
            PRESENT  SUNWjhdem        2.0,REV=2006.10.04
            PRESENT  SUNWjhdoc        2.0,REV=2006.10.04
Product: Message Queue 4.4
          Version: 4.4.1.0
          Basedir: /opt/ci-7u1/
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
```

```
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiqr          4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiqu          4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiqdoc        4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiquc         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqum         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqjx         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqfs         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqcrt        4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqcdv        4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqlen        4.4,REV=2009.08.27.08.33
Product: Message Queue Localization 4.4
          Version: 4.4.1.0
          Basedir: /opt/ci-7u1/
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWfiqu         4.4,REV=2009.10.01.09.42.14
            PRESENT  SUNWfiquc        4.4,REV=2009.10.01.09.42.16
            PRESENT  SUNWdiqu         4.4,REV=2009.10.01.09.42.59
            PRESENT  SUNWdiquc        4.4,REV=2009.10.01.09.43.03
            PRESENT  SUNWjiqu         4.4,REV=2009.10.01.09.45.16
            PRESENT  SUNWjiquc        4.4,REV=2009.10.01.09.45.18
            PRESENT  SUNWeiqu         4.4,REV=2009.10.01.09.43.44
            PRESENT  SUNWeiquc        4.4,REV=2009.10.01.09.43.47
            PRESENT  SUNWkiqu         4.4,REV=2009.10.01.09.44.30
            PRESENT  SUNWkiquc        4.4,REV=2009.10.01.09.44.32
            PRESENT  SUNWciqu         4.4,REV=2009.10.01.09.46.01
            PRESENT  SUNWciquc        4.4,REV=2009.10.01.09.46.03
            PRESENT  SUNWhiqu         4.4,REV=2009.10.01.09.46.48
            PRESENT  SUNWhiquc        4.4,REV=2009.10.01.09.46.50
Product: LDAPJDK 4.19
          Version: 4.21
          Basedir: /opt/ci-7u1/
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWljdk         1.0,REV=2004.10.11.06.02
Product: Instant Messaging API 8
          Version: 8.0-00
          Basedir: /opt/ci-7u1/
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiimdv        8.0,REV=2008.12.04
```

```
Product: Service Tags 1.1.4
         Version: 1.1.4.1
         Basedir: /opt/ci-7u1/
         Build Date: none
         getVersion UNAME: none
         getVersion ARCH: none
         getVersion BITS: none
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWservicetagr  1.1.4,REV=2008.03.21.07.54
           PRESENT  SUNWservicetagu  1.1.4,REV=2008.03.21.07.54
           PRESENT  SUNWstosreg      1.1.4,REV=2008.03.21.07.54
Product: CommsInstaller 7u1
         Version: 7.1-0.06
         Basedir: /opt/ci-7u1/CommsInstaller
         Build Date: 20100726
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
```

```
Package Status/Name/Version:
  PRESENT  SUNWcomms        7.1,REV=2010.07.26
```

commpkg info Sample Session

commpkg info Sample Session

This sample session shows the output of `commpkg info` in Communications Suite 7 Update 1.

Topics:

- Comments
- Summary of Commands Run
- Session

Comments

```
- "commpkg info --listPackages" will show what is include in
  the CI (CommsInstaller) distribution
- "commpkg info" and "commpkg info --verbose" will show
  what is installed.
```

Summary of Commands Run

```
102  pwd
   103  hostname
   104  uname -a
   105  ./commpkg info --listPackages
   106  ./commpkg info
   107  ./commpkg info --verbose
   108  ./commpkg info --verbose --includeSC
```

Session

```
(102 root) pwd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
(103 root) hostname
darkpaladin
(104 root) uname -a
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
(105 root) ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20100806112112.log
Package list per product

Product: Messaging Server (64bit)
Product Group: Comms
Description: Messaging Server 64bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-18.01
Build Date: 20100715
Mnemonic: MS64
Installation directory: <INSTALLROOT>/messaging64
Patches: 137204-18
```

```
Dependencies:
  MQ
  PATCHUTILS (120900-04 121133-02 119254-71)
  LIBCPLUSPLUS (119963-19)
  MQ_L10N
  BZIP (126868-03 137321-01)
  ICU (119810-05)
  LDAPCSDK6_TOOLS (136798-02)
  NSS (125358-11)
Package Name/Version:
  SUNWmessaging-server-64        7.0,REV=2008.06.20

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-6.03
Build Date: 20091123
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches: 118242-03 118245-22
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  LDAPCSDK6_TOOLS (136798-02)
Package Name/Version:
  SUNWcomds                      6.3,REV=2004.08.12

Product: Calendar Server (CALDAV)
Product Group: Comms
Description: Calendar Server
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-1.11
Build Date: 20100716
Mnemonic: DAV
Installation directory: <INSTALLROOT>/davserver
Patches: 142785-01
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
  JDK (125136-22 125137-22)
  LDAPCSDK6_TOOLS (136798-02)
  MYSQL
Package Name/Version:
  SUNWdavserver                  7.0,REV=2009.08.27

Product: Instant Messaging
Product Group: Comms
Description: Instant Messaging
Version: 8.3
Marketing Version: 8u3
Full Version: 8.3-03.10
Build Date: 20100622
Mnemonic: IM
Installation directory: <INSTALLROOT>/im
```

```
Patches: 139893-03
Dependencies:
  ST
  JDK (125136-22 125137-22)
  PATCHUTILS (120900-04 121133-02 119254-71)
  MQ
  LDAPJDK (119725-06)
  MQ_L10N
  IMAPI
  NSS (125358-11)
Package Name/Version:
  SUNWiim                        8.0,REV=2008.12.04
  SUNWiimin                      8.0,REV=2008.12.04
  SUNWiimm                       8.0,REV=2008.12.04
  SUNWiimjd                      8.0,REV=2008.12.04
  SUNWiimid                      8.0,REV=2008.12.04
  SUNWiimc                       8.0,REV=2008.12.04
  SUNWiimd                       8.0,REV=2008.12.04
  SUNWiimgw                      8.0,REV=2008.12.04

Product: Convergence
Product Group: Comms
Description: Integrated Web Client
Version: 2.0
Marketing Version: 2
Full Version: 2.0-0.06
Build Date: 20100726
Mnemonic: IWC
Installation directory: <INSTALLROOT>/iwc
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
  JDK (125136-22 125137-22)
Package Name/Version:
  SUNWiwc                        2.0,REV=2010.07.26

Product: Indexing and Search Service
Product Group: Comms
Description: Indexing Search Services
Version: 1.1
Marketing Version: 1u1
Full Version: 1.1-4.4501
Build Date: 20100618
Mnemonic: JISS
Installation directory: <INSTALLROOT>/jiss
Patches: 142824-04
Dependencies:
  MQ
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
  MQ_L10N
  JDK (125136-22 125137-22)
  LDAPCSDK6_TOOLS (136798-02)
Package Name/Version:
  SUNWjiss                       1.0,REV=2009.09.09
```

```
Product: Comms Delegated Administrator
Product Group: Comms
Description: Comms Delegated Administrator
Version: 7.0
Marketing Version: 7
Full Version: 7.0-3.00
Build Date: 20100715
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
Patches: 124581-03
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
  JDK (125136-22 125137-22)
  LDAPCSDK6_TOOLS (136798-02)
  NSS (125358-11)
Package Name/Version:
  SUNWcommda                      7.0,REV=2009.03.31

Product: Messaging Server Sun Cluster HA agent
Product Group: Comms
Description: Messaging Server Sun Cluster HA Agent
Version: 7.0
Marketing Version: 7.0
Full Version: 7.0-0.03
Build Date: 20080519
Mnemonic: MS_SCHA
Installation directory: <INSTALLROOT>/msg_scha
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWmessaging-server-scha       7.0,REV=2008.05.19

Product: Instant Messaging Sun Cluster HA agent
Product Group: Comms
Description: Instant Messaging Sun Cluster HA Agent
Version: 7.3
Marketing Version: 7.3
Full Version: 7.3-01.02
Build Date: 20080403
Mnemonic: IM_SCHA
Installation directory: <INSTALLROOT>/im_scha
Patches: 137571-01
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWiimsc                       7.3,REV=2008.01.07.20.24.34

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-23.01
```

```
Build Date: 20100624
Mnemonic: CS
Installation directory: <INSTALLROOT>/calendar
Patches: 121657-44
Dependencies:
  SASL (119345-07)
  ST
  LIBCPLUSPLUS (119963-19)
  JDK (125136-22 125137-22)
  PATCHUTILS (120900-04 121133-02 119254-71)
  MQ
  MQ_L10N
  ICU (119810-05)
  NSS (125358-11)
Package Name/Version:
  SUNWics5                       6.0,REV=2003.11.14.18.12.58
  SUNWica5                       6.0,REV=2003.11.14.18.12.58

Product: Calendar Server Sun Cluster HA agent
Product Group: Comms
Description: Calendar Server Sun Cluster HA Agent
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-1.01
Build Date: 20080331
Mnemonic: CS_SCHA
Installation directory: <INSTALLROOT>/cs_scha
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWscics                      6.3,REV=2008.03.31.18.10.20

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.4
Marketing Version: 4.8.4
Mnemonic: NSS
Installation directory: <package default>
Patches: 125358-11
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWjss                        4.2.4,REV=2006.11.16.20.40
  SUNWpr                         4.6.4,REV=2006.11.16.20.40
  SUNWprd                        4.6.4,REV=2006.11.16.20.40
  SUNWtls                        3.11.4,REV=2006.11.16.20.40
  SUNWtlsd                       3.11.4,REV=2006.11.16.20.40
  SUNWtlsu                       3.11.4,REV=2006.11.16.20.40

Product: Simple Authentication and Security Layer
Product Group: Shared Component
Description:
Version: 2.19
Marketing Version: 2.19
```

```
Mnemonic: SASL
Installation directory: <package default>
Patches: 119345-07
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWsasl                        2.17,REV=2004.04.06.15.24

Product: LDAPCSDK6
Product Group: Shared Component
Description: ldap c sdk 6
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6
Installation directory: <package default>
Patches:
Dependencies:
  SASL (119345-07)
  ICU (119810-05)
  NSS (125358-11)
Package Name/Version:
  SUNWldapcsdk-libs               6.00,REV=2006.12.11.00.08
  SUNWldapcsdk-dev                6.00,REV=2006.12.11.00.08

Product: LDAPCSDK6 Tools
Product Group: Shared Component
Description: ldap c sdk 6 Tools
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6_TOOLS
Installation directory: <INSTALLROOT>/directory
Patches: 136798-02
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  LDAPCSDK6
Package Name/Version:
  SUNWldapcsdk-tools              6.00,REV=2006.12.11.00.08

Product: International Components for Unicode
Product Group: Shared Component
Description:
Version: ICU2,ICU3
Marketing Version: ICU2,ICU3
Mnemonic: ICU
Installation directory: <package default>
Patches: 119810-05
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWicu                         1.2,REV=2005.01.06.14.13

Product: JDK
Product Group: Shared Component
Description: Java Development Kit
Version: 1.6.0
Marketing Version: 1.6.0
```

```
Mnemonic: JDK
Installation directory: <package default>
Patches: 125136-22 125137-22
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
Package Name/Version:
  SUNWj6rt                      1.6.0,REV=2006.11.29.05.57
  SUNWj6rtx                     1.6.0,REV=2006.11.29.04.58
  SUNWj6dev                     1.6.0,REV=2006.11.29.05.57
  SUNWj6dvx                     1.6.0,REV=2006.11.29.04.58
  SUNWj6cfg                     1.6.0,REV=2006.11.29.05.57

Product: Java Help Runtime
Product Group: Shared Component
Description: Java Help Runtime
Version: 2.0
Marketing Version: 2.0
Mnemonic: JHRT
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  BZIP (126868-03 137321-01)
  JDK (125136-22 125137-22)
Package Name/Version:
  SUNWjhrt                      2.0,REV=2006.10.31
  SUNWjhdev                     2.0,REV=2006.10.04
  SUNWjhdem                     2.0,REV=2006.10.04
  SUNWjhdoc                     2.0,REV=2006.10.04

Product: Message Queue
Product Group: Shared Component
Description: Message Queue
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  JHRT
  JDK (125136-22 125137-22)
  NSS (125358-11)
Package Name/Version:
  SUNWiqr                       4.4,REV=2009.08.27.08.32
  SUNWiqu                       4.4,REV=2009.08.27.08.32
  SUNWiqdoc                     4.4,REV=2009.08.27.08.32
  SUNWiquc                      4.4,REV=2009.08.27.08.33
  SUNWiqum                      4.4,REV=2009.08.27.08.33
  SUNWiqjx                      4.4,REV=2009.08.27.08.33
  SUNWiqfs                      4.4,REV=2009.08.27.08.33
  SUNWiqcrt                     4.4,REV=2009.08.27.08.33
  SUNWiqcdv                     4.4,REV=2009.08.27.08.33
  SUNWiqlen                     4.4,REV=2009.08.27.08.33
```

```
Product: Message Queue Localization
Product Group: Shared Component
Description: Message Queue Localization
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ_L10N
Installation directory: <package default>
Patches:
Dependencies:
  MQ
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWfiqu                      4.4,REV=2009.10.01.09.42.14
  SUNWfiquc                     4.4,REV=2009.10.01.09.42.16
  SUNWdiqu                      4.4,REV=2009.10.01.09.42.59
  SUNWdiquc                     4.4,REV=2009.10.01.09.43.03
  SUNWjiqu                      4.4,REV=2009.10.01.09.45.16
  SUNWjiquc                     4.4,REV=2009.10.01.09.45.18
  SUNWeiqu                      4.4,REV=2009.10.01.09.43.44
  SUNWeiquc                     4.4,REV=2009.10.01.09.43.47
  SUNWkiqu                      4.4,REV=2009.10.01.09.44.30
  SUNWkiquc                     4.4,REV=2009.10.01.09.44.32
  SUNWciqu                      4.4,REV=2009.10.01.09.46.01
  SUNWciquc                     4.4,REV=2009.10.01.09.46.03
  SUNWhiqu                      4.4,REV=2009.10.01.09.46.48
  SUNWhiquc                     4.4,REV=2009.10.01.09.46.50

Product: LDAPJDK
Product Group: Shared Component
Description: LDAP JDK
Version: 4.19
Marketing Version: 4.19
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches: 119725-06
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWljdk                      1.0,REV=2004.10.11.06.02

Product: Instant Messaging API
Product Group: Shared Component
Description: Instant Messaging API
Version: 8.0
Marketing Version: 8
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWiimdv                     8.0,REV=2008.12.04

Product: MySQL
Product Group: Shared Component
Description: MySQL
```

```
Version: 5.1.36
Marketing Version: 5.1.36
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  mysql                          5.1.36

Product: Service Tags
Product Group: OS Auxiliary
Description: Service Tags
Version: 1.1.4
Marketing Version: 1.1.4
Mnemonic: ST
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWservicetagr                1.1.4,REV=2008.03.21.07.54
  SUNWservicetagu                1.1.4,REV=2008.03.21.07.54
  SUNWstosreg                    1.1.4,REV=2008.03.21.07.54

Product: LIBCPLUSPLUS
Product Group: OS - Patches only
Description: libC (C++) patch for Solaris
Version: 5.9
Marketing Version: 5.9
Mnemonic: LIBCPLUSPLUS
Installation directory: <package default>
Patches: 119963-19
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWlibC                       5.10,REV=2004.12.22

Product: PATCHUTILS
Product Group: OS - Patches only
Description: Solaris patch for install/patching utilities
Version: Unknown
Marketing Version: Unknown
Mnemonic: PATCHUTILS
Installation directory: <package default>
Patches: 120900-04 121133-02 119254-71
Dependencies:
Package Name/Version:
  SUNWpkgcmdsu                   11.11,REV=2005.01.09.23.05
  SUNWswmt                       11.10,REV=2005.01.10.17.19
  SUNWinstall-patch-utils-root   11.10,REV=2005.01.09.23.05
  SUNWcsr                        11.10.0,REV=2005.01.21.15.53
  SUNWdtrc                       11.10.0,REV=2005.01.21.15.53
  SUNWzoneu                      11.10.0,REV=2005.01.21.15.53

Product: BZIP OS Component
Product Group: OS - Patches only
```

```
Description: Solaris patch for bzip
Version: 11.10
Marketing Version: 11.10
Mnemonic: BZIP
Installation directory: <package default>
Patches: 126868-03 137321-01
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWbzip                       11.10.0,REV=2005.01.08.05.16

Product: RECOMMENDED PATCH CLUSTER
Product Group: OS - Patches only
Description: Representative sample of patches from the Recommended Patch
Cluster
Version: 2010.06.25
Marketing Version: 2010.06.25
Mnemonic: RECOMMENDED
Installation directory: <package default>
Patches: 119254-73 118833-36 120011-14 120272-28 137137-09 141444-09
142900-13
Dependencies:
Package Name/Version:
  No packages defines for this OS version

Product: CommsInstaller
Product Group: CI Products
Description: The CommsInstaller installed as a package
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-0.06
Build Date: 20100726
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWcomms                      7.1,REV=2010.07.26

Product: MySQL Marker
Product Group: CI Products
Description: MySQL Marker
Version: 1.0
Marketing Version: 1.0
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  SUNWcomms-mysql-marker         1.0,REV=2009.09.09
(106 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20100806112130.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
```

```
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20100715
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20091123
  Product: Calendar Server (CALDAV) 7u1
           Version: 7.1-1.11
           Basedir: /opt/sun/comms/davserver
           Build Date: 20100716
  Product: Instant Messaging 8u3
           Version: 8.3-03.10
           Basedir: /opt/sun/comms/im
           Build Date: 20100622
  Product: Convergence 2
           Version: 2.0-0.06
           Basedir: /opt/sun/comms/iwc
           Build Date: 20100726
  Product: Indexing and Search Service 1u1
           Version: 1.1-4.4501
           Basedir: /opt/sun/comms/jiss
           Build Date: 20100618
  Product: Comms Delegated Administrator 7
           Version: 7.0-3.00
           Basedir: /opt/sun/comms/da
           Build Date: 20100715
  Product: Messaging Server Sun Cluster HA agent 7.0
           Version: 7.0-0.03
           Basedir: /opt/sun/comms/msg_scha
           Build Date: 20080519
  Product: Instant Messaging Sun Cluster HA agent 7.3
           Version: 7.3-01.02
           Basedir: /opt/sun/comms/im_scha
           Build Date: 20080403
  Product: Calendar Server 6.3
           Version: 6.3-23.01
           Basedir: /opt/sun/comms/calendar
           Build Date: 20100624
  Product: Calendar Server Sun Cluster HA agent 6.3
           Version: 6.3-1.01
           Basedir: /opt/sun/comms/cs_scha
           Build Date: 20080331

(107 root) ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20100806112158.log
```

```
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20100715
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 64
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWmessaging-server-64 7.0,REV=2008.06.20
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20091123
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server (CALDAV) 7u1
           Version: 7.1-1.11
           Basedir: /opt/sun/comms/davserver
           Build Date: 20100716
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWdavserver    7.0,REV=2009.08.27
  Product: Instant Messaging 8u3
           Version: 8.3-03.10
           Basedir: /opt/sun/comms/im
           Build Date: 20100622
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWiim          8.0,REV=2008.12.04
             PRESENT  SUNWiimin        8.0,REV=2008.12.04
             PRESENT  SUNWiimm         8.0,REV=2008.12.04
             PRESENT  SUNWiimjd        8.0,REV=2008.12.04
             PRESENT  SUNWiimid        8.0,REV=2008.12.04
```

```
            PRESENT  SUNWiimc         8.0,REV=2008.12.04
            PRESENT  SUNWiimd         8.0,REV=2008.12.04
            PRESENT  SUNWiimgw        8.0,REV=2008.12.04
Product: Convergence 2
         Version: 2.0-0.06
         Basedir: /opt/sun/comms/iwc
         Build Date: 20100726
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u1
         Version: 1.1-4.4501
         Basedir: /opt/sun/comms/jiss
         Build Date: 20100618
         getVersion UNAME: SunOS
         getVersion ARCH: all
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWjiss         1.0,REV=2009.09.09
Product: Comms Delegated Administrator 7
         Version: 7.0-3.00
         Basedir: /opt/sun/comms/da
         Build Date: 20100715
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWcommda       7.0,REV=2009.03.31
Product: Messaging Server Sun Cluster HA agent 7.0
         Version: 7.0-0.03
         Basedir: /opt/sun/comms/msg_scha
         Build Date: 20080519
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWmessaging-server-scha 7.0,REV=2008.05.19
Product: Instant Messaging Sun Cluster HA agent 7.3
         Version: 7.3-01.02
         Basedir: /opt/sun/comms/im_scha
         Build Date: 20080403
         getVersion UNAME: SunOS
         getVersion ARCH: sparc
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.34
Product: Calendar Server 6.3
         Version: 6.3-23.01
         Basedir: /opt/sun/comms/calendar
```

```
            Build Date: 20100624
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWics5         6.0,REV=2003.11.14.18.12.58
              PRESENT  SUNWica5         6.0,REV=2003.11.14.18.12.58
  Product: Calendar Server Sun Cluster HA agent 6.3
            Version: 6.3-1.01
            Basedir: /opt/sun/comms/cs_scha
            Build Date: 20080331
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWscics        6.3,REV=2008.03.31.18.10.20

(108 root) ./commpkg info --verbose --includeSC
-- LOGFILE: /tmp/CommsInstaller_20100806112223.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
  Product: Messaging Server (64bit) 7u4 64bit
            Version: 7.4-18.01
            Basedir: /opt/sun/comms/messaging64
            Build Date: 20100715
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 64
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWmessaging-server-64 7.0,REV=2008.06.20
  Product: Comms DSsetup 6.4
            Version: 6.4-6.03
            Basedir: /opt/sun/comms/dssetup
            Build Date: 20091123
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server (CALDAV) 7u1
            Version: 7.1-1.11
            Basedir: /opt/sun/comms/davserver
```

```
          Build Date: 20100716
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWdavserver    7.0,REV=2009.08.27
Product: Instant Messaging 8u3
          Version: 8.3-03.10
          Basedir: /opt/sun/comms/im
          Build Date: 20100622
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiim          8.0,REV=2008.12.04
            PRESENT  SUNWiimin        8.0,REV=2008.12.04
            PRESENT  SUNWiimm         8.0,REV=2008.12.04
            PRESENT  SUNWiimjd        8.0,REV=2008.12.04
            PRESENT  SUNWiimid        8.0,REV=2008.12.04
            PRESENT  SUNWiimc         8.0,REV=2008.12.04
            PRESENT  SUNWiimd         8.0,REV=2008.12.04
            PRESENT  SUNWiimgw        8.0,REV=2008.12.04
Product: Convergence 2
          Version: 2.0-0.06
          Basedir: /opt/sun/comms/iwc
          Build Date: 20100726
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u1
          Version: 1.1-4.4501
          Basedir: /opt/sun/comms/jiss
          Build Date: 20100618
          getVersion UNAME: SunOS
          getVersion ARCH: all
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjiss         1.0,REV=2009.09.09
Product: Comms Delegated Administrator 7
          Version: 7.0-3.00
          Basedir: /opt/sun/comms/da
          Build Date: 20100715
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWcommda       7.0,REV=2009.03.31
Product: Messaging Server Sun Cluster HA agent 7.0
          Version: 7.0-0.03
```

```
          Basedir: /opt/sun/comms/msg_scha
          Build Date: 20080519
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWmessaging-server-scha 7.0,REV=2008.05.19
Product: Instant Messaging Sun Cluster HA agent 7.3
          Version: 7.3-01.02
          Basedir: /opt/sun/comms/im_scha
          Build Date: 20080403
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.34
Product: Calendar Server 6.3
          Version: 6.3-23.01
          Basedir: /opt/sun/comms/calendar
          Build Date: 20100624
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWics5         6.0,REV=2003.11.14.18.12.58
            PRESENT  SUNWica5         6.0,REV=2003.11.14.18.12.58
Product: Calendar Server Sun Cluster HA agent 6.3
          Version: 6.3-1.01
          Basedir: /opt/sun/comms/cs_scha
          Build Date: 20080331
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWscics        6.3,REV=2008.03.31.18.10.20
Product: NSS/NSPR/JSS 4.8.4
          Version: 4.3.2
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjss          4.2.4,REV=2006.11.16.20.40
            PRESENT  SUNWpr           4.6.4,REV=2006.11.16.20.40
            PRESENT  SUNWprd          4.6.4,REV=2006.11.16.20.40
            PRESENT  SUNWtls          3.11.4,REV=2006.11.16.20.40
            PRESENT  SUNWtlsd         3.11.4,REV=2006.11.16.20.40
            PRESENT  SUNWtlsu         3.11.4,REV=2006.11.16.20.40
Product: Simple Authentication and Security Layer 2.19
          Version: 2.19
```

```
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWsasl         2.17,REV=2004.04.06.15.24
Product: LDAPCSDK6 6.0
          Version: 6.02
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWldapcsdk-libs 6.00,REV=2006.12.11.00.08
            PRESENT  SUNWldapcsdk-dev 6.00,REV=2006.12.11.00.08
Product: LDAPCSDK6 Tools 6.0
          Version: 6.02
          Basedir: /opt/SUNWdsee
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWldapcsdk-tools 6.00,REV=2006.12.11.00.08
Product: International Components for Unicode ICU2,ICU3
          Version: 10/Generic
          Basedir: /usr
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWicu          1.2,REV=2005.01.06.14.13
Product: JDK 1.6.0
          Version: 1.6.0_20/1.6.0_20-b02
          Basedir: /usr
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWj6rt         1.6.0,REV=2006.11.29.05.57
            PRESENT  SUNWj6rtx        1.6.0,REV=2006.11.29.04.58
            PRESENT  SUNWj6dev        1.6.0,REV=2006.11.29.05.57
            PRESENT  SUNWj6dvx        1.6.0,REV=2006.11.29.04.58
            PRESENT  SUNWj6cfg        1.6.0,REV=2006.11.29.05.57
Product: Java Help Runtime 2.0
          Version: 2.0/FCS
          Basedir: /usr
```

```
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjhrt         2.0,REV=2006.10.31
            PRESENT  SUNWjhdev        2.0,REV=2006.10.04
            PRESENT  SUNWjhdem        2.0,REV=2006.10.04
            PRESENT  SUNWjhdoc        2.0,REV=2006.10.04
Product: Message Queue 4.4
          Version: 4.4.1.0
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiqr          4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiqu          4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiqdoc        4.4,REV=2009.08.27.08.32
            PRESENT  SUNWiquc         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqum         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqjx         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqfs         4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqcrt        4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqcdv        4.4,REV=2009.08.27.08.33
            PRESENT  SUNWiqlen        4.4,REV=2009.08.27.08.33
Product: Message Queue Localization 4.4
          Version: 4.4.1.0
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWfiqu         4.4,REV=2009.10.01.09.42.14
            PRESENT  SUNWfiquc        4.4,REV=2009.10.01.09.42.16
            PRESENT  SUNWdiqu         4.4,REV=2009.10.01.09.42.59
            PRESENT  SUNWdiquc        4.4,REV=2009.10.01.09.43.03
            PRESENT  SUNWjiqu         4.4,REV=2009.10.01.09.45.16
            PRESENT  SUNWjiquc        4.4,REV=2009.10.01.09.45.18
            PRESENT  SUNWeiqu         4.4,REV=2009.10.01.09.43.44
            PRESENT  SUNWeiquc        4.4,REV=2009.10.01.09.43.47
            PRESENT  SUNWkiqu         4.4,REV=2009.10.01.09.44.30
            PRESENT  SUNWkiquc        4.4,REV=2009.10.01.09.44.32
            PRESENT  SUNWciqu         4.4,REV=2009.10.01.09.46.01
            PRESENT  SUNWciquc        4.4,REV=2009.10.01.09.46.03
            PRESENT  SUNWhiqu         4.4,REV=2009.10.01.09.46.48
            PRESENT  SUNWhiquc        4.4,REV=2009.10.01.09.46.50
Product: LDAPJDK 4.19
          Version: 4.21
          Basedir: /
          Build Date: none
```

```
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWljdk         1.0,REV=2004.10.11.06.02
Product: Instant Messaging API 8
          Version: 8.0-00
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiimdv        8.0,REV=2008.12.04
Product: MySQL 5.1.36
          Version: none
          Basedir: /opt/mysql
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  mysql            5.1.36
Product: Service Tags 1.1.4
          Version: 1.1.4.1
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWservicetagr  1.1.4,REV=2008.03.21.07.54
            PRESENT  SUNWservicetagu  1.1.4,REV=2008.03.21.07.54
            PRESENT  SUNWstosreg      1.1.4,REV=2008.03.21.07.54
Product: CommsInstaller 7u1
          Version: 7.1-0.06
          Basedir: /opt/sun/comms/CommsInstaller
          Build Date: 20100726
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWcomms        7.1,REV=2010.07.26
Product: MySQL Marker 1.0
          Version: 1.0-0.01
          Basedir: /var/opt/CommsInstaller/Markers/MYSQL
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
```

```
Package Status/Name/Version:
  PRESENT  SUNWcomms-mysql-marker 1.0,REV=2009.09.09
```

commpkg install Usage

commpkg install Usage
Version 7 Update 1

Topics:

- About the commpkg install Command
- commpkg install Command Syntax
- commpkg install Command Options

About the commpkg install Command

The `commpkg install` command enables you to install the Communications Suite products and shared components.

The `install` sub-command installs the Communications Suite component software on your machine but does not configure these components. After software installation, you run the product-specific configure command. For more information, see Communications Suite Initial Configuration.

To use the command, as superuser (`root`), run `commpkg install`. "Power user" options are available for more complicated installation scenarios.

> **Tip**
> Installing Only Shared Components: To install just the shared components for a component product, launch the Communications Suite installer then prefix your product selection with a tilde (~). For example, to install only the shared components for Messaging Server 64-bit, at the Product Selection prompt, you would type **~1**. You can type multiple selections by using a comma to separate your entries.

commpkg install Command Syntax

`commpkg` [*general options*] `install` [*install options*] [*ALTROOT* | *name*]

For information about the `commpkg` general syntax, other sub-commands and general options, see:

Communications Suite Installer: General Syntax and Commands

Using the ALTROOT | name Command-Line Argument

This argument is supported only on Solaris OS. Specify *ALTROOT* | *name* on the command line to install components in an alternate root.

For more information, see Using the ALTROOT Command-Line Argument.

Using the *name* Argument (Instead of *installroot*)

If you specify the *name* command-line argument and it exists in the software list, the corresponding *ALTROOT* is used.

If you also specify the `--installroot` option, it must correspond to the entry in the software list. If you specify *name* and it does not exist in the software list, it is added to the software list.

Specifying any *name* other than `""` implies an `ALTROOT`. A value for *name* of `""` is reserved for the default root.

commpkg install Command Options

The following options are used by the `commpkg install` command:

`commpkg install` options	**Description**
`--help` or `-?`	Prints help information.
`--version` or `-V`	Prints version information.
`--excludeOS`	Does not apply operating system patches during product installation.
`--excludeSC`	Does not install, upgrade, or patch any Shared Components.
`--acceptLicense`	Accepts the license conditions in the `LICENSE.txt` file.
`--altroot` [*name*]	This option has been deprecated. Use the *ALTROOT* | *name* command-line argument instead. This option is available on Solaris OS only. Specifies an alternate root directory during a multi-host installation. The `INSTALLROOT` (the top level installation directory for all products and shared components) is the alternate root. If you specify a *name*, it will be a friendly name associated with the `altroot` that is registered in the software list. You can use this option to install multiple instances of Communications Suite products on the same host or Solaris zone. You can also use this option to perform a side-by-side upgrade of Communications Suite products.
`--distro` *path*	Specifies the *path* to packages or patches for the products Default: Location of `commpkg` script
`--installroot` *path*	Specifies the *path* of `INSTALLROOT`, the top level installation directory for Communications Suite products and shared components. Default `INSTALLROOT` on Solaris OS and Red Hat Linux: `/opt/sun/comms` The subdirectories for individual Communications Suite products are installed under the `INSTALLROOT`.

`--silent` *INPUTFILE*	Runs silent installation, taking the inputs from the *INPUTFILE* and the command-line arguments. The command-line arguments override entries in the *INPUTFILE*. Installation proceeds without interactive prompts. Use `--dry-run` to test silent installation without actually installing the software. When running a silent installation, you must use the `--acceptLicense` option in the command line or set `ACCEPTLICENSE=YES` in the *INPUTFILE*. Specify `NONE` for *INPUTFILE* if you want to run in silent mode without using an input file. When you specify `NONE`, the installation uses default values. For more information about running a silent installation, see Installing Communications Suite Using Silent Mode.
`--dry-run` or `-n`	Does not install Communications Suite components. Performs checks.
`--upgradeSC [y|n]`	Upgrades or does not upgrade shared components as required. If this option is not specified, you are prompted for each shared component that needs to be upgraded by using package removal and installation. Default: n **Caution** Upgrading shared components by using package removal and installation is irreversible. However, if you do not upgrade required shared components, products might not work as designed. The `--excludeSC` flag has precedence over this flag.
`--auditDistro`	Audits the installation distribution to verify that the required patches and packages are present and that the packages have the correct versions. Compares the installed distribution to the product files internal to `commpkg`.
`--pkgOverwrite`	Overwrites the existing installation package. You might use this option when you are installing a shared component in a global zone where either the shared component does not exist in a global zone, or the shared component exists in the whole root zone. The default is not to override the existing package. In general, shared components should be managed in the global zone.
`--components <comp1 comp2 ...>`	A space delimited set of component products. Each product has mnemonic associated with it. Use `commpkg info --listPackages` to see the mnemonic for a product. In most shells you need to escape the space between each mnemonic, that is, by adding double quotes around all the components.

commpkg uninstall Usage

commpkg uninstall Usage
Version 7 Update 1

The `commpkg uninstall` command enables you to uninstall the Communications Suite products and shared components.

For information about the `commpkg` general syntax, other commands and options, see commpkg - General Syntax and Commands.

Topics:

- Uninstalling Communications Suite Components
- commpkg uninstall Command Syntax
- commpkg uninstall Command Options

Uninstalling Communications Suite Components

This command uninstalls Communication Suite products. However it does not remove OS patches or shared components installed by `commpkg install`.

To uninstall one or more Communications Suite component, change to the *INSTALLROOT* `/CommsInstaller/bin/` directory, and as `root`, run `commpkg uninstall`.

> **Note**
> A fast way to uninstall a Communications Suite component installed in an alternate root is to simply remove the entire alternate root directory.

commpkg uninstall Command Syntax

`commpkg uninstall` [*options*] [*ALTROOT* | *name*]

You must be logged in as superuser (`root`) to run this command.

Using the ALTROOT | name Command-Line Argument

This argument is supported only on Solaris OS. Specify *ALTROOT* | *name* on the command line to uninstall an alternate root directory for the uninstallation.

If you specify the `--rootdir` option in addition to the *ALTROOT* | *name* command-line argument, they must match.

For more information, see Using the ALTROOT Command-Line Argument.

commpkg uninstall Command Options

The following options are used by the `commpkg uninstall` command:

`commpkg uninstall` options	Description
`--silent` *INPUTFILE*	Runs the uninstaller silently, taking the inputs from the *INPUTFILE* and the command-line arguments. Any command-line arguments override entries in the *INPUTFILE*. Uninstallation proceeds without interactive prompts. Use `--dry-run` to test silent uninstallation.
`--dry-run` or `-n`	Does not actually uninstall the Communications Suite components, only performs checks. The silent uninstallation *INPUTFILE* is created in `/tmp`.
`--rootdir` *path*	This option is deprecated in favor of using the *ALTROOT* or *name* command-line argument. This option specifies the *path* of *ALTROOT*, the alternate root used for multi-installation. Supported on Solaris OS only. If you specify this option and the *ALTROOT* | *name* argument the values must be consistent.

commpkg verify Usage

commpkg verify Usage

The `commpkg verify` command enables you to verify the package installation of the Communications Suite products and shared components. To use the command, as `root`, invoke `commpkg verify`.

For information about the `commpkg` general syntax and options, see Communications Suite Installer: General Syntax and Commands.

> **Tip**
> When verifying the package installation in an alternate root, be aware that products do use the OS components installed in the default root. Some products might also use shared components in the default root. Thus, verify the package installation in the default root as well.

Commpkg verify Command: Syntax

`commpkg verify` [*options*] [*ALTROOT* | *name*]

Using the ALTROOT | name Command-Line Argument

This argument is supported only on Solaris OS. Specify *ALTROOT* | *name* on the command line to if you need to specify an alternate root directory on which to perform the package verification.

For more information, see Using the ALTROOT Command-Line Argument.

commpkg verify Command: Options

The following options are used by the `commpkg verify` command:

`commpkg verify` options	Description
`--help` or `-?`	Prints help information
`--version` or `-V`	Prints version information
`--excludeOS`	Do not verify operating system components
`--excludeSC`	Do not verify shared components

Communications Suite Directory Server Setup Script (comm_dssetup.pl)

Communications Suite Directory Server Setup Script (comm_dssetup.pl) Version 6.4 (6.4-6.03)

After you install the Communications Suite products and *before* you create initial configurations for these products, you must prepare Directory Server by using the Communications Suite Directory Setup Script, (`comm_dssetup.pl`).

Topics:

- Before You Run the `comm_dssetup.pl` Script
- Running the comm_dssetup.pl Script
- Manually Updating Schema Files
- Resolving Conflicting Calendar Server OID's in the LDAP Schema
- Sample Sessions
- DSsetup Patches by Release

Before You Run the `comm_dssetup.pl` Script

This section covers information you need to understand before running the `comm_dssetup.pl` script, and contains the following topics:

- What the `comm_dssetup.pl` Script Does
- Directory Server Considerations for the comm_dssetup.pl Script
- Information You Need to Gather Before you Run the comm_dssetup.pl Script
- About the comm_dssetup.pl choices for Directory Server root path name and instance
- About the comm_dssetup.pl Script Schema Choices
- Access Manager Considerations
- Attribute Indexes Created by the comm_dssetup.pl Script

What the `comm_dssetup.pl` Script Does

The `comm_dssetup.pl` script performs the following three stesp:

1. Collects your choices for utility options.
   For a list of the specific information this step requests, see Information You Need to Gather Before you Run comm_dssetup.pl.
2. Generates a shell script and LDIF file from your options choices that will be used to modify the LDAP directory.
   If you are not using a Sun product for your directory server, or have customized your Directory Server, stop the process here without running the shell script. For further information, see Directory Server Considerations for the comm_dssetup.pl Script.
3. Runs the shell script created from your options choices. Your directory is modified accordingly.

At the end of each step, the utility asks you if you want to continue. No changes are made to the LDAP directory until the third step.

Directory Server Considerations for the comm_dssetup.pl Script

The following is a list of the considerations for your LDAP directory:

`comm_dssetup.pl` is configuration tool that for local LDAP instances servers. Thus,

- You must install the `comm_dssetup.pl` script on every machine on which a Directory Server resides.
  - You can use the Communications Suite installer to install just the `dssetup` package on each of the Directory Server hosts.
  - You can manually copy the `dssetup.zip` file and unzip it on the Directory Server host, for example:

    ```
    scp -R /opt/sun/comms/dssetup/lib/dssetup.zip root@<directory
    server host>:/tmp/dssetup/
    ```

- You must run the `comm_dssetup.pl` script on the same machine as your Directory Server. The tool runs locally for a specific instance (specified by path of directory server or path of instance).
- `comm_dssetup.pl` is installed into the "DirPrepTool-base", but can be run against any Directory Server instance on the local system. If you have multiple DIT's on one system, you can maintain and update one install of `comm_dssetup.pl`, and apply it to every Directory Server on the system.

`comm_dssetup.pl` must configure every Directory Server instance for the same DIT.

- A Directory Server must be installed, configured, and running before you run the `comm_dssetup.pl` script.
- If you add an additional machine that has Directory Server installed on it (such as a replica), at a future date, run the `comm_dssetup.pl` script against it, too.

If you have customized your LDAP directory, the following considerations might apply:

- If you have indexed some attributes, you might have to reindex those attributes after the `comm_dssetup.pl` script runs.
- If you have added other `.ldif` files (schema definitions), they should not be affected, so no action should be necessary. However, back up your custom schema definition files before running the `comm_dssetup.pl` script. As of `comm_dssetup.pl` 6.4p5, the old schema files are backed up to the `/var/tmp/dssetup_`*`timestamp`*`/save` directory.
- For all customizations, including the first two just listed, stop the `comm_dssetup.pl` script after it generates the script and before it actually updates the LDAP directory. Then inspect the script to evaluate how its proposed actions will affect your LDAP directory. Take whatever actions you think necessary to protect your customizations before running the script against your directory.

Information You Need to Gather Before you Run the comm_dssetup.pl Script

The `comm_dssetup.pl` script runs by first requesting information about your Directory Server. Prepare for this by gathering the information shown in the following table. (To help you keep track of this information, use Configuration Worksheets - comm_dssetup.pl Script.)

Information Item Needed	Default Value
Directory Server root path name	The default depends on the Directory Server version detected. The `comm_dssetup.pl` script does attempt to heuristically determine the value.
Which instance of Directory Server to use? (If more than one.)	The default depends on the Directory Server version detected. The `comm_dssetup.pl` script does attempt to heuristically determine the value.
Directory Manager Distinguished Name (DN)	`"cn=Directory Manager"`
Directory Manager's Password	N/A
Directory Server being used for user/group data? (yes), or configuration data only? (no) Note that a configuration data only Directory Server is used only for Messaging Server 6.2 or earlier.	`yes`
User and group root suffix (if yes to previous question)	The default depends on what is detected. The `comm_dssetup.pl` script does attempt to heuristically determine the value.
Schema version? (pick one of the following) `1` - Schema 1 `1.5` - Schema 2 Compatibility Mode `2` - Schema 2 Native Mode For more information on how to choose a schema, see About the `comm_dssetup.pl` script Schema Choices. If you have one version of the schema installed and want to upgrade to a higher level, refer to the *Sun Java System Communications Services 6 2005Q4 Schema Migration Guide* before running this utility.	2. However, if you run `comm_dssetup` again, it defaults to the value that you chose the previous time.
If you choose Schema 1 or 1.5, you will need a DC tree. If the DC tree does not yet exist, the `comm_dssetup.pl` script creates only the root suffix node, its does not create the rest of the DC tree. You must create the rest of your DC tree yourself.	`o=internet`. However, if you run `comm_dssetup` again, it defaults to the value that you chose the previous time.

About the comm_dssetup.pl choices for Directory Server root path name and instance

The combination of the Directory Server root path and the instance is used to create an absolute pathname to the Directory Server instance. For example, if your Directory Server instance resides under `/var/opt/sun/directory/slapd-varrius` then you should use `/var/opt/sun/directory` then you should specify `/var/opt/sun/directory` for the Directory Server root path and `slapd-varrius` for the Directory Server instance. The reason for having two prompts to specify one absolute path is historical. Prior to Directory Server (DS) 6.x, DS had the concept of a "server root" under which all DS instances (as well as the DS binaries) reside. Starting with DS 6.x and later, the concept of the "server root" was removed. DS instances (as well as the DS binaries) do not all have to reside under a single umbrella "server root" directory.

About the comm_dssetup.pl Script Schema Choices

Communications Suite servers support the following schema choices:

- Sun LDAP Schema 2 native mode
  Corresponds to `comm_dssetup.pl` script schema version choice 2. This is the default for a fresh installation.
- Sun LDAP Schema 1
  Corresponds to the `comm_dssetup.pl` script schema version choice 1.
- Sun LDAP Schema 2 compatibility mode
  Corresponds to `comm_dssetup.pl` script schema version choice 1.5.

If you are still trying to decide which schema to use, for further explanation, see Understanding Schema Choices, and the *Sun Java System Communications Services 6 2005Q4 Schema Migration Guide*.

Access Manager Considerations

Starting with **Delegated Administrator 7**, Access Manager is no longer required for Schema 2.

Note
Do not use the Access Manager console to administer users. Use Delegated Administrator for administering Messaging and Calendar users.

Attribute Indexes Created by the comm_dssetup.pl Script

Attribute indexes improve the performance of search algorithms. The tool offers to index attributes. If you choose to do so, it will add indexes for the all the Communications Suite products.

The following table lists all the attributes the `comm_dssetup.pl` script indexes, grouped by suffix category. It also lists the type of indexes created for each attribute. For more information about Directory Server indexing, see the Directory Server documentation.

Suffix	Attributes Indexed	Type of Indexes Added
User/Group	`mail`	`pres`, `eq`, `approx`, `sub`
	`mailAlternateAddress`	`pres`, `eq`, `approx`, `sub`
	`mailEquivalentAddress`	`pres`, `eq`, `approx`, `sub`
	`mailUserStatus`	`pres`, `eq`
	`member`	`eq`
	`ou`	`pres`
	`cosspecifier`	`pres`
	`groupid`	`pres`, `eq`, `sub`
	`icsCalendar`	`pres`, `eq`, `approx`, `sub`

	icsCalendarOwned	pres, eq, approx, sub
	uniqueMember	eq
	memberOf	eq, sub
	cn	eq
	mgrpUniqueId	eq
	inetCos	eq
User/Group (for Access Manager - Schema 2)	inetDomainBaseDN	pres, eq
	sunPreferredDomain	pres, eq
	associatedDomain	pres, eq
	o	pres, eq
	mailDomainStatus	pres, eq
	sunOrganizationAlias	pres, eq
DC Tree (for Schema 1)	inetDomainBaseDN	pres, eq
	mailDomainStatus	pres, eq
	inetCanonicalDomainName	pres, eq
Personal Address Book (PAB) (o=pab) Note: For old Address Book	memberOfManagedGroup	pres, eq
	memberOfPAB	pres, eq
	memberOfPABGroup	pres,eq
	un	eq
New PAB (o=PiServerDb)	displayname	pres, eq, sub
	MemberOfPiBook	eq
	MemberofPiGroup	eq
o=mlusers for future mailserv feature	mail	eq
	mlsubListIdentifier	eq
	mlsubMail	eq

Should you decide to add further indexes on your own, instructions for adding indexes can be found in the Directory Server documentation.

Running the comm_dssetup.pl Script

This section covers the following topics:

- To Run the comm_dssetup.pl Script
- To Run the comm_dssetup.pl Script in Interactive Mode
- To Run the comm_dssetup.pl Script in Silent Mode
- Explanation of Options for Running comm_dssetup.pl Script in Silent Mode

To Run the comm_dssetup.pl Script

1. On the server where Directory Server is installed, log in as or become superuser `root`.
2. Start Directory Server, if necessary.
3. Change to the directory where you installed or copied the `comm_dssetup.pl` script.
4. Run the `sbin/comm_dssetup.pl` script in either silent mode or in interactive mode.

For further steps, see To Run the comm_dssetup.pl Script in Interactive Mode or To Run the comm_dssetup.pl Script in Silent Mode.

To Run the comm_dssetup.pl Script in Interactive Mode

To run the `comm_dssetup.pl` script in interactive mode, run the script without any arguments and then enter your choices for the questions asked.

```
/usr/bin/perl comm_dssetup.pl
```

To Run the comm_dssetup.pl Script in Silent Mode

- `comm_dssetup.pl` Script Silent Mode Instructions
- `comm_dssetup.pl` Script Silent Mode Syntax

comm_dssetup.pl Script Silent Mode Instructions

To run the `comm_dssetup.pl` script in silent mode, issue the Perl command followed by a string of options using the syntax shown in comm_dssetup.pl Script Silent Mode Syntax. All of the option arguments are required.

The utility creates the following LDIF file and shell script to update the LDAP directory indexes and schema:

`/var/tmp/dssetup_timestamp/dssetup.ldif`

`/var/tmp/dssetup_`*`timestamp`*`/dssetup.sh`

Depending on the option values you pass in, the utility will either proceed to update the Directory Server by executing the new script, or not. If you have chosen not to proceed with the update, you can check the script and make any desired modifications before running the actual update at a later time.

comm_dssetup.pl Script Silent Mode Syntax

The following are all the options for running in the silent mode:

```
perl comm_dssetup.pl -i <yes|no> -R <yes|no> -c <DirectoryServerRoot> -d
<DirectoryInstance> -r <DCTreeSuffix> -u <UserGroupSuffix> -s <yes|no>
-D <DirectoryManagerDN> -j <DirectoryManagerPasswordFile> -b <yes|no> -t
<1|1.5|2> -m <yes|no> [-S <PathtoSchemaFiles>
```

Explanation of Options for Running comm_dssetup.pl Script in Silent Mode

Option and Argument	Description
-i `yes|no`	Answers the question: "Do you want to configure new indexes?" `yes` - Add new Directory Server indexes. `no` - Do not add indexes.
-R `yes | no`	Answers the question: "Do you want to reindex now?" The -m option must be `yes` also for this to take effect.
-c *`DirectoryServerRoot`*	Directory Server root path. For example: `/var/opt/sun/directory`
-d *`DirectoryInstance`*	Directory Server instance subdirectory under the Directory Server root path. For example: `slapd-varrius`
-r *`DCTreeSuffix`*	DC tree root suffix. (for Schema 1 and Schema 2 compatibility modes only) For example: `o=internet`
-u *`UserGroupSuffix`*	User and group root suffix. For example: `o=usergroup`
-s `yes | no`	Answers the question: "Do you want to update the schema?" `yes` - Update the schema. `no` - Do not update schema.
-D *`DirectoryManagerDN`*	Directory Manager Distinguished Name (DN). The value must be enclosed by double quotation marks (`" "`) to allow the `comm_dssetup.pl` script to interpret a value with a space correctly. For example: `"cn=Directory Manager"`
-j *`DirectoryManagerPasswordFile`*	File containing the Directory Manager DN password.
-b `yes | no`	Answers the question: "Will this directory server be used for users and groups?" `yes` - Use this directory to store both configuration and user group data. `no` - Use this directory to store only configuration data. This is only used for Messaging Server 6.2 or earlier
-t `1|1.5|2`	Specifies the schema version.
-m `yes | no`	Answers the question: "Do you want to modify the directory server?" `yes` Modify the Directory Server without prompting the user. `no` Do not modify the Directory Server without prompting the user.
-S *`PathtoSchemaFiles`*	Path to the directory where the schema files are located. For example: `./schema`

Manually Updating Schema Files

If for any reason, you have decided not to run the `comm_dssetup.pl` script generated script, the following directions allow you to manually update your schema files for Sun Java System Directory Server.

> **Note**
> If you update your LDAP directory schema manually and then later upgrade Calendar Server, you must manually update the LDAP server schema again. Calendar Server cannot automatically update the schema after it has previously been updated manually.

To Update Your LDAP Directory Manually

1. Install Calendar Server 6.3.
2. Stop Calendar Server, if it is running.
3. Stop Directory Server, if it is running.
4. Copy the `60iplanet-calendar.ldif` file to the following directory on the machine where your Directory Server is running:
   dir-svr-base`/slapd-`*hostname*`/config/schema` where *dir-svr-base* is the Directory Server installation directory and *hostname* identifies the machine.
5. If you want to index attributes, as the configuration program does, do it at this point.
   For a list of the attributes the configuration program indexes, see Attribute Indexes Created by the `comm_dssetup.pl` Script.
6. Restart the Directory Server.

If you receive object identifier (OID) errors, see Resolving Conflicting Calendar Server OID's in the LDAP Schema.

Resolving Conflicting Calendar Server OID's in the LDAP Schema

If your LDAP schema contains conflicting OID's, the Directory Server does not know which OID to use and returns an error message. For example, the following message indicates a conflicting OID for the `icsCalendarUser` object class:

```
[24/Apr/2004:23:45:28 -0700] dse -
The entry cn=schema in file 99user.ldif is invalid,
error code 20 (Type or value exists) - object class icscalendaruser:
   The name does not match the OID.
   Another object class is already using the name or OID.
[24/Apr/2004:23:45:28 -0700] dse -
Please edit the file to correct the reported problems
and then restart the server.
```

This problem can occur when you install Calendar Server 6.3 and you also had an older Calendar Server release that dynamically updated your Directory Server `99user.ldif` file.
To resolve the conflicting OID's, perform the following two steps:

1. Edit the `99user.ldif` file and remove the older OID's. For Calendar Server 6.3, the following table lists the specific OID's that might cause problems.

Object Class	Old OID	New OID
`icsCalendarUser`	2.16.840.1.113730.3.2.141	1.3.6.1.4.1.42.2.27.9.2.44
`icsCalendarResource`	2.16.840.1.113730.3.2.143	1.3.6.1.4.1.42.2.27.9.2.45
`icsCalendarDomain`	2.16.840.1.113730.3.2.144	1.3.6.1.4.1.42.2.27.9.2.4

2. After you edit the `99user.ldif` file, restart the Directory Server.

Sample Sessions

- DSsetup 6.4-6.03 Sample Session - Fresh Directory Server 7.0 Instance for Schema 1
- DSsetup 6.4-6.03 Sample Session - Existing Directory Server 7.0 Instance for Schema 1
- DSsetup 6.4-6.03 Sample Session - Fresh Directory Server 7.0 Instance for Schema 2
- DSsetup 6.4-6.03 Sample Session - Existing Directory Server 7.0 Instance for Schema 2

DSsetup Patches by Release

- DSsetup Patches By Release

DSsetup 6.4-6.03 Sample Session - Existing Directory Server 7.0 Instance for Schema 1

Table of Contents

- Introduction
- Summary of Commands Run
- Comments
- Session

Introduction

This sample session shows the output of `comm_dssetup.pl` on a fresh Directory Server 7.0 instance.

Summary of Commands Run

```
11 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
    12 ls /var/tmp/dssetup_20100803205832
    13 ls /var/tmp/dssetup_20100803205832/save
    14 cat /var/tmp/dssetup_20100803205832/99user_new.ldif
    15  cat /var/tmp/dssetup_20100803205832/dssetup.ldif
    16  cat /var/tmp/dssetup_20100803205832/dssetup.ldif.rej
    17  cat /var/tmp/dssetup_20100803205832/dssetup.sh
    18  cat /var/tmp/dssetup_20100803205832/dssetup.log
```

Comments

- Sample Session for running comm_dssetup.pl a second time on the same DS instance

Session

```
(11 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-6.03 (built Mon Nov 23 01:07:24 PST 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20100803205832/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory
```

```
Directory server root [/var/opt/sun/directory] :


Please select a directory server instance from the following list:

[1]   ds7
[2]   dsins1


Which instance do you want [1]:

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:
- DS Install location: /opt/SUNWdsee7
- DS hostname: moe-2.example.com
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 7.0 on moe-2.example.com port 389

Warning: This version of comm_dssetup.pl (6.4 6.03) has been run
previously (6.4 6.03), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]:
A list of suffixes are as follows:
  o=mlusers
  o=PiServerDb
  o=pab
  o=internet
  o=usergroup
  o=comms-config

Please enter the Users/Groups base suffix [o=usergroup] :
There are 3 possible schema types:
  1   - schema 1
  1.5 - schema 2 compatibility mode for schema 1 systems
        that has been converted with commdirmig
  2   - schema 2

Please enter the Schema Type (1, 1.5, 2) [1]:

Please enter the DC Tree base suffix [o=internet]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:
```

```
  Server Root                        : /var/opt/sun/directory
  Server Instance                    : ds7
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 1
  DC Root                            : o=internet
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      No new indexes required
    Checking indexes for mailAlternateAddress
      New indexes and Reindexing required
      ReIndex will happen for index type mailAlternateAddress
    Checking indexes for ou
      No new indexes required
    Checking indexes for cn
      No new indexes required
    Checking indexes for uniqueMember
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for icsCalendarOwned
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
      ReIndex will happen for index type mail
```

```
    Checking indexes for groupid
      No new indexes required
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      No new indexes required
    Checking indexes for mailDomainStatus
      No new indexes required
    Checking indexes for inetCanonicalDomainName
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for memberOfManagedGroup
      No new indexes required
    Checking indexes for un
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      No new indexes required
    Checking indexes for MemberofPiGroup
      No new indexes required
    Checking indexes for displayname
      No new indexes required
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      No new indexes required
    Checking indexes for mail
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20100803205832/dssetup.sh
   /var/tmp/dssetup_20100803205832/dssetup.ldif

Running /var/tmp/dssetup_20100803205832/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20100803205832/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20100803205832/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
```

```
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' started:
pid=28431
-- Applying ldif file /var/tmp/dssetup_20100803205832/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20100803205832/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20100803205832/dssetup.ldif

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailAlternateAddress o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailAlternateAddress o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailAlternateAddress o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailAlternateAddress reindex o=usergroup
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.
```

```
Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mail o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mail o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20100803205832/dssetup.log for details
(12 root) ls /var/tmp/dssetup_20100803205832
total 62
   5 99user_new.ldif      29 dssetup.log
   6 dssetup.ldif         15 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
(13 root) ls /var/tmp/dssetup_20100803205832/save
total 932
 154 00core.ldif                    7 50ns-mcd-li.ldif
  16 00ds6pwp.ldif                 42 50ns-mcd-mail.ldif
   5 05rfc2247.ldif                 3 50ns-media.ldif
   3 05rfc2927.ldif                17 50ns-mlm.ldif
  16 11rfc2307.ldif               107 50ns-msg.ldif
  10 20subscriber.ldif              7 50ns-netshare.ldif
   7 25java-object.ldif             5 50ns-news.ldif
  19 28pilot.ldif                   3 50ns-proxy.ldif
  25 30ns-common.ldif               7 50ns-value.ldif
   7 50iplanet-servicemgt.ldif      8 50ns-wcal.ldif
  14 50ns-admin.ldif                4 50ns-web.ldif
  15 50ns-calendar.ldif            20 55ims-ical.ldif
   4 50ns-certificate.ldif         55 56ims-schema.ldif
  24 50ns-compass.ldif             36 60iplanet-calendar.ldif
  13 50ns-delegated-admin.ldif     14 65im.ldif
  33 50ns-directory.ldif           17 70delgated-admin.ldif
  67 50ns-iabs.ldif                 8 70sun-schema2.ldif
   4 50ns-legacy.ldif              57 71sun-am.ldif
  18 50ns-mail.ldif                10 98ns-dummy-uwc.ldif
  35 50ns-mcd-browser.ldif          5 99user.ldif
  11 50ns-mcd-config.ldif
(14 root) cat /var/tmp/dssetup_20100803205832/99user_new.ldif
dn: cn=schema
objectClass: top
objectClass: ldapSubentry
objectClass: subschema
cn: schema
aci: (target="ldap:///cn=schema")(targetattr !="aci")(version 3.0;acl
```

```
"anonymo
 us, no acis"; allow (read, search, compare) userdn = "ldap:///anyone";)
modifiersName: cn=directory manager
modifyTimestamp: 20100804034703Z
attributeTypes: ( sunExcludeServices-oid NAME 'sunExcludeServices' DESC
'servi
 ces to be excluded specifically from the services available in the root
suff
 ix ' EQUALITY caseIgnoreMatch SYNTAX 1.3.6.1.4.1.1466.115.121.1.26
X-ORIGIN
 'user defined' )
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME 'sunkeyvalue' DESC
'Attribut
 e to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.1
 15.121.1.26 X-ORIGIN ( 'Sun ONE Identity Management' 'user defined' ) )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.107 NAME 'sunIMConference' DESC
'Conf
 erence Object' SUP top AUXILIARY MAY ( sunIMConferenceAffiliations $
sunIMCo
 nferenceConfiguration $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.108 NAME 'sunIMNews' DESC
'Pubsub Cha
 nnel Object' SUP top AUXILIARY MAY ( sunIMNewsAffiliations $
sunIMNewsConfig
 uration $ sunIMNewsMetaData $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.109 NAME 'sunIMStoredMessage'
DESC 'S
 tored Message Object' SUP top AUXILIARY MAY ( sunIMMessageID $
sunIMMessageC
 ontent ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.27 NAME 'sunservicecomponent'
DESC 'S
 ub-components of the service' SUP top STRUCTURAL MUST ou MAY (
labeledUri $
 sunserviceid $ sunsmspriority $ sunkeyvalue $ sunxmlkeyvalue $
description )
  X-ORIGIN 'Sun Java System Identity Management' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Obje
 ctclass for storing meta data for Sun Communication' SUP top STRUCTURAL
MUST
  cn MAY sunkeyvalue X-ORIGIN 'user defined' )
nsSchemaCSN: 4c58e2b7000000000000

(15 root) cat /var/tmp/dssetup_20100803205832/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-2.example.com -D binddn -j passwdfile -c
-f /var/tmp/dssetup_20100803205832/dssetup.ldif

#---------------------------------------------------
# This section creates the installer metadata
#---------------------------------------------------
```

```
########################################
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
########################################
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

########################################
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
########################################
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

########################################
# dn: cn=CommServers,o=comms-config
# Update the installer metadata for Comm Servers
########################################
dn: cn=CommServers,o=comms-config
changetype: modify
replace: sunkeyvalue
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=6.03
sunkeyvalue: dcsuffix=o=internet
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=1

########################################
# dn: cn=CommServers,o=comms-config
# aci for anonymous read access
########################################
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(versior
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(16 root) cat /var/tmp/dssetup_20100803205832/dssetup.ldif.rej
# Error: Type or value exists
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(versior
```

```
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(17 root) cat /var/tmp/dssetup_20100803205832/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
  echo "Usage: $0 -D <binddn> -j <passwdfile>"
  echo "  -D binddn        bind dn"
  echo "  -j <passwdfile>  read bind passwd from 'file' for simple
authentication"
  exit 1
}

if [ $# -lt 1 ]
then
  echo "You must specify either -j"
  usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
  case $c in
  D)
    Dflag=1
    BINDDN=$OPTARG;;
  j)
    jflag=1
    pflag=-j
    parg=$OPTARG;;
  \?)
    usage;;
  esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
  echo "You must specify the -D switch"
  usage
fi

if [ $jflag -eq 0 ]
then
  echo "You must specify -j"
  usage
fi

if [ $# -ge 1 ]
then
```

```
  echo "Unrecognized argument $*"
  usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
  echo
  echo "To run this utility you need to be the system's root user. \n"
  echo
  exit 1
fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-mail.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-mlm.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-msg.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-value.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 55ims-ical.ldif
cp /opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 56ims-schema.ldif
cp /opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 65im.ldif
cp /opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 70sun-schema2.ldif
cp /opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 71sun-am.ldif
cp /opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-iabs.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 70delgated-admin.ldif
```

```
cp /opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/ds7/config/schema

echo -- Stopping Directory Server
/opt/SUNWdsee7/bin/dsadm stop /var/opt/sun/directory/ds7
if [ $? != 0 ]; then
  echo "Stopping the Directory server failed"
  exit 1
fi
sleep 5

echo -- Starting Directory Server
/opt/SUNWdsee7/bin/dsadm start /var/opt/sun/directory/ds7
if [ $? != 0 ]; then
  echo "The server may not have restarted properly"
  echo "Please restart it manually"
fi
sleep 5

echo -- Applying ldif file /var/tmp/dssetup_20100803205832/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-2.example.com -D "$BINDDN" $pflag "$parg" -c
-e /var/tmp/dssetup_20100803205832/dssetup.ldif.rej -f
/var/tmp/dssetup_20100803205832/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20100803205832/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
  echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
  echo "-- WARNING: ldapmodify returned $stat"
else
  echo "-- ERROR: ldapmodify returned $stat"
  exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20100803205832/dssetup.ldif
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
```

```
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mailAlternateAddress reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"mailAlternateAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mailAlternateAddress"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop "o=usergroup"
"mail" "approx-enabled:on"
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mail reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "mail"
"o=usergroup"
```

```
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mail" "o=usergroup"
echo
(18 root) cat /var/tmp/dssetup_20100803205832/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-6.03 (built Mon Nov 23 01:07:24 PST 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20100803205832/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]   ds7
[2]   dsins1


Which instance do you want [1]:
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /opt/SUNWdsee7
- DS hostname: moe-2.example.com
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20100803205832/dssetup.pw" -p 389 -h moe-2.example.com
-b "cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Directory-Server/7.0 B2009.1104.2254
-- Detected DS versions:
   full: 7.0
   major: 7
   minor: 0
```

```
   micro: NONE
   patch: NONE

Detected DS version 7.0 on moe-2.example.com port 389
-- Stored Dssetup data ver=6.4 rev=6.03, dctree=o=internet
   ug=o=usergroup, schematype=1

Warning: This version of comm_dssetup.pl (6.4 6.03) has been run
previously (6.4 6.03), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]: A list of
suffixes are as follows:
  o=mlusers
  o=PiServerDb
  o=pab
  o=internet
  o=usergroup
  o=comms-config

Please enter the Users/Groups base suffix [o=usergroup] :
-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  usergroupdb2

-=-=-=-=-=-=-=-=-=-=
There are 3 possible schema types:
  1   - schema 1
  1.5 - schema 2 compatibility mode for schema 1 systems
        that has been converted with commdirmig
  2   - schema 2

Please enter the Schema Type (1, 1.5, 2) [1]:
Please enter the DC Tree base suffix [o=internet]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : ds7
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 1
  DC Root                            : o=internet
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
```

```
Generating files...

Checking to see if Suffixes need to be added

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  comms-configdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  usergroupdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  internetdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  pabdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  PiServerDbdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  mlusersdb2

-=-=-=-=-=-=-=-=-=-=-=

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
```

```
Checking indexes for mailAlternateAddress
  Index exists
  Index eq found
    Index pres does not exist
    Index eq exists
    Index approx does not exist
    Index sub does not exist
  Default index eq found
  New indexes and Reindexing required
  ReIndex will happen for index type mailAlternateAddress
Checking indexes for ou
  Index exists
  Index eq found
  Index pres found
    Index pres exists
  No new indexes required
Checking indexes for cn
  Index exists
  Index eq found
  Index pres found
  Index sub found
    Index eq exists
  Default index pres found
  Default index eq found
  Default index sub found
  No new indexes required
Checking indexes for uniqueMember
  Index exists
  Index eq found
    Index eq exists
  Default index eq found
  No new indexes required
Checking indexes for cosspecifier
  Index exists
  Index eq found
  Index pres found
    Index pres exists
  No new indexes required
Checking indexes for member
  Index exists
  Index eq found
    Index eq exists
  Default index eq found
  No new indexes required
Checking indexes for mailEquivalentAddress
  Index exists
  Index eq found
  Index pres found
  Index sub found
  Index approx found
    Index pres exists
    Index eq exists
    Index approx exists
    Index sub exists
  No new indexes required
Checking indexes for mgrpUniqueId
```

```
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for inetCos
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mailUserStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for memberOf
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
        Index sub exists
      No new indexes required
    Checking indexes for icsCalendarOwned
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mail
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index approx does not exist
        Index sub exists
      Default index pres found
      Default index eq found
      Default index sub found
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    Checking indexes for groupid
      Index exists
      Index eq found
      Index pres found
      Index sub found
```

```
        Index pres exists
        Index eq exists
        Index sub exists
      No new indexes required
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for mailDomainStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for inetCanonicalDomainName
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for memberOfManagedGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for un
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for memberOfPABGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
```

```
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for MemberofPiGroup
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for displayname
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index sub exists
      No new indexes required
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mlsubListIdentifier
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mail
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20100803205832/dssetup.sh
   /var/tmp/dssetup_20100803205832/dssetup.ldif

Running /var/tmp/dssetup_20100803205832/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
```

```
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20100803205832/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20100803205832/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' started:
pid=28431
-- Applying ldif file /var/tmp/dssetup_20100803205832/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20100803205832/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20100803205832/dssetup.ldif

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailAlternateAddress o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailAlternateAddress o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
```

```
mailAlternateAddress sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailAlternateAddress o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailAlternateAddress reindex o=usergroup
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mail o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mail o=usergroup
```

```
Successful Completion. Consult
/var/tmp/dssetup_20100803205832/dssetup.log for details
```

DSsetup 6.4-6.03 Sample Session - Existing Directory Server 7.0 Instance for Schema 2

Table of Contents

- Introduction
- Summary of Commands Run
- Comments
- Session

Introduction

This sample session shows the output of `comm_dssetup.pl` on a fresh Directory Server 7.0 instance.

Summary of Commands Run

```
7 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
    8 ls /var/tmp/dssetup_20100803213928
    9 ls /var/tmp/dssetup_20100803213928/save
   10 cat /var/tmp/dssetup_20100803213928/99user_new.ldif
   11 cat /var/tmp/dssetup_20100803213928/dssetup.ldif
   12 cat /var/tmp/dssetup_20100803213928/dssetup.ldif.rej
   13 cat /var/tmp/dssetup_20100803213928/dssetup.sh
   14 cat /var/tmp/dssetup_20100803213928/dssetup.log
```

Comments

- Sample Session for running comm_dssetup.pl a second time on the same DS instance

Session

```
(7 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-6.03 (built Mon Nov 23 01:07:24 PST 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20100803213928/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory
```

```
Directory server root [/var/opt/sun/directory] :


Please select a directory server instance from the following list:

[1]   ds7
[2]   dsins1


Which instance do you want [1]:

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:
- DS Install location: /opt/SUNWdsee7
- DS hostname: moe-2.example.com
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 7.0 on moe-2.example.com port 389

Warning: This version of comm_dssetup.pl (6.4 6.03) has been run
previously (6.4 6.03), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]:
A list of suffixes are as follows:
  o=comms-config
  o=mlusers
  o=pab
  o=PiServerDb
  o=usergroup

Please enter the Users/Groups base suffix [o=usergroup] :
There are 3 possible schema types:
  1   - schema 1
  1.5 - schema 2 compatibility mode for schema 1 systems
        that has been converted with commdirmig
  2   - schema 2

Please enter the Schema Type (1, 1.5, 2) [2]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : ds7
```

```
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 2
  DC Root                            : o=usergroup
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      No new indexes required
    Checking indexes for mailAlternateAddress
      No new indexes required
    Checking indexes for ou
      No new indexes required
    Checking indexes for cn
      No new indexes required
    Checking indexes for uniqueMember
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for icsCalendarOwned
      No new indexes required
    Checking indexes for mail
      No new indexes required
    Checking indexes for groupid
      No new indexes required
  Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
```

```
      No new indexes required
    Checking indexes for mailDomainStatus
      No new indexes required
    Checking indexes for sunOrganizationAlias
      No new indexes required
    Checking indexes for sunPreferredDomain
      No new indexes required
    Checking indexes for o
      No new indexes required
    Checking indexes for associatedDomain
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for memberOfManagedGroup
      No new indexes required
    Checking indexes for un
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      No new indexes required
    Checking indexes for MemberofPiGroup
      No new indexes required
    Checking indexes for displayname
      No new indexes required
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      No new indexes required
    Checking indexes for mail
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20100803213928/dssetup.sh
   /var/tmp/dssetup_20100803213928/dssetup.ldif

Running /var/tmp/dssetup_20100803213928/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20100803213928/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20100803213928/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
```

```
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' started:
pid=16099
-- Applying ldif file /var/tmp/dssetup_20100803213928/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20100803213928/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20100803213928/dssetup.ldif

Successful Completion. Consult
/var/tmp/dssetup_20100803213928/dssetup.log for details
(8 root) ls /var/tmp/dssetup_20100803213928
total 54
   6 99user_new.ldif      26 dssetup.log
   6 dssetup.ldif          9 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
(9 root) ls /var/tmp/dssetup_20100803213928/save
total 933
 154 00core.ldif                    7 50ns-mcd-li.ldif
  16 00ds6pwp.ldif                 42 50ns-mcd-mail.ldif
   5 05rfc2247.ldif                 3 50ns-media.ldif
   3 05rfc2927.ldif                17 50ns-mlm.ldif
  16 11rfc2307.ldif               107 50ns-msg.ldif
  10 20subscriber.ldif              7 50ns-netshare.ldif
   7 25java-object.ldif             5 50ns-news.ldif
  19 28pilot.ldif                   3 50ns-proxy.ldif
  25 30ns-common.ldif               7 50ns-value.ldif
   7 50iplanet-servicemgt.ldif      8 50ns-wcal.ldif
  14 50ns-admin.ldif                4 50ns-web.ldif
  15 50ns-calendar.ldif            20 55ims-ical.ldif
   4 50ns-certificate.ldif         55 56ims-schema.ldif
  24 50ns-compass.ldif             36 60iplanet-calendar.ldif
  13 50ns-delegated-admin.ldif     14 65im.ldif
```

```
  33 50ns-directory.ldif           17 70delgated-admin.ldif
  67 50ns-iabs.ldif                 8 70sun-schema2.ldif
   4 50ns-legacy.ldif              57 71sun-am.ldif
  18 50ns-mail.ldif                10 98ns-dummy-uwc.ldif
  35 50ns-mcd-browser.ldif          6 99user.ldif
  11 50ns-mcd-config.ldif
(10 root) cat /var/tmp/dssetup_20100803213928/99user_new.ldif
dn: cn=schema
objectClass: top
objectClass: ldapSubentry
objectClass: subschema
cn: schema
aci: (target="ldap:///cn=schema")(targetattr !="aci")(version 3.0;acl
"anonymo
 us, no acis"; allow (read, search, compare) userdn = "ldap:///anyone";)
modifiersName: cn=directory manager
modifyTimestamp: 20100804043744Z
attributeTypes: ( sunExcludeServices-oid NAME 'sunExcludeServices' DESC
'servi
 ces to be excluded specifically from the services available in the root
suff
 ix ' EQUALITY caseIgnoreMatch SYNTAX 1.3.6.1.4.1.1466.115.121.1.26
X-ORIGIN
 'user defined' )
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME 'sunkeyvalue' DESC
'Attribut
 e to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.1
 15.121.1.26 X-ORIGIN ( 'Sun ONE Identity Management' 'user defined' ) )
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME 'sunkeyvalue' DESC
'Attribut
 e to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.1
 15.121.1.26 X-ORIGIN ( 'Sun ONE Identity Management' 'user defined' ) )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.107 NAME 'sunIMConference' DESC
'Conf
 erence Object' SUP top AUXILIARY MAY ( sunIMConferenceAffiliations $
sunIMCo
 nferenceConfiguration $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.108 NAME 'sunIMNews' DESC
'Pubsub Cha
 nnel Object' SUP top AUXILIARY MAY ( sunIMNewsAffiliations $
sunIMNewsConfig
 uration $ sunIMNewsMetaData $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.109 NAME 'sunIMStoredMessage'
DESC 'S
 tored Message Object' SUP top AUXILIARY MAY ( sunIMMessageID $
sunIMMessageC
 ontent ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.27 NAME 'sunservicecomponent'
DESC 'S
 ub-components of the service' SUP top STRUCTURAL MUST ou MAY (
labeledUri $
 sunserviceid $ sunsmspriority $ sunkeyvalue $ sunxmlkeyvalue $
description )
  X-ORIGIN ( 'Sun Java System Identity Management' 'user defined' ) )
```

```
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Obje
 ctclass for storing meta data for Sun Communication' SUP top STRUCTURAL
MUST
  cn MAY sunkeyvalue X-ORIGIN 'user defined' )
nsSchemaCSN: 4c58ee98000000000000

(11 root) cat /var/tmp/dssetup_20100803213928/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-2.example.com -D binddn -j passwdfile -c
-f /var/tmp/dssetup_20100803213928/dssetup.ldif

#--------------------------------------------------
# This section creates the installer metadata
#--------------------------------------------------

##########################################
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
##########################################
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

##########################################
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
##########################################
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

##########################################
# dn: cn=CommServers,o=comms-config
# Update the installer metadata for Comm Servers
##########################################
dn: cn=CommServers,o=comms-config
changetype: modify
replace: sunkeyvalue
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=6.03
sunkeyvalue: dcsuffix=o=usergroup
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=2
```

```
########################################
# dn: cn=CommServers,o=comms-config
# aci for anonymous read access
########################################
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(12 root) cat /var/tmp/dssetup_20100803213928/dssetup.ldif.rej
# Error: Type or value exists
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(13 root) cat /var/tmp/dssetup_20100803213928/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
  echo "Usage: $0 -D <binddn> -j <passwdfile>"
  echo "  -D binddn        bind dn"
  echo "  -j <passwdfile>  read bind passwd from 'file' for simple
authentication"
  exit 1
}

if [ $# -lt 1 ]
then
  echo "You must specify either -j"
  usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
  case $c in
  D)
    Dflag=1
    BINDDN=$OPTARG;;
  j)
    jflag=1
    pflag=-j
    parg=$OPTARG;;
  \?)
    usage;;
```

```
  esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
  echo "You must specify the -D switch"
  usage
fi

if [ $jflag -eq 0 ]
then
  echo "You must specify -j"
  usage
fi

if [ $# -ge 1 ]
then
  echo "Unrecognized argument $*"
  usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
  echo
  echo "To run this utility you need to be the system's root user. \n"
  echo
  exit 1
fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-mail.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-mlm.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-msg.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-value.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 55ims-ical.ldif
cp /opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 56ims-schema.ldif
cp /opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 65im.ldif
```

```
cp /opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 70sun-schema2.ldif
cp /opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 71sun-am.ldif
cp /opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-iabs.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 70delgated-admin.ldif
cp /opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/ds7/config/schema

echo -- Stopping Directory Server
/opt/SUNWdsee7/bin/dsadm stop /var/opt/sun/directory/ds7
if [ $? != 0 ]; then
  echo "Stopping the Directory server failed"
  exit 1
fi
sleep 5

echo -- Starting Directory Server
/opt/SUNWdsee7/bin/dsadm start /var/opt/sun/directory/ds7
if [ $? != 0 ]; then
  echo "The server may not have restarted properly"
  echo "Please restart it manually"
fi
sleep 5

echo -- Applying ldif file /var/tmp/dssetup_20100803213928/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-2.example.com -D "$BINDDN" $pflag "$parg" -c
-e /var/tmp/dssetup_20100803213928/dssetup.ldif.rej -f
/var/tmp/dssetup_20100803213928/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20100803213928/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
  echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
  echo "-- WARNING: ldapmodify returned $stat"
else
  echo "-- ERROR: ldapmodify returned $stat"
  exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20100803213928/dssetup.ldif
echo
```

```
(14 root) cat /var/tmp/dssetup_20100803213928/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-6.03 (built Mon Nov 23 01:07:24 PST 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20100803213928/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]   ds7
[2]   dsins1


Which instance do you want [1]:
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /opt/SUNWdsee7
- DS hostname: moe-2.example.com
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20100803213928/dssetup.pw" -p 389 -h moe-2.example.com
-b "cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Directory-Server/7.0 B2009.1104.2254
-- Detected DS versions:
   full: 7.0
   major: 7
   minor: 0
   micro: NONE
   patch: NONE

Detected DS version 7.0 on moe-2.example.com port 389
-- Stored Dssetup data ver=6.4 rev=6.03, dctree=o=usergroup
   ug=o=usergroup, schematype=2
```

```
Warning: This version of comm_dssetup.pl (6.4 6.03) has been run
previously (6.4 6.03), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]: A list of
suffixes are as follows:
  o=comms-config
  o=mlusers
  o=pab
  o=PiServerDb
  o=usergroup

Please enter the Users/Groups base suffix [o=usergroup] :
-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  usergroupdb2

-=-=-=-=-=-=-=-=-=-=-=
There are 3 possible schema types:
  1   - schema 1
  1.5 - schema 2 compatibility mode for schema 1 systems
        that has been converted with commdirmig
  2   - schema 2

Please enter the Schema Type (1, 1.5, 2) [2]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : ds7
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 2
  DC Root                            : o=usergroup
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  comms-configdb2
```

```
-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  usergroupdb2

-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  pabdb2

-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  PiServerDbdb2

-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  mlusersdb2

-=-=-=-=-=-=-=-=-=-=

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mailAlternateAddress
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      Default index eq found
      No new indexes required
    Checking indexes for ou
      Index exists
```

```
      Index eq found
      Index pres found
        Index pres exists
      No new indexes required
    Checking indexes for cn
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for uniqueMember
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      No new indexes required
    Checking indexes for cosspecifier
      Index exists
      Index eq found
      Index pres found
        Index pres exists
      No new indexes required
    Checking indexes for member
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      No new indexes required
    Checking indexes for mailEquivalentAddress
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mgrpUniqueId
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for inetCos
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mailUserStatus
```

```
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for memberOf
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
        Index sub exists
      No new indexes required
    Checking indexes for icsCalendarOwned
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mail
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for groupid
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index sub exists
      No new indexes required
  Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
```

```
      No new indexes required
    Checking indexes for mailDomainStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for sunOrganizationAlias
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for sunPreferredDomain
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for o
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for associatedDomain
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for memberOfManagedGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for un
      Index exists
      Index eq found
      Index pres found
        Index eq exists
```

```
      No new indexes required
    Checking indexes for memberOfPABGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for MemberofPiGroup
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for displayname
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index sub exists
      No new indexes required
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mlsubListIdentifier
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mail
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required

Checking to see if DN needs to be created for suffixes
```

```
Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20100803213928/dssetup.sh
   /var/tmp/dssetup_20100803213928/dssetup.ldif

Running /var/tmp/dssetup_20100803213928/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20100803213928/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20100803213928/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' started:
pid=16099
-- Applying ldif file /var/tmp/dssetup_20100803213928/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20100803213928/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20100803213928/dssetup.ldif
```

```
Successful Completion. Consult
/var/tmp/dssetup_20100803213928/dssetup.log for details
```

DSsetup 6.4-6.03 Sample Session - Fresh Directory Server 7.0 Instance for Schema 1

Table of Contents

- Introduction
- Summary of Commands Run
- Comments
- Session

Introduction

This sample session shows the output of `comm_dssetup.pl` on a fresh Directory Server 7.0 instance.

Summary of Commands Run

```
13  /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
   14  ls /var/tmp/dssetup_20100803223904
   15  ls /var/tmp/dssetup_20100803223904/save
   16  cat /var/tmp/dssetup_20100803223904/99user_new.ldif
   17  cat /var/tmp/dssetup_20100803223904/dssetup.ldif
   18  cat /var/tmp/dssetup_20100803223904/dssetup.ldif.rej
   19  cat /var/tmp/dssetup_20100803223904/dssetup.sh
   20  cat /var/tmp/dssetup_20100803223904/dssetup.log
```

Comments

- In the example below DS7 was installed using the pkg installer on Solaris 10 x86 into the default location of /opt/SUNWdsee7.
- To create a pristine DS instance
  - cd /opt/SUNWdsee7/bin
  - ./dsadm create /var/opt/sun/directory/ds7
  - ./dsadm start /var/opt/sun/directory/ds7
  - ./dsadm delete /var/opt/sun/directory/ds7

Session

```
(13 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-6.03 (built Mon Nov 23 01:07:24 PST 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20100803223904/dssetup.log

Do you want to continue [y]:
```

```
Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :


Please select a directory server instance from the following list:

[1]   ds7
[2]   dsins1


Which instance do you want [1]:

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:
- DS Install location: /opt/SUNWdsee7
- DS hostname: moe-2.example.com
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 7.0 on moe-2.example.com port 389

Will this directory server be used for users/groups [yes]:
WARNING: No default suffix found in the Directory
A list of suffixes are as follows:
  No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
There are 3 possible schema types:
  1   - schema 1
  1.5 - schema 2 compatibility mode for schema 1 systems
        that has been converted with commdirmig
  2   - schema 2

Please enter the Schema Type (1, 1.5, 2) [2]: 1

Please enter the DC Tree base suffix [o=internet]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : ds7
  Users/Groups Directory             : yes
```

```
  Update Schema                      : yes
  Schema Type                        : 1
  DC Root                            : o=internet
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added
  Will Create suffix o=comms-config
  Will Create suffix o=usergroup
  Will Create suffix o=internet
  Will Create suffix o=pab
  Will Create suffix o=PiServerDb
  Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendar
    Checking indexes for mailAlternateAddress
      No new indexes required
    Checking indexes for ou
      New indexes and Reindexing required
      ReIndex will happen for index type ou
    Checking indexes for cn
      No new indexes required
    Checking indexes for uniqueMember
      No new indexes required
    Checking indexes for cosspecifier
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      New indexes and Reindexing required
      ReIndex will happen for index type mailEquivalentAddress
    Checking indexes for mgrpUniqueId
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for inetCos
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for mailUserStatus
      New indexes and Reindexing required
```

```
      ReIndex will happen for index type mailUserStatus
    Checking indexes for memberOf
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for icsCalendarOwned
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
    Checking indexes for mail
      No new indexes required
    Checking indexes for groupid
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      New indexes and Reindexing required
      ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    Checking indexes for inetCanonicalDomainName
      New indexes and Reindexing required
      ReIndex will happen for index type inetCanonicalDomainName
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
      New indexes and Reindexing required
      ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      New indexes and Reindexing required
      ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
      New indexes and Reindexing required
      ReIndex will happen for index type MemberofPiGroup
    Checking indexes for displayname
      New indexes and Reindexing required
      ReIndex will happen for index type displayname
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubMail
    Checking indexes for mlsubListIdentifier
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubListIdentifier
    Checking indexes for mail
      No new indexes required

Checking to see if DN needs to be created for suffixes
```

```
Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20100803223904/dssetup.sh
   /var/tmp/dssetup_20100803223904/dssetup.ldif

Running /var/tmp/dssetup_20100803223904/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20100803223904/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20100803223904/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' started:
pid=26544
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=internet
-- Done Creating o=internet

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers
```

```
-- Applying ldif file /var/tmp/dssetup_20100803223904/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20100803223904/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20100803223904/dssetup.ldif

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t icsCalendar reindex o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou
```

```
-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr ou o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup cosspecifier
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr cosspecifier o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t cosspecifier reindex o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t cosspecifier o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
```

```
mailEquivalentAddress approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mgrpUniqueId
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mgrpUniqueId o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mgrpUniqueId reindex o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mgrpUniqueId o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetCos o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Index buffer bucket size: 0
```

```
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailUserStatus

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailUserStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailUserStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailUserStatus reindex o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailUserStatus o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOf o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOf o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOf reindex o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOf o=usergroup
```

```
-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendarOwned
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t icsCalendarOwned reindex o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t icsCalendarOwned
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
```

```
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=internet inetDomainBaseDN
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=internet
inetDomainBaseDN

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet inetDomainBaseDN
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetDomainBaseDN o=internet" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet inetDomainBaseDN
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetDomainBaseDN o=internet" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetDomainBaseDN reindex o=internet
## internetdb2: Indexing attribute: inetDomainBaseDN
## internetdb2: Index buffer bucket size: 0
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetDomainBaseDN o=internet

-- /opt/SUNWdsee7/bin/dsconf create-index o=internet mailDomainStatus
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=internet
mailDomainStatus

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet mailDomainStatus
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailDomainStatus o=internet" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet mailDomainStatus
eq-enabled:on
```

```
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailDomainStatus o=internet" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailDomainStatus reindex o=internet
## internetdb2: Indexing attribute: mailDomainStatus
## internetdb2: Index buffer bucket size: 0
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailDomainStatus o=internet

-- /opt/SUNWdsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetCanonicalDomainName o=internet" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetCanonicalDomainName o=internet" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetCanonicalDomainName reindex
o=internet
## internetdb2: Indexing attribute: inetCanonicalDomainName
## internetdb2: Index buffer bucket size: 0
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetCanonicalDomainName
o=internet

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPAB o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
```

```
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPAB o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfManagedGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfManagedGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfManagedGroup reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfManagedGroup o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab un
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab un

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr un o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t un o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup
```

```
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPABGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPABGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb MemberOfPiBook
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr MemberOfPiBook o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t MemberOfPiBook reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Index buffer bucket size: 0
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t MemberOfPiBook o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb MemberofPiGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr MemberofPiGroup o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t MemberofPiGroup reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
```

```
## PiServerDbdb2: Index buffer bucket size: 0
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t MemberofPiGroup
o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t displayname reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Index buffer bucket size: 100
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t displayname o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mlsubMail o=mlusers" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Index buffer bucket size: 0
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mlsubMail o=mlusers
```

```
-- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mlsubListIdentifier o=mlusers" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mlsubListIdentifier reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Index buffer bucket size: 0
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mlsubListIdentifier
o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20100803223904/dssetup.log for details
(14 root) ls /var/tmp/dssetup_20100803223904
total 175
   2 99user_new.ldif      70 dssetup.log
   6 dssetup.ldif         90 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
(15 root) ls /var/tmp/dssetup_20100803223904/save
total 637
 154 00core.ldif                   17 50ns-mail.ldif
  16 00ds6pwp.ldif                 35 50ns-mcd-browser.ldif
   5 05rfc2247.ldif                11 50ns-mcd-config.ldif
   3 05rfc2927.ldif                 7 50ns-mcd-li.ldif
  16 11rfc2307.ldif                42 50ns-mcd-mail.ldif
  10 20subscriber.ldif              3 50ns-media.ldif
   7 25java-object.ldif            16 50ns-mlm.ldif
  19 28pilot.ldif                 100 50ns-msg.ldif
  25 30ns-common.ldif               7 50ns-netshare.ldif
   7 50iplanet-servicemgt.ldif      5 50ns-news.ldif
  14 50ns-admin.ldif                3 50ns-proxy.ldif
  15 50ns-calendar.ldif             7 50ns-value.ldif
   4 50ns-certificate.ldif          8 50ns-wcal.ldif
  24 50ns-compass.ldif              4 50ns-web.ldif
  14 50ns-delegated-admin.ldif      2 99user.ldif
  33 50ns-directory.ldif
   4 50ns-legacy.ldif
(16 root) cat /var/tmp/dssetup_20100803223904/99user_new.ldif
#
# Copyright 2003 Sun Microsystems, Inc. All Rights Reserved
# Patents Pending.Use is subject to license terms.
#
#
# Use of this product is subject to
# license terms. Copyright (c) 2001 Sun Microsystems, Inc.
# Some preexisting portions Copyright (c) 2001 Netscape Communications
```

```
Corp.
# All rights reserved.
#
#
# User-defined schema
#
dn: cn=schema
(17 root) cat /var/tmp/dssetup_20100803223904/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-2.example.com -D binddn -j passwdfile -c
-f /var/tmp/dssetup_20100803223904/dssetup.ldif

#--------------------------------------------------
# This section creates the installer metadata
#--------------------------------------------------

##########################################
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
##########################################
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

##########################################
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
##########################################
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

##########################################
# dn: o=comms-config
# Create the DN for the root suffix of metadata for Comms Products
##########################################
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject

##########################################
# dn: cn=CommServers,o=comms-config
# Create the DN for the installer metadata for Comm Servers
##########################################
dn: cn=CommServers,o=comms-config
```

```
changetype: add
objectclass: top
objectclass: sunCommsMetaData
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=6.03
sunkeyvalue: dcsuffix=o=internet
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=1
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(18 root) cat /var/tmp/dssetup_20100803223904/dssetup.ldif.rej
# Error: Already exists
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject
(19 root) cat /var/tmp/dssetup_20100803223904/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
  echo "Usage: $0 -D <binddn> -j <passwdfile>"
  echo "  -D binddn        bind dn"
  echo "  -j <passwdfile>  read bind passwd from 'file' for simple
authentication"
  exit 1
}

if [ $# -lt 1 ]
then
  echo "You must specify either -j"
  usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
  case $c in
  D)
    Dflag=1
    BINDDN=$OPTARG;;
  j)
    jflag=1
    pflag=-j
    parg=$OPTARG;;
  \?)
    usage;;
  esac
```

```
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
  echo "You must specify the -D switch"
  usage
fi

if [ $jflag -eq 0 ]
then
  echo "You must specify -j"
  usage
fi

if [ $# -ge 1 ]
then
  echo "Unrecognized argument $*"
  usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
  echo
  echo "To run this utility you need to be the system's root user. \n"
  echo
  exit 1
fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-mail.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-mlm.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-msg.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-value.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 55ims-ical.ldif
cp /opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 56ims-schema.ldif
cp /opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 65im.ldif
cp /opt/sun/comms/dssetup/sbin/schema/65im.ldif
```

```
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 70sun-schema2.ldif
cp /opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 71sun-am.ldif
cp /opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-iabs.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 70delgated-admin.ldif
cp /opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/ds7/config/schema

echo -- Stopping Directory Server
/opt/SUNWdsee7/bin/dsadm stop /var/opt/sun/directory/ds7
if [ $? != 0 ]; then
  echo "Stopping the Directory server failed"
  exit 1
fi
sleep 5

echo -- Starting Directory Server
/opt/SUNWdsee7/bin/dsadm start /var/opt/sun/directory/ds7
if [ $? != 0 ]; then
  echo "The server may not have restarted properly"
  echo "Please restart it manually"
fi
sleep 5

echo -- Creating Suffix o=comms-config
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
usergroupdb2 o=usergroup
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
```

```
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=internet
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
internetdb2 o=internet
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=internet
echo

echo -- Creating Suffix o=pab
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
pabdb2 o=pab
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=PiServerDb
echo

echo -- Creating Suffix o=mlusers
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=mlusers
echo

echo -- Applying ldif file /var/tmp/dssetup_20100803223904/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-2.example.com -D "$BINDDN" $pflag "$parg" -c
-e /var/tmp/dssetup_20100803223904/dssetup.ldif.rej -f
```

```
/var/tmp/dssetup_20100803223904/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20100803223904/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
  echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
  echo "-- WARNING: ldapmodify returned $stat"
else
  echo "-- ERROR: ldapmodify returned $stat"
  exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20100803223904/dssetup.ldif
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"icsCalendar"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
echo
```

```
echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t icsCalendar reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "icsCalendar"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "icsCalendar"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "ou"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup" "ou"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
```

```
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "ou" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t ou reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "ou"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "ou" "o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"cosspecifier"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t cosspecifier reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "cosspecifier"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
```

```
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "cosspecifier"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"mailEquivalentAddress"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
```

```
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"mailEquivalentAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t
"mailEquivalentAddress" "o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"mgrpUniqueId"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
```

```
mgrpUniqueId eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mgrpUniqueId reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "mgrpUniqueId"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mgrpUniqueId"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "inetCos"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"inetCos"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t inetCos reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "inetCos"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "inetCos"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailUserStatus
```

```
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"mailUserStatus"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailUserStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mailUserStatus reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "mailUserStatus"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mailUserStatus"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "memberOf"
```

```
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"memberOf"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "memberOf" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t memberOf reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "memberOf"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "memberOf"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"icsCalendarOwned"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"icsCalendarOwned" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "icsCalendarOwned"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "groupid"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"groupid"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
```

```
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t groupid reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "groupid"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "groupid"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=internet
inetDomainBaseDN
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=internet"
"inetDomainBaseDN"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
```

```
inetDomainBaseDN pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t inetDomainBaseDN reindex o=internet
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"inetDomainBaseDN" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "inetDomainBaseDN"
"o=internet"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=internet
mailDomainStatus
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=internet"
"mailDomainStatus"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
echo
```

```
echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"mailDomainStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mailDomainStatus reindex o=internet
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"mailDomainStatus" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mailDomainStatus"
"o=internet"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"inetCanonicalDomainName"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=internet"
"inetCanonicalDomainName"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"inetCanonicalDomainName" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
```

```
inetCanonicalDomainName eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=internet"
"inetCanonicalDomainName" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t inetCanonicalDomainName reindex
o=internet
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"inetCanonicalDomainName" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t
"inetCanonicalDomainName" "o=internet"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=pab"
"memberOfPAB"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
```

```
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t memberOfPAB reindex o=pab
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "memberOfPAB"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "memberOfPAB" "o=pab"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=pab
memberOfManagedGroup
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfManagedGroup" "eq-enabled:on"
stat=$?
```

```
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t memberOfManagedGroup reindex o=pab
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"memberOfManagedGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "memberOfManagedGroup"
"o=pab"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=pab un
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab" "un"

stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=pab" "un"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab" "un"
"eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t un reindex o=pab
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "un" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "un" "o=pab"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup
```

```
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPABGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=pab"
"memberOfPABGroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"memberOfPABGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "memberOfPABGroup"
"o=pab"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
```

```
"o=PiServerDb" "MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=PiServerDb"
"MemberOfPiBook"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t MemberOfPiBook reindex o=PiServerDb
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "MemberOfPiBook"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "MemberOfPiBook"
"o=PiServerDb"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=PiServerDb"
"MemberofPiGroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "MemberofPiGroup" "eq-enabled:on"
stat=$?
```

```
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "MemberofPiGroup"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "MemberofPiGroup"
"o=PiServerDb"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "displayname"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=PiServerDb"
"displayname"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
```

```
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t displayname reindex o=PiServerDb
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "displayname"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "displayname"
"o=PiServerDb"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=mlusers"
"mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=mlusers"
"mlsubMail"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=mlusers"
"mlsubMail" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
```

```
mlsubMail eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mlsubMail reindex o=mlusers
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "mlsubMail"
"o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mlsubMail"
"o=mlusers"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=mlusers"
"mlsubListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=mlusers"
"mlsubListIdentifier"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=mlusers"
"mlsubListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"mlsubListIdentifier" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mlsubListIdentifier"
"o=mlusers"
echo
(20 root) cat /var/tmp/dssetup_20100803223904/dssetup.log
```

```
-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-6.03 (built Mon Nov 23 01:07:24 PST 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20100803223904/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]   ds7
[2]   dsins1


Which instance do you want [1]:
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /opt/SUNWdsee7
- DS hostname: moe-2.example.com
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20100803223904/dssetup.pw" -p 389 -h moe-2.example.com
-b "cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Directory-Server/7.0 B2009.1104.2254
-- Detected DS versions:
   full: 7.0
   major: 7
   minor: 0
   micro: NONE
   patch: NONE

Detected DS version 7.0 on moe-2.example.com port 389
-- Stored Dssetup data ver=0 rev=0, dctree=
   ug=, schematype=
```

```
Will this directory server be used for users/groups [yes]: WARNING: No
default suffix found in the Directory
A list of suffixes are as follows:
  No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=
There are 3 possible schema types:
  1   - schema 1
  1.5 - schema 2 compatibility mode for schema 1 systems
        that has been converted with commdirmig
  2   - schema 2

Please enter the Schema Type (1, 1.5, 2) [2]: 1
Please enter the DC Tree base suffix [o=internet]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : ds7
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 1
  DC Root                            : o=internet
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=comms-config": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=comms-config

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
```

```
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-
  Will Create suffix o=usergroup

-=-=-=-=-=-=-=-=-=-=-
has_naming_context_ds6 get-suffix-prop result:
"o=internet": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-
  Will Create suffix o=internet

-=-=-=-=-=-=-=-=-=-=-
has_naming_context_ds6 get-suffix-prop result:
"o=pab": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-
  Will Create suffix o=pab

-=-=-=-=-=-=-=-=-=-=-
has_naming_context_ds6 get-suffix-prop result:
"o=PiServerDb": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-
  Will Create suffix o=PiServerDb

-=-=-=-=-=-=-=-=-=-=-
has_naming_context_ds6 get-suffix-prop result:
"o=mlusers": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-
  Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendar
    Checking indexes for mailAlternateAddress
      Default index DN exists
      Default index eq found
      No new indexes required
    Checking indexes for ou
      Index does not exist
```

```
        Index pres does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type ou
    Checking indexes for cn
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for uniqueMember
      Default index DN exists
      Default index eq found
      No new indexes required
    Checking indexes for cosspecifier
      Index does not exist
        Index pres does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for member
      Default index DN exists
      Default index eq found
      No new indexes required
    Checking indexes for mailEquivalentAddress
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mailEquivalentAddress
    Checking indexes for mgrpUniqueId
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for inetCos
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for mailUserStatus
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mailUserStatus
    Checking indexes for memberOf
      Index does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for icsCalendarOwned
      Index does not exist
        Index pres does not exist
        Index eq does not exist
```

```
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
    Checking indexes for mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for groupid
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    Checking indexes for inetCanonicalDomainName
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type inetCanonicalDomainName
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
      Index does not exist
```

```
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type MemberofPiGroup
    Checking indexes for displayname
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type displayname
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubMail
    Checking indexes for mlsubListIdentifier
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubListIdentifier
    Checking indexes for mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20100803223904/dssetup.sh
   /var/tmp/dssetup_20100803223904/dssetup.ldif

Running /var/tmp/dssetup_20100803223904/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
```

```
Running /var/tmp/dssetup_20100803223904/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20100803223904/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' started:
pid=26544
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=internet
-- Done Creating o=internet

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20100803223904/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20100803223904/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20100803223904/dssetup.ldif
```

```
-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t icsCalendar reindex o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr ou o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t ou o=usergroup
```

```
-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup cosspecifier
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr cosspecifier o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t cosspecifier reindex o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t cosspecifier o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
```

```
-- /opt/SUNWdsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mgrpUniqueId
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mgrpUniqueId o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mgrpUniqueId reindex o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mgrpUniqueId o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetCos o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailUserStatus

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailUserStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
```

```
-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailUserStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailUserStatus reindex o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailUserStatus o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOf o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOf o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOf reindex o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendarOwned
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
```

```
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t icsCalendarOwned reindex o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t icsCalendarOwned
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
```

```
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=internet inetDomainBaseDN
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=internet
inetDomainBaseDN

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet inetDomainBaseDN
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetDomainBaseDN o=internet" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet inetDomainBaseDN
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetDomainBaseDN o=internet" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetDomainBaseDN reindex o=internet
## internetdb2: Indexing attribute: inetDomainBaseDN
## internetdb2: Index buffer bucket size: 0
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetDomainBaseDN o=internet

-- /opt/SUNWdsee7/bin/dsconf create-index o=internet mailDomainStatus
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=internet
mailDomainStatus

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet mailDomainStatus
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailDomainStatus o=internet" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet mailDomainStatus
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailDomainStatus o=internet" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailDomainStatus reindex o=internet
## internetdb2: Indexing attribute: mailDomainStatus
## internetdb2: Index buffer bucket size: 0
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailDomainStatus o=internet

-- /opt/SUNWdsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName
```

```
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetCanonicalDomainName o=internet" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetCanonicalDomainName o=internet" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetCanonicalDomainName reindex
o=internet
## internetdb2: Indexing attribute: inetCanonicalDomainName
## internetdb2: Index buffer bucket size: 0
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetCanonicalDomainName
o=internet

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPAB o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPAB o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab
```

```
memberOfManagedGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfManagedGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfManagedGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfManagedGroup reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfManagedGroup o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab un
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab un

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr un o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t un o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPABGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPABGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
```

```
-- /opt/SUNWdsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb MemberOfPiBook
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr MemberOfPiBook o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t MemberOfPiBook reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Index buffer bucket size: 0
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t MemberOfPiBook o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb MemberofPiGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr MemberofPiGroup o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t MemberofPiGroup reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Index buffer bucket size: 0
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t MemberofPiGroup
o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
```

```
displayname pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t displayname reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Index buffer bucket size: 100
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t displayname o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mlsubMail o=mlusers" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Index buffer bucket size: 0
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mlsubListIdentifier o=mlusers" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mlsubListIdentifier reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Index buffer bucket size: 0
```

```
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mlsubListIdentifier
o=mlusers
```

```
Successful Completion. Consult
/var/tmp/dssetup_20100803223904/dssetup.log for details
```

DSsetup 6.4-6.03 Sample Session - Fresh Directory Server 7.0 Instance for Schema 2

Table of Contents

- Introduction
- Summary of Commands Run
- Comments
- Session

Introduction

This sample session shows the output of `comm_dssetup.pl` on a fresh Directory Server 7.0 instance.

Summary of Commands Run

```
11 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
    12 ls /var/tmp/dssetup_20100803212313/
    13 ls /var/tmp/dssetup_20100803212313/save
    14 cat /var/tmp/dssetup_20100803212313/99user_new.ldif
    15 cat /var/tmp/dssetup_20100803212313/dssetup.ldif
    16 cat /var/tmp/dssetup_20100803212313/dssetup.ldif.rej
    17 cat /var/tmp/dssetup_20100803212313/dssetup.sh
    18 cat /var/tmp/dssetup_20100803212313/dssetup.log
```

Comments

- In the example below DS7 was installed using the pkg installer on Solaris 10 x86 into the default location of /opt/SUNWdsee7.
- To create a pristine DS instance
  - cd /opt/SUNWdsee7/bin
  - ./dsadm create /var/opt/sun/directory/ds7
  - ./dsadm start /var/opt/sun/directory/ds7
  - ./dsadm delete /var/opt/sun/directory/ds7

Session

```
(11 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-6.03 (built Mon Nov 23 01:07:24 PST 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20100803212313/dssetup.log

Do you want to continue [y]:
```

```
Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :


Please select a directory server instance from the following list:

[1]   ds7
[2]   dsins1


Which instance do you want [1]:

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:
- DS Install location: /opt/SUNWdsee7
- DS hostname: moe-2.example.com
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 7.0 on moe-2.example.com port 389

Will this directory server be used for users/groups [yes]:
WARNING: No default suffix found in the Directory
A list of suffixes are as follows:
  No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
There are 3 possible schema types:
  1   - schema 1
  1.5 - schema 2 compatibility mode for schema 1 systems
        that has been converted with commdirmig
  2   - schema 2

Please enter the Schema Type (1, 1.5, 2) [2]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : ds7
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 2
```

```
  DC Root                              : o=usergroup
  User/Group Root                      : o=usergroup
  Add New Indexes                      : yes
  ReIndex New Indexes Now              : yes
  Directory Manager DN                 : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added
  Will Create suffix o=comms-config
  Will Create suffix o=usergroup
  Will Create suffix o=pab
  Will Create suffix o=PiServerDb
  Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendar
    Checking indexes for mailAlternateAddress
      No new indexes required
    Checking indexes for ou
      New indexes and Reindexing required
      ReIndex will happen for index type ou
    Checking indexes for cn
      No new indexes required
    Checking indexes for uniqueMember
      No new indexes required
    Checking indexes for cosspecifier
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      New indexes and Reindexing required
      ReIndex will happen for index type mailEquivalentAddress
    Checking indexes for mgrpUniqueId
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for inetCos
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for mailUserStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailUserStatus
    Checking indexes for memberOf
      New indexes and Reindexing required
```

```
      ReIndex will happen for index type memberOf
    Checking indexes for icsCalendarOwned
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
    Checking indexes for mail
      No new indexes required
    Checking indexes for groupid
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
  Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
      New indexes and Reindexing required
      ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    Checking indexes for sunOrganizationAlias
      New indexes and Reindexing required
      ReIndex will happen for index type sunOrganizationAlias
    Checking indexes for sunPreferredDomain
      New indexes and Reindexing required
      ReIndex will happen for index type sunPreferredDomain
    Checking indexes for o
      New indexes and Reindexing required
      ReIndex will happen for index type o
    Checking indexes for associatedDomain
      New indexes and Reindexing required
      ReIndex will happen for index type associatedDomain
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
      New indexes and Reindexing required
      ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      New indexes and Reindexing required
      ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
      New indexes and Reindexing required
      ReIndex will happen for index type MemberofPiGroup
    Checking indexes for displayname
      New indexes and Reindexing required
      ReIndex will happen for index type displayname
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubMail
```

```
    Checking indexes for mlsubListIdentifier
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubListIdentifier
    Checking indexes for mail
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20100803212313/dssetup.sh
   /var/tmp/dssetup_20100803212313/dssetup.ldif

Running /var/tmp/dssetup_20100803212313/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20100803212313/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20100803212313/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' started:
pid=26444
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb
```

```
-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20100803212313/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20100803212313/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20100803212313/dssetup.ldif

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t icsCalendar reindex o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
```

```
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr ou o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup cosspecifier
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr cosspecifier o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t cosspecifier reindex o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t cosspecifier o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
```

```
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mgrpUniqueId
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mgrpUniqueId o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mgrpUniqueId reindex o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mgrpUniqueId o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetCos o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
```

```
-- /opt/SUNWdsee7/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailUserStatus

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailUserStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailUserStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailUserStatus reindex o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailUserStatus o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOf o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOf o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOf reindex o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.
```

```
Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendarOwned
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t icsCalendarOwned reindex o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t icsCalendarOwned
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
```

```
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
inetDomainBaseDN

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetDomainBaseDN
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetDomainBaseDN o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetDomainBaseDN
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetDomainBaseDN o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetDomainBaseDN reindex o=usergroup
## usergroupdb2: Indexing attribute: inetDomainBaseDN
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetDomainBaseDN
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mailDomainStatus
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailDomainStatus

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailDomainStatus
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailDomainStatus o=usergroup" to reindex.
```

```
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailDomainStatus
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailDomainStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailDomainStatus reindex o=usergroup
## usergroupdb2: Indexing attribute: mailDomainStatus
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailDomainStatus
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr sunOrganizationAlias o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr sunOrganizationAlias o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t sunOrganizationAlias reindex o=usergroup
## usergroupdb2: Indexing attribute: sunOrganizationAlias
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t sunOrganizationAlias
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup sunPreferredDomain
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr sunPreferredDomain o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
```

```
sunPreferredDomain pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr sunPreferredDomain o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t sunPreferredDomain reindex o=usergroup
## usergroupdb2: Indexing attribute: sunPreferredDomain
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t sunPreferredDomain
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup o
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup o

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr o o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr o o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t o reindex o=usergroup
## usergroupdb2: Indexing attribute: o
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t o o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup associatedDomain
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
associatedDomain

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup associatedDomain
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr associatedDomain o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup associatedDomain
eq-enabled:on
Index will not be used unless re-indexed.
```

```
Use "dsconf reindex --attr associatedDomain o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t associatedDomain reindex o=usergroup
## usergroupdb2: Indexing attribute: associatedDomain
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t associatedDomain
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPAB o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPAB o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfManagedGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfManagedGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
```

```
-- /opt/SUNWdsee7/bin/dsconf -t memberOfManagedGroup reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfManagedGroup o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab un
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab un

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr un o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t un o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPABGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPABGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb MemberOfPiBook
eq-enabled:on
Index will not be used unless re-indexed.
```

```
Use "dsconf reindex --attr MemberOfPiBook o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t MemberOfPiBook reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Index buffer bucket size: 0
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t MemberOfPiBook o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb MemberofPiGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr MemberofPiGroup o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t MemberofPiGroup reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Index buffer bucket size: 0
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t MemberofPiGroup
o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
```

```
-- /opt/SUNWdsee7/bin/dsconf -t displayname reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Index buffer bucket size: 100
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t displayname o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mlsubMail o=mlusers" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Index buffer bucket size: 0
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mlsubListIdentifier o=mlusers" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mlsubListIdentifier reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Index buffer bucket size: 0
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mlsubListIdentifier
o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20100803212313/dssetup.log for details
(12 root) ls /var/tmp/dssetup_20100803212313/
total 191
   2 99user_new.ldif      76 dssetup.log
   6 dssetup.ldif        100 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
(13 root) ls /var/tmp/dssetup_20100803212313/save
total 637
 154 00core.ldif                   17 50ns-mail.ldif
```

```
  16 00ds6pwp.ldif                 35 50ns-mcd-browser.ldif
   5 05rfc2247.ldif                11 50ns-mcd-config.ldif
   3 05rfc2927.ldif                 7 50ns-mcd-li.ldif
  16 11rfc2307.ldif                42 50ns-mcd-mail.ldif
  10 20subscriber.ldif              3 50ns-media.ldif
   7 25java-object.ldif            16 50ns-mlm.ldif
  19 28pilot.ldif                 100 50ns-msg.ldif
  25 30ns-common.ldif               7 50ns-netshare.ldif
   7 50iplanet-servicemgt.ldif      5 50ns-news.ldif
  14 50ns-admin.ldif                3 50ns-proxy.ldif
  15 50ns-calendar.ldif             7 50ns-value.ldif
   4 50ns-certificate.ldif          8 50ns-wcal.ldif
  24 50ns-compass.ldif              4 50ns-web.ldif
  14 50ns-delegated-admin.ldif      2 99user.ldif
  33 50ns-directory.ldif
   4 50ns-legacy.ldif
(14 root) cat /var/tmp/dssetup_20100803212313/99user_new.ldif
#
# Copyright 2003 Sun Microsystems, Inc. All Rights Reserved
# Patents Pending.Use is subject to license terms.
#
#
# Use of this product is subject to
# license terms. Copyright (c) 2001 Sun Microsystems, Inc.
# Some preexisting portions Copyright (c) 2001 Netscape Communications
Corp.
# All rights reserved.
#
#
# User-defined schema
#
dn: cn=schema
(15 root) cat /var/tmp/dssetup_20100803212313/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-2.example.com -D binddn -j passwdfile -c
-f /var/tmp/dssetup_20100803212313/dssetup.ldif

#--------------------------------------------------
# This section creates the installer metadata
#--------------------------------------------------

##########################################
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
##########################################
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )
```

```
########################################
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
########################################
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

########################################
# dn: o=comms-config
# Create the DN for the root suffix of metadata for Comms Products
########################################
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject

########################################
# dn: cn=CommServers,o=comms-config
# Create the DN for the installer metadata for Comm Servers
########################################
dn: cn=CommServers,o=comms-config
changetype: add
objectclass: top
objectclass: sunCommsMetaData
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=6.03
sunkeyvalue: dcsuffix=o=usergroup
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=2
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(16 root) cat /var/tmp/dssetup_20100803212313/dssetup.ldif.rej
# Error: Already exists
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject
(17 root) cat /var/tmp/dssetup_20100803212313/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
  echo "Usage: $0 -D <binddn> -j <passwdfile>"
  echo "  -D binddn        bind dn"
```

```
  echo "  -j <passwdfile>  read bind passwd from 'file' for simple
authentication"
  exit 1
}

if [ $# -lt 1 ]
then
  echo "You must specify either -j"
  usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
  case $c in
  D)
    Dflag=1
    BINDDN=$OPTARG;;
  j)
    jflag=1
    pflag=-j
    parg=$OPTARG;;
  \?)
    usage;;
  esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
  echo "You must specify the -D switch"
  usage
fi

if [ $jflag -eq 0 ]
then
  echo "You must specify -j"
  usage
fi

if [ $# -ge 1 ]
then
  echo "Unrecognized argument $*"
  usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
  echo
  echo "To run this utility you need to be the system's root user. \n"
  echo
  exit 1
fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
```

```
cp /opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-mail.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-mlm.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-msg.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-value.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 55ims-ical.ldif
cp /opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 56ims-schema.ldif
cp /opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 65im.ldif
cp /opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 70sun-schema2.ldif
cp /opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 71sun-am.ldif
cp /opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 50ns-iabs.ldif
cp /opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/ds7/config/schema
echo -- Copying 70delgated-admin.ldif
cp /opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/ds7/config/schema

echo -- Stopping Directory Server
/opt/SUNWdsee7/bin/dsadm stop /var/opt/sun/directory/ds7
if [ $? != 0 ]; then
  echo "Stopping the Directory server failed"
  exit 1
fi
sleep 5

echo -- Starting Directory Server
/opt/SUNWdsee7/bin/dsadm start /var/opt/sun/directory/ds7
if [ $? != 0 ]; then
```

```
  echo "The server may not have restarted properly"
  echo "Please restart it manually"
fi
sleep 5

echo -- Creating Suffix o=comms-config
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
usergroupdb2 o=usergroup
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=pab
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
pabdb2 o=pab
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=PiServerDb
echo

echo -- Creating Suffix o=mlusers
/opt/SUNWdsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured --db-name
```

```
mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=mlusers
echo

echo -- Applying ldif file /var/tmp/dssetup_20100803212313/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-2.example.com -D "$BINDDN" $pflag "$parg" -c
-e /var/tmp/dssetup_20100803212313/dssetup.ldif.rej -f
/var/tmp/dssetup_20100803212313/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20100803212313/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
  echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
  echo "-- WARNING: ldapmodify returned $stat"
else
  echo "-- ERROR: ldapmodify returned $stat"
  exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20100803212313/dssetup.ldif
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"icsCalendar"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
echo
```

```
echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t icsCalendar reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "icsCalendar"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "icsCalendar"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
```

```
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "ou"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup" "ou"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "ou" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t ou reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "ou"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "ou" "o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"cosspecifier"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
```

```
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t cosspecifier reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "cosspecifier"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "cosspecifier"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"mailEquivalentAddress"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
```

```
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"mailEquivalentAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t
"mailEquivalentAddress" "o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"mgrpUniqueId"
```

```
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mgrpUniqueId reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "mgrpUniqueId"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mgrpUniqueId"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "inetCos"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"inetCos"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t inetCos reindex o=usergroup
```

```
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "inetCos"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "inetCos"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailUserStatus
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"mailUserStatus"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailUserStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mailUserStatus reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "mailUserStatus"
```

```
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mailUserStatus"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "memberOf"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"memberOf"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "memberOf" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t memberOf reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "memberOf"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "memberOf"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"icsCalendarOwned"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
```

```
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"icsCalendarOwned" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "icsCalendarOwned"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "groupid"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"groupid"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
```

```
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t groupid reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "groupid"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "groupid"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
inetDomainBaseDN
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"inetDomainBaseDN"
```

```
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t inetDomainBaseDN reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"inetDomainBaseDN" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "inetDomainBaseDN"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailDomainStatus
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"mailDomainStatus"
echo
```

```
echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "mailDomainStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mailDomainStatus reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"mailDomainStatus" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mailDomainStatus"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "sunOrganizationAlias"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"sunOrganizationAlias"
echo
```

```
echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "sunOrganizationAlias" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "sunOrganizationAlias" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t sunOrganizationAlias reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"sunOrganizationAlias" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "sunOrganizationAlias"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "sunPreferredDomain"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"sunPreferredDomain"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
```

```
sunPreferredDomain pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "sunPreferredDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "sunPreferredDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t sunPreferredDomain reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"sunPreferredDomain" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "sunPreferredDomain"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup o
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "o"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup" "o"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
```

```
"o=usergroup" "o" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "o" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t o reindex o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "o" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "o" "o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
associatedDomain
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "associatedDomain"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=usergroup"
"associatedDomain"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "associatedDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
```

```
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=usergroup" "associatedDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t associatedDomain reindex
o=usergroup
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"associatedDomain" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "associatedDomain"
"o=usergroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=pab"
"memberOfPAB"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
```

```
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t memberOfPAB reindex o=pab
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "memberOfPAB"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "memberOfPAB" "o=pab"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=pab
memberOfManagedGroup
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
echo
```

```
echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfManagedGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t memberOfManagedGroup reindex o=pab
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"memberOfManagedGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "memberOfManagedGroup"
"o=pab"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=pab un
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab" "un"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=pab" "un"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab" "un"
"eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t un reindex o=pab
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "un" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "un" "o=pab"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPABGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=pab"
"memberOfPABGroup"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=pab"
"memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"memberOfPABGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "memberOfPABGroup"
"o=pab"
```

```
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=PiServerDb"
"MemberOfPiBook"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t MemberOfPiBook reindex o=PiServerDb
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "MemberOfPiBook"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "MemberOfPiBook"
"o=PiServerDb"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=PiServerDb"
"MemberofPiGroup"
echo
```

```
echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "MemberofPiGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "MemberofPiGroup"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "MemberofPiGroup"
"o=PiServerDb"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "displayname"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=PiServerDb"
"displayname"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
```

```
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured
"o=PiServerDb" "displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t displayname reindex o=PiServerDb
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "displayname"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "displayname"
"o=PiServerDb"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=mlusers"
"mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=mlusers"
"mlsubMail"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=mlusers"
"mlsubMail" "eq-enabled:on"
```

```
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mlsubMail reindex o=mlusers
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t "mlsubMail"
"o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mlsubMail"
"o=mlusers"
echo

echo -- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
/opt/SUNWdsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=mlusers"
"mlsubListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf create-index "o=mlusers"
"mlsubListIdentifier"
echo

echo -- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
/opt/SUNWdsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname moe-2.example.com --unsecured "o=mlusers"
"mlsubListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf set-index-prop returned
$stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
echo

echo -- /opt/SUNWdsee7/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
/opt/SUNWdsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname moe-2.example.com --unsecured -t
"mlsubListIdentifier" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/SUNWdsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/SUNWdsee7/bin/dsconf reindex -t "mlsubListIdentifier"
"o=mlusers"
echo
(18 root) cat /var/tmp/dssetup_20100803212313/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-6.03 (built Mon Nov 23 01:07:24 PST 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20100803212313/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]   ds7
[2]   dsins1


Which instance do you want [1]:
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /opt/SUNWdsee7
- DS hostname: moe-2.example.com
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20100803212313/dssetup.pw" -p 389 -h moe-2.example.com
-b "cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Directory-Server/7.0 B2009.1104.2254
-- Detected DS versions:
   full: 7.0
   major: 7
   minor: 0
   micro: NONE
```

```
   patch: NONE

Detected DS version 7.0 on moe-2.example.com port 389
-- Stored Dssetup data ver=0 rev=0, dctree=
   ug=, schematype=

Will this directory server be used for users/groups [yes]: WARNING: No
default suffix found in the Directory
A list of suffixes are as follows:
  No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=
There are 3 possible schema types:
  1   - schema 1
  1.5 - schema 2 compatibility mode for schema 1 systems
        that has been converted with commdirmig
  2   - schema 2

Please enter the Schema Type (1, 1.5, 2) [2]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

  Server Root                       : /var/opt/sun/directory
  Server Instance                   : ds7
  Users/Groups Directory            : yes
  Update Schema                     : yes
  Schema Type                       : 2
  DC Root                           : o=usergroup
  User/Group Root                   : o=usergroup
  Add New Indexes                   : yes
  ReIndex New Indexes Now           : yes
  Directory Manager DN              : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=comms-config": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=
```

```
  Will Create suffix o=comms-config

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=usergroup

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=pab": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=pab

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=PiServerDb": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=PiServerDb

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=mlusers": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-2.example.com:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendar
    Checking indexes for mailAlternateAddress
      Default index DN exists
      Default index eq found
      No new indexes required
    Checking indexes for ou
      Index does not exist
        Index pres does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type ou
```

```
Checking indexes for cn
  Default index DN exists
  Default index pres found
  Default index eq found
  Default index sub found
  No new indexes required
Checking indexes for uniqueMember
  Default index DN exists
  Default index eq found
  No new indexes required
Checking indexes for cosspecifier
  Index does not exist
    Index pres does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type cosspecifier
Checking indexes for member
  Default index DN exists
  Default index eq found
  No new indexes required
Checking indexes for mailEquivalentAddress
  Index does not exist
    Index pres does not exist
    Index eq does not exist
    Index approx does not exist
    Index sub does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type mailEquivalentAddress
Checking indexes for mgrpUniqueId
  Index does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type mgrpUniqueId
Checking indexes for inetCos
  Index does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type inetCos
Checking indexes for mailUserStatus
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type mailUserStatus
Checking indexes for memberOf
  Index does not exist
    Index eq does not exist
    Index sub does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type memberOf
Checking indexes for icsCalendarOwned
  Index does not exist
    Index pres does not exist
    Index eq does not exist
    Index approx does not exist
    Index sub does not exist
  New indexes and Reindexing required
```

```
      ReIndex will happen for index type icsCalendarOwned
    Checking indexes for mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for groupid
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
  Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    Checking indexes for sunOrganizationAlias
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type sunOrganizationAlias
    Checking indexes for sunPreferredDomain
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type sunPreferredDomain
    Checking indexes for o
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type o
    Checking indexes for associatedDomain
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type associatedDomain
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      Index does not exist
        Index pres does not exist
```

```
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type MemberofPiGroup
    Checking indexes for displayname
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type displayname
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubMail
    Checking indexes for mlsubListIdentifier
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubListIdentifier
    Checking indexes for mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
```

```
Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20100803212313/dssetup.sh
   /var/tmp/dssetup_20100803212313/dssetup.ldif

Running /var/tmp/dssetup_20100803212313/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20100803212313/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20100803212313/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/ds7' started:
pid=26444
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20100803212313/dssetup.ldif
ldap_add: Already exists
```

```
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20100803212313/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20100803212313/dssetup.ldif

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendar

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendar o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t icsCalendar reindex o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup ou

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
```

```
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr ou o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup cosspecifier

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup cosspecifier
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr cosspecifier o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t cosspecifier reindex o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t cosspecifier o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
Index will not be used unless re-indexed.
```

```
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailEquivalentAddress o=usergroup" to
reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mgrpUniqueId

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mgrpUniqueId
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mgrpUniqueId o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mgrpUniqueId reindex o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mgrpUniqueId o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetCos o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.
```

```
Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailUserStatus

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailUserStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailUserStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailUserStatus reindex o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailUserStatus o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOf o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOf o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOf reindex o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup icsCalendarOwned
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
```

```
icsCalendarOwned

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
approx-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup icsCalendarOwned
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr icsCalendarOwned o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t icsCalendarOwned reindex o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t icsCalendarOwned
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
```

```
-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr groupid o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Index buffer bucket size: 100
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
inetDomainBaseDN

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetDomainBaseDN
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetDomainBaseDN o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup inetDomainBaseDN
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr inetDomainBaseDN o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t inetDomainBaseDN reindex o=usergroup
## usergroupdb2: Indexing attribute: inetDomainBaseDN
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t inetDomainBaseDN
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup mailDomainStatus
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
mailDomainStatus

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailDomainStatus
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mailDomainStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup mailDomainStatus
eq-enabled:on
Index will not be used unless re-indexed.
```

```
Use "dsconf reindex --attr mailDomainStatus o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mailDomainStatus reindex o=usergroup
## usergroupdb2: Indexing attribute: mailDomainStatus
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mailDomainStatus
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr sunOrganizationAlias o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr sunOrganizationAlias o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t sunOrganizationAlias reindex o=usergroup
## usergroupdb2: Indexing attribute: sunOrganizationAlias
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t sunOrganizationAlias
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup sunPreferredDomain
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr sunPreferredDomain o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr sunPreferredDomain o=usergroup" to reindex.
```

```
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t sunPreferredDomain reindex o=usergroup
## usergroupdb2: Indexing attribute: sunPreferredDomain
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t sunPreferredDomain
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup o
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup o

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr o o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr o o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t o reindex o=usergroup
## usergroupdb2: Indexing attribute: o
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t o o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=usergroup associatedDomain
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=usergroup
associatedDomain

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup associatedDomain
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr associatedDomain o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup associatedDomain
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr associatedDomain o=usergroup" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t associatedDomain reindex o=usergroup
## usergroupdb2: Indexing attribute: associatedDomain
```

```
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t associatedDomain
o=usergroup

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPAB o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPAB o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfManagedGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfManagedGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfManagedGroup reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
```

```
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfManagedGroup o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab un
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab un

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr un o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t un o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=pab memberOfPABGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPABGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr memberOfPABGroup o=pab" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Index buffer bucket size: 0
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb MemberOfPiBook
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr MemberOfPiBook o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t MemberOfPiBook reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
```

```
## PiServerDbdb2: Index buffer bucket size: 0
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t MemberOfPiBook o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb MemberofPiGroup
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr MemberofPiGroup o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t MemberofPiGroup reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Index buffer bucket size: 0
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t MemberofPiGroup
o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=PiServerDb displayname

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb displayname
sub-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr displayname o=PiServerDb" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t displayname reindex o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Index buffer bucket size: 100
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
```

```
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t displayname o=PiServerDb

-- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mlsubMail o=mlusers" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Index buffer bucket size: 0
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/SUNWdsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier
-- Done /opt/SUNWdsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr mlsubListIdentifier o=mlusers" to reindex.
-- Done /opt/SUNWdsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/SUNWdsee7/bin/dsconf -t mlsubListIdentifier reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Index buffer bucket size: 0
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/SUNWdsee7/bin/dsconf reindex -t mlsubListIdentifier
o=mlusers
```

```
Successful Completion. Consult
/var/tmp/dssetup_20100803212313/dssetup.log for details
```

DSsetup Sample Session - Existing Directory Server 6.3.1 Instance for Schema 1

Table of Contents

- Introduction
- Summary of Commands Run
- Session

Introduction

This sample session shows the output of `comm_dssetup.pl` on a Directory Server 6.3.1 instance where `comm_dssetup.pl` was previously run against it.

Summary of Commands Run

```
212 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
   213 ls /var/tmp/dssetup_20091019163601
   214 ls /var/tmp/dssetup_20091019163601/save
   215 cat /var/tmp/dssetup_20091019163601/99user_new.ldif
   216 cat /var/tmp/dssetup_20091019163601/dssetup.ldif
   217 cat /var/tmp/dssetup_20091019163601/dssetup.ldif.rej
   218 cat /var/tmp/dssetup_20091019163601/dssetup.sh
   219 cat /var/tmp/dssetup_20091019163601/dssetup.log
```

Session

```
(212 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019163601/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :


Please select a directory server instance from the following list:
```

```
[1]   dsins1
[2]   dsins2


Which instance do you want [1]: 2

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 6.3 on moe-vmware port 389

Warning: This version of comm_dssetup.pl (6.4 5.05) has been run
previously (6.4 5.05), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]:
A list of suffixes are as follows:
  o=mlusers
  o=PiServerDb
  o=pab
  o=internet
  o=usergroup
  o=comms-config

Please enter the Users/Groups base suffix [o=usergroup] :
There are 3 possible schema types:
  1   - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2   - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]:

Please enter the DC Tree base suffix [o=internet]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : dsins2
  Users/Groups Directory             : yes
  Update Schema                      : yes
```

```
  Schema Type                        : 1
  DC Root                            : o=internet
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      No new indexes required
    Checking indexes for mailAlternateAddress
      New indexes and Reindexing required
      ReIndex will happen for index type mailAlternateAddress
    Checking indexes for ou
      No new indexes required
    Checking indexes for cn
      No new indexes required
    Checking indexes for uniqueMember
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for icsCalendarOwned
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    Checking indexes for groupid
      No new indexes required
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      No new indexes required
```

```
    Checking indexes for mailDomainStatus
      No new indexes required
    Checking indexes for inetCanonicalDomainName
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for memberOfManagedGroup
      No new indexes required
    Checking indexes for un
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      No new indexes required
    Checking indexes for MemberofPiGroup
      No new indexes required
    Checking indexes for displayname
      No new indexes required
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      No new indexes required
    Checking indexes for mail
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20091019163601/dssetup.sh
   /var/tmp/dssetup_20091019163601/dssetup.ldif

Running /var/tmp/dssetup_20091019163601/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20091019163601/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019163601/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
```

```
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3519
-- Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019163601/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailAlternateAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mail approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
```

```
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mail
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20091019163601/dssetup.log for details

(213 root) ls /var/tmp/dssetup_20091019163601
total 62
   5 99user_new.ldif      28 dssetup.log
   6 dssetup.ldif         16 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
(214 root) ls /var/tmp/dssetup_20091019163601/save
total 931
 153 00core.ldif                    7 50ns-mcd-li.ldif
  16 00ds6pwp.ldif                 42 50ns-mcd-mail.ldif
   5 05rfc2247.ldif                 3 50ns-media.ldif
   3 05rfc2927.ldif                17 50ns-mlm.ldif
  16 11rfc2307.ldif               107 50ns-msg.ldif
  10 20subscriber.ldif              7 50ns-netshare.ldif
   7 25java-object.ldif             5 50ns-news.ldif
  19 28pilot.ldif                   3 50ns-proxy.ldif
  25 30ns-common.ldif               7 50ns-value.ldif
   7 50iplanet-servicemgt.ldif      8 50ns-wcal.ldif
  14 50ns-admin.ldif                4 50ns-web.ldif
  15 50ns-calendar.ldif            20 55ims-ical.ldif
   4 50ns-certificate.ldif         55 56ims-schema.ldif
  24 50ns-compass.ldif             36 60iplanet-calendar.ldif
  13 50ns-delegated-admin.ldif     14 65im.ldif
  33 50ns-directory.ldif           17 70delgated-admin.ldif
  67 50ns-iabs.ldif                 8 70sun-schema2.ldif
   4 50ns-legacy.ldif              57 71sun-am.ldif
  18 50ns-mail.ldif                10 98ns-dummy-uwc.ldif
  35 50ns-mcd-browser.ldif          5 99user.ldif
  11 50ns-mcd-config.ldif
(215 root) cat /var/tmp/dssetup_20091019163601/99user_new.ldif
dn: cn=schema
objectClass: top
objectClass: ldapSubentry
objectClass: subschema
cn: schema
aci: (target="ldap:///cn=schema")(targetattr !="aci")(version 3.0;acl
"anonymo
 us, no acis"; allow (read, search, compare) userdn = "ldap:///anyone";)
modifiersName: cn=directory manager
modifyTimestamp: 20091019233018Z
attributeTypes: ( sunExcludeServices-oid NAME 'sunExcludeServices' DESC
'servi
 ces to be excluded specifically from the services available in the root
suff
 ix ' EQUALITY caseIgnoreMatch SYNTAX 1.3.6.1.4.1.1466.115.121.1.26
X-ORIGIN
 'user defined' )
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME 'sunkeyvalue' DESC
```

```
'Attribut
 e to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.1
 15.121.1.26 X-ORIGIN ( 'Sun ONE Identity Management' 'user defined' ) )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.107 NAME 'sunIMConference' DESC
'Conf
 erence Object' SUP top AUXILIARY MAY ( sunIMConferenceAffiliations $
sunIMCo
 nferenceConfiguration $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.108 NAME 'sunIMNews' DESC
'Pubsub Cha
 nnel Object' SUP top AUXILIARY MAY ( sunIMNewsAffiliations $
sunIMNewsConfig
 uration $ sunIMNewsMetaData $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.109 NAME 'sunIMStoredMessage'
DESC 'S
 tored Message Object' SUP top AUXILIARY MAY ( sunIMMessageID $
sunIMMessageC
 ontent ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.27 NAME 'sunservicecomponent'
DESC 'S
 ub-components of the service' SUP top STRUCTURAL MUST ou MAY (
labeledUri $
 sunserviceid $ sunsmspriority $ sunkeyvalue $ sunxmlkeyvalue $
description )
  X-ORIGIN 'Sun Java System Identity Management' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Obje
 ctclass for storing meta data for Sun Communication' SUP top STRUCTURAL
MUST
  cn MAY sunkeyvalue X-ORIGIN 'user defined' )
nsSchemaCSN: 4adcf68a000000000000

(216 root) cat /var/tmp/dssetup_20091019163601/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-vmware -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20091019163601/dssetup.ldif

#---------------------------------------------------
# This section creates the installer metadata
#---------------------------------------------------

##########################################
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
##########################################
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )
```

```
########################################
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
########################################
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

########################################
# dn: cn=CommServers,o=comms-config
# Update the installer metadata for Comm Servers
########################################
dn: cn=CommServers,o=comms-config
changetype: modify
replace: sunkeyvalue
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=5.05
sunkeyvalue: dcsuffix=o=internet
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=1

########################################
# dn: cn=CommServers,o=comms-config
# aci for anonymous read access
########################################
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(217 root) cat /var/tmp/dssetup_20091019163601/dssetup.ldif.rej
# Error: Type or value exists
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(218 root) cat /var/tmp/dssetup_20091019163601/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
```

```
  echo "Usage: $0 -D <binddn> -j <passwdfile>"
  echo "  -D binddn        bind dn"
  echo "  -j <passwdfile>  read bind passwd from 'file' for simple
authentication"
  exit 1
}

if [ $# -lt 1 ]
then
  echo "You must specify either -j"
  usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
  case $c in
  D)
    Dflag=1
    BINDDN=$OPTARG;;
  j)
    jflag=1
    pflag=-j
    parg=$OPTARG;;
  \?)
    usage;;
  esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
  echo "You must specify the -D switch"
  usage
fi

if [ $jflag -eq 0 ]
then
  echo "You must specify -j"
  usage
fi

if [ $# -ge 1 ]
then
  echo "Unrecognized argument $*"
  usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
  echo
  echo "To run this utility you need to be the system's root user. \n"
  echo
  exit 1
fi
```

```
echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mail.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mlm.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-msg.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-value.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 55ims-ical.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 56ims-schema.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 65im.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70sun-schema2.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 71sun-am.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-iabs.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70delgated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema

echo -- Stopping Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm stop /var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
  echo "Stopping the Directory server failed"
  exit 1
fi
sleep 5

echo -- Starting Directory Server
```

```
/proj/opt/sun/directory/ds6/bin/dsadm start
/var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
  echo "The server may not have restarted properly"
  echo "Please restart it manually"
fi
sleep 5

echo -- Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-vmware -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20091019163601/dssetup.ldif.rej -f
/var/tmp/dssetup_20091019163601/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20091019163601/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
  echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
  echo "-- WARNING: ldapmodify returned $stat"
else
  echo "-- ERROR: ldapmodify returned $stat"
  exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20091019163601/dssetup.ldif
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "pres-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "approx-enabled:on"
echo
```

```
echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "sub-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailAlternateAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailAlternateAddress" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mail" "approx-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "mail"
"o=usergroup"
echo
(219 root) cat /var/tmp/dssetup_20091019163601/dssetup.log
```

```
-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019163601/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]   dsins1
[2]   dsins2


Which instance do you want [1]: 2
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20091019163601/dssetup.pw" -p 389 -h moe-vmware -b
"cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Java(tm)-System-Directory/6.3
B2008.0311.0212
-- Detected DS versions:
   full: 6.3
   major: 6
   minor: 3
   micro: NONE
   patch: NONE

Detected DS version 6.3 on moe-vmware port 389
-- Stored Dssetup data ver=6.4 rev=5.05, dctree=o=internet
   ug=o=usergroup, schematype=1
```

```
Warning: This version of comm_dssetup.pl (6.4 5.05) has been run
previously (6.4 5.05), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]: A list of
suffixes are as follows:
  o=mlusers
  o=PiServerDb
  o=pab
  o=internet
  o=usergroup
  o=comms-config

Please enter the Users/Groups base suffix [o=usergroup] :
-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  usergroupdb2

-=-=-=-=-=-=-=-=-=-=
There are 3 possible schema types:
  1   - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2   - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]:
Please enter the DC Tree base suffix [o=internet]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

  Server Root                       : /var/opt/sun/directory
  Server Instance                   : dsins2
  Users/Groups Directory            : yes
  Update Schema                     : yes
  Schema Type                       : 1
  DC Root                           : o=internet
  User/Group Root                   : o=usergroup
  Add New Indexes                   : yes
  ReIndex New Indexes Now           : yes
  Directory Manager DN              : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
```

```
db-name  :  comms-configdb2

-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  usergroupdb2

-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  internetdb2

-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  pabdb2

-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  PiServerDbdb2

-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  mlusersdb2

-=-=-=-=-=-=-=-=-=-=

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mailAlternateAddress
      Index exists
      Index eq found
        Index pres does not exist
        Index eq exists
        Index approx does not exist
```

```
        Index sub does not exist
      Default index eq found
      New indexes and Reindexing required
      ReIndex will happen for index type mailAlternateAddress
    Checking indexes for ou
      Index exists
      Index eq found
      Index pres found
        Index pres exists
      No new indexes required
    Checking indexes for cn
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for uniqueMember
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      No new indexes required
    Checking indexes for cosspecifier
      Index exists
      Index eq found
      Index pres found
        Index pres exists
      No new indexes required
    Checking indexes for member
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      No new indexes required
    Checking indexes for mailEquivalentAddress
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mgrpUniqueId
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for inetCos
```

```
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mailUserStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for memberOf
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
        Index sub exists
      No new indexes required
    Checking indexes for icsCalendarOwned
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mail
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index approx does not exist
        Index sub exists
      Default index pres found
      Default index eq found
      Default index sub found
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    Checking indexes for groupid
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index sub exists
      No new indexes required
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
```

```
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for mailDomainStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for inetCanonicalDomainName
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for memberOfManagedGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for un
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for memberOfPABGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for MemberofPiGroup
```

```
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for displayname
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index sub exists
      No new indexes required
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mlsubListIdentifier
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mail
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20091019163601/dssetup.sh
   /var/tmp/dssetup_20091019163601/dssetup.ldif

Running /var/tmp/dssetup_20091019163601/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20091019163601/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019163601/dssetup.pw
-- Updating Schema files...
```

```
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3519
-- Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019163601/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailAlternateAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mail approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mail
o=usergroup
```

```
Successful Completion. Consult
/var/tmp/dssetup_20091019163601/dssetup.log for details
```

DSsetup Sample Session - Existing Directory Server 6.3.1 Instance for Schema 2

Table of Contents

- Introduction
- Summary of Commands Run
- Session

Introduction

This page contains a sample session using `comm_dssetup.pl` on a Directory Server 6.3.1 instance where `comm_dssetup.pl` was previously run against it.

Summary of Commands Run

```
239 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
   240 ls /var/tmp/dssetup_20091019172329/
   241 ls /var/tmp/dssetup_20091019172329/save
   242 cat /var/tmp/dssetup_20091019172329/99user_new.ldif
   243 cat /var/tmp/dssetup_20091019172329/dssetup.ldif
   244 cat /var/tmp/dssetup_20091019172329/dssetup.ldif.rej
   245 cat /var/tmp/dssetup_20091019172329/dssetup.sh
   246 cat /var/tmp/dssetup_20091019172329/dssetup.log
```

Session

```


(239 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019172329/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :


Please select a directory server instance from the following list:
```

```
[1]   dsins1
[2]   dsins2


Which instance do you want [1]: 2

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 6.3 on moe-vmware port 389

Warning: This version of comm_dssetup.pl (6.4 5.05) has been run
previously (6.4 5.05), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:


Will this directory server be used for users/groups [yes]:

A list of suffixes are as follows:
  o=mlusers
  o=PiServerDb
  o=pab
  o=usergroup
  o=comms-config

Please enter the Users/Groups base suffix [o=usergroup] :

There are 3 possible schema types:
  1   - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2   - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [2]:


Do you want to update the schema files [yes]:


Do you want to configure new indexes [yes]:


Do you want to Reindex the new indexes now [yes]:


Here is a summary of the settings that you chose:
```

```
  Server Root                        : /var/opt/sun/directory
  Server Instance                    : dsins2
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 2
  DC Root                            : o=usergroup
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:

Generating files...

Checking to see if Suffixes need to be added

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      No new indexes required
    Checking indexes for mailAlternateAddress
      New indexes and Reindexing required
      ReIndex will happen for index type mailAlternateAddress
    Checking indexes for ou
      No new indexes required
    Checking indexes for cn
      No new indexes required
    Checking indexes for uniqueMember
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for icsCalendarOwned
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
```

```
      ReIndex will happen for index type mail
    Checking indexes for groupid
      No new indexes required
  Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
      No new indexes required
    Checking indexes for mailDomainStatus
      No new indexes required
    Checking indexes for sunOrganizationAlias
      No new indexes required
    Checking indexes for sunPreferredDomain
      No new indexes required
    Checking indexes for o
      No new indexes required
    Checking indexes for associatedDomain
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for memberOfManagedGroup
      No new indexes required
    Checking indexes for un
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      No new indexes required
    Checking indexes for MemberofPiGroup
      No new indexes required
    Checking indexes for displayname
      No new indexes required
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      No new indexes required
    Checking indexes for mail
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20091019172329/dssetup.sh
   /var/tmp/dssetup_20091019172329/dssetup.ldif

Running /var/tmp/dssetup_20091019172329/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
```

```
Running /var/tmp/dssetup_20091019172329/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019172329/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=4291
-- Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019172329/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
```

```
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailAlternateAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mail approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mail
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20091019172329/dssetup.log for details
(240 root) ls /var/tmp/dssetup_20091019172329/
total 63
   5 99user_new.ldif      29 dssetup.log
   6 dssetup.ldif         16 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
(241 root) ls /var/tmp/dssetup_20091019172329/save
total 931
 153 00core.ldif                    7 50ns-mcd-li.ldif
  16 00ds6pwp.ldif                 42 50ns-mcd-mail.ldif
   5 05rfc2247.ldif                3 50ns-media.ldif
   3 05rfc2927.ldif               17 50ns-mlm.ldif
  16 11rfc2307.ldif              107 50ns-msg.ldif
  10 20subscriber.ldif              7 50ns-netshare.ldif
   7 25java-object.ldif             5 50ns-news.ldif
  19 28pilot.ldif                   3 50ns-proxy.ldif
  25 30ns-common.ldif               7 50ns-value.ldif
   7 50iplanet-servicemgt.ldif      8 50ns-wcal.ldif
  14 50ns-admin.ldif                4 50ns-web.ldif
  15 50ns-calendar.ldif            20 55ims-ical.ldif
   4 50ns-certificate.ldif         55 56ims-schema.ldif
  24 50ns-compass.ldif             36 60iplanet-calendar.ldif
  13 50ns-delegated-admin.ldif     14 65im.ldif
  33 50ns-directory.ldif           17 70delgated-admin.ldif
  67 50ns-iabs.ldif                 8 70sun-schema2.ldif
   4 50ns-legacy.ldif              57 71sun-am.ldif
  18 50ns-mail.ldif                10 98ns-dummy-uwc.ldif
  35 50ns-mcd-browser.ldif          5 99user.ldif
  11 50ns-mcd-config.ldif
(242 root) cat /var/tmp/dssetup_20091019172329/99user_new.ldif
dn: cn=schema
objectClass: top
objectClass: ldapSubentry
objectClass: subschema
cn: schema
```

```
aci: (target="ldap:///cn=schema")(targetattr !="aci")(version 3.0;acl
"anonymo
 us, no acis"; allow (read, search, compare) userdn = "ldap:///anyone";)
modifiersName: cn=directory manager
modifyTimestamp: 20091020001626Z
attributeTypes: ( sunExcludeServices-oid NAME 'sunExcludeServices' DESC
'servi
 ces to be excluded specifically from the services available in the root
suff
 ix ' EQUALITY caseIgnoreMatch SYNTAX 1.3.6.1.4.1.1466.115.121.1.26
X-ORIGIN
 'user defined' )
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME 'sunkeyvalue' DESC
'Attribut
 e to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.1
 15.121.1.26 X-ORIGIN ( 'Sun ONE Identity Management' 'user defined' ) )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.107 NAME 'sunIMConference' DESC
'Conf
 erence Object' SUP top AUXILIARY MAY ( sunIMConferenceAffiliations $
sunIMCo
 nferenceConfiguration $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.108 NAME 'sunIMNews' DESC
'Pubsub Cha
 nnel Object' SUP top AUXILIARY MAY ( sunIMNewsAffiliations $
sunIMNewsConfig
 uration $ sunIMNewsMetaData $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.109 NAME 'sunIMStoredMessage'
DESC 'S
 tored Message Object' SUP top AUXILIARY MAY ( sunIMMessageID $
sunIMMessageC
 ontent ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.27 NAME 'sunservicecomponent'
DESC 'S
 ub-components of the service' SUP top STRUCTURAL MUST ou MAY (
labeledUri $
 sunserviceid $ sunsmspriority $ sunkeyvalue $ sunxmlkeyvalue $
description )
  X-ORIGIN 'Sun Java System Identity Management' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Obje
 ctclass for storing meta data for Sun Communication' SUP top STRUCTURAL
MUST
  cn MAY sunkeyvalue X-ORIGIN 'user defined' )
nsSchemaCSN: 4add015a000000000000

(243 root) cat /var/tmp/dssetup_20091019172329/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-vmware -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20091019172329/dssetup.ldif

#---------------------------------------------------
# This section creates the installer metadata
#---------------------------------------------------
```

```
########################################
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
########################################
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

########################################
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
########################################
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

########################################
# dn: cn=CommServers,o=comms-config
# Update the installer metadata for Comm Servers
########################################
dn: cn=CommServers,o=comms-config
changetype: modify
replace: sunkeyvalue
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=5.05
sunkeyvalue: dcsuffix=o=usergroup
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=2

########################################
# dn: cn=CommServers,o=comms-config
# aci for anonymous read access
########################################
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(244 root) cat /var/tmp/dssetup_20091019172329/dssetup.ldif.rej
# Error: Type or value exists
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
```

```
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(245 root) cat /var/tmp/dssetup_20091019172329/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
  echo "Usage: $0 -D <binddn> -j <passwdfile>"
  echo "  -D binddn        bind dn"
  echo "  -j <passwdfile>  read bind passwd from 'file' for simple
authentication"
  exit 1
}

if [ $# -lt 1 ]
then
  echo "You must specify either -j"
  usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
  case $c in
  D)
    Dflag=1
    BINDDN=$OPTARG;;
  j)
    jflag=1
    pflag=-j
    parg=$OPTARG;;
  \?)
    usage;;
  esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
  echo "You must specify the -D switch"
  usage
fi

if [ $jflag -eq 0 ]
then
  echo "You must specify -j"
  usage
fi

if [ $# -ge 1 ]
```

```
then
  echo "Unrecognized argument $*"
  usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
  echo
  echo "To run this utility you need to be the system's root user. \n"
  echo
  exit 1
fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mail.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mlm.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-msg.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-value.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 55ims-ical.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 56ims-schema.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 65im.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70sun-schema2.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 71sun-am.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-iabs.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/dsins2/config/schema
```

```
echo -- Copying 70delgated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema

echo -- Stopping Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm stop /var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
  echo "Stopping the Directory server failed"
  exit 1
fi
sleep 5

echo -- Starting Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm start
/var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
  echo "The server may not have restarted properly"
  echo "Please restart it manually"
fi
sleep 5

echo -- Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-vmware -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20091019172329/dssetup.ldif.rej -f
/var/tmp/dssetup_20091019172329/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20091019172329/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
  echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
  echo "-- WARNING: ldapmodify returned $stat"
else
  echo "-- ERROR: ldapmodify returned $stat"
  exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20091019172329/dssetup.ldif
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "pres-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
```

```
o=usergroup mailAlternateAddress approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "approx-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "sub-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailAlternateAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailAlternateAddress" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mail" "approx-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex
```

```
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "mail"
"o=usergroup"
echo
(246 root) cat /var/tmp/dssetup_20091019172329/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019172329/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]   dsins1
[2]   dsins2


Which instance do you want [1]: 2
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20091019172329/dssetup.pw" -p 389 -h moe-vmware -b
"cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
```

```
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Java(tm)-System-Directory/6.3
B2008.0311.0212
-- Detected DS versions:
   full: 6.3
   major: 6
   minor: 3
   micro: NONE
   patch: NONE

Detected DS version 6.3 on moe-vmware port 389
-- Stored Dssetup data ver=6.4 rev=5.05, dctree=o=usergroup
   ug=o=usergroup, schematype=2

Warning: This version of comm_dssetup.pl (6.4 5.05) has been run
previously (6.4 5.05), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]: A list of
suffixes are as follows:
  o=mlusers
  o=PiServerDb
  o=pab
  o=usergroup
  o=comms-config

Please enter the Users/Groups base suffix [o=usergroup] :
-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  usergroupdb2

-=-=-=-=-=-=-=-=-=-=
There are 3 possible schema types:
  1   - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2   - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [2]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : dsins2
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 2
  DC Root                            : o=usergroup
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager
```

```
Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  comms-configdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  usergroupdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  pabdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  PiServerDbdb2

-=-=-=-=-=-=-=-=-=-=-=

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
db-name  :  mlusersdb2

-=-=-=-=-=-=-=-=-=-=-=

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mailAlternateAddress
```

```
      Index exists
      Index eq found
        Index pres does not exist
        Index eq exists
        Index approx does not exist
        Index sub does not exist
      Default index eq found
      New indexes and Reindexing required
      ReIndex will happen for index type mailAlternateAddress
    Checking indexes for ou
      Index exists
      Index eq found
      Index pres found
        Index pres exists
      No new indexes required
    Checking indexes for cn
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for uniqueMember
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      No new indexes required
    Checking indexes for cosspecifier
      Index exists
      Index eq found
      Index pres found
        Index pres exists
      No new indexes required
    Checking indexes for member
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      No new indexes required
    Checking indexes for mailEquivalentAddress
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mgrpUniqueId
      Index exists
```

```
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for inetCos
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mailUserStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for memberOf
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
        Index sub exists
      No new indexes required
    Checking indexes for icsCalendarOwned
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mail
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index approx does not exist
        Index sub exists
      Default index pres found
      Default index eq found
      Default index sub found
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    Checking indexes for groupid
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
```

```
        Index eq exists
        Index sub exists
      No new indexes required
  Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for mailDomainStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for sunOrganizationAlias
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for sunPreferredDomain
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for o
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for associatedDomain
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for memberOfManagedGroup
```

```
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    Checking indexes for un
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for memberOfPABGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for MemberofPiGroup
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for displayname
      Index exists
      Index eq found
      Index pres found
      Index sub found
        Index pres exists
        Index eq exists
        Index sub exists
      No new indexes required
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mlsubListIdentifier
      Index exists
      Index eq found
      Index pres found
        Index eq exists
      No new indexes required
    Checking indexes for mail
      Index exists
```

```
      Index eq found
      Index pres found
      Index sub found
        Index eq exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20091019172329/dssetup.sh
   /var/tmp/dssetup_20091019172329/dssetup.ldif

Running /var/tmp/dssetup_20091019172329/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20091019172329/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019172329/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=4291
-- Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config
```

```
-- rejects to /var/tmp/dssetup_20091019172329/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailAlternateAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mail approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mail
o=usergroup
```

```
Successful Completion. Consult
/var/tmp/dssetup_20091019172329/dssetup.log for details
```

DSsetup Sample Session - Fresh Directory Server 6.3.1 Instance for Schema 1

Table of Contents

- Introduction
- Summary of Commands Run
- Comments
- Session

Introduction

This sample session shows the output of `comm_dssetup.pl` on a fresh Directory Server 6.3.1 instance.

Summary of Commands Run

```
204 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
   205 ls /var/tmp/dssetup_20091019162857
   206 ls /var/tmp/dssetup_20091019162857/save
   207 cat /var/tmp/dssetup_20091019162857/99user_new.ldif
   208 cat /var/tmp/dssetup_20091019162857/dssetup.ldif
   209 cat /var/tmp/dssetup_20091019162857/dssetup.ldif.rej
   210 cat /var/tmp/dssetup_20091019162857/dssetup.sh
   211 cat /var/tmp/dssetup_20091019162857/dssetup.log
```

Comments

To create a pristine DS instance

1. cd /opt/sun/directory/ds6/bin
2. dsadm create /var/opt/sun/directory/dsins2
3. dsadm start /var/opt/sun/directory/dsins2
4. dsadm delete /var/opt/sun/directory/dsins2

Session

```
(204 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019162857/dssetup.log

Do you want to continue [y]:
```

```
Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :


Please select a directory server instance from the following list:

[1]   dsins1
[2]   dsins2


Which instance do you want [1]: 2

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 6.3 on moe-vmware port 389

Will this directory server be used for users/groups [yes]:

WARNING: No default suffix found in the Directory
A list of suffixes are as follows:
  No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
There are 3 possible schema types:
  1   - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2   - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]:

Please enter the DC Tree base suffix [o=internet]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : dsins2
  Users/Groups Directory             : yes
```

```
  Update Schema                       : yes
  Schema Type                         : 1
  DC Root                             : o=internet
  User/Group Root                     : o=usergroup
  Add New Indexes                     : yes
  ReIndex New Indexes Now             : yes
  Directory Manager DN                : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added
  Will Create suffix o=comms-config
  Will Create suffix o=usergroup
  Will Create suffix o=internet
  Will Create suffix o=pab
  Will Create suffix o=PiServerDb
  Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendar
    Checking indexes for mailAlternateAddress
      No new indexes required
    Checking indexes for ou
      New indexes and Reindexing required
      ReIndex will happen for index type ou
    Checking indexes for cn
      No new indexes required
    Checking indexes for uniqueMember
      No new indexes required
    Checking indexes for cosspecifier
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      New indexes and Reindexing required
      ReIndex will happen for index type mailEquivalentAddress
    Checking indexes for mgrpUniqueId
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for inetCos
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for mailUserStatus
      New indexes and Reindexing required
```

```
      ReIndex will happen for index type mailUserStatus
    Checking indexes for memberOf
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for icsCalendarOwned
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
    Checking indexes for mail
      No new indexes required
    Checking indexes for groupid
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      New indexes and Reindexing required
      ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    Checking indexes for inetCanonicalDomainName
      New indexes and Reindexing required
      ReIndex will happen for index type inetCanonicalDomainName
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
      New indexes and Reindexing required
      ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      New indexes and Reindexing required
      ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
      New indexes and Reindexing required
      ReIndex will happen for index type MemberofPiGroup
    Checking indexes for displayname
      New indexes and Reindexing required
      ReIndex will happen for index type displayname
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubMail
    Checking indexes for mlsubListIdentifier
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubListIdentifier
    Checking indexes for mail
      No new indexes required

Checking to see if DN needs to be created for suffixes
```

```
Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20091019162857/dssetup.sh
   /var/tmp/dssetup_20091019162857/dssetup.ldif

Running /var/tmp/dssetup_20091019162857/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:

Running /var/tmp/dssetup_20091019162857/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019162857/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3085
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=internet
-- Done Creating o=internet

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers
```

```
-- Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019162857/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t icsCalendar
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup ou
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t ou o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
```

```
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailEquivalentAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t inetCos
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOf
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
icsCalendarOwned o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t groupid
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN reindex
o=internet
## internetdb2: Indexing attribute: inetDomainBaseDN
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetDomainBaseDN o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus reindex
o=internet
## internetdb2: Indexing attribute: mailDomainStatus
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailDomainStatus o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCanonicalDomainName
reindex o=internet
## internetdb2: Indexing attribute: inetCanonicalDomainName
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
```

```
inetCanonicalDomainName o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab memberOfPAB
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOfPAB
o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfManagedGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t un o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup reindex
o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfPABGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
```

```
MemberofPiGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
MemberofPiGroup o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t displayname
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Finished indexing.
```

```
Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mlsubMail
o=mlusers

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mlsubListIdentifier o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20091019162857/dssetup.log for details
(205 root) ls /var/tmp/dssetup_20091019162857
total 176
   2 99user_new.ldif      63 dssetup.log
   6 dssetup.ldif         98 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
(206 root) ls /var/tmp/dssetup_20091019162857/save
total 636
 153 00core.ldif                   17 50ns-mail.ldif
  16 00ds6pwp.ldif                 35 50ns-mcd-browser.ldif
   5 05rfc2247.ldif                11 50ns-mcd-config.ldif
   3 05rfc2927.ldif                 7 50ns-mcd-li.ldif
  16 11rfc2307.ldif                42 50ns-mcd-mail.ldif
  10 20subscriber.ldif              3 50ns-media.ldif
   7 25java-object.ldif            16 50ns-mlm.ldif
  19 28pilot.ldif                 100 50ns-msg.ldif
  25 30ns-common.ldif               7 50ns-netshare.ldif
   7 50iplanet-servicemgt.ldif      5 50ns-news.ldif
  14 50ns-admin.ldif                3 50ns-proxy.ldif
  15 50ns-calendar.ldif             7 50ns-value.ldif
   4 50ns-certificate.ldif          8 50ns-wcal.ldif
  24 50ns-compass.ldif              4 50ns-web.ldif
  14 50ns-delegated-admin.ldif      2 99user.ldif
  33 50ns-directory.ldif
   4 50ns-legacy.ldif
(207 root) cat /var/tmp/dssetup_20091019162857/99user_new.ldif
#
# Copyright 2003 Sun Microsystems, Inc. All Rights Reserved
# Patents Pending.Use is subject to license terms.
#
#
# Use of this product is subject to
```

```
# license terms. Copyright (c) 2001 Sun Microsystems, Inc.
# Some preexisting portions Copyright (c) 2001 Netscape Communications
Corp.
# All rights reserved.
#
#
# User-defined schema
#
dn: cn=schema
(208 root) cat /var/tmp/dssetup_20091019162857/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-vmware -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20091019162857/dssetup.ldif

#--------------------------------------------------
# This section creates the installer metadata
#--------------------------------------------------

##########################################
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
##########################################
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

##########################################
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
##########################################
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

##########################################
# dn: o=comms-config
# Create the DN for the root suffix of metadata for Comms Products
##########################################
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject

##########################################
# dn: cn=CommServers,o=comms-config
# Create the DN for the installer metadata for Comm Servers
```

```
########################################
dn: cn=CommServers,o=comms-config
changetype: add
objectclass: top
objectclass: sunCommsMetaData
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=5.05
sunkeyvalue: dcsuffix=o=internet
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=1
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(209 root) cat /var/tmp/dssetup_20091019162857/dssetup.ldif.rej
# Error: Already exists
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject
(210 root) cat /var/tmp/dssetup_20091019162857/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
  echo "Usage: $0 -D <binddn> -j <passwdfile>"
  echo "  -D binddn        bind dn"
  echo "  -j <passwdfile>  read bind passwd from 'file' for simple
authentication"
  exit 1
}

if [ $# -lt 1 ]
then
  echo "You must specify either -j"
  usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
  case $c in
  D)
    Dflag=1
    BINDDN=$OPTARG;;
  j)
    jflag=1
    pflag=-j
    parg=$OPTARG;;
  \?)
```

```
    usage;;
  esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
  echo "You must specify the -D switch"
  usage
fi

if [ $jflag -eq 0 ]
then
  echo "You must specify -j"
  usage
fi

if [ $# -ge 1 ]
then
  echo "Unrecognized argument $*"
  usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
  echo
  echo "To run this utility you need to be the system's root user. \n"
  echo
  exit 1
fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mail.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mlm.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-msg.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-value.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 55ims-ical.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 56ims-schema.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/dsins2/config/schema
```

```
echo -- Copying 65im.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70sun-schema2.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 71sun-am.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-iabs.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70delgated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema

echo -- Stopping Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm stop /var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
  echo "Stopping the Directory server failed"
  exit 1
fi
sleep 5

echo -- Starting Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm start
/var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
  echo "The server may not have restarted properly"
  echo "Please restart it manually"
fi
sleep 5

echo -- Creating Suffix o=comms-config
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name usergroupdb2 o=usergroup
stat=$?
```

```
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=internet
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name internetdb2 o=internet
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=internet
echo

echo -- Creating Suffix o=pab
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name pabdb2 o=pab
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=PiServerDb
echo

echo -- Creating Suffix o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=mlusers
echo

echo -- Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif
```

```
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-vmware -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20091019162857/dssetup.ldif.rej -f
/var/tmp/dssetup_20091019162857/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20091019162857/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
  echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
  echo "-- WARNING: ldapmodify returned $stat"
else
  echo "-- ERROR: ldapmodify returned $stat"
  exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20091019162857/dssetup.ldif
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "icsCalendar"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
```

```
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"icsCalendar" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"icsCalendar" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "ou"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
```

```
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "ou"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "ou" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "ou"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "ou"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "cosspecifier"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"cosspecifier" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"cosspecifier" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailEquivalentAddress"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailEquivalentAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailEquivalentAddress" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mgrpUniqueId"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mgrpUniqueId" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mgrpUniqueId" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "inetCos"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "inetCos"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetCos" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "inetCos"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailUserStatus"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailUserStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailUserStatus" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailUserStatus" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "memberOf"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "memberOf"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "memberOf" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOf" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOf" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "icsCalendarOwned"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"icsCalendarOwned" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"icsCalendarOwned" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "groupid"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "groupid"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"groupid" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "groupid"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=internet" "inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=internet" "inetDomainBaseDN"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet inetDomainBaseDN pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet inetDomainBaseDN eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN
reindex o=internet
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetDomainBaseDN" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"inetDomainBaseDN" "o=internet"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=internet" "mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=internet" "mailDomainStatus"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet mailDomainStatus pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "mailDomainStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet mailDomainStatus eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus
reindex o=internet
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailDomainStatus" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailDomainStatus" "o=internet"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=internet" "inetCanonicalDomainName"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=internet" "inetCanonicalDomainName"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "inetCanonicalDomainName" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet inetCanonicalDomainName pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "inetCanonicalDomainName" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet inetCanonicalDomainName eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t
inetCanonicalDomainName reindex o=internet
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetCanonicalDomainName" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"inetCanonicalDomainName" "o=internet"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfPAB"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex
o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfPAB" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfPAB" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfManagedGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfManagedGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfManagedGroup" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"un"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"un"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "un" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
un eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "un"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "un"
"o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfPABGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfPABGroup"
```

```
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup
reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfPABGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfPABGroup" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "MemberOfPiBook"
```

```
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"MemberOfPiBook" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"MemberOfPiBook" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "MemberofPiGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "MemberofPiGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on
```

```
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup
reindex o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"MemberofPiGroup" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"MemberofPiGroup" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "displayname"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "displayname"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on
```

```
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"displayname" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"displayname" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=mlusers" "mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=mlusers" "mlsubMail"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=mlusers" "mlsubMail" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=mlusers mlsubMail eq-enabled:on
```

```
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex
o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mlsubMail" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mlsubMail" "o=mlusers"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=mlusers" "mlsubListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=mlusers" "mlsubListIdentifier"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=mlusers" "mlsubListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=mlusers mlsubListIdentifier eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier
reindex o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mlsubListIdentifier" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mlsubListIdentifier" "o=mlusers"
```

```
echo
(211 root) cat /var/tmp/dssetup_20091019162857/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019162857/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]   dsins1
[2]   dsins2


Which instance do you want [1]: 2
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20091019162857/dssetup.pw" -p 389 -h moe-vmware -b
"cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Java(tm)-System-Directory/6.3
B2008.0311.0212
-- Detected DS versions:
   full: 6.3
   major: 6
   minor: 3
   micro: NONE
   patch: NONE

Detected DS version 6.3 on moe-vmware port 389
```

```
-- Stored Dssetup data ver=0 rev=0, dctree=
   ug=, schematype=

Will this directory server be used for users/groups [yes]: WARNING: No
default suffix found in the Directory
A list of suffixes are as follows:
  No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=
There are 3 possible schema types:
  1   - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2   - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]:
Please enter the DC Tree base suffix [o=internet]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : dsins2
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 1
  DC Root                            : o=internet
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=comms-config": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=comms-config
```

```
-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=usergroup

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=internet": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=internet

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=pab": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=pab

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=PiServerDb": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=PiServerDb

-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=mlusers": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendar
    Checking indexes for mailAlternateAddress
      Default index DN exists
      Default index eq found
```

```
    No new indexes required
  Checking indexes for ou
    Index does not exist
      Index pres does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type ou
  Checking indexes for cn
    Default index DN exists
    Default index pres found
    Default index eq found
    Default index sub found
    No new indexes required
  Checking indexes for uniqueMember
    Default index DN exists
    Default index eq found
    No new indexes required
  Checking indexes for cosspecifier
    Index does not exist
      Index pres does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type cosspecifier
  Checking indexes for member
    Default index DN exists
    Default index eq found
    No new indexes required
  Checking indexes for mailEquivalentAddress
    Index does not exist
      Index pres does not exist
      Index eq does not exist
      Index approx does not exist
      Index sub does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type mailEquivalentAddress
  Checking indexes for mgrpUniqueId
    Index does not exist
      Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type mgrpUniqueId
  Checking indexes for inetCos
    Index does not exist
      Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type inetCos
  Checking indexes for mailUserStatus
    Index does not exist
      Index pres does not exist
      Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type mailUserStatus
  Checking indexes for memberOf
    Index does not exist
      Index eq does not exist
      Index sub does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type memberOf
  Checking indexes for icsCalendarOwned
```

```
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
    Checking indexes for mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for groupid
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    Checking indexes for inetCanonicalDomainName
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type inetCanonicalDomainName
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
```

```
      ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type MemberofPiGroup
    Checking indexes for displayname
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type displayname
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubMail
    Checking indexes for mlsubListIdentifier
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubListIdentifier
    Checking indexes for mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20091019162857/dssetup.sh
   /var/tmp/dssetup_20091019162857/dssetup.ldif

Running /var/tmp/dssetup_20091019162857/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
```

```
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20091019162857/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019162857/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3085
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=internet
-- Done Creating o=internet

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019162857/dssetup.ldif.rej status =
0
```

```
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t icsCalendar
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup ou
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t ou o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
```

```
cosspecifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailEquivalentAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
```

```
mgrpUniqueId eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t inetCos
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
```

```
memberOf
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOf
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
icsCalendarOwned o=usergroup
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t groupid
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN reindex
o=internet
## internetdb2: Indexing attribute: inetDomainBaseDN
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetDomainBaseDN o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
```

```
mailDomainStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus reindex
o=internet
## internetdb2: Indexing attribute: mailDomainStatus
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailDomainStatus o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCanonicalDomainName
reindex o=internet
## internetdb2: Indexing attribute: inetCanonicalDomainName
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetCanonicalDomainName o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab memberOfPAB
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOfPAB
o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfManagedGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t un o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
```

```
memberOfPABGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup reindex
o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfPABGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
MemberofPiGroup o=PiServerDb
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t displayname
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mlsubMail
o=mlusers

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mlsubListIdentifier o=mlusers
```

```
Successful Completion. Consult
/var/tmp/dssetup_20091019162857/dssetup.log for details
```

DSsetup Sample Session - Fresh Directory Server 6.3.1 Instance for Schema 2

Table of Contents

- Introduction
- Summary of Commands Run
- Comments
- Session

Introduction

This sample session shows the output of `comm_dssetup.pl` on a fresh Directory Server 6.3.1 instance.

Summary of Commands Run

```
229 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
   230 ls /var/tmp/dssetup_20091019165942/
   231 ls /var/tmp/dssetup_20091019165942/save
   232 cat /var/tmp/dssetup_20091019165942/99user_new.ldif
   233 cat /var/tmp/dssetup_20091019165942/dssetup.ldif
   234 cat /var/tmp/dssetup_20091019165942/dssetup.ldif.rej
   235 cat /var/tmp/dssetup_20091019165942/dssetup.sh
   236 cat /var/tmp/dssetup_20091019165942/dssetup.log
```

Comments

To create a pristine DS instance

1. cd /opt/sun/directory/ds6/bin
2. dsadm create /var/opt/sun/directory/dsins2
3. dsadm start /var/opt/sun/directory/dsins2
4. dsadm delete /var/opt/sun/directory/dsins2

Session

```
(229 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019165942/dssetup.log

Do you want to continue [y]:
```

```
Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :


Please select a directory server instance from the following list:

[1]   dsins1
[2]   dsins2


Which instance do you want [1]: 2

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 6.3 on moe-vmware port 389

Will this directory server be used for users/groups [yes]:

WARNING: No default suffix found in the Directory
A list of suffixes are as follows:
  No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
There are 3 possible schema types:
  1   - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2   - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]: 2

Access Manager has not been configured for this new user/group suffix
You can opt to continue, but you will not be able to use
features that depend on Access Manager

Are you sure you want this schema type? [n]: y

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:
```

```
  Server Root                        : /var/opt/sun/directory
  Server Instance                    : dsins2
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 2
  DC Root                            : o=usergroup
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager


Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added
  Will Create suffix o=comms-config
  Will Create suffix o=usergroup
  Will Create suffix o=pab
  Will Create suffix o=PiServerDb
  Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendar
    Checking indexes for mailAlternateAddress
      No new indexes required
    Checking indexes for ou
      New indexes and Reindexing required
      ReIndex will happen for index type ou
    Checking indexes for cn
      No new indexes required
    Checking indexes for uniqueMember
      No new indexes required
    Checking indexes for cosspecifier
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      New indexes and Reindexing required
      ReIndex will happen for index type mailEquivalentAddress
    Checking indexes for mgrpUniqueId
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for inetCos
      New indexes and Reindexing required
```

```
      ReIndex will happen for index type inetCos
    Checking indexes for mailUserStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailUserStatus
    Checking indexes for memberOf
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for icsCalendarOwned
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
    Checking indexes for mail
      No new indexes required
    Checking indexes for groupid
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
  Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
      New indexes and Reindexing required
      ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    Checking indexes for sunOrganizationAlias
      New indexes and Reindexing required
      ReIndex will happen for index type sunOrganizationAlias
    Checking indexes for sunPreferredDomain
      New indexes and Reindexing required
      ReIndex will happen for index type sunPreferredDomain
    Checking indexes for o
      New indexes and Reindexing required
      ReIndex will happen for index type o
    Checking indexes for associatedDomain
      New indexes and Reindexing required
      ReIndex will happen for index type associatedDomain
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
      New indexes and Reindexing required
      ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      New indexes and Reindexing required
      ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
      New indexes and Reindexing required
      ReIndex will happen for index type MemberofPiGroup
    Checking indexes for displayname
```

```
      New indexes and Reindexing required
      ReIndex will happen for index type displayname
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubMail
    Checking indexes for mlsubListIdentifier
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubListIdentifier
    Checking indexes for mail
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20091019165942/dssetup.sh
   /var/tmp/dssetup_20091019165942/dssetup.ldif

Running /var/tmp/dssetup_20091019165942/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:

Running /var/tmp/dssetup_20091019165942/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019165942/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3828
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
```

```
-- Done Creating o=usergroup

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019165942/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Finished indexing.
```

```
Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t icsCalendar
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup ou
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t ou o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailEquivalentAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t inetCos
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOf
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
icsCalendarOwned o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t groupid
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetDomainBaseDN
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetDomainBaseDN
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN reindex
o=usergroup
## usergroupdb2: Indexing attribute: inetDomainBaseDN
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetDomainBaseDN o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailDomainStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailDomainStatus o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t sunOrganizationAlias
reindex o=usergroup
## usergroupdb2: Indexing attribute: sunOrganizationAlias
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
sunOrganizationAlias o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t sunPreferredDomain reindex
o=usergroup
## usergroupdb2: Indexing attribute: sunPreferredDomain
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
sunPreferredDomain o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup o
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
o

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t o reindex o=usergroup
## usergroupdb2: Indexing attribute: o
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t o o=usergroup
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t associatedDomain reindex
o=usergroup
## usergroupdb2: Indexing attribute: associatedDomain
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
associatedDomain o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab memberOfPAB
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOfPAB
o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfManagedGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t un o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup reindex
o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfPABGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
MemberofPiGroup o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t displayname
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mlsubMail
o=mlusers

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mlsubListIdentifier o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20091019165942/dssetup.log for details
(230 root) ls /var/tmp/dssetup_20091019165942/
total 193
   2 99user_new.ldif      69 dssetup.log
   6 dssetup.ldif        109 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
(231 root) ls /var/tmp/dssetup_20091019165942/save
total 636
 153 00core.ldif                   17 50ns-mail.ldif
```

```
  16 00ds6pwp.ldif                 35 50ns-mcd-browser.ldif
   5 05rfc2247.ldif                11 50ns-mcd-config.ldif
   3 05rfc2927.ldif                 7 50ns-mcd-li.ldif
  16 11rfc2307.ldif                42 50ns-mcd-mail.ldif
  10 20subscriber.ldif              3 50ns-media.ldif
   7 25java-object.ldif            16 50ns-mlm.ldif
  19 28pilot.ldif                 100 50ns-msg.ldif
  25 30ns-common.ldif               7 50ns-netshare.ldif
   7 50iplanet-servicemgt.ldif      5 50ns-news.ldif
  14 50ns-admin.ldif                3 50ns-proxy.ldif
  15 50ns-calendar.ldif             7 50ns-value.ldif
   4 50ns-certificate.ldif          8 50ns-wcal.ldif
  24 50ns-compass.ldif              4 50ns-web.ldif
  14 50ns-delegated-admin.ldif      2 99user.ldif
  33 50ns-directory.ldif
   4 50ns-legacy.ldif
(232 root) cat /var/tmp/dssetup_20091019165942/99user_new.ldif
cat /var/tmp/dssetup_20091019165942/99user_new.ldif
#
# Copyright 2003 Sun Microsystems, Inc. All Rights Reserved
# Patents Pending.Use is subject to license terms.
#
#
# Use of this product is subject to
# license terms. Copyright (c) 2001 Sun Microsystems, Inc.
# Some preexisting portions Copyright (c) 2001 Netscape Communications
Corp.
# All rights reserved.
#
#
# User-defined schema
#
dn: cn=schema
(233 root) cat /var/tmp/dssetup_20091019165942/dssetup.ldif
cat /var/tmp/dssetup_20091019165942/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-vmware -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20091019165942/dssetup.ldif

#--------------------------------------------------
# This section creates the installer metadata
#--------------------------------------------------

##########################################
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
##########################################
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
```

```
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

########################################
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
########################################
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

########################################
# dn: o=comms-config
# Create the DN for the root suffix of metadata for Comms Products
########################################
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject

########################################
# dn: cn=CommServers,o=comms-config
# Create the DN for the installer metadata for Comm Servers
########################################
dn: cn=CommServers,o=comms-config
changetype: add
objectclass: top
objectclass: sunCommsMetaData
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=5.05
sunkeyvalue: dcsuffix=o=usergroup
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=2
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(234 root) cat /var/tmp/dssetup_20091019165942/dssetup.ldif.rej
cat /var/tmp/dssetup_20091019165942/dssetup.ldif.rej
# Error: Already exists
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject
(235 root) cat /var/tmp/dssetup_20091019165942/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
```

```
{
  echo "Usage: $0 -D <binddn> -j <passwdfile>"
  echo "  -D binddn        bind dn"
  echo "  -j <passwdfile>  read bind passwd from 'file' for simple
authentication"
  exit 1
}

if [ $# -lt 1 ]
then
  echo "You must specify either -j"
  usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
  case $c in
  D)
    Dflag=1
    BINDDN=$OPTARG;;
  j)
    jflag=1
    pflag=-j
    parg=$OPTARG;;
  \?)
    usage;;
  esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
  echo "You must specify the -D switch"
  usage
fi

if [ $jflag -eq 0 ]
then
  echo "You must specify -j"
  usage
fi

if [ $# -ge 1 ]
then
  echo "Unrecognized argument $*"
  usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
  echo
  echo "To run this utility you need to be the system's root user. \n"
  echo
  exit 1
fi
```

```
echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mail.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mlm.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-msg.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-value.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 55ims-ical.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 56ims-schema.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 65im.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70sun-schema2.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 71sun-am.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-iabs.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70delgated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema

echo -- Stopping Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm stop /var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
  echo "Stopping the Directory server failed"
  exit 1
fi
sleep 5
```

```
echo -- Starting Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm start
/var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
  echo "The server may not have restarted properly"
  echo "Please restart it manually"
fi
sleep 5

echo -- Creating Suffix o=comms-config
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name usergroupdb2 o=usergroup
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=pab
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name pabdb2 o=pab
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=PiServerDb
echo
```

```
echo -- Creating Suffix o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=mlusers
echo

echo -- Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-vmware -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20091019165942/dssetup.ldif.rej -f
/var/tmp/dssetup_20091019165942/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20091019165942/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
  echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
  echo "-- WARNING: ldapmodify returned $stat"
else
  echo "-- ERROR: ldapmodify returned $stat"
  exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20091019165942/dssetup.ldif
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "icsCalendar"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
```

```
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"icsCalendar" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
```

```
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"icsCalendar" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "ou"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "ou"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "ou" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "ou"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "ou"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "cosspecifier"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"cosspecifier" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"cosspecifier" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailEquivalentAddress"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailEquivalentAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailEquivalentAddress" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mgrpUniqueId"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mgrpUniqueId" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mgrpUniqueId" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "inetCos"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "inetCos"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetCos" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "inetCos"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailUserStatus"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailUserStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailUserStatus" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailUserStatus" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "memberOf"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "memberOf"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "memberOf" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOf" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOf" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "icsCalendarOwned"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"icsCalendarOwned" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"icsCalendarOwned" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "groupid"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "groupid"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"groupid" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "groupid"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetDomainBaseDN
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "inetDomainBaseDN"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetDomainBaseDN" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"inetDomainBaseDN" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailDomainStatus"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailDomainStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailDomainStatus" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailDomainStatus" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "sunOrganizationAlias"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "sunOrganizationAlias"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "sunOrganizationAlias" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "sunOrganizationAlias" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t sunOrganizationAlias
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"sunOrganizationAlias" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"sunOrganizationAlias" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "sunPreferredDomain"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "sunPreferredDomain"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "sunPreferredDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "sunPreferredDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t sunPreferredDomain
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"sunPreferredDomain" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"sunPreferredDomain" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
o
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "o"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "o"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "o" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "o" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
```

```
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t o reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "o"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "o"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "associatedDomain"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "associatedDomain"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "associatedDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "associatedDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
```

```
o=usergroup associatedDomain eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t associatedDomain
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"associatedDomain" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"associatedDomain" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfPAB"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
```

```
memberOfPAB eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex
o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfPAB" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfPAB" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfManagedGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
```

```
memberOfManagedGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfManagedGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfManagedGroup" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"un"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"un"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "un" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
un eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "un"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "un"
"o=pab"
echo
```

```
echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfPABGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfPABGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup
reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfPABGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfPABGroup" "o=pab"
echo
```

```
echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "MemberOfPiBook"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"MemberOfPiBook" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"MemberOfPiBook" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "MemberofPiGroup"
echo
```

```
echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "MemberofPiGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup
reindex o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"MemberofPiGroup" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"MemberofPiGroup" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "displayname"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "displayname"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on
echo
```

```
echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"displayname" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"displayname" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=mlusers" "mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=mlusers" "mlsubMail"
echo
```

```
echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=mlusers" "mlsubMail" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=mlusers mlsubMail eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex
o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mlsubMail" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mlsubMail" "o=mlusers"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=mlusers" "mlsubListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=mlusers" "mlsubListIdentifier"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=mlusers" "mlsubListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=mlusers mlsubListIdentifier eq-enabled:on
echo
```

```
echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier
reindex o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mlsubListIdentifier" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mlsubListIdentifier" "o=mlusers"
echo
(236 root) cat /var/tmp/dssetup_20091019165942/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019165942/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]   dsins1
[2]   dsins2


Which instance do you want [1]: 2
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20091019165942/dssetup.pw" -p 389 -h moe-vmware -b
```

```
"cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Java(tm)-System-Directory/6.3
B2008.0311.0212
-- Detected DS versions:
   full: 6.3
   major: 6
   minor: 3
   micro: NONE
   patch: NONE

Detected DS version 6.3 on moe-vmware port 389
-- Stored Dssetup data ver=0 rev=0, dctree=
   ug=, schematype=

Will this directory server be used for users/groups [yes]: WARNING: No
default suffix found in the Directory
A list of suffixes are as follows:
  No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=
There are 3 possible schema types:
  1   - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2   - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]: 2Access Manager has not
been configured for this new user/group suffix
You can opt to continue, but you will not be able to use
features that depend on Access Manager

Are you sure you want this schema type? [n]: y
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

  Server Root                        : /var/opt/sun/directory
  Server Instance                    : dsins2
  Users/Groups Directory             : yes
  Update Schema                      : yes
  Schema Type                        : 2
  DC Root                            : o=usergroup
  User/Group Root                    : o=usergroup
  Add New Indexes                    : yes
  ReIndex New Indexes Now            : yes
  Directory Manager DN               : cn=Directory Manager
```

```
Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=comms-config": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=comms-config

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=usergroup

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=pab": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=pab

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=PiServerDb": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=PiServerDb

-=-=-=-=-=-=-=-=-=-=-=
has_naming_context_ds6 get-suffix-prop result:
"o=mlusers": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-=-=-=-=-=-=-=-=-=-=-=
  Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index does not exist
```

```
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendar
    Checking indexes for mailAlternateAddress
      Default index DN exists
      Default index eq found
      No new indexes required
    Checking indexes for ou
      Index does not exist
        Index pres does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type ou
    Checking indexes for cn
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for uniqueMember
      Default index DN exists
      Default index eq found
      No new indexes required
    Checking indexes for cosspecifier
      Index does not exist
        Index pres does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for member
      Default index DN exists
      Default index eq found
      No new indexes required
    Checking indexes for mailEquivalentAddress
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mailEquivalentAddress
    Checking indexes for mgrpUniqueId
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for inetCos
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for mailUserStatus
      Index does not exist
        Index pres does not exist
        Index eq does not exist
```

```
      New indexes and Reindexing required
      ReIndex will happen for index type mailUserStatus
    Checking indexes for memberOf
      Index does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for icsCalendarOwned
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
    Checking indexes for mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    Checking indexes for groupid
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
  Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    Checking indexes for sunOrganizationAlias
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type sunOrganizationAlias
    Checking indexes for sunPreferredDomain
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type sunPreferredDomain
    Checking indexes for o
```

```
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type o
    Checking indexes for associatedDomain
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type associatedDomain
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
      Index does not exist
        Index pres does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
  Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type MemberofPiGroup
    Checking indexes for displayname
      Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type displayname
  Adding Indexes for Mailing List Tree (backend:mlusersdb2)
    Checking indexes for mlsubMail
      Index does not exist
```

```
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubMail
    Checking indexes for mlsubListIdentifier
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type mlsubListIdentifier
    Checking indexes for mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20091019165942/dssetup.sh
   /var/tmp/dssetup_20091019165942/dssetup.ldif

Running /var/tmp/dssetup_20091019165942/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20091019165942/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019165942/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3828
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config
```

```
-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019165942/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
```

```
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t icsCalendar
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup ou
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t ou o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailEquivalentAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t inetCos
o=usergroup
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOf
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
```

```
o=usergroup icsCalendarOwned pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
icsCalendarOwned o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t groupid
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetDomainBaseDN
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetDomainBaseDN

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN reindex
o=usergroup
## usergroupdb2: Indexing attribute: inetDomainBaseDN
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetDomainBaseDN o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailDomainStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailDomainStatus o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias pres-enabled:on
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t sunOrganizationAlias
reindex o=usergroup
## usergroupdb2: Indexing attribute: sunOrganizationAlias
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
sunOrganizationAlias o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t sunPreferredDomain reindex
o=usergroup
## usergroupdb2: Indexing attribute: sunPreferredDomain
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
sunPreferredDomain o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup o
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
o

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t o reindex o=usergroup
## usergroupdb2: Indexing attribute: o
## usergroupdb2: Finished indexing.
```

```
Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t o o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t associatedDomain reindex
o=usergroup
## usergroupdb2: Indexing attribute: associatedDomain
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
associatedDomain o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab memberOfPAB
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOfPAB
o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfManagedGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t un o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup reindex
o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfPABGroup o=pab
```

```
-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
MemberofPiGroup o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
```

```
o=PiServerDb displayname sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t displayname
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mlsubMail
o=mlusers

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mlsubListIdentifier o=mlusers
```

```
Successful Completion. Consult
/var/tmp/dssetup_20091019165942/dssetup.log for details
```

Configuration Worksheets - comm_dssetup.pl Script

comm_dssetup.pl Script Worksheet

Print and fill out this worksheet to use when responding to the `comm_dssetup.pl` script configuration options. You use `comm_dssetup.pl` to prepare the Directory Server LDAP schema for Communications Suite products.

This sheet assumes you are using Scheme 2, the default for a new installation.

Option	Default Value	Fill in Your Site's Value (to Respond to the Script)
Directory Server Root	The default depends on the Directory Server version detected. The `comm_dssetup.pl` script does attempt to heuristically determine the value.	
Directory Manager DN	`cn=Directory Manager`	
Directory Manager Password	–	
Use directory server for users/groups	Yes	
Users/Groups base suffix	The default depends on what is detected. The `comm_dssetup.pl` script does attempt to heuristically determine the value.	
Schema type?	2. However, if you run `comm_dssetup.pl` again, it defaults to the value choosen the previous time.	
Update the schema files?	yes	
Configure new indexes?	yes	
Reindex new indexes?	yes	

Configuration Worksheets - Convergence

Convergence Configuration Worksheets Version 2

Before you configure Convergence, gather the necessary configuration information.

Convergence Configuration Options lists the configuration options required for Convergence. GlassFish Server Configuration Options lists the configuration options required by Convergence to be deployed on GlassFish Server.

Print and fill out these worksheets to use when responding to the Convergence `init-config` script configuration options.

Convergence Configuration Options

Option	Description and Default Value	Fill in Your Site's Value (to Respond to the Script)
Configuration Directory	Directory to store configuration and data files. Default directory (on Solaris OS and Red Hat Linux): `/var/opt/sun/comms/iwc`. This directory should be different than the *iwc-base* directory. (On Solaris OS and Red Hat Linux, this is `/opt/sun/comms/iwc` by default).	
Convergence server host name	Host name of the machine where the Convergence software is installed. For example: `mymachine`.	
DNS domain name	The DNS domain for the host machine where the Convergence software is installed. For example: `siroe.com.`	
Convergence URL	URL where Convergence will be deployed. Enter the portion of the URL following the *`host name`*`:`*`port number`* For example: `/iwc`.	
Hosted domain support?	Select this option only if you have configured hosted domain support for Calendar Server.	
User/Group LDAP URL	Enter the Directory Server host and port where the User/Group is located. The URL should be in the format: `ldap://`*`LDAP host name with FQDN`*`:`*`LDAP port number`*`.` For example: `ldap://siroe.com:389`	
Bind DN	Enter the LDAP DN to be used to bind to the Directory Server managing the User/Group data. This is the User/Group Directory Manager. For example: "cn=Directory Manager".	
Bind password	Password for the Bind DN. Use the password defined in Directory Server for the Bind DN.	

DC Tree suffix	For Schema 1 configurations, this option specifies the base distinguished name (DN) of the DC Tree root suffix. For Schema 2 configurations, this option specifies the base DN of the root suffix under which the User/Group tree is located. You must enter a value for this option whether you are using Schema 1 or Schema 2. For example: `o=isp`	
Default domain name	When a user logs in to Convergence without including a mail domain component in the user name, this domain is used by default to supply the fully qualified domain name. For example: `sesta.com.` In this example, if a user logs in as `fred`, the user name is qualified as `fred@sesta.com`.	
Webmail host name	Host name where Messaging Server is installed. For example: `ms.sesta.com.`	
Webmail port number	Messaging Server HTTP (`mshttpd`) port number. For example, the default is: `8990`.	
Webmail SSL port number	Messaging Server SSL port number. Only needed if you enable login in secure mode.	
Webmail Admin user ID and password	Messaging Server administrator user ID and password. For example: `admin`.	
Calendar Server version	Calendar Server 6.3 or Calendar Server 7 and up. For example: `CS6.3` or `CS7 and up`.	
Calendar Server host name	Host name where Calendar Server is installed. For example: `cs.siroe.com`.	
Calendar Server port number	Calendar Server HTTP port number. For example: `8004`. Default: `80`.	
Calendar Server SSL port number	Calendar Server SSL port number. Only needed if you enable login in secure mode.	
Calendar Server URI	Calendar Server URI. Only needed if enabling with Calendar Server 7 and up. Default: `/davserver/wcap.`	
Calendar Server Admin user ID and password	Calendar Server administrator user ID and password. For example: `calmaster`.	
IM domain name	Domain name of the Instant Messaging Server. For example `varrius.com`.	
IM host name	Host name where Instant Messaging is installed. For example: `im.varrius.com`.	
IM port number	Instant Messaging HTTP port number. For example: `5269`. Default: `5269`.	
IM Httpbind Component JID	Instant Messaging Server httpbind component jid. For example: `httpbind.varrius.com`.	

IM Httpbind Component password	Instant Messaging Server httpbind component password.	
IM Avatar Component JID	Instant Messaging Server avatar component jid. For example: `avatar.varrius.com`.	
IM Avatar Component password	Instant Messaging Server avatar component password.	
Convergence administrator username	Administrator username. For example `admin`.	
Convergence administrator password	Administrator password.	

GlassFish Server Configuration Options

Option	Description	Fill in Your Site's Value (to Respond to the Script)
Application server installation directory	Directory where Application Server is installed. By default, this directory is `/opt/SUNWappserver`.	
Application server domain directory	By default, this directory is `/opt/SUNWappserver/domains/domain1`.	
Application server document root directory	By default, this directory is `/opt/SUNWappserver/domains/domain1/docroot`	
Application server target name	Name of the instance. For example: `server`.	
Virtual server identifier	Name of the application server virtual server identifier. For example: `server`.	
Application server instance HTTP port number	HTTP port number for the Application Server server instance (target). Default port number: `8080`.	
Administration Server port number	Port number for the Administration Server instance for application server. For example: `4848`.	
Administrator Server user ID and password.	User ID and password for the Administration Server administrator. User ID example: `admin`	
Secure Administration Server Instance	You will need to specify whether the HTTP access to the Administration Server instance is secure (HTTPS) or not (HTTP). By default, the Secure Administration Server Instance box shown in the Convergence `init-config` program is checked. If your access is not secure, uncheck the box.	

Configuration Worksheets - Delegated Administrator

Configuration Worksheets - Delegated Administrator for Oracle Communications Unified Communications Suite Version 7

Print and fill out this worksheet to use when responding to the `config-commda` script configuration options. You use `config-commda` to configure the Delegated Administrator console and utility.

Option	Default Value	Fill in Your Site's Value (to Respond to the Script)
DA Server Host	*FQDN of your host*	
DA Server Port	8080	
Default Domain	*your domain*	
Default SSL Port	443	
Web Container	WEB	
Web Container Install Root Directory (for DA Console)	`/opt/SUNWwbsvr7`	
Instance Root Directory	`/var/opt/SUNWwbsvr7`	
Server Instance Identifier	*FQDN of your host*	
Virtual Server Identifier	*FQDN of your host*	
Web Server HTTP Port	80	
Administration Server Port	8800	
Administrator User ID	admin	
Administrator Password	–	
Secure Administration Server Instance?	Unchecked	
Default Domain Separator	@	
Access Manager Base Directory	`/opt/SUNWam`	
Web Container Install Root Directory (for DA Server)	`/opt/SUNWwbsvr7`	
Instance Root Directory	`/var/opt/SUNWwbsvr7`	
Server Instance Identifier	*FQDN of your host*	
Virtual Server Identifier	*FQDN of your host*	
Web Server HTTP Port	80	
Administration Server Port	8800	
Administrator User ID	admin	

Administrator Password	–	
Secure Administration Server Instance?	Unchecked	
URL of Directory Server	`ldap://FQDN_of_your host_:389`	
Bind As	`cn=Directory Manager`	
Password	–	
DA Server Internal LDAP Username	daAdmin	*this value is hard-coded*
DA Server Internal LDAP Password	–	
AM Top level admin	amadmin	*this value is hard-coded by AM*
AM admin password	–	
Access Manager Internal LDAP Auth Username	amldapuser	*this value is hard-coded by AM*
AM Internal LDAP Auth Password for amldapuser	–	
Organization DN	o=*yourDefaultDomain* ,o=ug_root_suffix_	
Top Level Admin for Delegated Administrator	admin	
Password	–	
Load Sample Service Packages	Y	
Load Sample Organizations	Y	
Preferred Mailhost for Sample	*FQDN of your host*	

Configuration Worksheets - Indexing and Search Service

< Back to Installation Scenario - Indexing and Search Service

Indexing and Search Service for Oracle Communications Unified Communications Suite Worksheet Version 1 Update 2

Print and fill out this worksheet to use when responding to the `setup` script configuration options. You use `setup` to configure Indexing and Search Service.

Option and Example Value	Where Defined on Messaging Server	Where Defined on ISS Server	Fill In Your Site's Value
Fully qualified domain name of this system Example: `iss.example.com`	Not applicable	`hostname`	
Base directory of the install Example: `/opt/sun/comms/jiss`	Not applicable	`basedir`	
Cluster node type for Cluster Search Service configuration, either `web` or `index`	Not applicable	`iss.cluster.type`	
Instance name Example: `iss1`	Not applicable	`instance.name`	
User under which all ISS services will run Example: `jiss`	Not applicable	`iss.user`	
Group under which all ISS services will run Example: `jiss`	Not applicable	`iss.group`	
Location to store the Lucene indexes Example: `/var/opt/sun/comms/jiss/index`	Not applicable	`iss.store.dir`	
Location of attachment data Example: `/var/opt/sun/comms/jiss/attach`	Not applicable	`iss.data.dir`	

Temporary directory used for processing attachments Example: `/var/tmp/iss`	Not applicable	`iss.tmp.dir`	
Location of ISS log files Example: `/var/opt/sun/comms/jiss/logs`	Not applicable	`iss.log.dir`	
User/Group Directory Server LDAP URL Example: `ldap://dirhost.example.com:389`	`configutil` parameters `local.ugldaphost` and `local.ugldapport`	`mail.ldap`	
User/Group Base DN Example: `dc=example,dc=com`	`configutil` parameter `local.ugbasedn`	`mail.basedn`	
Schema Level Example: `1`	Not applicable	`mail.schemalevel`	
DC Tree Base DN (only required for LDAP schema 1) Example: `o=internet`	Not applicable	`mail.dcroot`	
Default LDAP port Example: `389`	Overwritten if LDAP host is defined in *host:port* format	`mail.ldap.port`	
Messaging Server Store fully qualified host name Example: `mailhost.example.com`	`configutil` parameter `local.hostname`	`mail.server`	
Comma-delimited list of mail server IPs Example: `10.0.0.1, 10.0.0.2`	Not applicable	`mail.server.ip`	
Read-only mail store administrator user name Example: `indexeradmin`	To be set as `configutil` parameter `store.indexeradmins`	`mail.imap.admin.username`	
Read-only mail store administrator password	To be defined in User/Group Directory	`mail.imap.admin.password`	
IMAP port Example: `143`	Not applicable	`mail.imap.port`	

IMQ broker host name and port for Messaging Server JMQ notifications Example: `mailhost.example.com:7676`	To be defined in `configutil` parameters `local.store.notifyplugin.index.jmqhost` and `local.store.notifyplugin.index.jmqport`	`mail.imq`	
JMQ notification destination type Example: `queue`	To be set as `configutil` parameter `local.store.notifyplugin.index.destinationtype`	`mail.imq.type`	
JMQ notification destination name Example: `INDEXMS`	To be set as `configutil` parameter `local.store.notifyplugin.index.jmqtopic`	`mail.imq.name`	
Username for IMQ broker handling Messaging Server JMQ notifications Example: `jmquser`	To be set as `configutil` parameter `local.store.notifyplugin.index.jmquser`	`mail.imq.user`	
Password for IMQ broker handling Messaging Server JMQ notifications	To be set as `configutil` parameter `local.store.notifyplugin.index.jmqpwd`	`mail.imq.password`	
Administrator password	Not applicable	`mail.imq.password`	
Location of the GlassFish directory Example: `/opt/SUNWappserver`	Not applicable	`appserv.dir`	
GlassFish web port Example: `8080`	Not applicable	`appserv.web.port`	
GlassFish admin port Example: `4848`	Not applicable	`appserv.admin.port`	
GlassFish domain Example: `domain1`	Not applicable	`appserv.domain`	
GlassFish administrative user Example: `admin`	Not applicable	`appserv.admin.user`	
GlassFish administrative user's password	Not applicable	`appserv.admin.password`	

ISS JMQ broker host name and port Example: `jmq.example.com:7676`	Not applicable	`imq.host`	
ISS JMQ broker user name Example: `jmquser`	Not applicable	`iss.imq.user`	
ISS JMQ broker password	Not applicable	`iss.imq.password`	
Administrator password	Not applicable	`iss.imq.admin.password`	
ISS Directory Server host and port Example: `ldap.example.com:389`	Not applicable	`ldap.host`	
ISS Directory Manager DN Example: `cn=Directory Manager`	Not applicable	`java.naming.security.principal`	
ISS Directory Server password	Not applicable	`ldap.password`	
Storeui access method. Either `disk` for a single host environment or `http` for a multi-host environment.	Not applicable	`iss.storeui.access.method`	

Configuration Worksheets - Instant Messaging

Configuration Worksheets - Instant Messaging Server Version 8 Update 3

Print and fill out this worksheet to use when responding to the `configure` script configuration options. You use `configure` to configure Instant Messaging.

(Solaris OS Only) If you are configuring High Availability service for Instant Messaging, see Instant Messaging HA Overview for specific information about values you can use for these parameters and additional parameters for your checklist.

Configuration Parameters for Instant Messaging

Parameter	Description	Your Value
Installation Directory *im-svr-base*	Directory in which Instant Messaging is installed. By default, Instant Messaging is installed into the `/opt` directory as follows: Solaris OS and Red Hat Linux: `/opt/sun/comms/im` (Solaris OS Only) If you will be configuring High Availability for Instant Messaging, see Selecting the Installation Directory for information about choosing an installation directory.	
Instant Messaging Server Host and Domain Name	Host name on which Instant Messaging is installed and the domain name associated with the host. For example: Host Name: `instantmessaging.siroe.com` Domain Name: `siroe.com` (Solaris Only) If you are configuring High Availability for Instant Messaging, use the logical host name.	
Multiplexor Port Number (Multiplexor Configuration Only)	The port number on which the Instant Messaging Server listens for incoming requests from Instant Messenger clients. Default: 5222	
Instant Messaging Server Port Number(Multiplexed XMPP Port)	The port number on which the Instant Messaging Server listens for incoming requests from the multiplexor. Default: 45222	
Instant Messaging Server-to-Server Port Number	The port number on which the Instant Messaging server listens for incoming requests from other Instant Messaging servers. In addition, if no multiplexor is installed, the server listens for incoming requests from Instant Messenger clients on this port. Default: 5269	

Disable Server	Select this option if the instance you installed acts as a multiplexor and not a server. If you select this option, you must provide a value for Remote Instant Messaging Server Host Name.	
Remote Instant Messaging Server Host Name (Multiplexor Configuration Only)	The host name of the Instant Messaging Server for which this multiplexor routes messages. If the multiplexor and server are installed on the same host, use localhost. (Solaris OS Only) If you will be configuring High Availability for Instant Messaging, use the logical host name. Dependencies: The Disable Server parameter must be selected, that is, server functionality is disabled.	
Sun Java System Access Manager Configuration	If the `configure` utility detects that you have installed the Access Manager SDK, you are prompted to provide answers for the following questions related to Access Manager: Are you planning to leverage an Access Manager deployment for SSO? If you enter yes, `configure` sets the `iim_server.usesso` parameter in the `iim.conf` file to 1. See Table A-4 for more information about this parameter. Are you planning to leverage an Access Manager deployment for Policy? If you choose yes, you need to run the `imadmin assign_services` command when you are finished running the `configure` utility. See To Configure Instant Messaging After Installation and Assigning Instant Messaging and Presence Services to End Users for more instructions on using the `imadmin assign_services` command. If you choose no, you will be asked whether you want to store user, conference room, and news channel properties in a file or in LDAP. In addition, if Instant Messaging will use Access Manager policies in an Application Server deployment, you need to restart the Application Server when you finish configuring Instant Messaging. If you do not restart the Application Server, Instant Messaging services do not appear in the Access Manager console (amconsole).	
LDAP Host Name	In a deployment with an LDAP server, the host name of the LDAP server that contains user and group information for Instant Messaging. For example, `directory.siroe.com`. Dependencies: LDAP server such as Oracle Directory Server Enterprise Edition (formerly Sun Java System Directory Server Enterprise Edition).	

LDAP Port Number	In a deployment with an LDAP server, the port number on which the directory server listens for incoming requests. For example, 389. Dependencies: LDAP server such as Oracle Directory Server Enterprise Edition (formerly Sun Java System Directory Server Enterprise Edition).	
Base DN	In a deployment with an LDAP server, the base distinguished name in the directory tree that contains user and group information for Instant Messaging. For example, `o=example.com`. Dependencies: LDAP server such as Oracle Directory Server Enterprise Edition (formerly Sun Java System Directory Server Enterprise Edition).	
Bind DN	In a deployment with Sun Java System Access Manager, during installation, you must provide the Directory Manager Bind DN and password. This Bind DN is used to update the directory schema with the Instant Messaging and presence service templates and attributes only. This requires Directory Manager access. The Directory Manager Bind DN and password are not saved or used beyond installation and initial configuration. In a deployment with an LDAP server but without Access Manager, Instant Messaging uses this Bind DN to search users and groups in the directory. Leave this blank if the directory can be searched anonymously. You can change the bind credentials later if required as described in To Configure Bind Credentials for the Instant Messaging Server. Dependencies: LDAP server such as Oracle Directory Server Enterprise Edition (formerly Sun Java System Directory Server Enterprise Edition).	
Bind Password	In a deployment with an LDAP server, the Bind DN password.	
Enable Email Integration, Enable Email Archiving (Optional)	If selected, enables Instant Messaging email archiving. Dependencies: SMTP Server such as Oracle Communications Messaging Exchange Server (formerly Sun Java System Messaging Server)	

SMTP Server Host Name (Optional)	The host name of the SMTP server used to send email notification of messages to offline users. For example, `mail.siroe.com`. If the SMTP server does not use port 25, specify the port along with the host name. For example, if the SMTP server uses port 1025, then use `mail.siroe.com:1025`. Dependencies: SMTP server such as Oracle Communications Messaging Exchange Server (formerly Sun Java System Messaging Server).	
Calendar Server and Calendar Agent Configuration	The `configure` utility asks if you want to enable the Calendar agent. If you choose to enable the Calendar agent, you need to provide the following information: From the configurator tool panel: Choose to Enable Calendar Agent by typing yes Choose to Enable local component by typing yes Specify XMPP server hostname Specify XMPP server port Specify Notification Server Hostname Specify Notification Server Port Specify Calendar alarm URL If you choose not to enable the Calendar agent, you can manually configure the Calendar agent later. More information about the Calendar agent configuration parameters and acceptable values is described in Using Calendar Pop-up Reminders.	

Database, Logs, and Runtime Files Pathname	The location where the runtime files, database, and logs are stored. Also referred to as *im-runtime-base*. Runtime files are read, created, and modified by the server during its normal operations. Some examples include log files,and persistent state information tied to client actions such as alert messages, roster information, conferences,news channels, and so on.
	If you are configuring High Availability (HA) for Instant Messaging, this path must be globally available. See Configuring Instant Messaging for High Availability (Oracle Solaris Only) for more information about HA.
	
	The `configure` utility appends a directory (`/default`) to the path you provide for the runtime files. The name of this directory is the instance to which the runtime files apply. Later, you can create multiple instances of Instant Messaging by creating additional instance directories with different names (for example `/secure`) and copying over files from the `/default` instance runtime directory. See Creating Multiple Instances from a Single Instant Messaging Installation.
	
	If you accept the following defaults when you run `configure`:
	Red Hat Linux:
	`/var/opt/sun/comms/im/`
	Solaris OS: `/var/opt/SUNWiim/`
	The `configure` utility creates the following directories for the runtime files:
	Red Hat Linux:
	`/var/opt/sun/comms/im/default`
	Solaris OS: `/var/opt/SUNWiim/default`
	
	In addition, the following two subdirectories are created under the runtime directory.
	The database directory (*im-db-base*) defaults are as follows:
	Red Hat Linux:
	`/var/opt/sun/comms/im/default/db`
	Solaris OS:
	`/var/opt/SUNWiim/default/db`
	The log directory defaults are as follows:
	Red Hat Linux:
	`/var/opt/sun/comms/im/default/log`
	
	Solaris OS:
	`/var/opt/SUNWiim/default/log`	

Resources, Help Files, and HTTP Gateway Pathname	Resource Directory. The directory in which the resource files, online help, and the XMPP/HTTP Gateway are installed. If you want to customize the resource files for your deployment, you should run the `configure` utility, customize the files, then redeploy the resource files. You need to run `configure` first because it creates some of the `index` and `.jnlp` files that you can customize. See Redeploying Resource Files for more information. Default: *im-svr-base*`/html`	
XMPP/HTTP Gateway Deployment	Determines whether or not the XMPP/HTTP gateway is deployed. If you choose to deploy the gateway, the `configure` utility creates a default gateway configuration file (`httpbind.conf`) in the default Instant Messaging server instance's *im-cfg-base* directory if one does not already exist. If `httpbind.conf` already exists, the `configure` utility does not alter or overwrite the file. Default: True (gateway is deployed) **Note** If you are configuring the Instant Messaging Server to support Convergence, do not enable the XMPP/HTTP Gateway Deployment here. Set this value to `false`. The XMPP/HTTP Gateway is deployed through the Convergence server; its value is set when you configure Convergence.	
XMPP/HTTP Gateway URI	Defines the URI for the HTTP component of the XMPP/HTTP gateway. Default: `http://`*web-svr-host*`:80/httpbind`	
SMS Gateway	Enables the Instant Messaging server to deliver chat messages and alerts in the form of SMS to the Instant Messaging users who are offline. From the configurator tool panel: 1. Choose the Enable SMS Gateway option by typing yes. 2. Choose the Enable Local Component option by typing yes.	

IMPS Gateway	Enables the Instant Messaging and presence service in mobile devices. When configuring the Instant Messaging server, set the Deploy IM IMPS Gateway option to yes.	
AOL/MSN/Yahoo Gateways	Enables you to communicate with external IM servers. From the configurator panel, choose: 1. Enable Yahoo Gateway: true if you want to enable the gateway on the server. 2. Enable Local Component: true to enable the gateway on the local machine (default port and host name is used). Entering false will allow you to enable it on another machine (need to enter the machine's port and host name).	
Codebase	The URL from which Instant Messenger accesses resources, including the start page for initial downloads of the Instant Messaging client. The installation program installs the resource files into the following locations: Solaris OS and Red Hat Linux: `/opt/sun/comms/im/html` The `configure` utility uses the codebase to determine which web container instance to use. If it succeeds, the configure utility deploys the Instant Messenger resources as a web application in the web container, according to the URL provided. If no supported web container is detected, you are prompted for a file system location in which to copy or link the resources. If you are using SSO with Sun Java System Access Manager, the Access Manager server and Instant Messaging server must be configured to use the same web container. See your web container documentation for more information about deploying resource files as a web application. See Changing the Codebase if you need to modify the location of the resource files after initial configuration.	

Configuration Worksheets - Messaging Server

Messaging Server Worksheet
Version 7 Update 4

Print and fill out this worksheet to use when responding to the Messaging Server `configure` script configuration options.

Option	Default Value	Fill in Your Site's Value (to Respond to the Script)
Fully Qualified Host Name (FQHN)	*your host.your domain*For example: `myhost.west.sesta.com`	
Directory to store Messaging Server configuration and data files	`/var/`*msg-svr-base*	
System user name that will own the configuration files	`mailsrv`	
System group that will own the configuration files	`mail`	
User/Group Server LDAP	`ldap://`*`your host`*`:389`	
Bind As	`cn=Directory Manager`	
Password	-	
Postmaster email address	-	
Password for Messaging Server accounts	-	
Default email Domain	*your domain*	
Organization DN	o=*your domain*,o=*suffix*	

Configuration Worksheets - Oracle Communications Calendar Server

Oracle Communications Calendar Server Configuration Script Worksheet
Version 6.3 (Formerly known as Sun Java System Calendar Server)

Print and fill out this worksheet to use when responding to the Calendar Server `csconfigurator.sh` script configuration options.

Option	Default Value	Fill in Your Site's Value (to Respond to the Script)
LDAP Server Host Name	*FQDN of your host*	
LDAP Server Port	389	
Directory Manager DN	`cn=Directory Manager`	
Directory Manager Password	–	
Enable Virtual Domains support	Checked	
Virtual Domains setting: Default domain	*your domain*	
Calendar Administrator Username	`calmaster`	
Calendar Administrator Password	–	
Calendar Administrator Email address	`calmaster@`*your domain*	
Site administrator	Yes	
Set up a Front End/Back End deployment	Unchecked	
Email Alarms	Enabled	
Administrator Email Address	`calmaster@`*your domain*	
SMTP Host Name	*your domain*	
Service Port	80	
Maximum Sessions	5000	
Maximum Threads	20	
Number of server processes	4	

Runtime User ID	`icsuser`	
Runtime Group ID	`icsgroup`	
Start Calendar Server after Successful Configuration	Unchecked	
Start Calendar Serve on System Startup	Checked	
Configuration Directory	`/etc/opt/calendar/SUNWics5/config`	
Database Directory	`/var/opt/calendar/SUNWics5/csdb`	
Attachment Store Directory	`/var/opt/calendar/SUNWics5/astore`	
Logs Directory	`/var/opt/calendar/SUNWics5/logs`	
Temporary Files Directory	`/var/opt/calendar/SUNWics5/tmp`	
Enable Archive	Checked	
Archive Directory	`/var/opt/calendar/SUNWics5/csdb/archive`	
Enable Hot Backup	Checked	
Hot Backup Directory	`/var/opt/calendar/SUNWics5/csdb/hotbackup`	
Keep archives for (in days)	Minimum: 3, Maximum: 6	
Keep hot backups for (in days)	Minimum: 3, Maximum: 6	
Same as archive checkbox	Checked	

Note
Do not change the location or names of the logs and temporary files directories.

Configuration Worksheets - Oracle Communications Calendar Server for CALDAV Clients

Configuration Worksheets - Oracle Communications Calendar Server for CALDAV Clients Version 7 Update 1

Print and fill out this worksheet to use when responding to the Oracle Communications Calendar Server for CALDAV Clients `init-config` script configuration options.

Option	Default Value	Fill in Your Site's Value (to Respond to the Script)
Directory to store configuration and data files	`/var/opt/sun/comms/davserver`	
Server Host	`localhost`	
MySQL Server Port	`3306`	
MySQL Runtime User	`caldav`	
MySQL Password	–	
Database User ID	`caldav`	
Database User Password	–	
Calendar Database Name	`caldav`	
Attachment Store Directory	`/var/opt/sun/comms/davserver/db`	
Application Server Installation Directory	`/opt/SUNWappserver`	
Application Server Domain Directory	`/opt/SUNWappserver/domains/domain1`	
Application Server Document Root Directory	`/opt/SUNWappserver/domains/domain1/docroot`	
Application Server Instance Name	`server`	
Virtual Server Identifier	`server`	
Application Server Instance HTTP Port	`8080`	
Administration Server Port	`4848`	

Administrator User ID	`admin`	
Administrator Password		
Secure Administration Server Instance	(selected)	
URI Path for Calendar Server 7Update 1	`/`	
LDAP URL	`ldap://`*`hostname`*`:389`	
LDAP Server Host Name	*FQDN of your host*	
LDAP Server Port	`389`	
Directory Manager DN	`cn=Directory Manager`	
Directory Manager Password	–	
DC Tree Suffix	–	
Default Domain (DC Tree Suffix)	(This value depends on the Directory Server root suffix that is detected at `init-config` run time.)	
Mail Server Host Name (SMTP Server)	–	
Mail Server Port Number (SMTP Server)	`25`	
Calendar Administrator Username	`calmaster`	
Calendar Administrator Password	–	

Configuring a Communications Suite Host to be Multi-Homed

Configuring an Oracle Communications Unified Communications Suite Host to Be Multi-Homed

When you install multiple instances of the same Communications Suite product on the same host, the different product instances use the same ports. If you run both instances of the product simultaneously, the ports conflict.

This information describes how to use a different IP address for each installation and configure the host to be multi-homed (accepting multiple IP addresses).

Topics:

- To Change the IP Address for Each Installation
- To Configure the Host to Be Multi-Homed
- To Configure Multiple Addresses Per Interface
- Multi-Home Example

To Change the IP Address for Each Installation

- Run the `ha_ip_config` utility. You must configure each installation to use a specific IP address, since the out-of-the-box default is to respond to any IP address (`INADDR_ANY`).

> **Note**
> The ENS service that needs a separate step in order to change the IP address it responds to. A workaround is to either disable the ENS server for one of the installations (use `local.ens.enable`), or to change the port used by the ENS server. If you don't do this, one of the ENS servers will not start up. This may not be a huge issue at this time since the other ENS server will handle requests.

To Configure the Host to Be Multi-Homed

1. Edit the `/etc/hosts` file.
2. For Solaris OS 10, also edit the `/etc/inet/ipnodes` file.
3. Plumb the IP addresses to the Ethernet addresses by using (`ifconfig`).
   This procedure would be similar on Red Had Linux systems.
4. Update your naming service (`/etc/hosts`, `/etc/inet/ipnodes`, NIS, and/or DNS) to recognize the new IP address.

For more information, see the Solaris 2 FAQ.

To Configure Multiple Addresses Per Interface

- Starting with Solaris OS 2, you can use the `ifconfig` command to enable having more than one IP address per interface. This feature was documented starting with Solaris OS 2.5, but does exist prior to Solaris OS 2.5.

Syntax

```
# This command is only required in later releases
ifconfig IF:N plumb
ifconfig IF:N ip-address up
```

where "IF" is an interface (for example, `le0`) and N is a number between 1 and <MAX>.

To remove the pseudo interface and associated address, perform the following:

```
ifconfig IF:N 0.0.0.0 down
# In newer release you must use the following command, but
# beware that this unplumbs your real interface on older
# releases, so try the above command first.
ifconfig IF:N unplumb
```

As with physical interfaces, make the appropriate `/etc/hostname.IF:X` file.

The maximum number of virtual interfaces is 255 in Solaris OS 2.6 and prior releases. Solaris OS 2.6 and Solaris 2.5.1 with the Solaris Internet Server Supplement (SISS) enable you to set this value with `ndd`, up to a hard maximum of 8192.

```
/usr/sbin/ndd -set /dev/ip ip_addrs_per_if 4000
```

There is no limit inspired by the code; so if you bring out `adb` you can increase the maximum even further.

Multi-Home Example

The following example creates a multi-home on the host `myhost`.

1. Create the new interface.

```
# ifconfig -a
lo0: flags=2001000849<UP,LOOPBACK,RUNNING,MULTICAST,IPv4,VIRTUAL>
mtu 8232 index 1
        inet 127.0.0.1 netmask ff000000
e1000g0: flags=1000843<UP,BROADCAST,RUNNING,MULTICAST,IPv4> mtu
1500 index 2
        inet 10.1.110.114 netmask ffffff80 broadcast 10.1.110.127
        ether 0:c:f1:8e:fb:4
# ifconfig  e1000g0:1 plumb
# ifconfig -a
lo0: flags=2001000849<UP,LOOPBACK,RUNNING,MULTICAST,IPv4,VIRTUAL>
mtu 8232 index 1
        inet 127.0.0.1 netmask ff000000
e1000g0: flags=1000843<UP,BROADCAST,RUNNING,MULTICAST,IPv4> mtu
1500 index 2
        inet 10.1.110.114 netmask ffffff80 broadcast 10.1.110.127
        ether 0:c:f1:8e:fb:4
e1000g0:1: flags=1000842<BROADCAST,RUNNING,MULTICAST,IPv4> mtu 1500
index 2
        inet 0.0.0.0 netmask 0
# ifconfig e1000g0:1 10.1.110.16 up
```

2. Set the IP address for the Messaging Server on the alternate root (on `/var/tmp/altroot/opt/SUNWmsg2` in the following example):

```
# cd /var/tmp/altroot/opt/SUNWmsg2
# sbin/ha_ip_config

Please specify the IP address assigned to the HA logical host name.
Use
dotted decimal form, a.b.c.d

Logical IP address: 10.1.110.16

Please specify the path to the top level directory in which iMS is
installed.

iMS server root: /var/tmp/altroot/opt/SUNWmsg2

The iMS server root directory does not contain any slapd-*
subdirectories.
Skipping configuration of LDAP servers.

        Logical IP address: 10.1.110.16
        iMS server root: /var/tmp/altroot/opt/SUNWmsg2

Do you wish to change any of the above choices (yes/no) [no]?

Updating the file
/var/tmp/altroot/opt/SUNWmsg2/config/dispatcher.cnf
Updating the file
/var/tmp/altroot/opt/SUNWmsg2/config/job_controller.cnf
Setting the service.listenaddr configutil parameter
Setting the service.http.smtphost configutil parameter
Setting the local.watcher.enable configutil parameter
Setting the local.autorestart configutil parameter
Configuration successfully updated
```

3. Do the same for the Messaging Server on the default root.

```
# cd /opt/SUNWmsg
# sbin/ha_ip_config

Please specify the IP address assigned to the HA logical host name.
Use
dotted decimal form, a.b.c.d

Logical IP address: 10.1.110.114

Please specify the path to the top level directory in which iMS is
installed.

iMS server root: /opt/SUNWmsg

The iMS server root directory does not contain any slapd-*
subdirectories.
Skipping configuration of LDAP servers.

        Logical IP address: 10.1.110.114
        iMS server root: /opt/SUNWmsg

Do you wish to change any of the above choices (yes/no) [no]?

Updating the file /opt/SUNWmsg/config/dispatcher.cnf
Updating the file /opt/SUNWmsg/config/job_controller.cnf
Setting the service.listenaddr configutil parameter
Setting the service.http.smtphost configutil parameter
Setting the local.watcher.enable configutil parameter
Setting the local.autorestart configutil parameter
Configuration successfully updated
```

4. Disable the ENS server on one of the installation by setting local.ens.enable to 0:

```
sbin/configutil -o local.ens.enable -v 0
```

5. Configure the netmask and broadcast on the new IP address:

```
# ifconfig e1000g0:1 down
# ifconfig e1000g0:1 netmask 0xffffff80
# ifconfig e1000g0:1
e1000g0:1: flags=1000842<BROADCAST,RUNNING,MULTICAST,IPv4> mtu 1500
index 2
        inet 10.1.110.16 netmask ffffff80 broadcast 10.255.255.255
# ifconfig e1000g0:1 broadcast 10.1.110.127
# ifconfig -a
lo0: flags=2001000849<UP,LOOPBACK,RUNNING,MULTICAST,IPv4,VIRTUAL>
mtu 8232 index 1
        inet 127.0.0.1 netmask ff000000
e1000g0: flags=1000843<UP,BROADCAST,RUNNING,MULTICAST,IPv4> mtu
1500 index 2
        inet 10.1.110.114 netmask ffffff80 broadcast 10.1.110.127
        ether 0:c:f1:8e:fb:4
e1000g0:1: flags=1000842<BROADCAST,RUNNING,MULTICAST,IPv4> mtu 1500
index 2
        inet 10.1.110.16 netmask ffffff80 broadcast 10.1.110.127
# ifconfig e1000g0:1 up
```

6. Edit `/etc/hosts` to add the new IP address 10.1.110.16 to it:

```
# cat /etc/hosts
127.0.0.1       localhost
10.1.110.114    myhost.west.sesta.com myhost        loghost
10.1.110.4      elegit.west.sesta.com
# multi-home - second IP address on ethernet port
10.1.110.16     myhost2.west.sesta.com myhost2
```

Configuring Individual Ports

Configuring Individual Ports for Multiple Installations of the Same Product on One Host

In a multiple installation of the same Communications Suite product on the same host, the different instances of the product are initially configured to use the same ports. If you run both instances of the product simultaneously, the ports will conflict.

One solution is to configure the individual ports on each installation so that they are different.

For example, for Messaging Server, you need to change the following ports in one instance:

- SMTP
- IMAP
- POP
- HTTPD
- ENS
- job_controller
- watcher

The ports have SSL versions, too. Also, there may be other ports to use like SMTP SUBMIT.

The best place to look for MTA-related processes is the `dispatcher.cnf` file. `store` and `mshttpd` ports are probably in `configutil`. MMP ports may be in `configutil` and/or its configuration files.

In addition, you can identify ports by taking these actions:

- See Default Port Numbers.
- See Configuring POP, IMAP, and HTTP Services.
- You can `grep` the `masterconfig` file (`lib/config.meta`) for "port".
- Query the following `configutil` variables as shown in the following table:

Service	configutil Variable	Default Value	Comments
watcher	`local.watcher.port`	49994	
metermaid	`metermaid.config.port`	63837	
IMAP	`service.imap.port`	143	
IMAP SSL	`service.imap.sslport`	993	
POP	`service.pop.port`	110	
POP over SSL	`service.pop.sslport`	995	
Webmail	`service.http.port`	80	
Webmail SSL	`service.http.sslport`	443	
ens	`local.store.notifyplugin.ensport`	7997	
jmq	`local.store.notifyplugin.jmqport`	7676	

Connector for Microsoft Outlook Installation Guide

Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Installation Guide
Version 7.3 Update 1

This information describes how to install the Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite.

Topic:

- Installing the Desktop Deployment Toolkit

For upgrade information, see the Connector for Microsoft Outlook Upgrade Guide.

Installation Worksheets - Directory Server

Directory Server Settings Worksheet

Print and fill out this worksheet to use when responding to the Directory Server configuration options in the Communications Suite Installer.

Option	Default Value	Fill in Your Site's Value (to Respond to the Installer)
Create a Directory Instance?	Yes	
Instance Directory	`/var/opt/SUNWdsee/dsins1`	
Directory Instance Port	389	
Directory Instance SSL Port	636	
Directory Manager DN	`cn=Directory Manager`	
System User	`root`	
System Group	`root`	
Directory Manager Password	*password from Accounts Preference Panel*	
Suffix	`dc=`*`your domain`*`,dc=`*`your suffix`*	

Installation Worksheets - Oracle iPlanet Web Server

Oracle iPlanet Web Server Settings Worksheet

Print and fill out this worksheet to use when responding to the Common and Web Server configuration options in the Unified Communications Suite Installer.

Option	Default Value	Fill in Your Site's Value (to Respond to the Installer)
Common Server Settings		
Host Name	*your host name*	
DNS Domain Name	*your DNS domain*	
Host IP address	*your host IP address*	**Verify correct address**
System user	`root`	
System group	`root`	
Web Server Settings		
Type of configuration	Configure Administration Instance as Server	
Start servers after system startup	Unchecked	
Server Host	*FDQN of your host*	
Admin Server SSL port	8989	
Admin Server HTTP port	8800	
Admin runtime user ID	`root`	
Web Server Name	*FDQN of your host*	
HTTP port	80	
Web Server runtime UNIX user ID	`webservd`	
Document root directory	`/var/opt/SUNWwbsvr7/https-`*hostname*`/docs`	

Installing Communications Suite on Solaris Zones

Installing Oracle Communications Unified Communications Suite on Solaris Zones
Version 7 Update 1

This information explains how to install Communications Suite on Solaris OS 10 Zones. For an overview of Solaris OS 10 with Communications Suite, see Overview of Solaris Zones.

Topics:

- Installing on Solaris OS 10 Zones: Best Practices
- Installing into a Non-Global Whole Root Zone
- Installing into a Non-Global Sparse Root Zone
- Guidelines for Using SunCluster HA Packages in a Non-Global Zone

Installing on Solaris OS 10 Zones: Best Practices

You can install Communications Suite components in the global zone, whole root non-global zones, and sparse non-global zones. Follow these guidelines:

- Treat the global zone as an "administration zone." Install shared components and OS patches in the global zone that are to be shared among all zones. However, do not install and run products from the global zone.
- Use whole root non-global zones to run Communications Suite products. Do not use the global zone or sparse zones. A whole root zone can have versions that are different from other whole root zones, thus giving it a measure of being "self-contained".
- There is one exception to the above two guidelines: install HA agents (MS_SCHA, CS_SCHA, IM_SCHA) in the global zone only. The Comms Installer automatically propagates HA agents to all non-global zones (i.e. the -G switch to pkgadd is not used for HA agents).

However be aware of the following aspects of zones:

- You can have different shared component versions in the whole root non-global zone, but it isn't entirely insulated. If you do a packaging or patching operation in the global zone for a shared component, that operation is also attempted in the whole root zone. Thus, to truly have different shared component versions, use an alternate root.
- To avoid affecting whole root zones you can attempt to never install and patch shared components in the global zone. However, it might not be realistic to never have to install or patch a shared component in the global zone. For example, NSS is a shared component, but it is part of Solaris OS. So to expect to never install and patch NSS in the global zone seems unrealistic, especially given it is a security component.
- Although it isn't a recommended best practice, you can use Communications Suite productsIn sparse non-global zones. Do note that shared components cannot be installed into the default root because many of them install into the read-only shared file system (`/usr`). Thus, you must run the installer in the global zone to install shared components into the default root. Prepend your selection with **~** in the global zone to install only the dependencies (that is, shared components). You do not have to install in the global zone first before installing in the sparse zone. The installer allows you to continue even when you do not install all the dependencies. However, upgrading the shared components in the global zone affects the sparse non-global zones, thus requiring downtime for all affected zones simultaneously.

Installing into a Non-Global Whole Root Zone

The non-global whole root zone scenario is the equivalent of installing Messaging Server on a single box with no zones. Simply install Communications Suite as you normally would.

> **Caution**
> Any operations performed in the global zone (such as installations, uninstallations, and patching) affect the whole root zones.

Installing into a Non-Global Sparse Root Zone

Although it isn't a recommended best practice, you can use Communications Suite Products in a non-global sparse root zone. To install Communications Suite in a non-global sparse root zone, you first need to install/upgrade the applicable OS patches and shared components in the global zone. You are unable to do so in the sparse root zone, because the `/usr` directory (where the shared components reside) is a read-only directory in the sparse root zone.

1. Follow pre-installation requirements as described in Installation Overview.
2. Verify that you are about to install the shared components and OS patches in the global zone and not the sparse root zone.
3. Run the installer in the global zone and only install/upgrade the OS patches and the Shared Components. Do not install Communications Suite components in the global zone. To do this, add a ~ (tilde) to the component number you want to install in the sparse zone.
   For example, if you plan to install Messaging Server in the sparse zone, you select `~1` during the global zone installation. The installer will know to only install dependencies and not the product itself.
4. Once you have the shared components and OS patches installed, install Communications Suite components in the sparse root zone.

Guidelines for Using SunCluster HA Packages in a Non-Global Zone

The HA agents (MS_SCHA, IM_SCHA, and CS_SCHA) should be installed in the global zone only. The Communications Suite Installer will propagate the installation of the HA agent to all non-global zones. This is required since the version of the HA agent must be identical on all zones.

Take the following steps to install the Communications Suite 7 Update 1 Sun Cluster HA agent in non-global zones:

1. Run the Communications Suite command in the global zone only:

   ```
   # commpkg install
   ```

   This command installs the Sun Cluster HA Agent package on global zone and all non-global zones.

2. If you have sparse zones that need the HA agent, run the Sun Cluster HA Agent initial configuration command in the global zone:

   ```
   # <scha_base>/bin/init-config
   ```

3. In the whole root zones where you are going to use the HA agent, run the Sun Cluster HA Agent initial configuration command in the global zone:

   ```
   # <scha_base>/bin/init-config
   ```

Oracle Communications Calendar Server Pre-Installation Planning

Oracle Communications Calendar Server Pre-Installation Planning Version 6.3 (Formerly known as Sun Java System Calendar Server)

This information describes considerations you need to think about before installing Oracle Communications Calendar Server 6.3.

If you are installing Oracle Communications Calendar Server for CALDAV Clients, see Installation Scenario - Oracle Communications Calendar Server for CALDAV Clients.

Topics:

- Planning for Calendar Server Administrators
- Planning for Calendar Server Hosted Domains

Planning for Calendar Server Administrators

Administrators for Calendar Server include:

- Calendar Server Administrator (calmaster)
- Calendar Server User and Group
- Superuser (root)

Calendar Server Administrator (calmaster)

The Calendar Server administrator is a specific user name with its associated password that can manage Calendar Server. For example, a Calendar Server administrator can start and stop Calendar Server services, add and delete users, create and delete calendars, and so on. This user has administrator privileges for Calendar Server but not necessarily for the directory server.

The default user ID for the Calendar Server administrator is `calmaster`, but you can specify a different user during Calendar Server configuration, if you prefer. After installation you can also specify a different user in the `service.admin.calmaster.userid` parameter in the `ics.conf` file.

The user ID you specify for the Calendar Server administrator must be a valid user account in your directory server. If the Calendar Server administrator user account does not exist in the directory server during configuration, the configuration program can create it for you.

See the Sun Java System Calendar Server 6.3 Administration Guide for the complete list of Calendar Server administrator configuration parameters in the `ics.conf` file.

Calendar Server User and Group

On Solaris OS systems, these special accounts are the user ID and group ID under which Calendar Server runs. Use the default values, `icsuser` and `icsgroup`, which are automatically created by the configuration program, if they do not exist. If you prefer, however, you can specify values other than `icsuser` and `icsgroup` when you run the Calendar Server configuration program. These values are stored in the `local.serveruid` and `local.servergid` parameters, respectively, in the `ics.conf` file.

Superuser (root)

On machines running Solaris OS software, you must log in as or become `superuser` (`root`) to install Calendar Server. You can also run as `superuser` to manage Calendar Server using the command-line utilities. For some tasks, however, you should run as `icsuser` and `icsgroup` (or the values you have selected) rather than `superuser` to avoid access problems for Calendar Server files.

Planning for Calendar Server Hosted Domains

Calendar Server supports hosted (or virtual) domains. In a hosted domain installation, each domain shares the same instance of Calendar Server, which enables multiple domains to exist on a single server. Each domain defines a name space within which all users, groups, and resources are unique. Each domain also has a set of attributes and preferences that you specifically set.

To configure hosted domains on a server, you should make these deployment choices:

- Use Schema 2 only.
- Install and configure Directory Server.
- Install and configure a web container: Application Server or Web Server.
- Install and configure Access Manager.
- Install and configure Delegated Administrator as part of the Communications Suite. Use the `compkg` installer to install Delegated Administrator, Calendar Server, and any other Communications Suite components you require.

For instructions on installing and configuring the components listed above, see the related articles in the Installation Guide.

Next, take the following configuration steps:

- Run `comm_dssetup.pl` to prepare Directory Server for Communications Suite before you configure Delegated Administrator and other Communications Suite components.
- Configure Delegated Administrator.
  A default domain is created when you configure Delegated Administrator, but the domain entry must be modified to add Calendar (or Mail) services. For details, see Delegated Administrator Initial Configuration.
- Create the domains for your site by using Delegated Administrator.
- Configure Calendar Server.
  When you configure Calendar Server, you specify a default domain and site calendar administrator (`calmaster`). For information about (`calmaster`), see Calendar Server Administrator. For instructions on how to specify these items, see Initial Runtime Configuration Program for Calendar Server.
- Set domain configuration parameters for Calendar Server.
  For a list of the configuration parameters and their values, see Calendar Server Domain Configuration Parameters in *Sun Java System Calendar Server 6.3 Administration Guide*.
- Populate your domains with users and resources using Delegated Administrator.
- Start Calendar Server services.
  For instructions, see Starting and Stopping Calendar Server 6.3 Processes in Sun Java System Calendar Server 6.3 Administration Guide.

> **Note**
> Perform your provisioning for Schema 2 with the Communications Services Delegated Administrator interface.
>
> Schema 1 provisioning tools do not support hosted domains.

Sample Session - Communications Suite Install Using ALTROOT

Sample Session - Oracle Communications Unified Communications Suite Install Using ALTROOT Version 7 Update 1

This sample session shows an install and uninstall of Communications Suite 7 Update 1 by running the Communications Suite installer, `commpkg`, with the *ALTROOT* option. You can uninstall an *ALTROOT* by removing the entire *ALTROOT*.

Topics:

- Comments
- Summary of Commands Run
- Session

Comments

```
- The /etc/softlist.xml file contains the "known" altroots to CI. It
  is not authoritative. The file is updated when CI finds changes on
  the system.
- When installing into an altroot, products are installed into the
altroot.
  OS patches are always installed into the default root (/).
  Some Shared components (SCs) are installed into the altroot and some
  are installed into the default root (/).
  MySQL is an example of a SC that is always installed into the default
  root.
- altroot install is available on solaris only, it uses the -R switch
  to pkgadd
- You must specify the altroot to "commpkg uninstall". The altroot is
  an optional 3rd argument to the commpkg command.
- Another way to uninstall an altroot, is to simply wipe out the
  entire altroot (with rm -r). The next time you run "commpkg info"
  it will fix up /etc/softlist.xml
- Only MS has been tested to use the SCs in the altroot location. Most
  other products have not done this testing, and thus probably may use
  the SC in the default altroot, and not the one in the altroot.
```

Summary of Commands Run

```
112 pwd
   113 hostname
   114 uname -a
   115 ./commpkg info
   116 cat /etc/softlist.xml
   117 ./commpkg install /opt/altroot
   118 cat
/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20100805163133
   119 cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201008051631
120 cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20100805163133.log
121 ./commpkg info
   122 ./commpkg info --verbose
   123 ./commpkg uninstall /opt/altroot
   124 cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201008051654
125 cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20100805165431.log
126 ./commpkg info --verbose
   127 cat /etc/softlist.xml
   128 /bin/ls /opt/altroot
   129 /bin/ls -l /opt/altroot
   130 \rm -rf /opt/altroot
   131 ./commpkg info
   132 cat /etc/softlist.xml
```

Session

```
(112 root) pwd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
(113 root) hostname
darkpaladin
(114 root) uname -a
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
(115 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20100805162953.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""

(116 root) cat /etc/softlist.xml
<?xml version="1.0" encoding="utf-8"?>
```

```
<!-- Do not edit! This file is automatically generated. -->
<!-- Last Update: Thu Aug  5 16:26:18 PDT 2010 -->
<!-- By: /net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
./commpkg -->

<multi-inst-list>
  <install name="" root="/" suite="comms" />
</multi-inst-list>
(117 root) ./commpkg install /opt/altroot
-- LOGFILE: /tmp/CommsInstaller_20100805163133.log

CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010

Welcome to the Oracle Communications Unified Communications Suite
Product Installer
This program will install selected components of the Communications
Suite
on your computer. Do note that the installer lays down the
bits, but does not do configuration. Separate configuration
steps for each individual product will be required.

Copyright 2010 Oracle Corporation. All rights reserved.
Use is subject to license terms.

Before you install this product, you must read and accept the
entire Software License Agreement under which this product is
licensed for your use.
The Software License Agreement documents are under the Legal_Folder
directory.
Do you agree to the license terms ? [No] : yes
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
INFO: altroot mode is activated.
-- Creating /opt/altroot
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
Do you want to continue ? [yes] :
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Shared Components (not shown) will be installed as required.
  you will be prompted later if Shared Components need to be upgraded.
OS patches (not shown) will be installed as required.

Communication Products:

    Item  Description
    ----  -----------
```

```
       1  Messaging Server (64bit) 7u4 (7.4-18.01)
       2  Comms DSsetup 6.4 (6.4-6.03)
       3  Calendar Server (CALDAV) 7u1 (7.1-1.11)
       4  Instant Messaging 8u3 (8.3-03.10)
       5  Convergence 2 (2.0-0.06)
       6  Indexing and Search Service 1u1 (1.1-4.4501)
       7  Comms Delegated Administrator 7 (7.0-3.00)
       8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
       9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
      10  Calendar Server 6.3 (6.3-23.01)
      11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)


Enter the items you wish to install. Enter q to quit.
Prefix an item with ~ to indicate you only want
  to install shared component dependencies of that product
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to install [1, 2, 3, 4, 5, 6, 7, 8,
9, 10, 11]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Generating list of things to install...
Checking for Shared Component Upgrade Requirements...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: MySQL 5.1.36
  WILL INSTALL: Instant Messaging API 8
  WILL INSTALL: LDAPJDK 4.19
  WILL INSTALL: Simple Authentication and Security Layer 2.19
  WILL INSTALL: LDAPCSDK6 Tools 6.0
                to /opt/altroot/directory
  WILL INSTALL: International Components for Unicode ICU2,ICU3
  WILL INSTALL: NSS/NSPR/JSS 4.8.4
  WILL INSTALL: LDAPCSDK6 6.0
  WILL INSTALL: JDK 1.6.0
  WILL INSTALL: Java Help Runtime 2.0
  WILL INSTALL: Message Queue 4.4
  WILL INSTALL: Message Queue Localization 4.4
  WILL INSTALL: Messaging Server (64bit) 7u4 (7.4-18.01)
                to /opt/altroot/messaging64
  WILL INSTALL: Comms DSsetup 6.4 (6.4-6.03)
                to /opt/altroot/dssetup
  WILL INSTALL: Calendar Server (CALDAV) 7u1 (7.1-1.11)
                to /opt/altroot/davserver
  WILL INSTALL: Instant Messaging 8u3 (8.3-03.10)
                to /opt/altroot/im
  WILL INSTALL: Convergence 2 (2.0-0.06)
                to /opt/altroot/iwc
  WILL INSTALL: Indexing and Search Service 1u1 (1.1-4.4501)
                to /opt/altroot/jiss
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-3.00)
                to /opt/altroot/da
  WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                to /opt/altroot/msg_scha
  WILL INSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                to /opt/altroot/im_scha
```

```
  WILL INSTALL: Calendar Server 6.3 (6.3-23.01)
                to /opt/altroot/calendar
  WILL INSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                to /opt/altroot/cs_scha
  WILL INSTALL: CommsInstaller 7u1 (7.1-0.06)
                to /opt/altroot/CommsInstaller
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to install

Do you want to continue ? [yes] :

============================================================
Installing MySQL 5.1.36...
------ Executing Task 1 of 67 ...

============================================================
Installing Instant Messaging API 8...
------ Executing Task 2 of 67 ...

============================================================
Installing LDAPJDK 4.19...
------ Executing Task 3 of 67 ...

============================================================
Installing Simple Authentication and Security Layer 2.19...
------ Executing Task 4 of 67 ...

============================================================
Installing LDAPCSDK6 Tools 6.0...
------ Executing Task 5 of 67 ...

============================================================
Installing International Components for Unicode ICU2,ICU3...
------ Executing Task 6 of 67 ...

============================================================
Installing NSS/NSPR/JSS 4.8.4...
------ Executing Task 7 of 67 ...
------ Executing Task 8 of 67 ...
------ Executing Task 9 of 67 ...
------ Executing Task 10 of 67 ...
------ Executing Task 11 of 67 ...
------ Executing Task 12 of 67 ...

============================================================
Installing LDAPCSDK6 6.0...
------ Executing Task 13 of 67 ...
------ Executing Task 14 of 67 ...

============================================================
Installing JDK 1.6.0...
------ Executing Task 15 of 67 ...
------ Executing Task 16 of 67 ...
------ Executing Task 17 of 67 ...
------ Executing Task 18 of 67 ...
------ Executing Task 19 of 67 ...
```

```
============================================================
Installing Java Help Runtime 2.0...
------ Executing Task 20 of 67 ...
------ Executing Task 21 of 67 ...
------ Executing Task 22 of 67 ...
------ Executing Task 23 of 67 ...

============================================================
Installing Message Queue 4.4...
------ Executing Task 24 of 67 ...
------ Executing Task 25 of 67 ...
------ Executing Task 26 of 67 ...
------ Executing Task 27 of 67 ...
------ Executing Task 28 of 67 ...
------ Executing Task 29 of 67 ...
------ Executing Task 30 of 67 ...
------ Executing Task 31 of 67 ...
------ Executing Task 32 of 67 ...
------ Executing Task 33 of 67 ...

============================================================
Installing Message Queue Localization 4.4...
------ Executing Task 34 of 67 ...
------ Executing Task 35 of 67 ...
------ Executing Task 36 of 67 ...
------ Executing Task 37 of 67 ...
------ Executing Task 38 of 67 ...
------ Executing Task 39 of 67 ...
------ Executing Task 40 of 67 ...
------ Executing Task 41 of 67 ...
------ Executing Task 42 of 67 ...
------ Executing Task 43 of 67 ...
------ Executing Task 44 of 67 ...
------ Executing Task 45 of 67 ...
------ Executing Task 46 of 67 ...
------ Executing Task 47 of 67 ...

============================================================
Installing Messaging Server (64bit) 7u4 (7.4-18.01)...
------ Executing Task 48 of 67 ...

============================================================
Installing Comms DSsetup 6.4 (6.4-6.03)...
------ Executing Task 49 of 67 ...

============================================================
Installing Calendar Server (CALDAV) 7u1 (7.1-1.11)...
------ Executing Task 50 of 67 ...

============================================================
Installing Instant Messaging 8u3 (8.3-03.10)...
------ Executing Task 51 of 67 ...
------ Executing Task 52 of 67 ...
------ Executing Task 53 of 67 ...
------ Executing Task 54 of 67 ...
```

```
------ Executing Task 55 of 67 ...
------ Executing Task 56 of 67 ...
------ Executing Task 57 of 67 ...
------ Executing Task 58 of 67 ...

============================================================
Installing Convergence 2 (2.0-0.06)...
------ Executing Task 59 of 67 ...

============================================================
Installing Indexing and Search Service 1u1 (1.1-4.4501)...
------ Executing Task 60 of 67 ...

============================================================
Installing Comms Delegated Administrator 7 (7.0-3.00)...
------ Executing Task 61 of 67 ...

============================================================
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
------ Executing Task 62 of 67 ...

============================================================
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
------ Executing Task 63 of 67 ...

============================================================
Installing Calendar Server 6.3 (6.3-23.01)...
------ Executing Task 64 of 67 ...
------ Executing Task 65 of 67 ...

============================================================
Installing Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)...
------ Executing Task 66 of 67 ...

============================================================
Installing CommsInstaller 7u1 (7.1-0.06)...
------ Executing Task 67 of 67 ...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

-- Output of Task 1: generic
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
LOGFILE: /tmp/ci-mysql-installer_20100805163156.log
pkgadd -n -r /dev/null -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.
100805 16:32:23  InnoDB: Started; log sequence number 0 46409
```

```
100805 16:32:23  InnoDB: Starting shutdown...
100805 16:32:24  InnoDB: Shutdown completed; log sequence number 0 46409
100805 16:32:24 [Warning] Forcing shutdown of 1 plugins
100805 16:32:25  InnoDB: Started; log sequence number 0 46409
100805 16:32:26  InnoDB: Starting shutdown...
100805 16:32:27  InnoDB: Shutdown completed; log sequence number 0 46409
100805 16:32:27 [Warning] Forcing shutdown of 1 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h darkpaladin password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
-- End of command output--

All tasks PASSED
Checking JES java symlink...
INFO: /etc/softlist.xml updated

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

NOTICE: To undo the installation, run the commands in:

/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20100805163133

NOTICE: silent file created in:

/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201008051631
LOGFILE  created in:
```

```
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20100805163133.log
root) cat
/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20100805163133
#! /bin/sh
# Note that only tasks that PASSED are undone
# For reference, tasks that FAILED or are irreversible are in comments
# WARNING WARNING WARNING
# Executing irreversible tasks may result in a non-functional system!!!
ADMIN=/opt/altroot/var/opt/CommsInstaller/logs/admin.quiet
set -v
pkgrm -R /opt/altroot -n -a $ADMIN SUNWscics
#######################################################
# Finished Undo of: Installing CommsInstaller 7u1 (7.1-0.06)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWica5
#######################################################
# Finished Undo of: Installing Calendar Server Sun Cluster HA agent 6.3
(6.3-1.01)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWics5
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimsc
#######################################################
# Finished Undo of: Installing Calendar Server 6.3 (6.3-23.01)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWmessaging-server-scha
#######################################################
# Finished Undo of: Installing Instant Messaging Sun Cluster HA agent
7.3 (7.3-01.02)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWcommda
#######################################################
# Finished Undo of: Installing Messaging Server Sun Cluster HA agent 7.0
(7.0-0.03)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWjiss
#######################################################
# Finished Undo of: Installing Comms Delegated Administrator 7
(7.0-3.00)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiwc
#######################################################
# Finished Undo of: Installing Indexing and Search Service 1u1
(1.1-4.4501)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimgw
#######################################################
# Finished Undo of: Installing Convergence 2 (2.0-0.06)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimd
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimc
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimid
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimjd
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimm
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimin
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiim
```

```
pkgrm -R /opt/altroot -n -a $ADMIN SUNWdavserver
#####################################################
# Finished Undo of: Installing Instant Messaging 8u3 (8.3-03.10)...
#####################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWcomds
#####################################################
# Finished Undo of: Installing Calendar Server (CALDAV) 7u1
(7.1-1.11)...
#####################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWmessaging-server-64
#####################################################
# Finished Undo of: Installing Comms DSsetup 6.4 (6.4-6.03)...
#####################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWhiquc
#####################################################
# Finished Undo of: Installing Messaging Server (64bit) 7u4
(7.4-18.01)...
#####################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWhiqu
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWciquc
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWciqu
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWkiquc
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWkiqu
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWeiquc
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWeiqu
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWjiquc
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWjiqu
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWdiquc
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWdiqu
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWfiquc
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWfiqu
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqlen
#####################################################
# Finished Undo of: Installing Message Queue Localization 4.4...
#####################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqcdv
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqcrt
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqfs
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqjx
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqum
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiquc
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqdoc
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqu
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiqr
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWjhdoc
#####################################################
# Finished Undo of: Installing Message Queue 4.4...
#####################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWjhdem
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWjhdev
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWjhrt
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWj6cfg
#####################################################
# Finished Undo of: Installing Java Help Runtime 2.0...
#####################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWj6dvx
```

```
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWj6dev
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWj6rtx
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWj6rt
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWldapcsdk-dev
#######################################################
# Finished Undo of: Installing JDK 1.6.0...
#######################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWldapcsdk-libs
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWtlsu
#######################################################
# Finished Undo of: Installing LDAPCSDK6 6.0...
#######################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWtlsd
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWtls
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWprd
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWpr
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWjss
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWicu
#######################################################
# Finished Undo of: Installing NSS/NSPR/JSS 4.8.4...
#######################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWldapcsdk-tools
#######################################################
# Finished Undo of: Installing International Components for Unicode
ICU2,ICU3...
#######################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWsasl
#######################################################
# Finished Undo of: Installing LDAPCSDK6 Tools 6.0...
#######################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWljdk
#######################################################
# Finished Undo of: Installing Simple Authentication and Security Layer
2.19...
#######################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimdv
#######################################################
# Finished Undo of: Installing LDAPJDK 4.19...
#######################################################
# IRREVERSIBLE:
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a $ADMIN
#######################################################
# Finished Undo of: Installing Instant Messaging API 8...
#######################################################
#######################################################
# Finished Undo of: Installing MySQL 5.1.36...
#######################################################
(119 root) cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100805163
Silent File for CommsInstaller 7.1-0.06
# Generated on 20100805163133
#

#
# NOTE: You must set ACCEPTLICENSE=yes below or alternatively
```

```
#       use --acceptLicense on the command line
#
#
# verb used to create this silent file
#
VERB=install

#
# alternate distro path if not found where commpkg resides
#    and no --distro switch specified is
#
ALTDISTROPATH=/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71

#
# The installation root
#
INSTALLROOT=/opt/altroot

#
# flag to indicate whether to use alternate root install mode
#
ALTROOT=yes

#
# flag to indicate whether to perform pkg overwrite if the pkg already
exists
#
PKGOVERWRITE=no

#
# flag to indicate whether to exclude OS patches
#
EXCLUDEOS=no

#
# flag to indicate whether to exclude shared components
#
EXCLUDESC=no

#
# flag to indicate acceptance of the software license
#
ACCEPTLICENSE=no

#
# flag to indicate that all SC should or should not be upgraded without
prompting
#
UPGRADESC=no

#
# INSTALLROOT friendly name
#
INSTALLNAME=

#
```

```
# list of components (using mnemonics)
# A ~ in front of the product indicates that only the shared
# components are installed
#
COMPONENTS=MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA
COMPONENT_VERSIONS=
(120 root) cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20100805163133.log
LOGFILE started Thu Aug  5 16:31:33 2010 ==========
LOGFILE = /tmp/CommsInstaller_20100805163133.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg install /opt/altroot
-- perl version: 5.008004 pid: 2834
-- basetime: 1281051093 Thu Aug  5 16:31:33 2010
-- scriptDir: /net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
-- LOGFILE: /tmp/CommsInstaller_20100805163133.log
-- UNAME = SunOS ARCH = sparc OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
-- Exit status: 0
!!! ENV
$VAR1 = {
          'SSH_CLIENT' => '192.18.75.229 56686 22',
          'CAPSAVE' => '/home/dl111122/.termcap',
          'PS1' => '# ',
          'LINES' => '55',
          'COLUMNS' => '80',
          'PWD' => '/home/dl111122/wspace/releases/ci71',
          'USER' => 'dl111122',
          'LANG' => 'C',
          'LC_MESSAGES' => 'C',
          'VISUAL' => 'gnuclient',
          'LOGNAME' => 'dl111122',
          'EMACS' => 't',
          'REMOTE' => '/home/dl111122/.remote',
          'USE_64' => '1',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:.:/home/dl111122/bin:/new/local/bin
'EMACS_TYPE' => 'pc',
          'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
          'MORE' => '-c',
          'TERM' => 'emacs',
          'SSH_TTY' => '/dev/pts/1',
          'PAGER' => 'cat',
          'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
          'HOME' => '/home/dl111122',
          'LD_LIBRARY_PATH' => '/usr/dt/lib:/usr/openwin/lib',
          'SSH_CONNECTION' => '192.18.75.229 56686 10.5.194.229 22',
          'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
          'TERMSAVE' => 'emacs',
          'CDPATH' => '.:..:/home/dl111122',
          'EDITOR' => 'gnuclient',
          'MAIL' => '/var/mail//dl111122',
          'TZ' => 'US/Pacific',
```

```
          'ESHELL' => '/bin/csh',
          'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info'
'MOTIFHOME' => '/usr/dt',
          'CVSROOT' =>
':pserver:dl111122@redcvs.red.iplanet.com:/m/src',
          'OPENWINHOME' => '/usr/openwin',
          'RCSINIT' => '-zLT',
          'SHELL' => '/bin/csh',
          'SKIP_UTEST' => '1',
          'TERMCAP' => '/home/dl111122/.termcap'
        };
cat /etc/release 2>&1
                      Solaris 10 10/08 s10s_u6wos_07b SPARC
           Copyright 2008 Sun Microsystems, Inc.  All Rights Reserved.
                        Use is subject to license terms.
                            Assembled 27 October 2008
-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
          'MS64',
          'DSSETUP',
          'DAV',
          'IM',
          'IWC',
          'JISS',
          'DA',
          'MS_SCHA',
          'IM_SCHA',
          'CS',
          'CS_SCHA'
        ];
/usr/bin/pkgcond -n is_what 2>&1
can_add_driver=0
can_remove_driver=0
can_update_driver=0
is_alternative_root=0
is_boot_environment=0
is_diskless_client=0
is_global_zone=1
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=0
is_path_writable=1
is_running_system=1
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=0
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 1
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
Reading Product Files...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
```

```
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
```

```
Reading OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
```

```
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/
'MS64_L10N' => 'none',
          'MS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS/C
'DSSETUP' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSE
'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64
'DAV' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CE/C
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS
'NSS' => 'none',
          'IM' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/C
'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_S
'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_S
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_S
'CS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/C
```

```
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/C
};
!!! prod_getVers
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-0.06',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-6.03',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-18.01',
          'DAV' => '7.1-1.11',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.1-0.06',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.1-4.4501',
          'NSS' => 0,
          'IM' => '8.3-03.10',
          'ST' => 0,
          'CS_L10N' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'MYSQL_MARKER' => 0,
          'BZIP' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-23.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-3.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20100726',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20091123',
          'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' => '20100715',
          'DAV' => '20100716',
```

```
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20100726',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20100618',
          'NSS' => 'none',
          'IM' => '20100622',
          'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20100624',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20100715'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.4
INFO: prod_mktVers{SASL} (no map) = 2.19
INFO: prod_mktVers{LDAPCSDK6} (no map) = 6.0
INFO: prod_mktVers{LDAPCSDK6_TOOLS} (no map) = 6.0
INFO: prod_mktVers{ICU} (no map) = ICU2,ICU3
INFO: prod_mktVers{JDK} (no map) = 1.6.0
INFO: prod_mktVers{JHRT} (no map) = 2.0
INFO: prod_mktVers{MQ} (no map) = 4.4
INFO: prod_mktVers{MQ_L10N} (no map) = 4.4
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2010.06.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u1
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u1
INFO: prod_mktVers{IM} (w/ map) = 8u3
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u1
INFO: prod_mktVers{DA} (w/ map) = 7
```

```
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3

CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010

Welcome to the Oracle Communications Unified Communications Suite
Product Installer
This program will install selected components of the Communications
Suite
on your computer. Do note that the installer lays down the
bits, but does not do configuration. Separate configuration
steps for each individual product will be required.

Copyright 2010 Oracle Corporation. All rights reserved.
Use is subject to license terms.

Before you install this product, you must read and accept the
entire Software License Agreement under which this product is
licensed for your use.
The Software License Agreement documents are under the Legal_Folder
directory.
Do you agree to the license terms ? [No] : yes
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
INFO: altroot mode is activated.
-- Creating /opt/altroot
-- Setting owner:group for /opt/altroot to bin:bin
/bin/chown bin:bin /opt/altroot 2>&1
-- Exit status: 0
-- Setting permission for /opt/altroot to 755
/bin/chmod 755 /opt/altroot 2>&1
-- Exit status: 0
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
mkdir -p /opt/altroot/var/sadm/system/admin 2>&1
-- Exit status: 0
ln -s /var/sadm/system/admin/INST_RELEASE
/opt/altroot/var/sadm/system/admin/INST_RELEASE 2>&1
-- Exit status: 0
Detecting Installed Products...
Checking LIBCPLUSPLUS 5.9 ...
  Checking pkg SUNWlibC... present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmdsu... present.
  Checking pkg SUNWswmt... present.
  Checking pkg SUNWinstall-patch-utils-root... present.
  Checking pkg SUNWcsr... present.
  Checking pkg SUNWdtrc... present.
  Checking pkg SUNWzoneu... present.
  PATCHUTILS Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2010.06.25 ...
```

```
  RECOMMENDED 2010.06.25 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... present.
  Checking pkg SUNWservicetagu... present.
  Checking pkg SUNWstosreg... present.
  ST 1.1.4 is already present.
Checking NSS 4.8.4 ...
  Checking pkg SUNWjss... not present.
  Checking pkg SUNWpr... not present.
  Checking pkg SUNWprd... not present.
  Checking pkg SUNWtls... not present.
  Checking pkg SUNWtlsd... not present.
  Checking pkg SUNWtlsu... not present.
  NSS 4.8.4 is not present.
Checking SASL 2.19 ...
  Checking pkg SUNWsasl... not present.
  SASL 2.19 is not present.
Checking LDAPCSDK6 6.0 ...
  Checking pkg SUNWldapcsdk-libs... not present.
  Checking pkg SUNWldapcsdk-dev... not present.
  LDAPCSDK6 6.0 is not present.
Checking LDAPCSDK6_TOOLS 6.0 ...
  Checking pkg SUNWldapcsdk-tools... not present.
  LDAPCSDK6_TOOLS 6.0 is not present.
Checking ICU ICU2,ICU3 ...
  Checking pkg SUNWicu... not present.
  ICU ICU2,ICU3 is not present.
Checking JDK 1.6.0 ...
  Checking pkg SUNWj6rt... not present.
  Checking pkg SUNWj6rtx... not present.
  Checking pkg SUNWj6dev... not present.
  Checking pkg SUNWj6dvx... not present.
  Checking pkg SUNWj6cfg... not present.
  JDK 1.6.0 is not present.
Checking JDK 1.5.0 ...
  Checking pkg SUNWj5rt... not present.
  Checking pkg SUNWj5rtx... not present.
  Checking pkg SUNWj5cfg... not present.
  JDK 1.5.0 is not present.
Checking JHRT 2.0 ...
  Checking pkg SUNWjhrt... not present.
  Checking pkg SUNWjhdev... not present.
  Checking pkg SUNWjhdem... not present.
  Checking pkg SUNWjhdoc... not present.
  JHRT 2.0 is not present.
Checking MQ 4.4 ...
  Checking pkg SUNWiqr... not present.
  Checking pkg SUNWiqu... not present.
  Checking pkg SUNWiqdoc... not present.
  Checking pkg SUNWiquc... not present.
  Checking pkg SUNWiqum... not present.
  Checking pkg SUNWiqjx... not present.
  Checking pkg SUNWiqfs... not present.
  Checking pkg SUNWiqcrt... not present.
  Checking pkg SUNWiqcdv... not present.
  Checking pkg SUNWiqlen... not present.
```

```
  MQ 4.4 is not present.
Checking MQ 3.7 ...
  Checking pkg SUNWiqr... not present.
  Checking pkg SUNWiqu... not present.
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... not present.
  Checking pkg SUNWiquc... not present.
  Checking pkg SUNWiqum... not present.
  Checking pkg SUNWiqjx... not present.
  Checking pkg SUNWiqfs... not present.
  Checking pkg SUNWiqcrt... not present.
  Checking pkg SUNWiqcdv... not present.
  Checking pkg SUNWiqlen... not present.
  MQ 3.7 is not present.
Checking MQ 4.1 ...
  Checking pkg SUNWiqr... not present.
  Checking pkg SUNWiqu... not present.
  Checking pkg SUNWiqdoc... not present.
  Checking pkg SUNWiquc... not present.
  Checking pkg SUNWiqum... not present.
  Checking pkg SUNWiqjx... not present.
  Checking pkg SUNWiqfs... not present.
  Checking pkg SUNWiqcrt... not present.
  Checking pkg SUNWiqcdv... not present.
  MQ 4.1 is not present.
Checking MQ_L10N 4.4 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
  MQ_L10N 4.4 is not present.
Checking MQ_L10N 3.7 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
```

```
  MQ_L10N 3.7 is not present.
Checking MQ_L10N 4.1 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
  MQ_L10N 4.1 is not present.
Checking LDAPJDK 4.19 ...
  Checking pkg SUNWljdk... not present.
  LDAPJDK 4.19 is not present.
Checking IMAPI 8.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 8.0 is not present.
Checking IMAPI 7.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 7.0 is not present.
Checking IMAPI 7.3 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 7.3 is not present.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... not present.
  MYSQL 5.1.36 is not present.
Checking CI 7.1 ...
  Checking pkg SUNWcomms... not present.
  CI 7.1 is not present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.0 is not present.
Checking MS64 7.4 ...
  Checking pkg SUNWmessaging-server-64... not present.
  MS64 7.4 is not present.
Checking MS64 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS64 6.3_32 is not present.
Checking MS64 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS64 7.2_32 is not present.
Checking MS64 7.3_32 ...
```

```
  MS64 7.3_32 is not present.
Checking MS64 7.4_32 ...
  MS64 7.4_32 is not present.
Checking DSSETUP 6.4 ...
  Checking pkg SUNWcomds... not present.
  DSSETUP 6.4 is not present.
Checking DAV 7.1 ...
  Checking pkg SUNWdavserver... not present.
  DAV 7.1 is not present.
Checking IM 8.3 ...
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  Checking pkg SUNWiimgw... not present.
  IM 8.3 is not present.
Checking IM 7.0 ...
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  IM 7.0 is not present.
Checking IM 7.3 ...
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  IM 7.3 is not present.
Checking IWC 2.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 2.0 is not present.
Checking JISS 1.1 ...
  Checking pkg SUNWjiss... not present.
  JISS 1.1 is not present.
Checking JISS 0.9 ...
  Checking pkg SUNWjiss-common... not present.
  Checking pkg SUNWjiss-conf... not present.
  Checking pkg SUNWjiss-extjars... not present.
  Checking pkg SUNWjiss-indexapi... not present.
  Checking pkg SUNWjiss-jmqc... not present.
  Checking pkg SUNWjiss-rest... not present.
  Checking pkg SUNWjiss-search... not present.
  Checking pkg SUNWjiss-searchui... not present.
  Checking pkg SUNWjiss-store... not present.
  Checking pkg SUNWjiss-storeui... not present.
  JISS 0.9 is not present.
Checking DA 7.0 ...
```

```
  Checking pkg SUNWcommda... not present.
  DA 7.0 is not present.
Checking DA 6.4 ...
  Checking pkg SUNWcomic... not present.
  Checking pkg SUNWcomis... not present.
  DA 6.4 is not present.
Checking MS_SCHA 7.0 ...
  Checking pkg SUNWmessaging-server-scha... not present.
  MS_SCHA 7.0 is not present.
Checking MS_SCHA 6.0 ...
  Checking pkg SUNWscims... not present.
  MS_SCHA 6.0 is not present.
Checking IM_SCHA 7.3 ...
  Checking pkg SUNWiimsc... not present.
  IM_SCHA 7.3 is not present.
Checking IM_SCHA 7.0 ...
  Checking pkg SUNWiimsc... not present.
  IM_SCHA 7.0 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Checking CS_SCHA 6.0 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.0 is not present.
Checking MS 7.4 ...
  MS 7.4 is not present.
Checking MS 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS 6.3_32 is not present.
Checking MS 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS 7.2_32 is not present.
Checking MS 7.3_32 ...
  MS 7.3_32 is not present.
Checking MS_L10N 6.2 ...
  Checking pkg SUNWmsgde... not present.
  Checking pkg SUNWmsges... not present.
  Checking pkg SUNWmsgfr... not present.
  Checking pkg SUNWmsgja... not present.
  Checking pkg SUNWmsgko... not present.
  Checking pkg SUNWmsgzh... not present.
  Checking pkg SUNWmsgtw... not present.
  MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
```

```
  Checking pkg SUNWmsg-l10n... not present.
  MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
  Checking pkg SUNWmessaging-server-l10n-64... not present.
  MS64_L10N 6.3 is not present.
Checking CS_L10N 6.2 ...
  Checking pkg SUNWdeics... not present.
  Checking pkg SUNWesics... not present.
  Checking pkg SUNWfrics... not present.
  Checking pkg SUNWjaics... not present.
  Checking pkg SUNWkoics... not present.
  Checking pkg SUNWzhics... not present.
  Checking pkg SUNWtwics... not present.
  CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
  Checking pkg SUNWics-l10n... not present.
  CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
  Checking pkg SUNWdiimc... not present.
  Checking pkg SUNWdiimd... not present.
  Checking pkg SUNWdimid... not present.
  Checking pkg SUNWeiimc... not present.
  Checking pkg SUNWeiimd... not present.
  Checking pkg SUNWeiimin... not present.
  Checking pkg SUNWeimid... not present.
  Checking pkg SUNWfiimc... not present.
  Checking pkg SUNWfiimd... not present.
  Checking pkg SUNWfiimin... not present.
  Checking pkg SUNWfimid... not present.
  Checking pkg SUNWjiimc... not present.
  Checking pkg SUNWjiimd... not present.
  Checking pkg SUNWjiimin... not present.
  Checking pkg SUNWjimid... not present.
  Checking pkg SUNWkiimc... not present.
  Checking pkg SUNWkiimd... not present.
  Checking pkg SUNWkiimin... not present.
  Checking pkg SUNWkimid... not present.
  Checking pkg SUNWciimc... not present.
  Checking pkg SUNWciimd... not present.
  Checking pkg SUNWciimin... not present.
  Checking pkg SUNWcimid... not present.
  Checking pkg SUNWhiimc... not present.
  Checking pkg SUNWhiimd... not present.
  Checking pkg SUNWhiimin... not present.
  Checking pkg SUNWhimid... not present.
  IM_L10N 7.0 is not present.
Checking IM_L10N 7.2 ...
  Checking pkg SUNWiimc-l10n... not present.
  Checking pkg SUNWiimd-l10n... not present.
  Checking pkg SUNWiimid-l10n... not present.
  Checking pkg SUNWiimin-l10n... not present.
  IM_L10N 7.2 is not present.
Checking CE 6.3 ...
  Checking pkg SUNWuwc... not present.
  CE 6.3 is not present.
Checking CE_L10N 6.2 ...
```

```
  Checking pkg SUNWduwc... not present.
  Checking pkg SUNWeuwc... not present.
  Checking pkg SUNWfuwc... not present.
  Checking pkg SUNWjuwc... not present.
  Checking pkg SUNWkuwc... not present.
  Checking pkg SUNWcuwc... not present.
  Checking pkg SUNWhuwc... not present.
  CE_L10N 6.2 is not present.
Checking CE_L10N 6.3 ...
  Checking pkg SUNWuwc-l10n... not present.
  CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119963-19 /tmp/.patchout_20100805163133.2834
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20100805163133.2834
patchadd  -p > /tmp/.patchout_20100805163133.2834 2>>
/tmp/CommsInstaller_20100805163133.log
-- Exit status: 0
--  older version at lineno 479 found 119963-10 - not acceptable
--  Exact match found at line 480
--  Final return status: 1
  LIBCPLUSPLUS patch 119963-19 is already present.
-- chk4patch 120900-04 /tmp/.patchout_20100805163133.2834
--  Exact match found at line 56
--  Final return status: 1
  PATCHUTILS patch 120900-04 is already present.
-- chk4patch 121133-02 /tmp/.patchout_20100805163133.2834
--  Exact match found at line 34
--  Final return status: 1
  PATCHUTILS patch 121133-02 is already present.
-- chk4patch 119254-71 /tmp/.patchout_20100805163133.2834
--  older version at lineno 33 found 119254-59 - not acceptable
--  Exact match found at line 36
--  Final return status: 1
  PATCHUTILS patch 119254-71 is already present.
-- chk4patch 126868-03 /tmp/.patchout_20100805163133.2834
--  older version at lineno 457 found 126868-01 - not acceptable
--  Exact match found at line 459
--  Final return status: 1
  BZIP patch 126868-03 is already present.
-- chk4patch 137321-01 /tmp/.patchout_20100805163133.2834
--  Exact match found at line 458
--  Final return status: 1
  BZIP patch 137321-01 is already present.
-- chk4patch 119254-73 /tmp/.patchout_20100805163133.2834
--  older version at lineno 33 found 119254-59 - not acceptable
--  older version at lineno 36 found 119254-71 - not acceptable
--  older version at lineno 37 found 119254-67 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 119254-73 is not present.
-- chk4patch 118833-36 /tmp/.patchout_20100805163133.2834
--  Exact match found at line 39
--  Final return status: 1
  RECOMMENDED patch 118833-36 is already present.
-- chk4patch 120011-14 /tmp/.patchout_20100805163133.2834
--  Exact match found at line 54
```

```
--  Final return status: 1
  RECOMMENDED patch 120011-14 is already present.
-- chk4patch 120272-28 /tmp/.patchout_20100805163133.2834
--  older version at lineno 24 found 120272-21 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 120272-28 is not present.
-- chk4patch 137137-09 /tmp/.patchout_20100805163133.2834
--  Exact match found at line 64
--  Final return status: 1
  RECOMMENDED patch 137137-09 is already present.
-- chk4patch 141444-09 /tmp/.patchout_20100805163133.2834
--  Final return status: 0
  RECOMMENDED patch 141444-09 is not present.
-- chk4patch 142900-13 /tmp/.patchout_20100805163133.2834
--  Final return status: 0
  RECOMMENDED patch 142900-13 is not present.
-- chk4patch 125358-11 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
-- Running patchadd -R /opt/altroot -p report...
--   Generating /tmp/.patchout_altroot_20100805163133.2834
patchadd -R /opt/altroot -p > /tmp/.patchout_altroot_20100805163133.2834
2>> /tmp/CommsInstaller_20100805163133.log
Cannot check name /opt/altroot/var/sadm/pkg.
Cannot open input /opt/altroot
-- Exit status: 0
--  Final return status: 0
  NSS patch 125358-11 is not present.
-- chk4patch 119345-07 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  SASL patch 119345-07 is not present.
-- chk4patch 136798-02 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  LDAPCSDK6_TOOLS patch 136798-02 is not present.
-- chk4patch 119810-05 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  ICU patch 119810-05 is not present.
-- chk4patch 125136-22 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  JDK patch 125136-22 is not present.
-- chk4patch 125137-22 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  JDK patch 125137-22 is not present.
-- chk4patch 119725-06 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  LDAPJDK patch 119725-06 is not present.
-- chk4patch 137204-18 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  MS64 patch 137204-18 is not present.
-- chk4patch 118242-03 /tmp/.patchout_altroot_20100805163133.2834
```

```
/opt/altroot -R /opt/altroot
--  Final return status: 0
  DSSETUP patch 118242-03 is not present.
-- chk4patch 118245-22 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  DSSETUP patch 118245-22 is not present.
-- chk4patch 142785-01 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  DAV patch 142785-01 is not present.
-- chk4patch 139893-03 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  IM patch 139893-03 is not present.
-- chk4patch 142824-04 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  JISS patch 142824-04 is not present.
-- chk4patch 124581-03 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  DA patch 124581-03 is not present.
-- chk4patch 137571-01 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  IM_SCHA patch 137571-01 is not present.
-- chk4patch 121657-44 /tmp/.patchout_altroot_20100805163133.2834
/opt/altroot -R /opt/altroot
--  Final return status: 0
  CS patch 121657-44 is not present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'NOT_PRESENT',
          '119254-73' => 'NOT_PRESENT',
          '137571-01' => 'NOT_PRESENT',
          'DSSETUP' => {
                          '6.4' => 'NOT_PRESENT'
                        },
          'MQ_L10N' => {
                          '3.7' => 'NOT_PRESENT',
                          '4.1' => 'NOT_PRESENT',
                          '4.4' => 'NOT_PRESENT'
                        },
          'ICU' => {
                      'ICU2,ICU3' => 'NOT_PRESENT'
                    },
          'MS64' => {
                       '7.4_32' => 'NOT_PRESENT',
                       '7.3_32' => 'NOT_PRESENT',
                       '7.2_32' => 'NOT_PRESENT',
                       '6.3_32' => 'NOT_PRESENT',
                       '7.4' => 'NOT_PRESENT'
                     },
```

```
          'DAV' => {
                     '7.1' => 'NOT_PRESENT'
                   },
          'CE' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          'MYSQL' => {
                       '5.1.36' => 'NOT_PRESENT'
                     },
          'PATCHUTILS' => {
                            'Unknown' => 'PRESENT'
                          },
          'MQ' => {
                    '3.7' => 'NOT_PRESENT',
                    '4.1' => 'NOT_PRESENT',
                    '4.4' => 'NOT_PRESENT'
                  },
          'IMAPI' => {
                       '8.0' => 'NOT_PRESENT',
                       '7.0' => 'NOT_PRESENT',
                       '7.3' => 'NOT_PRESENT'
                     },
          'LDAPCSDK6_TOOLS' => {
                                 '6.0' => 'NOT_PRESENT'
                                },
          'JISS' => {
                      '0.9' => 'NOT_PRESENT',
                      '1.1' => 'NOT_PRESENT'
                    },
          'ST' => {
                    '1.1.4' => 'PRESENT'
                  },
          '118833-36' => 'PRESENT',
          'IM_L10N' => {
                         '7.2' => 'NOT_PRESENT',
                         '7.0' => 'NOT_PRESENT'
                       },
          'LDAPJDK' => {
                         '4.19' => 'NOT_PRESENT'
                       },
          '142785-01' => 'NOT_PRESENT',
          '125358-11' => 'NOT_PRESENT',
          'BZIP' => {
                      '11.10' => 'PRESENT'
                    },
          '126868-03' => 'PRESENT',
          '141444-09' => 'NOT_PRESENT',
          'IM_SCHA' => {
                         '7.0' => 'NOT_PRESENT',
                         '7.3' => 'NOT_PRESENT'
                       },
          'MS_SCHA' => {
                         '6.0' => 'NOT_PRESENT',
                         '7.0' => 'NOT_PRESENT'
                       },
          'JHRT' => {
```

```
            '2.0' => 'NOT_PRESENT'
          },
'CE_L10N' => {
               '6.2' => 'NOT_PRESENT',
               '6.3' => 'NOT_PRESENT'
             },
'119810-05' => 'NOT_PRESENT',
'119963-19' => 'PRESENT',
'SASL' => {
            '2.19' => 'NOT_PRESENT'
          },
'IWC' => {
           '2.0' => 'NOT_PRESENT'
         },
'MS64_L10N' => {
                 '6.3' => 'NOT_PRESENT'
               },
'MS' => {
          '7.3_32' => 'NOT_PRESENT',
          '7.2_32' => 'NOT_PRESENT',
          '6.3_32' => 'NOT_PRESENT',
          '7.4' => 'NOT_PRESENT'
        },
'139893-03' => 'NOT_PRESENT',
'142824-04' => 'NOT_PRESENT',
'119345-07' => 'NOT_PRESENT',
'120900-04' => 'PRESENT',
'118245-22' => 'NOT_PRESENT',
'136798-02' => 'NOT_PRESENT',
'120011-14' => 'PRESENT',
'120272-28' => 'NOT_PRESENT',
'LDAPCSDK6' => {
                 '6.0' => 'NOT_PRESENT'
               },
'124581-03' => 'NOT_PRESENT',
'137137-09' => 'PRESENT',
'JDK' => {
           '1.6.0' => 'NOT_PRESENT',
           '1.5.0' => 'NOT_PRESENT'
         },
'121657-44' => 'NOT_PRESENT',
'CI' => {
          '7.1' => 'NOT_PRESENT'
        },
'137321-01' => 'PRESENT',
'NSS' => {
           '4.8.4' => 'NOT_PRESENT'
         },
'CS_L10N' => {
               '6.2' => 'NOT_PRESENT',
               '6.3' => 'NOT_PRESENT'
             },
'IM' => {
          '8.3' => 'NOT_PRESENT',
          '7.0' => 'NOT_PRESENT',
          '7.3' => 'NOT_PRESENT'
```

```
                    },
          'RECOMMENDED' => {
                              '2010.06.25' => 'NOT_PRESENT'
                            },
          '119254-71' => 'PRESENT',
          'CS_SCHA' => {
                        '6.0' => 'NOT_PRESENT',
                        '6.3' => 'NOT_PRESENT'
                      },
          'MYSQL_MARKER' => {
                               '1.0' => 'NOT_PRESENT'
                             },
          '137204-18' => 'NOT_PRESENT',
          '142900-13' => 'NOT_PRESENT',
          'MS_L10N' => {
                        '6.2' => 'NOT_PRESENT',
                        '6.3' => 'NOT_PRESENT'
                      },
          'LIBCPLUSPLUS' => {
                               '5.9' => 'PRESENT'
                             },
          '121133-02' => 'PRESENT',
          '118242-03' => 'NOT_PRESENT',
          '125136-22' => 'NOT_PRESENT',
          'CS' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          '125137-22' => 'NOT_PRESENT',
          'DA' => {
                    '6.4' => 'NOT_PRESENT',
                    '7.0' => 'NOT_PRESENT'
                  }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {},
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                  '1.1.4,REV=2008.03.21.07.54' => [

'SUNWservicetagu',
                                                                     '/',

'1.1.4.1'
                                                                    ]
                                 },
          'SUNWjimid' => {},
          'SUNWdiquc' => {},
          'SUNWmsgko' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWics5' => {},
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {},
          'SUNWjiss-extjars' => {},
```

```
            'SUNWjhdem' => {},
            'SUNWiqfs' => {},
            'SUNWfimid' => {},
            'SUNWcomds' => {},
            'SUNWj6rtx' => {},
            'SUNWjhdev' => {},
            'SUNWiqum' => {},
            'SUNWduwc' => {},
            'SUNWhiimin' => {},
            'SUNWkiimin' => {},
            'SUNWeiimd' => {},
            'SUNWj6rt' => {},
            'SUNWj5rt' => {},
            'SUNWiimc-l10n' => {},
            'SUNWhiimc' => {},
            'SUNWmsg-l10n' => {},
            'SUNWfrics' => {},
            'SUNWciqu' => {},
            'SUNWkoics' => {},
            'SUNWdimid' => {},
            'SUNWjiquc' => {},
            'SUNWiimgw' => {},
            'SUNWiimd-l10n' => {},
            'SUNWhiquc' => {},
            'SUNWzhics' => {},
            'SUNWkiimd' => {},
            'SUNWmsgmp' => {},
            'SUNWuwc' => {},
            'SUNWscics' => {},
            'SUNWiimc' => {},
            'SUNWhiimd' => {},
            'SUNWmessaging-server-scha' => {},
            'SUNWmsglb' => {},
            'SUNWtls' => {},
            'SUNWj6dvx' => {},
            'SUNWfuwc' => {},
            'SUNWlibC' => {
                           '5.10,REV=2004.12.22' => [
                                                      'SUNWlibC',
                                                      '/',
                                                      '5.10'
                                                    ]
                         },
            'SUNWjiss-searchui' => {},
            'SUNWjiimin' => {},
            'SUNWcomms-mysql-marker' => {},
            'SUNWscims' => {},
            'SUNWiimjd' => {},
            'SUNWciimd' => {},
            'SUNWldapcsdk-dev' => {},
            'SUNWiqlen' => {},
            'SUNWiimid-l10n' => {},
            'SUNWiqr' => {},
            'SUNWdiimc' => {},
            'SUNWmsgwm' => {},
            'SUNWeiquc' => {},
```

```
          'SUNWmessaging-server-64' => {},
          'SUNWj5cfg' => {},
          'SUNWhiqu' => {},
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {},
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {},
          'SUNWiquc' => {},
          'SUNWiimid' => {},
          'SUNWmsgmt' => {},
          'SUNWljdk' => {},
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {},
          'SUNWservicetagr' => {
                                 '1.1.4,REV=2008.03.21.07.54' => [

'SUNWservicetagr',
                                                                      '/',

'1.1.4.1'
                                                                    ]
                                 },
          'SUNWciimc' => {},
          'SUNWjhrt' => {},
          'SUNWtlsd' => {},
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                                '11.10.0,REV=2005.01.21.15.53' => [

'SUNWdtrc',
                                                                        '/',

'5.10/Generic Patch'
                                                                      ]
                                },
          'SUNWhuwc' => {},
          'mysql' => {},
          'SUNWiqdoc' => {},
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {},
          'SUNWiqcrt' => {},
          'SUNWmsgzh' => {},
          'SUNWprd' => {},
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {},
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {},
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {},
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.23.05' => [
```

```
'SUNWinstall-patch-utils-root',

'/',

'SNAG Development'

]
                                                    },
          'SUNWiimin' => {},
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {},
          'SUNWkiimc' => {},
          'SUNWiim' => {},
          'SUNWeiimin' => {},
          'SUNWcimid' => {},
          'SUNWiqcdv' => {},
          'SUNWldapcsdk-tools' => {},
          'SUNWjss' => {},
          'SUNWdiqu' => {},
          'SUNWjiss' => {},
          'SUNWj6cfg' => {},
          'SUNWhimid' => {},
          'SUNWciquc' => {},
          'SUNWcomms' => {},
          'SUNWjiqu' => {},
          'SUNWkiqu' => {},
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {},
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {},
          'SUNWmsgtw' => {},
          'SUNWeiimc' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                              '11.11,REV=2005.01.09.23.05' => [

'SUNWpkgcmdsu',
                                                                  '/',
                                                                  'SNAG
Development'
                                                                ]
                            },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {},
          'SUNWjhdoc' => {},
          'SUNWj6dev' => {},
          'SUNWmsges' => {},
          'SUNWpr' => {},
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {},
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
```

```
          'SUNWswmt' => {
                          '11.10,REV=2005.01.10.17.19' => [
                                                            'SUNWswmt',
                                                            '/',
                                                            'SNAG
Development'
                                                          ]
                        },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {},
          'SUNWstosreg' => {
                             '1.1.4,REV=2008.03.21.07.54' => [

'SUNWstosreg',
                                                              '/',
                                                              '1.1.4.1'
                                                            ]
                           },
          'SUNWmsgde' => {},
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                          '11.10.0,REV=2005.01.08.05.16' => [

'SUNWbzip',
                                                              '/',

'5.10/SunOS Development'
                                                            ]
                        },
          'SUNWtlsu' => {},
          'SUNWfiqu' => {},
          'SUNWsasl' => {},
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                            '11.10.0,REV=2005.01.21.15.53' => [

'SUNWzoneu',
                                                              '/',

'5.10/Generic Patch'
                                                            ]
                          },
          'SUNWcsr' => {
                          '11.10.0,REV=2005.01.21.15.53' => [
                                                            'SUNWcsr',
                                                            '/',

'5.10/Generic Patch'
```

```
                                                                ]
                        },
          'SUNWesics' => {},
          'SUNWiimm' => {}
        };
!!! installedprod
$VAR1 = {
          'PATCHUTILS' => {
                            'Unknown' => [
                                          '/opt/altroot/',
                                          'SNAG Development',
                                          'none',
                                          'Unknown',
                                          'none',
                                          'none',
                                          'none'
                                        ]
                          },
          'ST' => {
                    '1.1.4' => [
                                '/opt/altroot/',
                                '1.1.4.1',
                                'none',
                                '1.1.4',
                                'none',
                                'none',
                                'none'
                              ]
                  },
          'LIBCPLUSPLUS' => {
                              '5.9' => [
                                        '/opt/altroot/',
                                        '5.10',
                                        'none',
                                        '5.9',
                                        'none',
                                        'none',
                                        'none'
                                      ]
                            },
          'BZIP' => {
                      '11.10' => [
                                  '/opt/altroot/',
                                  '5.10/SunOS Development',
                                  'none',
                                  '11.10',
                                  'none',
                                  'none',
                                  'none'
                                ]
                    }
        };
====== End QQQ detectProducts ======
-- Checking for RECOMMENDED patch 119254-73
   patch 119254-73: NOT_PRESENT
-- Checking for RECOMMENDED patch 118833-36
```

```
   patch is PRESENT
-- Checking for RECOMMENDED patch 120011-14
   patch is PRESENT
-- Checking for RECOMMENDED patch 120272-28
   patch 120272-28: NOT_PRESENT
-- Checking for RECOMMENDED patch 137137-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 141444-09
   patch 141444-09: NOT_PRESENT
-- Checking for RECOMMENDED patch 142900-13
   patch 142900-13: NOT_PRESENT
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
Do you want to continue ? [yes] :
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
====== QQQ ======
QQQ Dumper
!!! isUpgradable
$VAR1 = {};
!!! usePkgUpgradeFlag
$VAR1 = {};
Product Selection:

Shared Components (not shown) will be installed as required.
  you will be prompted later if Shared Components need to be upgraded.
OS patches (not shown) will be installed as required.

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-18.01)
       2  Comms DSsetup 6.4 (6.4-6.03)
       3  Calendar Server (CALDAV) 7u1 (7.1-1.11)
       4  Instant Messaging 8u3 (8.3-03.10)
       5  Convergence 2 (2.0-0.06)
       6  Indexing and Search Service 1u1 (1.1-4.4501)
       7  Comms Delegated Administrator 7 (7.0-3.00)
       8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
       9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
      10  Calendar Server 6.3 (6.3-23.01)
      11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)


Enter the items you wish to install. Enter q to quit.
Prefix an item with ~ to indicate you only want
  to install shared component dependencies of that product
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to install [1, 2, 3, 4, 5, 6, 7, 8,
```

```
9, 10, 11]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: 0 MS64 0 DSSETUP 0 DAV 0 IM 0 IWC 0 JISS 0 DA 0 MS_SCHA
0 IM_SCHA 0 CS 0 CS_SCHA
Generating list of things to install...
NOTICE: toInstall - MYSQL PATCHUTILS IMAPI LDAPJDK SASL LDAPCSDK6_TOOLS
ICU LIBCPLUSPLUS NSS LDAPCSDK6 ST JDK BZIP JHRT MQ MQ_L10N MS64 DSSETUP
DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA CI
Checking for Shared Component Upgrade Requirements...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: MySQL 5.1.36
  Task:
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
WILL INSTALL: Instant Messaging API 8
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IMAPI
-r /tmp/.response_IMAPI_20100805163133 SUNWiimdv
  WILL INSTALL: LDAPJDK 4.19
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPJ
-r /tmp/.response_LDAPJDK_20100805163133 SUNWljdk
  WILL INSTALL: Simple Authentication and Security Layer 2.19
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/SASL/
-r /tmp/.response_SASL_20100805163133 SUNWsasl
  WILL INSTALL: LDAPCSDK6 Tools 6.0
                to /opt/altroot/directory
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_TOOLS_20100805163133 SUNWldapcsdk-tools
  WILL INSTALL: International Components for Unicode ICU2,ICU3
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ICU/P
-r /tmp/.response_ICU_20100805163133 SUNWicu
  WILL INSTALL: NSS/NSPR/JSS 4.8.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWjss
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
```

```
-r /tmp/.response_NSS_20100805163133 SUNWpr
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWprd
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWtls
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWtlsd
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWtlsu
  WILL INSTALL: LDAPCSDK6 6.0
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100805163133 SUNWldapcsdk-libs
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100805163133 SUNWldapcsdk-dev
  WILL INSTALL: JDK 1.6.0
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6rt
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6rtx
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6dev
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6dvx
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6cfg
  WILL INSTALL: Java Help Runtime 2.0
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhrt
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdev
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdem
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdoc
  WILL INSTALL: Message Queue 4.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqr
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqdoc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqum
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqjx
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
```

```
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqfs
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqcrt
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqcdv
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqlen
  WILL INSTALL: Message Queue Localization 4.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWfiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWfiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWdiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWdiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWjiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWjiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWeiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
```

```
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWeiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWkiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWkiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWciqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWciquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWhiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWhiquc
  WILL INSTALL: Messaging Server (64bit) 7u4 (7.4-18.01)
                to /opt/altroot/messaging64
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
-r /tmp/.response_MS64_20100805163133 SUNWmessaging-server-64
  WILL INSTALL: Comms DSsetup 6.4 (6.4-6.03)
                to /opt/altroot/dssetup
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
-r /tmp/.response_DSSETUP_20100805163133 SUNWcomds
  WILL INSTALL: Calendar Server (CALDAV) 7u1 (7.1-1.11)
                to /opt/altroot/davserver
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/P
-r /tmp/.response_DAV_20100805163133 SUNWdavserver
  WILL INSTALL: Instant Messaging 8u3 (8.3-03.10)
                to /opt/altroot/im
```

```
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiim
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimin
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimm
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimjd
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimid
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimc
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimd
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimgw
  WILL INSTALL: Convergence 2 (2.0-0.06)
                to /opt/altroot/iwc
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/P
-r /tmp/.response_IWC_20100805163133 SUNWiwc
  WILL INSTALL: Indexing and Search Service 1u1 (1.1-4.4501)
                to /opt/altroot/jiss
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS/
-r /tmp/.response_JISS_20100805163133 SUNWjiss
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-3.00)
                to /opt/altroot/da
```

```
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/Pa
-r /tmp/.response_DA_20100805163133 SUNWcommda
  WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                to /opt/altroot/msg_scha
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_SC
-r /tmp/.response_MS_SCHA_20100805163133 SUNWmessaging-server-scha
  WILL INSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                to /opt/altroot/im_scha
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_SC
-r /tmp/.response_IM_SCHA_20100805163133 SUNWiimsc
  WILL INSTALL: Calendar Server 6.3 (6.3-23.01)
                to /opt/altroot/calendar
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100805163133 SUNWics5
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100805163133 SUNWica5
  WILL INSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                to /opt/altroot/cs_scha
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_SC
-r /tmp/.response_CS_SCHA_20100805163133 SUNWscics
  WILL INSTALL: CommsInstaller 7u1 (7.1-0.06)
                to /opt/altroot/CommsInstaller
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
-r /tmp/.response_CI_20100805163133 SUNWcomms
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to install

Do you want to continue ? [yes] :

============================================================
Installing MySQL 5.1.36...
------ Executing Task 1 of 67 ...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
```

```
2>&1
-- LOGFILE: /tmp/ci-mysql-installer_20100805163156.log
pkgadd -n -r /dev/null -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.
100805 16:32:23  InnoDB: Started; log sequence number 0 46409
100805 16:32:23  InnoDB: Starting shutdown...
100805 16:32:24  InnoDB: Shutdown completed; log sequence number 0 46409
100805 16:32:24 [Warning] Forcing shutdown of 1 plugins
100805 16:32:25  InnoDB: Started; log sequence number 0 46409
100805 16:32:26  InnoDB: Starting shutdown...
100805 16:32:27  InnoDB: Shutdown completed; log sequence number 0 46409
100805 16:32:27 [Warning] Forcing shutdown of 1 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h darkpaladin password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
-- Exit status: 0
--
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
LOGFILE: /tmp/ci-mysql-installer_20100805163156.log
pkgadd -n -r /dev/null -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.
100805 16:32:23  InnoDB: Started; log sequence number 0 46409
100805 16:32:23  InnoDB: Starting shutdown...
100805 16:32:24  InnoDB: Shutdown completed; log sequence number 0 46409
100805 16:32:24 [Warning] Forcing shutdown of 1 plugins
100805 16:32:25  InnoDB: Started; log sequence number 0 46409
100805 16:32:26  InnoDB: Starting shutdown...
100805 16:32:27  InnoDB: Shutdown completed; log sequence number 0 46409
100805 16:32:27 [Warning] Forcing shutdown of 1 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h darkpaladin password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

============================================================
Installing Instant Messaging API 8...
------ Executing Task 2 of 67 ...
```

```
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IMAPI
-r /tmp/.response_IMAPI_20100805163133 SUNWiimdv 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimdv> was successful.
-- Exit status: 0

============================================================
Installing LDAPJDK 4.19...
------ Executing Task 3 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPJ
-r /tmp/.response_LDAPJDK_20100805163133 SUNWljdk 2>&1

Installation of <SUNWljdk> was successful.
-- Exit status: 0

============================================================
Installing Simple Authentication and Security Layer 2.19...
------ Executing Task 4 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/SASL/
-r /tmp/.response_SASL_20100805163133 SUNWsasl 2>&1
Copyright 2002 Sun Microsystems, Inc. All rights reserved.

Installation of <SUNWsasl> was successful.
-- Exit status: 0

============================================================
Installing LDAPCSDK6 Tools 6.0...
------ Executing Task 5 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_TOOLS_20100805163133 SUNWldapcsdk-tools 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.  Use is
subject to license terms.

Installation of <SUNWldapcsdk-tools> was successful.
-- Exit status: 0

============================================================
Installing International Components for Unicode ICU2,ICU3...
------ Executing Task 6 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ICU/P
-r /tmp/.response_ICU_20100805163133 SUNWicu 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

ICU License - ICU 1.8.1 and later

COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1995-2001 International Business Machines Corporation and
others
All rights reserved.

Permission is hereby granted, free of charge, to any person obtaining a
copy of this software and associated documentation files (the
"Software"), to deal in the Software without restriction, including
without limitation the rights to use, copy, modify, merge, publish,
distribute, and/or sell copies of the Software, and to permit persons
to whom the Software is furnished to do so, provided that the above
copyright notice(s) and this permission notice appear in all copies of
the Software and that both the above copyright notice(s) and this
permission notice appear in supporting documentation.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS
OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF
MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT
OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR
HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL
INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING
FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT,
NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION
WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Except as contained in this notice, the name of a copyright holder
shall not be used in advertising or otherwise to promote the sale, use
or other dealings in this Software without prior written authorization
of the copyright holder.

-------------------------------------------------------------------------------
trademarks and registered trademarks mentioned herein are the property
of
their respective owners.
96793 blocks

Installation of <SUNWicu> was successful.
-- Exit status: 0

============================================================
Installing NSS/NSPR/JSS 4.8.4...
------ Executing Task 7 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWjss 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
```

```
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWjss> was successful.
-- Exit status: 0
------ Executing Task 8 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWpr 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
```

```
Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWpr> was successful.
-- Exit status: 0
------ Executing Task 9 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWprd 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1
```

```
The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWprd> was successful.
-- Exit status: 0
------ Executing Task 10 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWtls 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
```

```
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWtls> was successful.
-- Exit status: 0
------ Executing Task 11 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWtlsd 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
```

```
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWtlsd> was successful.
-- Exit status: 0
------ Executing Task 12 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWtlsu 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/
```

```
Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWtlsu> was successful.
-- Exit status: 0

==========================================================
Installing LDAPCSDK6 6.0...
------ Executing Task 13 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100805163133 SUNWldapcsdk-libs 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.  Use is
subject to license terms.

Installation of <SUNWldapcsdk-libs> was successful.
-- Exit status: 0
------ Executing Task 14 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
```

```
-r /tmp/.response_LDAPCSDK6_20100805163133 SUNWldapcsdk-dev 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.  Use is
subject to license terms.

Installation of <SUNWldapcsdk-dev> was successful.
-- Exit status: 0

============================================================
Installing JDK 1.6.0...
------ Executing Task 15 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6rt 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6rt> was successful.
-- Exit status: 0
------ Executing Task 16 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6rtx 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6rtx> was successful.
-- Exit status: 0
------ Executing Task 17 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6dev 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6dev> was successful.
-- Exit status: 0
------ Executing Task 18 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6dvx 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6dvx> was successful.
-- Exit status: 0
------ Executing Task 19 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
```

```
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6cfg 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6cfg> was successful.
-- Exit status: 0

============================================================
Installing Java Help Runtime 2.0...
------ Executing Task 20 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhrt 2>&1
Copyright 2006 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
1127 blocks

Installation of <SUNWjhrt> was successful.
-- Exit status: 0
------ Executing Task 21 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdev 2>&1
Copyright 2006 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
709 blocks

Installation of <SUNWjhdev> was successful.
-- Exit status: 0
------ Executing Task 22 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdem 2>&1
Copyright 2006 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
6466 blocks

Installation of <SUNWjhdem> was successful.
-- Exit status: 0
------ Executing Task 23 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdoc 2>&1
Copyright 2006 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
10385 blocks
```

```
Installation of <SUNWjhdoc> was successful.
-- Exit status: 0

============================================================
Installing Message Queue 4.4...
------ Executing Task 24 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqr 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqr> was successful.
-- Exit status: 0
------ Executing Task 25 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqu> was successful.
-- Exit status: 0
------ Executing Task 26 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqdoc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqdoc> was successful.
-- Exit status: 0
------ Executing Task 27 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiquc> was successful.
-- Exit status: 0
------ Executing Task 28 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqum 2>&1
```

```
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqum> was successful.
-- Exit status: 0
------ Executing Task 29 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqjx 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqjx> was successful.
-- Exit status: 0
------ Executing Task 30 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqfs 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqfs> was successful.
-- Exit status: 0
------ Executing Task 31 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqcrt 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqcrt> was successful.
-- Exit status: 0
------ Executing Task 32 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqcdv 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqcdv> was successful.
-- Exit status: 0
------ Executing Task 33 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqlen 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
```

```
Use is subject to license terms.

Installation of <SUNWiqlen> was successful.
-- Exit status: 0

============================================================
Installing Message Queue Localization 4.4...
------ Executing Task 34 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWfiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWfiqu> was successful.
-- Exit status: 0
------ Executing Task 35 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWfiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWfiquc> was successful.
-- Exit status: 0
------ Executing Task 36 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWdiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWdiqu> was successful.
-- Exit status: 0
------ Executing Task 37 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWdiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWdiquc> was successful.
-- Exit status: 0
------ Executing Task 38 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
```

```
-r /tmp/.response_MQ_L10N_20100805163133 SUNWjiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWjiqu> was successful.
-- Exit status: 0
------ Executing Task 39 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWjiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWjiquc> was successful.
-- Exit status: 0
------ Executing Task 40 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWeiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWeiqu> was successful.
-- Exit status: 0
------ Executing Task 41 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWeiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWeiquc> was successful.
-- Exit status: 0
------ Executing Task 42 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWkiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWkiqu> was successful.
-- Exit status: 0
------ Executing Task 43 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWkiquc 2>&1
```

```
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWkiquc> was successful.
-- Exit status: 0
------ Executing Task 44 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWciqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWciqu> was successful.
-- Exit status: 0
------ Executing Task 45 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWciquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWciquc> was successful.
-- Exit status: 0
------ Executing Task 46 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWhiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWhiqu> was successful.
-- Exit status: 0
------ Executing Task 47 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWhiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWhiquc> was successful.
-- Exit status: 0

============================================================
Installing Messaging Server (64bit) 7u4 (7.4-18.01)...
------ Executing Task 48 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
-r /tmp/.response_MS64_20100805163133 SUNWmessaging-server-64 2>&1
Copyright 2003-2008 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

============================================================
Installing Comms DSsetup 6.4 (6.4-6.03)...
------ Executing Task 49 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
-r /tmp/.response_DSSETUP_20100805163133 SUNWcomds 2>&1
Copyright 2003 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWcomds> was successful.
-- Exit status: 0

============================================================
Installing Calendar Server (CALDAV) 7u1 (7.1-1.11)...
------ Executing Task 50 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/P
-r /tmp/.response_DAV_20100805163133 SUNWdavserver 2>&1
Copyright © 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWdavserver> was successful.
-- Exit status: 0

============================================================
Installing Instant Messaging 8u3 (8.3-03.10)...
------ Executing Task 51 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiim 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiim> was successful.
-- Exit status: 0
------ Executing Task 52 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimin 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
```

```
Use is subject to license terms.

Installation of <SUNWiimin> was successful.
-- Exit status: 0
------ Executing Task 53 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimm 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimm> was successful.
-- Exit status: 0
------ Executing Task 54 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimjd 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimjd> was successful.
-- Exit status: 0
------ Executing Task 55 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimid 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimid> was successful.
-- Exit status: 0
------ Executing Task 56 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimc 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimc> was successful.
-- Exit status: 0
------ Executing Task 57 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimd 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.
```

```
Installation of <SUNWiimd> was successful.
-- Exit status: 0
------ Executing Task 58 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimgw 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimgw> was successful.
-- Exit status: 0

============================================================
Installing Convergence 2 (2.0-0.06)...
------ Executing Task 59 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/P
-r /tmp/.response_IWC_20100805163133 SUNWiwc 2>&1
Copyright (c) 2010, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWiwc> was successful.
-- Exit status: 0

============================================================
Installing Indexing and Search Service 1u1 (1.1-4.4501)...
------ Executing Task 60 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS/
-r /tmp/.response_JISS_20100805163133 SUNWjiss 2>&1
Copyright (c) 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWjiss> was successful.
-- Exit status: 0

============================================================
Installing Comms Delegated Administrator 7 (7.0-3.00)...
------ Executing Task 61 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/Pa
-r /tmp/.response_DA_20100805163133 SUNWcommda 2>&1
Copyright 2003 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWcommda> was successful.
-- Exit status: 0
```

```
============================================================
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
------ Executing Task 62 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_SC
-r /tmp/.response_MS_SCHA_20100805163133 SUNWmessaging-server-scha 2>&1
Copyright 2003-2008 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWmessaging-server-scha> was successful.
-- Exit status: 0

============================================================
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
------ Executing Task 63 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_SC
-r /tmp/.response_IM_SCHA_20100805163133 SUNWiimsc 2>&1
Copyright (c) 2006 Sun Microsystems, Inc.  All rights reserved.

Use is subject to license terms.

Installation of <SUNWiimsc> was successful.
-- Exit status: 0

============================================================
Installing Calendar Server 6.3 (6.3-23.01)...
------ Executing Task 64 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100805163133 SUNWics5 2>&1
Copyright 2007 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Checking for existence of /calendar/SUNWics5/cal/bin/config
/calendar/SUNWics5/cal/bin/config is clean

Checking for existence of /calendar/SUNWics5/cal/config
/calendar/SUNWics5/cal/config is clean

Checking for existence of /calendar/SUNWics5/cal/bin/html
/calendar/SUNWics5/cal/bin/html is clean

Checking for existence of /calendar/SUNWics5/cal/bin/data
/calendar/SUNWics5/cal/bin/data is clean

Checking for any files in /calendar/SUNWics5/cal/bin/
/calendar/SUNWics5/cal/bin is clean
```

```
Installation of <SUNWics5> was successful.
-- Exit status: 0
------ Executing Task 65 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100805163133 SUNWica5 2>&1
Copyright 2007 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWica5> was successful.
-- Exit status: 0

============================================================
Installing Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)...
------ Executing Task 66 of 67 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_SC
-r /tmp/.response_CS_SCHA_20100805163133 SUNWscics 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
ln: cannot create /opt/altroot/usr/cluster/lib/rgm/rtreg/SUNW.scics: No
such file or directory

Attempting to set following in ics.conf
    local.server.ha.enabled="yes"
    local.server.ha.agent="SUNWscics"


Sun Cluster 3.0_u1 Agent for iCS 5.1 Note
-----------------------------------------------------
Remember to add the following to the ics.conf file
    local.server.ha.enabled="yes"
    local.server.ha.agent="SUNWscics"


Installation of <SUNWscics> was successful.
-- Exit status: 0

============================================================
Installing CommsInstaller 7u1 (7.1-0.06)...
------ Executing Task 67 of 67 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
-r /tmp/.response_CI_20100805163133 SUNWcomms 2>&1
Copyright (c) 2007, 2010, Oracle and/or its affiliates. All rights
reserved.
Use is subject to license terms.

Installation of <SUNWcomms> was successful.
-- Exit status: 0
```

```
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: generic
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
Output of Task 1: generic
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
LOGFILE: /tmp/ci-mysql-installer_20100805163156.log
pkgadd -n -r /dev/null -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.
100805 16:32:23  InnoDB: Started; log sequence number 0 46409
100805 16:32:23  InnoDB: Starting shutdown...
100805 16:32:24  InnoDB: Shutdown completed; log sequence number 0 46409
100805 16:32:24 [Warning] Forcing shutdown of 1 plugins
100805 16:32:25  InnoDB: Started; log sequence number 0 46409
100805 16:32:26  InnoDB: Starting shutdown...
100805 16:32:27  InnoDB: Shutdown completed; log sequence number 0 46409
100805 16:32:27 [Warning] Forcing shutdown of 1 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h darkpaladin password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
-- End of command output--
PASSED: Task 2: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IMAPI
-r /tmp/.response_IMAPI_20100805163133 SUNWiimdv
PASSED: Task 3: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPJ
-r /tmp/.response_LDAPJDK_20100805163133 SUNWljdk
PASSED: Task 4: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/SASL/
-r /tmp/.response_SASL_20100805163133 SUNWsasl
PASSED: Task 5: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_TOOLS_20100805163133 SUNWldapcsdk-tools
PASSED: Task 6: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ICU/P
-r /tmp/.response_ICU_20100805163133 SUNWicu
PASSED: Task 7: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWjss
PASSED: Task 8: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWpr
PASSED: Task 9: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWprd
PASSED: Task 10: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWtls
PASSED: Task 11: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
```

```
-r /tmp/.response_NSS_20100805163133 SUNWtlsd
PASSED: Task 12: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100805163133 SUNWtlsu
PASSED: Task 13: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100805163133 SUNWldapcsdk-libs
PASSED: Task 14: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100805163133 SUNWldapcsdk-dev
PASSED: Task 15: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6rt
PASSED: Task 16: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6rtx
PASSED: Task 17: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6dev
PASSED: Task 18: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6dvx
PASSED: Task 19: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100805163133 SUNWj6cfg
PASSED: Task 20: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhrt
PASSED: Task 21: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdev
PASSED: Task 22: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdem
```

```
PASSED: Task 23: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JHRT/
-r /tmp/.response_JHRT_20100805163133 SUNWjhdoc
PASSED: Task 24: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqr
PASSED: Task 25: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqu
PASSED: Task 26: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqdoc
PASSED: Task 27: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiquc
PASSED: Task 28: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqum
PASSED: Task 29: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqjx
PASSED: Task 30: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqfs
PASSED: Task 31: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqcrt
PASSED: Task 32: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqcdv
PASSED: Task 33: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805163133 SUNWiqlen
PASSED: Task 34: pkgadd -a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWfiqu
PASSED: Task 35: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWfiquc
PASSED: Task 36: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWdiqu
PASSED: Task 37: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWdiquc
PASSED: Task 38: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWjiqu
PASSED: Task 39: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWjiquc
PASSED: Task 40: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWeiqu
PASSED: Task 41: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWeiquc
PASSED: Task 42: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWkiqu
PASSED: Task 43: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWkiquc
PASSED: Task 44: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWciqu
PASSED: Task 45: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
```

```
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWciquc
PASSED: Task 46: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWhiqu
PASSED: Task 47: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805163133 SUNWhiquc
PASSED: Task 48: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
-r /tmp/.response_MS64_20100805163133 SUNWmessaging-server-64
PASSED: Task 49: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
-r /tmp/.response_DSSETUP_20100805163133 SUNWcomds
PASSED: Task 50: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/P
-r /tmp/.response_DAV_20100805163133 SUNWdavserver
PASSED: Task 51: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiim
PASSED: Task 52: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimin
PASSED: Task 53: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimm
PASSED: Task 54: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimjd
PASSED: Task 55: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimid
PASSED: Task 56: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimc
PASSED: Task 57: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimd
PASSED: Task 58: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100805163133 SUNWiimgw
PASSED: Task 59: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/P
-r /tmp/.response_IWC_20100805163133 SUNWiwc
PASSED: Task 60: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS/
-r /tmp/.response_JISS_20100805163133 SUNWjiss
PASSED: Task 61: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/Pa
-r /tmp/.response_DA_20100805163133 SUNWcommda
PASSED: Task 62: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_SC
-r /tmp/.response_MS_SCHA_20100805163133 SUNWmessaging-server-scha
PASSED: Task 63: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_SC
-r /tmp/.response_IM_SCHA_20100805163133 SUNWiimsc
PASSED: Task 64: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100805163133 SUNWics5
PASSED: Task 65: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100805163133 SUNWica5
PASSED: Task 66: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_SC
-r /tmp/.response_CS_SCHA_20100805163133 SUNWscics
PASSED: Task 67: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n -R /opt/altroot -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
```

```
-r /tmp/.response_CI_20100805163133 SUNWcomms

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Mar 18  2009 /usr/java ->
jdk/jdk1.5.0_16

/usr/jdk:
total 10
drwxr-xr-x   4 root     bin            4 Aug  5 12:26 instances
lrwxrwxrwx   1 root     other          7 Mar 18  2009 j2sdk1.4.2_18 ->
../j2se
lrwxrwxrwx   1 root     other         18 Mar 18  2009 jdk1.5.0_16 ->
instances/jdk1.5.0
lrwxrwxrwx   1 root     other         18 Aug  5 12:51 jdk1.6.0_20 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Aug  5 12:51 latest ->
jdk1.6.0_20
drwxr-xr-x   8 root     bin            8 Aug  5 12:28 packages
-- Exit status: 0
ls -l /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
lrwxrwxrwx   1 root     other         11 Aug  5 12:51 /usr/jdk/latest ->
jdk1.6.0_20
-- Exit status: 2
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
/usr/jdk/latest:
total 38177
-rw-r--r--   1 root     bin         3767 Apr 12 15:32 COPYRIGHT
-rw-r--r--   1 root     bin        17179 Apr 12 15:32 LICENSE
-rw-r--r--   1 root     bin        28329 Apr 12 15:32 README.html
-rw-r--r--   1 root     bin        25390 Apr 12 15:32 README_ja.html
-rw-r--r--   1 root     bin        20768 Apr 12 15:32 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 Apr 12 15:32
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           49 Aug  5 12:49 bin
drwxr-xr-x   3 root     bin            8 Aug  5 12:47 include
drwxr-xr-x   6 root     bin           11 Aug  5 12:49 jre
drwxr-xr-x   3 root     bin           11 Aug  5 12:47 lib
-r--r--r--   1 root     other       5890 Aug  5 12:52 register.html
-r--r--r--   1 root     other       6322 Aug  5 12:52 register_ja.html
-r--r--r--   1 root     other       5500 Aug  5 12:52
register_zh_CN.html
-rw-r--r--   1 root     bin      19050033 Apr 12 15:31 src.zip
-- Exit status: 2
INFO: /etc/softlist.xml updated

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.response_IMAPI_20100805163133
-- unlink /tmp/.response_LDAPJDK_20100805163133
-- unlink /tmp/.response_SASL_20100805163133
-- unlink /tmp/.response_LDAPCSDK6_TOOLS_20100805163133
-- unlink /tmp/.response_ICU_20100805163133
```

```
-- unlink /tmp/.response_NSS_20100805163133
-- unlink /tmp/.response_LDAPCSDK6_20100805163133
-- unlink /tmp/.response_JDK_20100805163133
-- unlink /tmp/.response_JHRT_20100805163133
-- unlink /tmp/.response_MQ_20100805163133
-- unlink /tmp/.response_MQ_L10N_20100805163133
-- unlink /tmp/.response_MS64_20100805163133
-- unlink /tmp/.response_DSSETUP_20100805163133
-- unlink /tmp/.response_DAV_20100805163133
-- unlink /tmp/.response_IM_20100805163133
-- unlink /tmp/.response_IWC_20100805163133
-- unlink /tmp/.response_JISS_20100805163133
-- unlink /tmp/.response_DA_20100805163133
-- unlink /tmp/.response_MS_SCHA_20100805163133
-- unlink /tmp/.response_IM_SCHA_20100805163133
-- unlink /tmp/.response_CS_20100805163133
-- unlink /tmp/.response_CS_SCHA_20100805163133
-- unlink /tmp/.response_CI_20100805163133
-- unlink /tmp/.patchout_20100805163133.2834
-- unlink /tmp/.patchout_altroot_20100805163133.2834
mkdir -p /opt/altroot/var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0

NOTICE: To undo the installation, run the commands in:

/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20100805163133

NOTICE: silent file created in:

/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201008051631
Closing the log at Thu Aug  5 16:39:03 2010
(121 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20100805163953.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
```

```
ALTROOT: /opt/altroot
  NAME: <none>
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/altroot/messaging64
           Build Date: 20100715
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/altroot/dssetup
           Build Date: 20091123
  Product: Calendar Server (CALDAV) 7u1
           Version: 7.1-1.11
           Basedir: /opt/altroot/davserver
           Build Date: 20100716
  Product: Instant Messaging 8u3
           Version: 8.3-03.10
           Basedir: /opt/altroot/im
           Build Date: 20100622
  Product: Convergence 2
           Version: 2.0-0.06
           Basedir: /opt/altroot/iwc
           Build Date: 20100726
  Product: Indexing and Search Service 1u1
           Version: 1.1-4.4501
           Basedir: /opt/altroot/jiss
           Build Date: 20100618
  Product: Comms Delegated Administrator 7
           Version: 7.0-3.00
           Basedir: /opt/altroot/da
           Build Date: 20100715
  Product: Messaging Server Sun Cluster HA agent 7.0
           Version: 7.0-0.03
           Basedir: /opt/altroot/msg_scha
           Build Date: 20080519
  Product: Instant Messaging Sun Cluster HA agent 7.3
           Version: 7.3-01.02
           Basedir: /opt/altroot/im_scha
           Build Date: 20080403
  Product: Calendar Server 6.3
           Version: 6.3-23.01
           Basedir: /opt/altroot/calendar
           Build Date: 20100624
  Product: Calendar Server Sun Cluster HA agent 6.3
           Version: 6.3-1.01
           Basedir: /opt/altroot/cs_scha
           Build Date: 20080331

(122 root) ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20100805164601.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
```

```
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /opt/altroot
  NAME: <none>
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/altroot/messaging64
           Build Date: 20100715
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 64
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWmessaging-server-64 7.0,REV=2008.06.20
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/altroot/dssetup
           Build Date: 20091123
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server (CALDAV) 7u1
           Version: 7.1-1.11
           Basedir: /opt/altroot/davserver
           Build Date: 20100716
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWdavserver    7.0,REV=2009.08.27
  Product: Instant Messaging 8u3
           Version: 8.3-03.10
           Basedir: /opt/altroot/im
           Build Date: 20100622
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
```

```
          Package Status/Name/Version:
            PRESENT  SUNWiim          8.0,REV=2008.12.04
            PRESENT  SUNWiimin        8.0,REV=2008.12.04
            PRESENT  SUNWiimm         8.0,REV=2008.12.04
            PRESENT  SUNWiimjd        8.0,REV=2008.12.04
            PRESENT  SUNWiimid        8.0,REV=2008.12.04
            PRESENT  SUNWiimc         8.0,REV=2008.12.04
            PRESENT  SUNWiimd         8.0,REV=2008.12.04
            PRESENT  SUNWiimgw        8.0,REV=2008.12.04
Product: Convergence 2
          Version: 2.0-0.06
          Basedir: /opt/altroot/iwc
          Build Date: 20100726
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u1
          Version: 1.1-4.4501
          Basedir: /opt/altroot/jiss
          Build Date: 20100618
          getVersion UNAME: SunOS
          getVersion ARCH: all
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjiss         1.0,REV=2009.09.09
Product: Comms Delegated Administrator 7
          Version: 7.0-3.00
          Basedir: /opt/altroot/da
          Build Date: 20100715
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWcommda       7.0,REV=2009.03.31
Product: Messaging Server Sun Cluster HA agent 7.0
          Version: 7.0-0.03
          Basedir: /opt/altroot/msg_scha
          Build Date: 20080519
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWmessaging-server-scha 7.0,REV=2008.05.19
Product: Instant Messaging Sun Cluster HA agent 7.3
          Version: 7.3-01.02
          Basedir: /opt/altroot/im_scha
          Build Date: 20080403
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
```

```
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.34
  Product: Calendar Server 6.3
            Version: 6.3-23.01
            Basedir: /opt/altroot/calendar
            Build Date: 20100624
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWics5         6.0,REV=2003.11.14.18.12.58
              PRESENT  SUNWica5         6.0,REV=2003.11.14.18.12.58
  Product: Calendar Server Sun Cluster HA agent 6.3
            Version: 6.3-1.01
            Basedir: /opt/altroot/cs_scha
            Build Date: 20080331
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWscics        6.3,REV=2008.03.31.18.10.20

(123 root) ./commpkg uninstall /opt/altroot
-- LOGFILE: /tmp/CommsInstaller_20100805165431.log
Detecting Installed Products...
Detecting Installed Patches...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-18.01 64bit)
          Installed Version at /opt/altroot/messaging64
       2  Comms DSsetup 6.4 (6.4-6.03)
          Installed Version at /opt/altroot/dssetup
       3  Calendar Server (CALDAV) 7u1 (7.1-1.11)
          Installed Version at /opt/altroot/davserver
       4  Instant Messaging 8u3 (8.3-03.10)
          Installed Version at /opt/altroot/im
       5  Convergence 2 (2.0-0.06)
          Installed Version at /opt/altroot/iwc
       6  Indexing and Search Service 1u1 (1.1-4.4501)
          Installed Version at /opt/altroot/jiss
       7  Comms Delegated Administrator 7 (7.0-3.00)
          Installed Version at /opt/altroot/da
       8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
          Installed Version at /opt/altroot/msg_scha
       9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
          Installed Version at /opt/altroot/im_scha
      10  Calendar Server 6.3 (6.3-23.01)
          Installed Version at /opt/altroot/calendar
```

```
      11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
          Installed Version at /opt/altroot/cs_scha

Enter the items you wish to uninstall. Enter q to quit.
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to uninstall [1, 2, 3, 4, 5, 6, 7,
8, 9, 10, 11]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL UNINSTALL: Messaging Server (64bit) 7u4 (7.4-18.01)
                  at /opt/altroot/messaging64)
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-6.03)
                  at /opt/altroot/dssetup)
  WILL UNINSTALL: Calendar Server (CALDAV) 7u1 (7.1-1.11)
                  at /opt/altroot/davserver)
  WILL UNINSTALL: Instant Messaging 8u3 (8.3-03.10)
                  at /opt/altroot/im)
  WILL UNINSTALL: Convergence 2 (2.0-0.06)
                  at /opt/altroot/iwc)
  WILL UNINSTALL: Indexing and Search Service 1u1 (1.1-4.4501)
                  at /opt/altroot/jiss)
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-3.00)
                  at /opt/altroot/da)
  WILL UNINSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                  at /opt/altroot/msg_scha)
  WILL UNINSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                  at /opt/altroot/im_scha)
  WILL UNINSTALL: Calendar Server 6.3 (6.3-23.01)
                  at /opt/altroot/calendar)
  WILL UNINSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                  at /opt/altroot/cs_scha)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to uninstall

Do you want to continue ? [yes] :

============================================================
Uninstalling Messaging Server (64bit) 7u4 (7.4-18.01 at
/opt/altroot/messaging64)...
------ Executing Task 1 of 19 ...

============================================================
Uninstalling Comms DSsetup 6.4 (6.4-6.03 at /opt/altroot/dssetup)...
------ Executing Task 2 of 19 ...

============================================================
Uninstalling Calendar Server (CALDAV) 7u1 (7.1-1.11 at
/opt/altroot/davserver)...
------ Executing Task 3 of 19 ...

============================================================
Uninstalling Instant Messaging 8u3 (8.3-03.10 at /opt/altroot/im)...
------ Executing Task 4 of 19 ...
------ Executing Task 5 of 19 ...
------ Executing Task 6 of 19 ...
```

```
------ Executing Task 7 of 19 ...
------ Executing Task 8 of 19 ...
------ Executing Task 9 of 19 ...
------ Executing Task 10 of 19 ...
------ Executing Task 11 of 19 ...

============================================================
Uninstalling Convergence 2 (2.0-0.06 at /opt/altroot/iwc)...
------ Executing Task 12 of 19 ...

============================================================
Uninstalling Indexing and Search Service 1u1 (1.1-4.4501 at
/opt/altroot/jiss)...
------ Executing Task 13 of 19 ...

============================================================
Uninstalling Comms Delegated Administrator 7 (7.0-3.00 at
/opt/altroot/da)...
------ Executing Task 14 of 19 ...

============================================================
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/altroot/msg_scha)...
------ Executing Task 15 of 19 ...

============================================================
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/altroot/im_scha)...
------ Executing Task 16 of 19 ...

============================================================
Uninstalling Calendar Server 6.3 (6.3-23.01 at /opt/altroot/calendar)...
------ Executing Task 17 of 19 ...
------ Executing Task 18 of 19 ...

============================================================
Uninstalling Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01 at
/opt/altroot/cs_scha)...
------ Executing Task 19 of 19 ...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:


All tasks PASSED
Checking JES java symlink...
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

NOTICE: silent file created in:

/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201008051654
LOGFILE  created in:

/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20100805165431.log
```

```
root) cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100805165
Silent File for CommsInstaller 7.1-0.06
# Generated on 20100805165431
#

#
#
# verb used to create this silent file
VERB=uninstall

#
# root directory
#
ROOTDIR=/opt/altroot

#
# list of components (using mnemonics)
# WARNING: for verb=uninstall, when there are multiple
#          instances, the latest known version found is uninstalled
#
COMPONENTS=MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA
COMPONENT_VERSIONS= 7.4 6.4 7.1 8.3 2.0 1.1 7.0 7.0 7.3 6.3 6.3
(125 root) cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20100805165431.log
LOGFILE started Thu Aug  5 16:54:31 2010 ==========
LOGFILE = /tmp/CommsInstaller_20100805165431.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg uninstall /opt/altroot
-- perl version: 5.008004 pid: 4829
-- basetime: 1281052471 Thu Aug  5 16:54:31 2010
-- scriptDir: /net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
-- LOGFILE: /tmp/CommsInstaller_20100805165431.log
-- UNAME = SunOS ARCH = sparc OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
-- Exit status: 0
!!! ENV
$VAR1 = {
          'SSH_CLIENT' => '192.18.75.229 56686 22',
          'CAPSAVE' => '/home/dl111122/.termcap',
          'PS1' => '# ',
          'LINES' => '55',
          'COLUMNS' => '80',
          'PWD' => '/home/dl111122/wspace/releases/ci71',
          'USER' => 'dl111122',
          'LANG' => 'C',
          'LC_MESSAGES' => 'C',
          'VISUAL' => 'gnuclient',
          'LOGNAME' => 'dl111122',
          'EMACS' => 't',
          'REMOTE' => '/home/dl111122/.remote',
          'USE_64' => '1',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:.:/home/dl111122/bin:/new/local/bin
'EMACS_TYPE' => 'pc',
```

```
          'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
          'MORE' => '-c',
          'TERM' => 'emacs',
          'SSH_TTY' => '/dev/pts/1',
          'PAGER' => 'cat',
          'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
          'HOME' => '/home/dl111122',
          'LD_LIBRARY_PATH' => '/usr/dt/lib:/usr/openwin/lib',
          'SSH_CONNECTION' => '192.18.75.229 56686 10.5.194.229 22',
          'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
          'TERMSAVE' => 'emacs',
          'CDPATH' => '.:..:/home/dl111122',
          'EDITOR' => 'gnuclient',
          'MAIL' => '/var/mail//dl111122',
          'TZ' => 'US/Pacific',
          'ESHELL' => '/bin/csh',
          'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info'
'MOTIFHOME' => '/usr/dt',
          'CVSROOT' =>
':pserver:dl111122@redcvs.red.iplanet.com:/m/src',
          'OPENWINHOME' => '/usr/openwin',
          'RCSINIT' => '-zLT',
          'SHELL' => '/bin/csh',
          'SKIP_UTEST' => '1',
          'TERMCAP' => '/home/dl111122/.termcap'
        };
cat /etc/release 2>&1
                      Solaris 10 10/08 s10s_u6wos_07b SPARC
           Copyright 2008 Sun Microsystems, Inc.  All Rights Reserved.
                        Use is subject to license terms.
                            Assembled 27 October 2008
-- Exit status: 0
-- Recognized OS_VERS
/usr/bin/pkgcond -n is_what 2>&1
can_add_driver=0
can_remove_driver=0
can_update_driver=0
is_alternative_root=0
is_boot_environment=0
is_diskless_client=0
is_global_zone=1
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=0
is_path_writable=1
is_running_system=1
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=0
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 1
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
```

```
Reading Product Files...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
```

```
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
Reading OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/
'MS64_L10N' => 'none',
          'MS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS/C
'DSSETUP' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSE
'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64
'DAV' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CE/C
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS
'NSS' => 'none',
          'IM' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/C
'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_S
'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_S
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' =>
```

```
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_S
'CS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/C
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/C
};
!!! prod_getVers
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-0.06',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-6.03',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-18.01',
          'DAV' => '7.1-1.11',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.1-0.06',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.1-4.4501',
          'NSS' => 0,
          'IM' => '8.3-03.10',
          'ST' => 0,
          'CS_L10N' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'MYSQL_MARKER' => 0,
          'BZIP' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-23.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-3.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20100726',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20091123',
          'MQ_L10N' => 'none',
```

```
          'ICU' => 'none',
          'MS64' => '20100715',
          'DAV' => '20100716',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20100726',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20100618',
          'NSS' => 'none',
          'IM' => '20100622',
          'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20100624',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20100715'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.4
INFO: prod_mktVers{SASL} (no map) = 2.19
INFO: prod_mktVers{LDAPCSDK6} (no map) = 6.0
INFO: prod_mktVers{LDAPCSDK6_TOOLS} (no map) = 6.0
INFO: prod_mktVers{ICU} (no map) = ICU2,ICU3
INFO: prod_mktVers{JDK} (no map) = 1.6.0
INFO: prod_mktVers{JHRT} (no map) = 2.0
INFO: prod_mktVers{MQ} (no map) = 4.4
INFO: prod_mktVers{MQ_L10N} (no map) = 4.4
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2010.06.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u1
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u1
INFO: prod_mktVers{IM} (w/ map) = 8u3
```

```
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3
Detecting Installed Products...
Checking LIBCPLUSPLUS 5.9 ...
  Checking pkg SUNWlibC... present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmdsu... present.
  Checking pkg SUNWswmt... present.
  Checking pkg SUNWinstall-patch-utils-root... present.
  Checking pkg SUNWcsr... present.
  Checking pkg SUNWdtrc... present.
  Checking pkg SUNWzoneu... present.
  PATCHUTILS Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2010.06.25 ...
  RECOMMENDED 2010.06.25 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... present.
  Checking pkg SUNWservicetagu... present.
  Checking pkg SUNWstosreg... present.
  ST 1.1.4 is already present.
Checking NSS 4.8.4 ...
  Checking pkg SUNWjss... present.
  Checking pkg SUNWpr... present.
  Checking pkg SUNWprd... present.
  Checking pkg SUNWtls... present.
  Checking pkg SUNWtlsd... present.
  Checking pkg SUNWtlsu... present.
  NSS 4.8.4 is already present.
Checking SASL 2.19 ...
  Checking pkg SUNWsasl... present.
  SASL 2.19 is already present.
Checking LDAPCSDK6 6.0 ...
  Checking pkg SUNWldapcsdk-libs... present.
  Checking pkg SUNWldapcsdk-dev... present.
  LDAPCSDK6 6.0 is already present.
Checking LDAPCSDK6_TOOLS 6.0 ...
  Checking pkg SUNWldapcsdk-tools... present.
  LDAPCSDK6_TOOLS 6.0 is already present.
Checking ICU ICU2,ICU3 ...
  Checking pkg SUNWicu... present.
  ICU ICU2,ICU3 is already present.
Checking JDK 1.6.0 ...
  Checking pkg SUNWj6rt... present.
  Checking pkg SUNWj6rtx... present.
  Checking pkg SUNWj6dev... present.
  Checking pkg SUNWj6dvx... present.
  Checking pkg SUNWj6cfg... present.
```

```
  JDK 1.6.0 is already present.
Checking JDK 1.5.0 ...
  Checking pkg SUNWj5rt... not present.
  Checking pkg SUNWj5rtx... not present.
  Checking pkg SUNWj5cfg... not present.
  JDK 1.5.0 is not present.
Checking JHRT 2.0 ...
  Checking pkg SUNWjhrt... present.
  Checking pkg SUNWjhdev... present.
  Checking pkg SUNWjhdem... present.
  Checking pkg SUNWjhdoc... present.
  JHRT 2.0 is already present.
Checking MQ 4.4 ...
  Checking pkg SUNWiqr... present.
  Checking pkg SUNWiqu... present.
  Checking pkg SUNWiqdoc... present.
  Checking pkg SUNWiquc... present.
  Checking pkg SUNWiqum... present.
  Checking pkg SUNWiqjx... present.
  Checking pkg SUNWiqfs... present.
  Checking pkg SUNWiqcrt... present.
  Checking pkg SUNWiqcdv... present.
  Checking pkg SUNWiqlen... present.
  MQ 4.4 is already present.
Checking MQ 3.7 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 3.7,REV=2006.06.18.22.34
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 3.7,REV=2006.06.18.22.34
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 3.7,REV=2006.06.18.22.35
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.1 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.1,REV=2007.07.26.10.59
```

```
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.1,REV=2007.07.26.10.59
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ_L10N 4.4 ...
  Checking pkg SUNWfiqu... present.
  Checking pkg SUNWfiquc... present.
  Checking pkg SUNWdiqu... present.
  Checking pkg SUNWdiquc... present.
  Checking pkg SUNWjiqu... present.
  Checking pkg SUNWjiquc... present.
  Checking pkg SUNWeiqu... present.
  Checking pkg SUNWeiquc... present.
  Checking pkg SUNWkiqu... present.
  Checking pkg SUNWkiquc... present.
  Checking pkg SUNWciqu... present.
  Checking pkg SUNWciquc... present.
  Checking pkg SUNWhiqu... present.
  Checking pkg SUNWhiquc... present.
  MQ_L10N 4.4 is already present.
Checking MQ_L10N 3.7 ...
  Checking pkg SUNWfiqu... present but with a different pkg VERSION.
    checking SUNWfiqu 3.7,REV=2006.09.28.02.20.49
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 3.7,REV=2006.09.28.02.21.13
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 3.7,REV=2006.09.28.02.20.38
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 3.7,REV=2006.09.28.02.21.09
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 3.7,REV=2006.09.02.02.06.39
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 3.7,REV=2006.09.02.02.07.00
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 3.7,REV=2006.09.28.02.20.43
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 3.7,REV=2006.09.28.02.21.11
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 3.7,REV=2006.09.28.02.20.59
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 3.7,REV=2006.09.28.02.21.19
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 3.7,REV=2006.09.02.02.06.49
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 3.7,REV=2006.09.02.02.07.03
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 3.7,REV=2006.10.28.02.59.24
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 3.7,REV=2006.10.28.02.59.36
```

```
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking MQ_L10N 4.1 ...
  Checking pkg SUNWfiqu... present but with a different pkg VERSION.
    checking SUNWfiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.1,REV=2007.08.02.12.38
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking LDAPJDK 4.19 ...
  Checking pkg SUNWljdk... present.
  LDAPJDK 4.19 is already present.
Checking IMAPI 8.0 ...
  Checking pkg SUNWiimdv... present.
  IMAPI 8.0 is already present.
Checking IMAPI 7.0 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 7.0,REV=2004.11.24.05.24.36
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking IMAPI 7.3 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 7.3,REV=2008.01.15
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... not present.
  MYSQL 5.1.36 is not present.
Checking CI 7.1 ...
  Checking pkg SUNWcomms...
/opt/altroot/CommsInstaller/lib/getVersion VERSION BUILDDATE UNAME ARCH
BITS 2>&1
7.1-0.06
20100726
```

```
SunOS
sparc
32
-- Exit status: 0
 present.
  CI 7.1 is already present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.0 is not present.
Checking MS64 7.4 ...
  Checking pkg SUNWmessaging-server-64...
/opt/altroot/messaging64/lib/getVersion VERSION BUILDDATE UNAME ARCH
BITS 2>&1
7.4-18.01
20100715
SunOS
sparc
64
-- Exit status: 0
 present.
  MS64 7.4 is already present.
Checking MS64 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS64 6.3_32 is not present.
Checking MS64 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS64 7.2_32 is not present.
Checking MS64 7.3_32 ...
  MS64 7.3_32 is not present.
Checking MS64 7.4_32 ...
  MS64 7.4_32 is not present.
Checking DSSETUP 6.4 ...
  Checking pkg SUNWcomds...
/opt/altroot/dssetup/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
6.4-6.03
20091123
SunOS
sparc
32
-- Exit status: 0
 present.
  DSSETUP 6.4 is already present.
Checking DAV 7.1 ...
  Checking pkg SUNWdavserver...
/opt/altroot/davserver/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
7.1-1.11
```

```
20100716
SunOS
sparc
32
-- Exit status: 0
 present.
  DAV 7.1 is already present.
Checking IM 8.3 ...
  Checking pkg SUNWiim...
/opt/altroot/im/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
8.3-03.10
20100622
SunOS
sparc
32
-- Exit status: 0
 present.
  Checking pkg SUNWiimin... present.
  Checking pkg SUNWiimm... present.
  Checking pkg SUNWiimjd... present.
  Checking pkg SUNWiimid... present.
  Checking pkg SUNWiimc... present.
  Checking pkg SUNWiimd... present.
  Checking pkg SUNWiimgw... present.
  IM 8.3 is already present.
Checking IM 7.0 ...
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimc... present but with a different pkg VERSION.
    checking SUNWiimc 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimd... present but with a different pkg VERSION.
    checking SUNWiimd 7.0,REV=2004.11.24.05.24.36
  NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IM 7.3 ...
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 7.3,REV=2008.01.15
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.3,REV=2008.01.15
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.3,REV=2008.01.15
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.3,REV=2008.01.15
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.3,REV=2008.01.15
  Checking pkg SUNWiimc... present but with a different pkg VERSION.
    checking SUNWiimc 7.3,REV=2008.01.15
  Checking pkg SUNWiimd... present but with a different pkg VERSION.
    checking SUNWiimd 7.3,REV=2008.01.15
```

```
  NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IWC 2.0 ...
  Checking pkg SUNWiwc...
/opt/altroot/iwc/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
2.0-0.06
20100726
SunOS
sparc
32
-- Exit status: 0
 present.
  IWC 2.0 is already present.
Checking JISS 1.1 ...
  Checking pkg SUNWjiss...
/opt/altroot/jiss/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
1.1-4.4501
20100618
SunOS
all
32
-- Exit status: 0
 present.
  JISS 1.1 is already present.
Checking JISS 0.9 ...
  Checking pkg SUNWjiss-common... not present.
  Checking pkg SUNWjiss-conf... not present.
  Checking pkg SUNWjiss-extjars... not present.
  Checking pkg SUNWjiss-indexapi... not present.
  Checking pkg SUNWjiss-jmqc... not present.
  Checking pkg SUNWjiss-rest... not present.
  Checking pkg SUNWjiss-search... not present.
  Checking pkg SUNWjiss-searchui... not present.
  Checking pkg SUNWjiss-store... not present.
  Checking pkg SUNWjiss-storeui... not present.
  JISS 0.9 is not present.
Checking DA 7.0 ...
  Checking pkg SUNWcommda...
/opt/altroot/da/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
7.0-3.00
20100715
SunOS
sparc
32
-- Exit status: 0
 present.
  DA 7.0 is already present.
Checking DA 6.4 ...
  Checking pkg SUNWcomic... not present.
  Checking pkg SUNWcomis... not present.
  DA 6.4 is not present.
Checking MS_SCHA 7.0 ...
  Checking pkg SUNWmessaging-server-scha...
/opt/altroot/msg_scha/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
7.0-0.03
20080519
```

```
SunOS
sparc
32
-- Exit status: 0
 present.
  MS_SCHA 7.0 is already present.
Checking MS_SCHA 6.0 ...
  Checking pkg SUNWscims... not present.
  MS_SCHA 6.0 is not present.
Checking IM_SCHA 7.3 ...
  Checking pkg SUNWiimsc...
/opt/altroot/im_scha/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
7.3-01.02
20080403
SunOS
sparc
32
-- Exit status: 0
 present.
  IM_SCHA 7.3 is already present.
Checking IM_SCHA 7.0 ...
  Checking pkg SUNWiimsc... present but with a different pkg VERSION.
    checking SUNWiimsc 7.0,REV=2005.08.03.09.41.41
  NOTICE: Instant Messaging Sun Cluster HA agent is present with a
different pkg VERSION.
Checking CS 6.3 ...
  Checking pkg SUNWics5...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/CI
--installed /opt/altroot/calendar VERSION BUILDDATE UNAME ARCH BITS 2>&1
6.3-23.01
20100624
SunOS
sparc
32
-- Exit status: 0
 present.
  Checking pkg SUNWica5... present.
  CS 6.3 is already present.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_SC
--installed /opt/altroot/cs_scha VERSION BUILDDATE UNAME ARCH BITS 2>&1
6.3-1.01
20080331
SunOS
sparc
32
-- Exit status: 0
 present.
  CS_SCHA 6.3 is already present.
Checking CS_SCHA 6.0 ...
  Checking pkg SUNWscics... present but with a different pkg VERSION.
    checking SUNWscics 6.0,REV=2003.11.14
  NOTICE: Calendar Server Sun Cluster HA agent is present with a
different pkg VERSION.
```

```
Checking MS 7.4 ...
  MS 7.4 is not present.
Checking MS 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS 6.3_32 is not present.
Checking MS 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS 7.2_32 is not present.
Checking MS 7.3_32 ...
  MS 7.3_32 is not present.
Checking MS_L10N 6.2 ...
  Checking pkg SUNWmsgde... not present.
  Checking pkg SUNWmsges... not present.
  Checking pkg SUNWmsgfr... not present.
  Checking pkg SUNWmsgja... not present.
  Checking pkg SUNWmsgko... not present.
  Checking pkg SUNWmsgzh... not present.
  Checking pkg SUNWmsgtw... not present.
  MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
  Checking pkg SUNWmsg-l10n... not present.
  MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
  Checking pkg SUNWmessaging-server-l10n-64... not present.
  MS64_L10N 6.3 is not present.
Checking CS_L10N 6.2 ...
  Checking pkg SUNWdeics... not present.
  Checking pkg SUNWesics... not present.
  Checking pkg SUNWfrics... not present.
  Checking pkg SUNWjaics... not present.
  Checking pkg SUNWkoics... not present.
  Checking pkg SUNWzhics... not present.
  Checking pkg SUNWtwics... not present.
  CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
  Checking pkg SUNWics-l10n... not present.
  CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
  Checking pkg SUNWdiimc... not present.
  Checking pkg SUNWdiimd... not present.
  Checking pkg SUNWdimid... not present.
  Checking pkg SUNWeiimc... not present.
  Checking pkg SUNWeiimd... not present.
  Checking pkg SUNWeiimin... not present.
  Checking pkg SUNWeimid... not present.
  Checking pkg SUNWfiimc... not present.
  Checking pkg SUNWfiimd... not present.
  Checking pkg SUNWfiimin... not present.
```

```
  Checking pkg SUNWfimid... not present.
  Checking pkg SUNWjiimc... not present.
  Checking pkg SUNWjiimd... not present.
  Checking pkg SUNWjiimin... not present.
  Checking pkg SUNWjimid... not present.
  Checking pkg SUNWkiimc... not present.
  Checking pkg SUNWkiimd... not present.
  Checking pkg SUNWkiimin... not present.
  Checking pkg SUNWkimid... not present.
  Checking pkg SUNWciimc... not present.
  Checking pkg SUNWciimd... not present.
  Checking pkg SUNWciimin... not present.
  Checking pkg SUNWcimid... not present.
  Checking pkg SUNWhiimc... not present.
  Checking pkg SUNWhiimd... not present.
  Checking pkg SUNWhiimin... not present.
  Checking pkg SUNWhimid... not present.
  IM_L10N 7.0 is not present.
Checking IM_L10N 7.2 ...
  Checking pkg SUNWiimc-l10n... not present.
  Checking pkg SUNWiimd-l10n... not present.
  Checking pkg SUNWiimid-l10n... not present.
  Checking pkg SUNWiimin-l10n... not present.
  IM_L10N 7.2 is not present.
Checking CE 6.3 ...
  Checking pkg SUNWuwc... not present.
  CE 6.3 is not present.
Checking CE_L10N 6.2 ...
  Checking pkg SUNWduwc... not present.
  Checking pkg SUNWeuwc... not present.
  Checking pkg SUNWfuwc... not present.
  Checking pkg SUNWjuwc... not present.
  Checking pkg SUNWkuwc... not present.
  Checking pkg SUNWcuwc... not present.
  Checking pkg SUNWhuwc... not present.
  CE_L10N 6.2 is not present.
Checking CE_L10N 6.3 ...
  Checking pkg SUNWuwc-l10n... not present.
  CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119963-19 /tmp/.patchout_20100805165431.4829
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20100805165431.4829
patchadd  -p > /tmp/.patchout_20100805165431.4829 2>>
/tmp/CommsInstaller_20100805165431.log
-- Exit status: 0
--  older version at lineno 479 found 119963-10 - not acceptable
--  Exact match found at line 480
--  Final return status: 1
  LIBCPLUSPLUS patch 119963-19 is already present.
-- chk4patch 120900-04 /tmp/.patchout_20100805165431.4829
--  Exact match found at line 56
--  Final return status: 1
  PATCHUTILS patch 120900-04 is already present.
-- chk4patch 121133-02 /tmp/.patchout_20100805165431.4829
--  Exact match found at line 34
```

```
--  Final return status: 1
  PATCHUTILS patch 121133-02 is already present.
-- chk4patch 119254-71 /tmp/.patchout_20100805165431.4829
--  older version at lineno 33 found 119254-59 - not acceptable
--  Exact match found at line 36
--  Final return status: 1
  PATCHUTILS patch 119254-71 is already present.
-- chk4patch 126868-03 /tmp/.patchout_20100805165431.4829
--  older version at lineno 457 found 126868-01 - not acceptable
--  Exact match found at line 459
--  Final return status: 1
  BZIP patch 126868-03 is already present.
-- chk4patch 137321-01 /tmp/.patchout_20100805165431.4829
--  Exact match found at line 458
--  Final return status: 1
  BZIP patch 137321-01 is already present.
-- chk4patch 119254-73 /tmp/.patchout_20100805165431.4829
--  older version at lineno 33 found 119254-59 - not acceptable
--  older version at lineno 36 found 119254-71 - not acceptable
--  older version at lineno 37 found 119254-67 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 119254-73 is not present.
-- chk4patch 118833-36 /tmp/.patchout_20100805165431.4829
--  Exact match found at line 39
--  Final return status: 1
  RECOMMENDED patch 118833-36 is already present.
-- chk4patch 120011-14 /tmp/.patchout_20100805165431.4829
--  Exact match found at line 54
--  Final return status: 1
  RECOMMENDED patch 120011-14 is already present.
-- chk4patch 120272-28 /tmp/.patchout_20100805165431.4829
--  older version at lineno 24 found 120272-21 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 120272-28 is not present.
-- chk4patch 137137-09 /tmp/.patchout_20100805165431.4829
--  Exact match found at line 64
--  Final return status: 1
  RECOMMENDED patch 137137-09 is already present.
-- chk4patch 141444-09 /tmp/.patchout_20100805165431.4829
--  Final return status: 0
  RECOMMENDED patch 141444-09 is not present.
-- chk4patch 142900-13 /tmp/.patchout_20100805165431.4829
--  Final return status: 0
  RECOMMENDED patch 142900-13 is not present.
-- chk4patch 125358-11 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
-- Running patchadd -R /opt/altroot -p report...
--   Generating /tmp/.patchout_altroot_20100805165431.4829
patchadd -R /opt/altroot -p > /tmp/.patchout_altroot_20100805165431.4829
2>> /tmp/CommsInstaller_20100805165431.log
-- Exit status: 0
--  Exact match found at line 9
--  Final return status: 1
  NSS patch 125358-11 is already present.
-- chk4patch 119345-07 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
```

```
--  Exact match found at line 19
--  Final return status: 1
  SASL patch 119345-07 is already present.
-- chk4patch 136798-02 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 7
--  Final return status: 1
  LDAPCSDK6_TOOLS patch 136798-02 is already present.
-- chk4patch 119810-05 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 10
--  Final return status: 1
  ICU patch 119810-05 is already present.
-- chk4patch 125136-22 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 6
--  Final return status: 1
  JDK patch 125136-22 is already present.
-- chk4patch 125137-22 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 3
--  Final return status: 1
  JDK patch 125137-22 is already present.
-- chk4patch 119725-06 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 5
--  Final return status: 1
  LDAPJDK patch 119725-06 is already present.
-- chk4patch 137204-18 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 18
--  Final return status: 1
  MS64 patch 137204-18 is already present.
-- chk4patch 118242-03 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 14
--  Final return status: 1
  DSSETUP patch 118242-03 is already present.
-- chk4patch 118245-22 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 15
--  Final return status: 1
  DSSETUP patch 118245-22 is already present.
-- chk4patch 142785-01 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 20
--  Final return status: 1
  DAV patch 142785-01 is already present.
-- chk4patch 139893-03 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 4
--  Final return status: 1
  IM patch 139893-03 is already present.
-- chk4patch 142824-04 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 16
```

```
--  Final return status: 1
  JISS patch 142824-04 is already present.
-- chk4patch 124581-03 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 8
--  Final return status: 1
  DA patch 124581-03 is already present.
-- chk4patch 137571-01 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 17
--  Final return status: 1
  IM_SCHA patch 137571-01 is already present.
-- chk4patch 121657-44 /tmp/.patchout_altroot_20100805165431.4829
/opt/altroot -R /opt/altroot
--  Exact match found at line 11
--  Final return status: 1
  CS patch 121657-44 is already present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'PRESENT',
          '119254-73' => 'NOT_PRESENT',
          '137571-01' => 'PRESENT',
          'DSSETUP' => {
                         '6.4' => 'PRESENT'
                       },
          'MQ_L10N' => {
                         '3.7' => 'DIFF_VERSION',
                         '4.1' => 'DIFF_VERSION',
                         '4.4' => 'PRESENT'
                       },
          'ICU' => {
                     'ICU2,ICU3' => 'PRESENT'
                   },
          'MS64' => {
                      '7.4_32' => 'NOT_PRESENT',
                      '7.3_32' => 'NOT_PRESENT',
                      '7.2_32' => 'NOT_PRESENT',
                      '6.3_32' => 'NOT_PRESENT',
                      '7.4' => 'PRESENT'
                    },
          'DAV' => {
                     '7.1' => 'PRESENT'
                   },
          'CE' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          'MYSQL' => {
                       '5.1.36' => 'NOT_PRESENT'
                     },
          'PATCHUTILS' => {
                            'Unknown' => 'PRESENT'
                          },
          'MQ' => {
                    '3.7' => 'DIFF_VERSION',
```

```
                '4.1' => 'DIFF_VERSION',
                '4.4' => 'PRESENT'
              },
      'IMAPI' => {
                   '8.0' => 'PRESENT',
                   '7.0' => 'DIFF_VERSION',
                   '7.3' => 'DIFF_VERSION'
                 },
      'LDAPCSDK6_TOOLS' => {
                             '6.0' => 'PRESENT'
                           },
      'JISS' => {
                  '0.9' => 'NOT_PRESENT',
                  '1.1' => 'PRESENT'
                },
      'ST' => {
                '1.1.4' => 'PRESENT'
              },
      '118833-36' => 'PRESENT',
      'IM_L10N' => {
                     '7.2' => 'NOT_PRESENT',
                     '7.0' => 'NOT_PRESENT'
                   },
      'LDAPJDK' => {
                     '4.19' => 'PRESENT'
                   },
      '142785-01' => 'PRESENT',
      '125358-11' => 'PRESENT',
      'BZIP' => {
                  '11.10' => 'PRESENT'
                },
      '126868-03' => 'PRESENT',
      '141444-09' => 'NOT_PRESENT',
      'IM_SCHA' => {
                     '7.0' => 'DIFF_VERSION',
                     '7.3' => 'PRESENT'
                   },
      'MS_SCHA' => {
                     '6.0' => 'NOT_PRESENT',
                     '7.0' => 'PRESENT'
                   },
      'JHRT' => {
                  '2.0' => 'PRESENT'
                },
      'CE_L10N' => {
                     '6.2' => 'NOT_PRESENT',
                     '6.3' => 'NOT_PRESENT'
                   },
      '119810-05' => 'PRESENT',
      '119963-19' => 'PRESENT',
      'SASL' => {
                  '2.19' => 'PRESENT'
                },
      'IWC' => {
                 '2.0' => 'PRESENT'
               },
```

```
'MS64_L10N' => {
                '6.3' => 'NOT_PRESENT'
              },
'MS' => {
          '7.3_32' => 'NOT_PRESENT',
          '7.2_32' => 'NOT_PRESENT',
          '6.3_32' => 'NOT_PRESENT',
          '7.4' => 'NOT_PRESENT'
        },
'139893-03' => 'PRESENT',
'142824-04' => 'PRESENT',
'119345-07' => 'PRESENT',
'120900-04' => 'PRESENT',
'118245-22' => 'PRESENT',
'136798-02' => 'PRESENT',
'120011-14' => 'PRESENT',
'120272-28' => 'NOT_PRESENT',
'LDAPCSDK6' => {
                '6.0' => 'PRESENT'
              },
'124581-03' => 'PRESENT',
'137137-09' => 'PRESENT',
'JDK' => {
           '1.6.0' => 'PRESENT',
           '1.5.0' => 'NOT_PRESENT'
         },
'121657-44' => 'PRESENT',
'CI' => {
          '7.1' => 'PRESENT'
        },
'137321-01' => 'PRESENT',
'NSS' => {
           '4.8.4' => 'PRESENT'
         },
'CS_L10N' => {
               '6.2' => 'NOT_PRESENT',
               '6.3' => 'NOT_PRESENT'
             },
'IM' => {
          '8.3' => 'PRESENT',
          '7.0' => 'DIFF_VERSION',
          '7.3' => 'DIFF_VERSION'
        },
'RECOMMENDED' => {
                   '2010.06.25' => 'NOT_PRESENT'
                 },
'119254-71' => 'PRESENT',
'CS_SCHA' => {
               '6.0' => 'DIFF_VERSION',
               '6.3' => 'PRESENT'
             },
'MYSQL_MARKER' => {
                    '1.0' => 'NOT_PRESENT'
                  },
'137204-18' => 'PRESENT',
'142900-13' => 'NOT_PRESENT',
```

```
          'MS_L10N' => {
                         '6.2' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'LIBCPLUSPLUS' => {
                              '5.9' => 'PRESENT'
                            },
          '121133-02' => 'PRESENT',
          '118242-03' => 'PRESENT',
          '125136-22' => 'PRESENT',
          'CS' => {
                   '6.3' => 'PRESENT'
                  },
          '125137-22' => 'PRESENT',
          'DA' => {
                   '6.4' => 'NOT_PRESENT',
                   '7.0' => 'PRESENT'
                  }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {
                         '6.0,REV=2003.11.14.18.12.58' => [
                                                            'SUNWica5',

'/calendar',
                                                            '6.3-23.01'
                                                          ]
                        },
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                '1.1.4,REV=2008.03.21.07.54' => [

'SUNWservicetagu',
                                                                  '/',

'1.1.4.1'
                                                                 ]
                               },
          'SUNWjimid' => {},
          'SUNWdiquc' => {
                           '4.4,REV=2009.10.01.09.43.03' => [

'SUNWdiquc',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                         },
          'SUNWmsgko' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWics5' => {
                         '6.0,REV=2003.11.14.18.12.58' => [
                                                            'SUNWics5',

'/calendar',
```

```
                                                                    '6.3-23.01'
                                                                  ]
                          },
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {
                            '4.4,REV=2009.10.01.09.42.16' => [

'SUNWfiquc',
                                                                    '/',
                                                                    '4.4.1.0'
                                                                   ]
                          },
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {
                            '2.0,REV=2006.10.04' => [
                                                       'SUNWjhdem',
                                                       '/usr',
                                                       '2.0/FCS'
                                                     ]
                          },
          'SUNWiqfs' => {
                           '4.4,REV=2009.08.27.08.33' => [
                                                            'SUNWiqfs',
                                                            '/',
                                                            '4.4.0.0'
                                                          ]
                          },
          'SUNWfimid' => {},
          'SUNWcomds' => {
                            '6.3,REV=2004.08.12' => [
                                                       'SUNWcomds',
                                                       '/dssetup',
                                                       '6.4-6.03'
                                                     ]
                          },
          'SUNWj6rtx' => {
                            '1.6.0,REV=2006.11.29.04.58' => [

'SUNWj6rtx',
                                                                    '/usr',

'1.6.0_20/1.6.0_20-b02'
                                                                  ]
                          },
          'SUNWjhdev' => {
                            '2.0,REV=2006.10.04' => [
                                                       'SUNWjhdev',
                                                       '/usr',
                                                       '2.0/FCS'
                                                     ]
                          },
          'SUNWiqum' => {
                           '4.4,REV=2009.08.27.08.33' => [
                                                            'SUNWiqum',
                                                            '/',
```

```
                                                        '4.4.1.0'
                                                      ]
                        },
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {
                          '1.6.0,REV=2006.11.29.05.57' => [
                                                            'SUNWj6rt',
                                                            '/usr',

'1.6.0_20/1.6.0_20-b02'
                                                        ]
                        },
          'SUNWj5rt' => {},
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {
                          '4.4,REV=2009.10.01.09.46.01' => [
                                                             'SUNWciqu',
                                                             '/',
                                                             '4.4.1.0'
                                                           ]
                        },
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {
                           '4.4,REV=2009.10.01.09.45.18' => [

'SUNWjiquc',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                         },
          'SUNWiimgw' => {
                           '8.0,REV=2008.12.04' => [
                                                     'SUNWiimgw',
                                                     '/im',
                                                     '8.0-03'
                                                   ]
                         },
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {
                           '4.4,REV=2009.10.01.09.46.50' => [

'SUNWhiquc',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                         },
          'SUNWzhics' => {},
          'SUNWkiimd' => {},
          'SUNWmsgmp' => {},
```

```
          'SUNWuwc' => {},
          'SUNWscics' => {
                          '6.3,REV=2008.03.31.18.10.20' => [

'SUNWscics',

'/cs_scha',
                                                                '6.3-1.01'
                                                              ]
                        },
          'SUNWiimc' => {
                         '8.0,REV=2008.12.04' => [
                                                    'SUNWiimc',
                                                    '/im',
                                                    '8.0-03'
                                                  ]
                       },
          'SUNWhiimd' => {},
          'SUNWmessaging-server-scha' => {
                                            '7.0,REV=2008.05.19' => [

'SUNWmessaging-server-scha',

'/msg_scha',

'7.0-0.03'
                                                                      ]
                                          },
          'SUNWmsglb' => {},
          'SUNWtls' => {
                        '3.11.4,REV=2006.11.16.20.40' => [
                                                            'SUNWtls',
                                                            '/',
                                                            '3.12.6'
                                                          ]
                      },
          'SUNWj6dvx' => {
                          '1.6.0,REV=2006.11.29.04.58' => [

'SUNWj6dvx',
                                                              '/usr',

'1.6.0_20/1.6.0_20-b02'
                                                             ]
                        },
          'SUNWfuwc' => {},
          'SUNWlibC' => {
                         '5.10,REV=2004.12.22' => [
                                                    'SUNWlibC',
                                                    '/',
                                                    '5.10'
                                                   ]
                       },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {},
```

```
          'SUNWscims' => {},
          'SUNWiimjd' => {
                          '8.0,REV=2008.12.04' => [
                                                    'SUNWiimjd',
                                                    '/im',
                                                    '8.0-03'
                                                  ]
                        },
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {
                                  '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-dev',
                                                                    '/',

'6.00'
                                                                      ]
                                },
          'SUNWiqlen' => {
                          '4.4,REV=2009.08.27.08.33' => [
                                                          'SUNWiqlen',
                                                          '/',
                                                          '4.4.1.0'
                                                        ]
                        },
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {
                        '4.4,REV=2009.08.27.08.32' => [
                                                        'SUNWiqr',
                                                        '/',
                                                        '4.4.1.0'
                                                      ]
                      },
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWeiquc' => {
                          '4.4,REV=2009.10.01.09.43.47' => [

'SUNWeiquc',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                        },
          'SUNWmessaging-server-64' => {
                                         '7.0,REV=2008.06.20' => [

'SUNWmessaging-server-64',

'/messaging64',

'7.4-18.01'
                                                                      ]
                                       },
          'SUNWj5cfg' => {},
          'SUNWhiqu' => {
                          '4.4,REV=2009.10.01.09.46.48' => [
```

```
                                                                    'SUNWhiqu',
                                                                    '/',
                                                                    '4.4.1.0'
                                                                  ]
                          },
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {
                            '8.0,REV=2008.12.04' => [
                                                       'SUNWiimdv',
                                                       '/',
                                                       '8.0-00'
                                                     ]
                           },
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {},
          'SUNWiquc' => {
                           '4.4,REV=2009.08.27.08.33' => [
                                                            'SUNWiquc',
                                                            '/',
                                                            '4.4.1.0'
                                                          ]
                          },
          'SUNWiimid' => {
                            '8.0,REV=2008.12.04' => [
                                                       'SUNWiimid',
                                                       '/im',
                                                       '8.0-03'
                                                     ]
                           },
          'SUNWmsgmt' => {},
          'SUNWljdk' => {
                           '1.0,REV=2004.10.11.06.02' => [
                                                            'SUNWljdk',
                                                            '/',
                                                            '4.21'
                                                          ]
                          },
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {
                                    '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-libs',
                                                                      '/',

'6.02'
                                                                       ]
                                  },
          'SUNWservicetagr' => {
                                  '1.1.4,REV=2008.03.21.07.54' => [

'SUNWservicetagr',
                                                                        '/',

'1.1.4.1'
                                                                      ]
                                 },
```

```
          'SUNWciimc' => {},
          'SUNWjhrt' => {
                         '2.0,REV=2006.10.31' => [
                                                  'SUNWjhrt',
                                                  '/usr',
                                                  '2.0/FCS'
                                                ]
                        },
          'SUNWtlsd' => {
                         '3.11.4,REV=2006.11.16.20.40' => [
                                                           'SUNWtlsd',
                                                           '/',
                                                           '3.12.6'
                                                          ]
                        },
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                         '11.10.0,REV=2005.01.21.15.53' => [

'SUNWdtrc',
                                                            '/',

'5.10/Generic Patch'
                                                            ]
                        },
          'SUNWhuwc' => {},
          'mysql' => {},
          'SUNWiqdoc' => {
                          '4.4,REV=2009.08.27.08.32' => [
                                                         'SUNWiqdoc',
                                                         '/',
                                                         '4.4.0.0'
                                                        ]
                         },
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {
                         '8.0,REV=2008.12.04' => [
                                                  'SUNWiimd',
                                                  '/im',
                                                  '8.0-03'
                                                ]
                        },
          'SUNWiqcrt' => {
                          '4.4,REV=2009.08.27.08.33' => [
                                                         'SUNWiqcrt',
                                                         '/opt',
                                                         '4.4.1.0'
                                                        ]
                         },
          'SUNWmsgzh' => {},
          'SUNWprd' => {
                         '4.6.4,REV=2006.11.16.20.40' => [
                                                          'SUNWprd',
                                                          '/',
                                                          '4.8.4'
```

```
                                                                ]
                        },
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {
                            '7.0,REV=2009.03.31' => [
                                                        'SUNWcommda',
                                                        '/da',
                                                        '7.0-3.00'
                                                      ]
                         },
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {
                         '2.0,REV=2010.07.26' => [
                                                    'SUNWiwc',
                                                    '/iwc',
                                                    '2.0-0.06'
                                                  ]
                        },
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {
                           '7.3,REV=2008.01.07.20.24.34' => [

'SUNWiimsc',

'/im_scha',
                                                                  '7.3-01'
                                                                ]
                         },
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.23.05' => [

'SUNWinstall-patch-utils-root',

'/',

'SNAG Development'

]
                                              },
          'SUNWiimin' => {
                           '8.0,REV=2008.12.04' => [
                                                      'SUNWiimin',
                                                      '/im',
                                                      '8.0-03'
                                                    ]
                         },
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {
                         '4.4,REV=2009.08.27.08.32' => [
                                                            'SUNWiqu',
                                                            '/',
                                                            '4.4.1.0'
```

```
                                                                ]
                        },
          'SUNWkiimc' => {},
          'SUNWiim' => {
                          '8.0,REV=2008.12.04' => [
                                                     'SUNWiim',
                                                     '/im',
                                                     '8.0-03'
                                                   ]
                        },
          'SUNWeiimin' => {},
          'SUNWcimid' => {},
          'SUNWiqcdv' => {
                            '4.4,REV=2009.08.27.08.33' => [
                                                             'SUNWiqcdv',
                                                             '/opt',
                                                             '4.4.1.0'
                                                           ]
                          },
          'SUNWldapcsdk-tools' => {
                                     '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-tools',

'/directory',

'6.02'
                                                                         ]
                                   },
          'SUNWjss' => {
                          '4.2.4,REV=2006.11.16.20.40' => [
                                                             'SUNWjss',
                                                             '/',
                                                             '4.3.2'
                                                           ]
                        },
          'SUNWdiqu' => {
                           '4.4,REV=2009.10.01.09.42.59' => [
                                                               'SUNWdiqu',
                                                               '/',
                                                               '4.4.1.0'
                                                             ]
                         },
          'SUNWjiss' => {
                           '1.0,REV=2009.09.09' => [
                                                      'SUNWjiss',
                                                      '/jiss',
                                                      '1.1-4.4501'
                                                    ]
                         },
          'SUNWj6cfg' => {
                            '1.6.0,REV=2006.11.29.05.57' => [

'SUNWj6cfg',
                                                               '/',
```

```
'1.6.0_20/1.6.0_20-b02'
                                                                ]
                          },
          'SUNWhimid' => {},
          'SUNWciquc' => {
                            '4.4,REV=2009.10.01.09.46.03' => [

'SUNWciquc',
                                                                  '/',
                                                                  '4.4.1.0'
                                                                ]
                          },
          'SUNWcomms' => {
                            '7.1,REV=2010.07.26' => [
                                                       'SUNWcomms',
                                                       '/CommsInstaller',
                                                       '7.1-0.06'
                                                     ]
                          },
          'SUNWjiqu' => {
                           '4.4,REV=2009.10.01.09.45.16' => [
                                                              'SUNWjiqu',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                         },
          'SUNWkiqu' => {
                           '4.4,REV=2009.10.01.09.44.30' => [
                                                              'SUNWkiqu',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                         },
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {
                           '4.4,REV=2009.10.01.09.43.44' => [
                                                              'SUNWeiqu',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                         },
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {
                                '7.0,REV=2009.08.27' => [

'SUNWdavserver',
                                                            '/davserver',
                                                            '7.1-1.11'
                                                          ]
                              },
          'SUNWmsgtw' => {},
          'SUNWeiimc' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                               '11.11,REV=2005.01.09.23.05' => [
```

```
'SUNWpkgcmdsu',
                                                                '/',
                                                                'SNAG
Development'
                                                              ]
                              },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {
                          '4.4,REV=2009.08.27.08.33' => [
                                                          'SUNWiqjx',
                                                          '/',
                                                          '4.4.1.0'
                                                        ]
                        },
          'SUNWjhdoc' => {
                           '2.0,REV=2006.10.04' => [
                                                     'SUNWjhdoc',
                                                     '/usr',
                                                     '2.0/FCS'
                                                   ]
                         },
          'SUNWj6dev' => {
                           '1.6.0,REV=2006.11.29.05.57' => [

'SUNWj6dev',
                                                                '/usr',

'1.6.0_20/1.6.0_20-b02'
                                                              ]
                         },
          'SUNWmsges' => {},
          'SUNWpr' => {
                        '4.6.4,REV=2006.11.16.20.40' => [
                                                          'SUNWpr',
                                                          '/',
                                                          '4.8.4'
                                                        ]
                      },
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {
                         '1.2,REV=2005.01.06.14.13' => [
                                                         'SUNWicu',
                                                         '/usr',
                                                         '10/Generic'
                                                       ]
                       },
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                          '11.10,REV=2005.01.10.17.19' => [
                                                            'SUNWswmt',
                                                            '/',
                                                            'SNAG
```

```
Development'
                                                                ]
                        },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {
                          '4.4,REV=2009.10.01.09.44.32' => [

'SUNWkiquc',
                                                                  '/',
                                                                  '4.4.1.0'
                                                                ]
                         },
          'SUNWstosreg' => {
                            '1.1.4,REV=2008.03.21.07.54' => [

'SUNWstosreg',
                                                                   '/',
                                                                   '1.1.4.1'
                                                                 ]
                          },
          'SUNWmsgde' => {},
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                         '11.10.0,REV=2005.01.08.05.16' => [

'SUNWbzip',
                                                                  '/',

'5.10/SunOS Development'
                                                                ]
                        },
          'SUNWtlsu' => {
                         '3.11.4,REV=2006.11.16.20.40' => [
                                                                  'SUNWtlsu',
                                                                  '/',
                                                                  '3.12.6'
                                                               ]
                        },
          'SUNWfiqu' => {
                         '4.4,REV=2009.10.01.09.42.14' => [
                                                                  'SUNWfiqu',
                                                                  '/',
                                                                  '4.4.1.0'
                                                               ]
                        },
          'SUNWsasl' => {
                         '2.17,REV=2004.04.06.15.24' => [
                                                               'SUNWsasl',
```

```
                                                                '/',
                                                                '2.19'
                                                              ]
                          },
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                            '11.10.0,REV=2005.01.21.15.53' => [

'SUNWzoneu',
                                                                  '/',

'5.10/Generic Patch'
                                                                ]
                           },
          'SUNWcsr' => {
                           '11.10.0,REV=2005.01.21.15.53' => [
                                                                'SUNWcsr',
                                                                '/',

'5.10/Generic Patch'
                                                              ]
                         },
          'SUNWesics' => {},
          'SUNWiimm' => {
                            '8.0,REV=2008.12.04' => [
                                                        'SUNWiimm',
                                                        '/im',
                                                        '8.0-03'
                                                      ]
                          }
        };
!!! installedprod
$VAR1 = {
          'IWC' => {
                     '2.0' => [
                                '/opt/altroot/iwc',
                                '2.0-0.06',
                                '20100726',
                                '2',
                                'SunOS',
                                'sparc',
                                '32'
                              ]
                   },
          'IM' => {
                    '8.3' => [
                               '/opt/altroot/im',
                               '8.3-03.10',
                               '20100622',
                               '8u3',
                               'SunOS',
                               'sparc',
                               '32'
                             ]
                  },
          'SASL' => {
```

```
                    '2.19' => [
                                '/opt/altroot/',
                                '2.19',
                                'none',
                                '2.19',
                                'none',
                                'none',
                                'none'
                              ]
                  },
          'ST' => {
                  '1.1.4' => [
                               '/opt/altroot/',
                               '1.1.4.1',
                               'none',
                               '1.1.4',
                               'none',
                               'none',
                               'none'
                             ]
                },
          'DSSETUP' => {
                        '6.4' => [
                                   '/opt/altroot/dssetup',
                                   '6.4-6.03',
                                   '20091123',
                                   '6.4',
                                   'SunOS',
                                   'sparc',
                                   '32'
                                 ]
                      },
          'CS_SCHA' => {
                        '6.3' => [
                                   '/opt/altroot/cs_scha',
                                   '6.3-1.01',
                                   '20080331',
                                   '6.3',
                                   'SunOS',
                                   'sparc',
                                   '32'
                                 ]
                      },
          'LDAPJDK' => {
                        '4.19' => [
                                    '/opt/altroot/',
                                    '4.21',
                                    'none',
                                    '4.19',
                                    'none',
                                    'none',
                                    'none'
                                  ]
                      },
          'MQ_L10N' => {
                        '4.4' => [
```

```
                                '/opt/altroot/',
                                '4.4.1.0',
                                'none',
                                '4.4',
                                'none',
                                'none',
                                'none'
                              ]
                 },
'BZIP' => {
             '11.10' => [
                           '/opt/altroot/',
                           '5.10/SunOS Development',
                           'none',
                           '11.10',
                           'none',
                           'none',
                           'none'
                         ]
           },
'IM_SCHA' => {
                '7.3' => [
                            '/opt/altroot/im_scha',
                            '7.3-01.02',
                            '20080403',
                            '7.3',
                            'SunOS',
                            'sparc',
                            '32'
                          ]
                 },
'ICU' => {
            'ICU2,ICU3' => [
                              '/opt/altroot/usr',
                              '10/Generic',
                              'none',
                              'ICU2,ICU3',
                              'none',
                              'none',
                              'none'
                            ]
          },
'MS64' => {
             '7.4' => [
                         '/opt/altroot/messaging64',
                         '7.4-18.01',
                         '20100715',
                         '7u4',
                         'SunOS',
                         'sparc',
                         '64'
                       ]
           },
'DAV' => {
            '7.1' => [
                        '/opt/altroot/davserver',
```

```
                        '7.1-1.11',
                        '20100716',
                        '7u1',
                        'SunOS',
                        'sparc',
                        '32'
                      ]
          },
'LIBCPLUSPLUS' => {
                      '5.9' => [
                                '/opt/altroot/',
                                '5.10',
                                'none',
                                '5.9',
                                'none',
                                'none',
                                'none'
                              ]
                    },
'LDAPCSDK6' => {
                  '6.0' => [
                            '/opt/altroot/',
                            '6.02',
                            'none',
                            '6.0',
                            'none',
                            'none',
                            'none'
                          ]
                },
'JDK' => {
            '1.6.0' => [
                        '/opt/altroot/usr',
                        '1.6.0_20/1.6.0_20-b02',
                        'none',
                        '1.6.0',
                        'none',
                        'none',
                        'none'
                      ]
          },
'MS_SCHA' => {
                '7.0' => [
                          '/opt/altroot/msg_scha',
                          '7.0-0.03',
                          '20080519',
                          '7.0',
                          'SunOS',
                          'sparc',
                          '32'
                        ]
              },
'CS' => {
          '6.3' => [
                    '/opt/altroot/calendar',
                    '6.3-23.01',
```

```
                        '20100624',
                        '6.3',
                        'SunOS',
                        'sparc',
                        '32'
                      ]
                },
        'PATCHUTILS' => {
                          'Unknown' => [
                                        '/opt/altroot/',
                                        'SNAG Development',
                                        'none',
                                        'Unknown',
                                        'none',
                                        'none',
                                        'none'
                                      ]
                        },
        'MQ' => {
                  '4.4' => [
                        '/opt/altroot/',
                        '4.4.1.0',
                        'none',
                        '4.4',
                        'none',
                        'none',
                        'none'
                      ]
                },
        'JHRT' => {
                    '2.0' => [
                          '/opt/altroot/usr',
                          '2.0/FCS',
                          'none',
                          '2.0',
                          'none',
                          'none',
                          'none'
                        ]
                  },
        'IMAPI' => {
                     '8.0' => [
                           '/opt/altroot/',
                           '8.0-00',
                           'none',
                           '8',
                           'none',
                           'none',
                           'none'
                         ]
                   },
        'CI' => {
                  '7.1' => [
                        '/opt/altroot/CommsInstaller',
                        '7.1-0.06',
                        '20100726',
```

```
                                '7u1',
                                'SunOS',
                                'sparc',
                                '32'
                              ]
                   },
          'DA' => {
                     '7.0' => [
                                '/opt/altroot/da',
                                '7.0-3.00',
                                '20100715',
                                '7',
                                'SunOS',
                                'sparc',
                                '32'
                              ]
                   },
          'LDAPCSDK6_TOOLS' => {
                                  '6.0' => [
                                             '/opt/altroot/directory',
                                             '6.02',
                                             'none',
                                             '6.0',
                                             'none',
                                             'none',
                                             'none'
                                           ]
                                },
          'JISS' => {
                       '1.1' => [
                                  '/opt/altroot/jiss',
                                  '1.1-4.4501',
                                  '20100618',
                                  '1u1',
                                  'SunOS',
                                  'all',
                                  '32'
                                ]
                     },
          'NSS' => {
                      '4.8.4' => [
                                   '/opt/altroot/',
                                   '4.3.2',
                                   'none',
                                   '4.8.4',
                                   'none',
                                   'none',
                                   'none'
                                 ]
                    }
        };
====== End QQQ detectProducts ======
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:
```

```
    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-18.01 64bit)
          Installed Version at /opt/altroot/messaging64
       2  Comms DSsetup 6.4 (6.4-6.03)
          Installed Version at /opt/altroot/dssetup
       3  Calendar Server (CALDAV) 7u1 (7.1-1.11)
          Installed Version at /opt/altroot/davserver
       4  Instant Messaging 8u3 (8.3-03.10)
          Installed Version at /opt/altroot/im
       5  Convergence 2 (2.0-0.06)
          Installed Version at /opt/altroot/iwc
       6  Indexing and Search Service 1u1 (1.1-4.4501)
          Installed Version at /opt/altroot/jiss
       7  Comms Delegated Administrator 7 (7.0-3.00)
          Installed Version at /opt/altroot/da
       8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
          Installed Version at /opt/altroot/msg_scha
       9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
          Installed Version at /opt/altroot/im_scha
      10  Calendar Server 6.3 (6.3-23.01)
          Installed Version at /opt/altroot/calendar
      11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
          Installed Version at /opt/altroot/cs_scha

Enter the items you wish to uninstall. Enter q to quit.
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to uninstall [1, 2, 3, 4, 5, 6, 7,
8, 9, 10, 11]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: MS64 7.4 DSSETUP 6.4 DAV 7.1 IM 8.3 IWC 2.0 JISS 1.1 DA
7.0 MS_SCHA 7.0 IM_SCHA 7.3 CS 6.3 CS_SCHA 6.3
  WILL UNINSTALL: Messaging Server (64bit) 7u4 (7.4-18.01)
                  at /opt/altroot/messaging64)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWmessaging-server-64
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-6.03)
                  at /opt/altroot/dssetup)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWcomds
  WILL UNINSTALL: Calendar Server (CALDAV) 7u1 (7.1-1.11)
                  at /opt/altroot/davserver)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWdavserver
  WILL UNINSTALL: Instant Messaging 8u3 (8.3-03.10)
                  at /opt/altroot/im)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimgw
  Task: pkgrm -n -a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimd
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimc
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimid
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimjd
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimm
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimin
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiim
  WILL UNINSTALL: Convergence 2 (2.0-0.06)
                  at /opt/altroot/iwc)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiwc
  WILL UNINSTALL: Indexing and Search Service 1u1 (1.1-4.4501)
                  at /opt/altroot/jiss)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWjiss
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-3.00)
                  at /opt/altroot/da)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWcommda
  WILL UNINSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                  at /opt/altroot/msg_scha)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWmessaging-server-scha
  WILL UNINSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                  at /opt/altroot/im_scha)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimsc
  WILL UNINSTALL: Calendar Server 6.3 (6.3-23.01)
                  at /opt/altroot/calendar)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWica5
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWics5
  WILL UNINSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                  at /opt/altroot/cs_scha)
  Task: pkgrm -n -a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWscics
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to uninstall

Do you want to continue ? [yes] :

============================================================
Uninstalling Messaging Server (64bit) 7u4 (7.4-18.01 at
/opt/altroot/messaging64)...
------ Executing Task 1 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWmessaging-server-64 2>&1

Removal of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

============================================================
Uninstalling Comms DSsetup 6.4 (6.4-6.03 at /opt/altroot/dssetup)...
------ Executing Task 2 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWcomds 2>&1

Removal of <SUNWcomds> was successful.
-- Exit status: 0

============================================================
Uninstalling Calendar Server (CALDAV) 7u1 (7.1-1.11 at
/opt/altroot/davserver)...
------ Executing Task 3 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWdavserver 2>&1

Removal of <SUNWdavserver> was successful.
-- Exit status: 0

============================================================
Uninstalling Instant Messaging 8u3 (8.3-03.10 at /opt/altroot/im)...
------ Executing Task 4 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimgw 2>&1

Removal of <SUNWiimgw> was successful.
-- Exit status: 0
------ Executing Task 5 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimd 2>&1

Removal of <SUNWiimd> was successful.
-- Exit status: 0
------ Executing Task 6 of 19 ...
```

```
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimc 2>&1

Removal of <SUNWiimc> was successful.
-- Exit status: 0
------ Executing Task 7 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimid 2>&1

Removal of <SUNWiimid> was successful.
-- Exit status: 0
------ Executing Task 8 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimjd 2>&1

Removal of <SUNWiimjd> was successful.
-- Exit status: 0
------ Executing Task 9 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimm 2>&1

Removal of <SUNWiimm> was successful.
-- Exit status: 0
------ Executing Task 10 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimin 2>&1

Removal of <SUNWiimin> was successful.
-- Exit status: 0
------ Executing Task 11 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiim 2>&1

Removal of <SUNWiim> was successful.
-- Exit status: 0

============================================================
Uninstalling Convergence 2 (2.0-0.06 at /opt/altroot/iwc)...
------ Executing Task 12 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiwc 2>&1

Removal of <SUNWiwc> was successful.
-- Exit status: 0

============================================================
Uninstalling Indexing and Search Service 1u1 (1.1-4.4501 at
/opt/altroot/jiss)...
------ Executing Task 13 of 19 ...
```

```
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWjiss 2>&1

Removal of <SUNWjiss> was successful.
-- Exit status: 0

============================================================
Uninstalling Comms Delegated Administrator 7 (7.0-3.00 at
/opt/altroot/da)...
------ Executing Task 14 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWcommda 2>&1

Removal of <SUNWcommda> was successful.
-- Exit status: 0

============================================================
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/altroot/msg_scha)...
------ Executing Task 15 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWmessaging-server-scha 2>&1

Removal of <SUNWmessaging-server-scha> was successful.
-- Exit status: 0

============================================================
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/altroot/im_scha)...
------ Executing Task 16 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimsc 2>&1

Removal of <SUNWiimsc> was successful.
-- Exit status: 0

============================================================
Uninstalling Calendar Server 6.3 (6.3-23.01 at /opt/altroot/calendar)...
------ Executing Task 17 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWica5 2>&1

Removal of <SUNWica5> was successful.
-- Exit status: 0
------ Executing Task 18 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWics5 2>&1
Replacing current install root with /.
pkgparam: ERROR: unable to locate parameter information for "SUNWics5"
Replacing current install root with /.
```

```
pkgparam: ERROR: unable to locate parameter information for "SUNWics5"

Removal of <SUNWics5> was successful.
-- Exit status: 0

============================================================
Uninstalling Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01 at
/opt/altroot/cs_scha)...
------ Executing Task 19 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWscics 2>&1

Attempting to change the following in ics.conf
    local.server.ha.enabled="no"
    local.server.ha.agent="none"
Done...

Removal of <SUNWscics> was successful.
-- Exit status: 0
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWmessaging-server-64
PASSED: Task 2: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWcomds
PASSED: Task 3: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWdavserver
PASSED: Task 4: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimgw
PASSED: Task 5: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimd
PASSED: Task 6: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimc
PASSED: Task 7: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimid
PASSED: Task 8: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimjd
PASSED: Task 9: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimm
PASSED: Task 10: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimin
PASSED: Task 11: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiim
```

```
PASSED: Task 12: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiwc
PASSED: Task 13: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWjiss
PASSED: Task 14: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWcommda
PASSED: Task 15: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWmessaging-server-scha
PASSED: Task 16: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWiimsc
PASSED: Task 17: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWica5
PASSED: Task 18: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWics5
PASSED: Task 19: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-R /opt/altroot SUNWscics

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Mar 18  2009 /usr/java ->
jdk/jdk1.5.0_16

/usr/jdk:
total 10
drwxr-xr-x   4 root     bin            4 Aug  5 12:26 instances
lrwxrwxrwx   1 root     other          7 Mar 18  2009 j2sdk1.4.2_18 ->
../j2se
lrwxrwxrwx   1 root     other         18 Mar 18  2009 jdk1.5.0_16 ->
instances/jdk1.5.0
lrwxrwxrwx   1 root     other         18 Aug  5 12:51 jdk1.6.0_20 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Aug  5 12:51 latest ->
jdk1.6.0_20
drwxr-xr-x   8 root     bin            8 Aug  5 12:28 packages
-- Exit status: 0
ls -l /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
lrwxrwxrwx   1 root     other         11 Aug  5 12:51 /usr/jdk/latest ->
jdk1.6.0_20
-- Exit status: 2
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
/usr/jdk/latest:
total 38177
-rw-r--r--   1 root     bin         3767 Apr 12 15:32 COPYRIGHT
-rw-r--r--   1 root     bin        17179 Apr 12 15:32 LICENSE
-rw-r--r--   1 root     bin        28329 Apr 12 15:32 README.html
```

```
-rw-r--r--   1 root     bin        25390 Apr 12 15:32 README_ja.html
-rw-r--r--   1 root     bin        20768 Apr 12 15:32 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 Apr 12 15:32
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           49 Aug  5 12:49 bin
drwxr-xr-x   3 root     bin            8 Aug  5 12:47 include
drwxr-xr-x   6 root     bin           11 Aug  5 12:49 jre
drwxr-xr-x   3 root     bin           11 Aug  5 12:47 lib
-r--r--r--   1 root     other       5890 Aug  5 12:52 register.html
-r--r--r--   1 root     other       6322 Aug  5 12:52 register_ja.html
-r--r--r--   1 root     other       5500 Aug  5 12:52
register_zh_CN.html
-rw-r--r--   1 root     bin      19050033 Apr 12 15:31 src.zip
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.patchout_20100805165431.4829
-- unlink /tmp/.patchout_altroot_20100805165431.4829
mkdir -p /opt/altroot/var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0

NOTICE: silent file created in:

/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100805165
Closing the log at Thu Aug  5 16:55:33 2010
(126 root) ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20100805165559.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /opt/altroot
  NAME: <none>

(127 root) cat /etc/softlist.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<!-- Do not edit! This file is automatically generated. -->
<!-- Last Update: Thu Aug  5 16:34:21 PDT 2010 -->
<!-- By: /net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
./commpkg -->

<multi-inst-list>
  <install name="" root="/" suite="comms" />
  <install root="/opt/altroot" suite="comms" />
</multi-inst-list>
(128 root) /bin/ls /opt/altroot
CommsInstaller  davserver       im              messaging64     var
calendar        directory       im_scha         msg_scha
cs_scha         dssetup         iwc             opt
da              etc             jiss            usr
(129 root) /bin/ls -l /opt/altroot
total 51
drwxr-xr-x   6 root     root           6 Aug  5 16:34 CommsInstaller
drwxr-xr-x   3 root     root           3 Aug  5 16:34 calendar
drwxr-xr-x   2 root     root           2 Aug  5 16:55 cs_scha
drwxr-xr-x   3 root     root           3 Aug  5 16:55 da
drwxr-xr-x   2 root     root           2 Aug  5 16:55 davserver
drwxr-xr-x   3 root     root           3 Aug  5 16:32 directory
drwxr-xr-x   2 root     root           2 Aug  5 16:55 dssetup
drwxr-xr-x  10 root     sys           12 Aug  5 16:33 etc
drwxr-xr-x   4 root     root           4 Aug  5 16:55 im
drwxr-xr-x   4 root     root           4 Aug  5 16:55 im_scha
drwxr-xr-x   2 root     root           2 Aug  5 16:55 iwc
drwxr-xr-x   2 root     root           2 Aug  5 16:55 jiss
drwxr-xr-x   2 root     root           2 Aug  5 16:55 messaging64
drwxr-xr-x   2 root     root           2 Aug  5 16:55 msg_scha
drwxr-xr-x   3 root     root           3 Aug  5 16:33 opt
drwxr-xr-x   9 root     sys           10 Aug  5 16:33 usr
drwxr-xr-x   6 root     sys            6 Aug  5 16:39 var
(130 root) \rm -rf /opt/altroot
(131 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20100805165711.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""

INFO: /opt/altroot does not exist
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
INFO: /etc/softlist.xml updated
(132 root) cat /etc/softlist.xml
<?xml version="1.0" encoding="utf-8"?>
<!-- Do not edit! This file is automatically generated. -->
```

```
<!-- Last Update: Thu Aug  5 16:57:30 PDT 2010 -->
<!-- By: /net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
./commpkg -->

<multi-inst-list>
```

```
  <install name="" root="/" suite="comms" />
</multi-inst-list>
```

Sample Session - Communications Suite Simple Install and Uninstall

Sample Session - Oracle Communications Unified Communications Suite Simple Install and Uninstall Version 7 Update 1

This sample session performs a "simple" install and uninstall of Communications Suite by running the Communications Suite installer, `commpkg`.

This document shows the use of `commpkg info` to check what is installed, `commpkg install` to install all the products, and `commpkg uninstall` to uninstall all the products. It contains the following topics:

- Installation Comments
- Uninstall Comments
- Summary of Commands Run
- Session

Installation Comments

```
- shared components and OS patches are applied without prompting. This
  is because patches can be backed out. e.g. in the sample session
  below 119254-71 is applied without prompting.
- If a Shared component or OS package has to be upgraded (by doing a
  pkgrm then pkgadd), the user is prompted because this is
  irreversible (without having the original packages).
  e.g. in the sample session below NSS upgrade requires confirmation
  from the user.
- Missing shared components are installed without prompting.
  e.g. in the sample sessions MySQL and JDK are installed without
prompting
- CI itself will be installed without prompting. Note the message in
  the CI task list:
  WILL INSTALL: CommsInstaller 7u1 (7.1-0.06)
                to /opt/sun/comms/CommsInstaller
- All products are installed under the blanket INSTALLROOT (default is
  /opt/sun/comms).
- Since the CI tasks are dependent on what is already installed on the
  system, the number of tasks differs from run to run.
- CI only does "installation" (laying down the bits), it does not
  do initial configuration of products
- The silent file has ACCEPTLICENSE=no.
  You have to explicitly change this to yes, or use the
  --acceptLicense switch.
- The silent file has UPGRADESC=no.
  even though I said "yes" to each prompt of upgrading SC. You have to
  explicitly set this if you want it done during a silent install.
```

Uninstall Comments

```
- Only products are displayed for uninstall. Shared Components (SC)
  are not available for uninstallation. E.g. MySQL and MQ are not
uninstalled.
```

Summary of Commands Run

```
20 pwd
    21 hostname
    22 uname -a
    23 ./commpkg info
    24 ./commpkg install
    25 cat /var/opt/CommsInstaller/logs/undoCommsInstall_20100804221934
    26 cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100804221934
    27 ls -l
/var/opt/CommsInstaller/logs/CommsInstaller_20100804221934.log
    28 ./commpkg info
    29 ./commpkg info --verbose
    30 /bin/ls -l /opt/sun/comms
    31 ./commpkg uninstall
    32 cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100804223352
    33 cat
/var/opt/CommsInstaller/logs/CommsInstaller_20100804221934.log
    34 cat
/var/opt/CommsInstaller/logs/CommsInstaller_20100804223352.log
```

Session

```
(20 root) pwd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
(21 root) hostname
darkpaladin
(22 root) uname -a
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
(23 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20100804221912.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
  NOTICE: Service Tags is present with a different pkg VERSION.
  NOTICE: NSS/NSPR/JSS is present with a different pkg VERSION.
  NOTICE: Message Queue is present with a different pkg VERSION.
  NOTICE: Message Queue is partially present (missing some packages).
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
```

```
ALTROOT: /
  NAME: ""

(24 root) ./commpkg install
-- LOGFILE: /tmp/CommsInstaller_20100804221934.log

CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010

Welcome to the Oracle Communications Unified Communications Suite
Product Installer
This program will install selected components of the Communications
Suite
on your computer. Do note that the installer lays down the
bits, but does not do configuration. Separate configuration
steps for each individual product will be required.

Copyright 2010 Oracle Corporation. All rights reserved.
Use is subject to license terms.

Before you install this product, you must read and accept the
entire Software License Agreement under which this product is
licensed for your use.
The Software License Agreement documents are under the Legal_Folder
directory.
Do you agree to the license terms ? [No] : yes
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Specify Install Location

This program will extract the server files and install them
into a directory you specify. That directory is called the
INSTALLROOT in the product documentation and will contain
the server programs.

To accept the default shown in brackets, press the Enter key.


Install location [/opt/sun/comms]:
-- Creating /opt/sun/comms
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
  NOTICE: Service Tags is present with a different pkg VERSION.
  NOTICE: NSS/NSPR/JSS is present with a different pkg VERSION.
  NOTICE: Message Queue is present with a different pkg VERSION.
  NOTICE: Message Queue is partially present (missing some packages).
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
Do you want to continue ? [yes] :
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:
```

```
Shared Components (not shown) will be installed as required.
  you will be prompted later if Shared Components need to be upgraded.
OS patches (not shown) will be installed as required.

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-18.01)
       2  Comms DSsetup 6.4 (6.4-6.03)
       3  Calendar Server (CALDAV) 7u1 (7.1-1.11)
       4  Instant Messaging 8u3 (8.3-03.10)
       5  Convergence 2 (2.0-0.06)
       6  Indexing and Search Service 1u1 (1.1-4.4501)
       7  Comms Delegated Administrator 7 (7.0-3.00)
       8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
       9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
      10  Calendar Server 6.3 (6.3-23.01)
      11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)


Enter the items you wish to install. Enter q to quit.
Prefix an item with ~ to indicate you only want
  to install shared component dependencies of that product
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to install [1, 2, 3, 4, 5, 6, 7, 8,
9, 10, 11]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Generating list of things to install...
Checking for Shared Component Upgrade Requirements...

Shared component NSS/NSPR/JSS has a different pkg version installed
Description: Network Security Services,Netscape Portable Runtime
  Current pkg Version (SUNWjss): 4.0,REV=2004.11.05.02.31
  To be installed pkg version (SUNWjss): 4.2.4,REV=2006.11.16.20.40
  Product Version: 4.8.4
Note that changing pkg versions is irreversible
On the other hand, if you do not change it,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to change pkg versions for NSS/NSPR/JSS [n] : y

Service Tags has a different pkg version installed
Description: Service Tags
  Current pkg Version (SUNWservicetagr): 1.0,REV=2007.05.21.20.36
  To be installed pkg version (SUNWservicetagr):
1.1.4,REV=2008.03.21.07.54
  Product Version: 1.1.4
Note that changing pkg versions is irreversible

Do you wish to change pkg versions for Service Tags [n] : y
```

```
Shared component Message Queue has a different pkg version installed
Description: Message Queue
  Current pkg Version (SUNWiqr): 3.7,REV=2006.06.18.22.34
  To be installed pkg version (SUNWiqr): 4.4,REV=2009.08.27.08.32
  Product Version: 4.4
Note that changing pkg versions is irreversible
On the other hand, if you do not change it,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to change pkg versions for Message Queue [n] : y
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: MySQL 5.1.36
  WILL INSTALL: patch 119254-71 for PATCHUTILS
  WILL INSTALL: Instant Messaging API 8
  WILL INSTALL: LDAPJDK 4.19
  WILL INSTALL: Simple Authentication and Security Layer 2.19
  WILL INSTALL: LDAPCSDK6 Tools 6.0
  WILL INSTALL: patch 119963-19 for LIBCPLUSPLUS
  NOTICE: NSS/NSPR/JSS will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: NSS/NSPR/JSS 4.0,REV=2004.11.05.02.31 (4.2.6)
  WILL INSTALL: NSS/NSPR/JSS 4.8.4
  WILL INSTALL: LDAPCSDK6 6.0
  NOTICE: Service Tags will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: Service Tags 1.0,REV=2007.05.21.20.36
(5.10/SunOS Development)
  WILL INSTALL: Service Tags 1.1.4
  WILL INSTALL: JDK 1.6.0
  WILL INSTALL: patch 126868-03 for BZIP OS Component
  NOTICE: Message Queue will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: Message Queue 3.7 (3.7.0.1)
  WILL INSTALL: Message Queue 4.4
  WILL INSTALL: Message Queue Localization 4.4
  WILL INSTALL: Messaging Server (64bit) 7u4 (7.4-18.01)
                to /opt/sun/comms/messaging64
  WILL INSTALL: Comms DSsetup 6.4 (6.4-6.03)
                to /opt/sun/comms/dssetup
  WILL INSTALL: Calendar Server (CALDAV) 7u1 (7.1-1.11)
                to /opt/sun/comms/davserver
  WILL INSTALL: Instant Messaging 8u3 (8.3-03.10)
                to /opt/sun/comms/im
  WILL INSTALL: Convergence 2 (2.0-0.06)
                to /opt/sun/comms/iwc
  WILL INSTALL: Indexing and Search Service 1u1 (1.1-4.4501)
                to /opt/sun/comms/jiss
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-3.00)
                to /opt/sun/comms/da
  WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                to /opt/sun/comms/msg_scha
  WILL INSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                to /opt/sun/comms/im_scha
  WILL INSTALL: Calendar Server 6.3 (6.3-23.01)
                to /opt/sun/comms/calendar
```

```
  WILL INSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                to /opt/sun/comms/cs_scha
  WILL INSTALL: CommsInstaller 7u1 (7.1-0.06)
                to /opt/sun/comms/CommsInstaller
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to install

Do you want to continue ? [yes] :

============================================================
Installing MySQL 5.1.36...
------ Executing Task 1 of 83 ...

============================================================
Installing patch 119254-71 for PATCHUTILS...
------ Executing Task 2 of 83 ...

============================================================
Installing Instant Messaging API 8...
------ Executing Task 3 of 83 ...

============================================================
Installing LDAPJDK 4.19...
------ Executing Task 4 of 83 ...

============================================================
Installing Simple Authentication and Security Layer 2.19...
------ Executing Task 5 of 83 ...

============================================================
Installing LDAPCSDK6 Tools 6.0...
------ Executing Task 6 of 83 ...

============================================================
Installing patch 119963-19 for LIBCPLUSPLUS...
------ Executing Task 7 of 83 ...

============================================================
Removing existing NSS/NSPR/JSS 4.0,REV=2004.11.05.02.31 (4.2.6)...
------ Executing Task 8 of 83 ...
------ Executing Task 9 of 83 ...
------ Executing Task 10 of 83 ...
------ Executing Task 11 of 83 ...
------ Executing Task 12 of 83 ...
------ Executing Task 13 of 83 ...

============================================================
Installing NSS/NSPR/JSS 4.8.4...
------ Executing Task 14 of 83 ...
------ Executing Task 15 of 83 ...
------ Executing Task 16 of 83 ...
------ Executing Task 17 of 83 ...
------ Executing Task 18 of 83 ...
------ Executing Task 19 of 83 ...

============================================================
```

```
Installing LDAPCSDK6 6.0...
------ Executing Task 20 of 83 ...
------ Executing Task 21 of 83 ...

============================================================
Removing existing Service Tags 1.0,REV=2007.05.21.20.36 (5.10/SunOS
Development)...
------ Executing Task 22 of 83 ...
------ Executing Task 23 of 83 ...
------ Executing Task 24 of 83 ...

============================================================
Installing Service Tags 1.1.4...
------ Executing Task 25 of 83 ...
------ Executing Task 26 of 83 ...
------ Executing Task 27 of 83 ...

============================================================
Installing JDK 1.6.0...
------ Executing Task 28 of 83 ...
------ Executing Task 29 of 83 ...
------ Executing Task 30 of 83 ...
------ Executing Task 31 of 83 ...
------ Executing Task 32 of 83 ...

============================================================
Installing patch 126868-03 for BZIP OS Component...
------ Executing Task 33 of 83 ...

============================================================
Removing existing Message Queue 3.7 (3.7.0.1)...
------ Executing Task 34 of 83 ...
------ Executing Task 35 of 83 ...
------ Executing Task 36 of 83 ...
------ Executing Task 37 of 83 ...
------ Executing Task 38 of 83 ...
------ Executing Task 39 of 83 ...

============================================================
Installing Message Queue 4.4...
------ Executing Task 40 of 83 ...
------ Executing Task 41 of 83 ...
------ Executing Task 42 of 83 ...
------ Executing Task 43 of 83 ...
------ Executing Task 44 of 83 ...
------ Executing Task 45 of 83 ...
------ Executing Task 46 of 83 ...
------ Executing Task 47 of 83 ...
------ Executing Task 48 of 83 ...
------ Executing Task 49 of 83 ...

============================================================
Installing Message Queue Localization 4.4...
------ Executing Task 50 of 83 ...
------ Executing Task 51 of 83 ...
------ Executing Task 52 of 83 ...
```

```
------ Executing Task 53 of 83 ...
------ Executing Task 54 of 83 ...
------ Executing Task 55 of 83 ...
------ Executing Task 56 of 83 ...
------ Executing Task 57 of 83 ...
------ Executing Task 58 of 83 ...
------ Executing Task 59 of 83 ...
------ Executing Task 60 of 83 ...
------ Executing Task 61 of 83 ...
------ Executing Task 62 of 83 ...
------ Executing Task 63 of 83 ...

============================================================
Installing Messaging Server (64bit) 7u4 (7.4-18.01)...
------ Executing Task 64 of 83 ...

============================================================
Installing Comms DSsetup 6.4 (6.4-6.03)...
------ Executing Task 65 of 83 ...

============================================================
Installing Calendar Server (CALDAV) 7u1 (7.1-1.11)...
------ Executing Task 66 of 83 ...

============================================================
Installing Instant Messaging 8u3 (8.3-03.10)...
------ Executing Task 67 of 83 ...
------ Executing Task 68 of 83 ...
------ Executing Task 69 of 83 ...
------ Executing Task 70 of 83 ...
------ Executing Task 71 of 83 ...
------ Executing Task 72 of 83 ...
------ Executing Task 73 of 83 ...
------ Executing Task 74 of 83 ...

============================================================
Installing Convergence 2 (2.0-0.06)...
------ Executing Task 75 of 83 ...

============================================================
Installing Indexing and Search Service 1u1 (1.1-4.4501)...
------ Executing Task 76 of 83 ...

============================================================
Installing Comms Delegated Administrator 7 (7.0-3.00)...
------ Executing Task 77 of 83 ...

============================================================
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
------ Executing Task 78 of 83 ...

============================================================
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
------ Executing Task 79 of 83 ...

============================================================
```

```
Installing Calendar Server 6.3 (6.3-23.01)...
------ Executing Task 80 of 83 ...
------ Executing Task 81 of 83 ...

============================================================
Installing Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)...
------ Executing Task 82 of 83 ...

============================================================
Installing CommsInstaller 7u1 (7.1-0.06)...
------ Executing Task 83 of 83 ...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

-- Output of Task 1: generic
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
LOGFILE: /tmp/ci-mysql-installer_20100804222019.log
-- Adding User mysql
-- Adding Group mysql
pkgadd -n -r /dev/null -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.
InnoDB: The first specified data file ./ibdata1 did not exist:
InnoDB: a new database to be created!
100804 22:23:30  InnoDB: Setting file ./ibdata1 size to 10 MB
InnoDB: Database physically writes the file full: wait...
100804 22:23:31  InnoDB: Log file ./ib_logfile0 did not exist: new to be
created
InnoDB: Setting log file ./ib_logfile0 size to 5 MB
InnoDB: Database physically writes the file full: wait...
100804 22:23:31  InnoDB: Log file ./ib_logfile1 did not exist: new to be
created
InnoDB: Setting log file ./ib_logfile1 size to 5 MB
InnoDB: Database physically writes the file full: wait...
InnoDB: Doublewrite buffer not found: creating new
InnoDB: Doublewrite buffer created
InnoDB: Creating foreign key constraint system tables
InnoDB: Foreign key constraint system tables created
100804 22:23:32  InnoDB: Started; log sequence number 0 0
100804 22:23:32  InnoDB: Starting shutdown...
100804 22:23:33  InnoDB: Shutdown completed; log sequence number 0 46409
100804 22:23:33 [Warning] Forcing shutdown of 1 plugins
100804 22:23:33  InnoDB: Started; log sequence number 0 46409
100804 22:23:35  InnoDB: Starting shutdown...
100804 22:23:36  InnoDB: Shutdown completed; log sequence number 0 46409
100804 22:23:36 [Warning] Forcing shutdown of 1 plugins
```

```
PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h darkpaladin password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
-- End of command output--

All tasks PASSED
Checking JES java symlink...
INFO: /etc/softlist.xml updated

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

NOTICE: To undo the installation, run the commands in:
        /var/opt/CommsInstaller/logs/undoCommsInstall_20100804221934

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100804221934
NOTICE: LOGFILE  created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20100804221934.log
(25 root) cat
/var/opt/CommsInstaller/logs/undoCommsInstall_20100804221934
#! /bin/sh
# Note that only tasks that PASSED are undone
# For reference, tasks that FAILED or are irreversible are in comments
# WARNING WARNING WARNING
# Executing irreversible tasks may result in a non-functional system!!!
ADMIN=/var/opt/CommsInstaller/logs/admin.quiet
```

```
set -v
pkgrm  -n -a $ADMIN SUNWiim
#####################################################
# Finished Undo of: Installing CommsInstaller 7u1 (7.1-0.06)...
#####################################################
pkgrm  -n -a $ADMIN SUNWdavserver
#####################################################
# Finished Undo of: Installing Calendar Server Sun Cluster HA agent 6.3
(6.3-1.01)...
#####################################################
pkgrm  -n -a $ADMIN SUNWcomds
pkgrm  -n -a $ADMIN SUNWmessaging-server-64
#####################################################
# Finished Undo of: Installing Calendar Server 6.3 (6.3-23.01)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWhiquc
#####################################################
# Finished Undo of: Installing Instant Messaging Sun Cluster HA agent
7.3 (7.3-01.02)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWhiqu
#####################################################
# Finished Undo of: Installing Messaging Server Sun Cluster HA agent 7.0
(7.0-0.03)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWciquc
#####################################################
# Finished Undo of: Installing Comms Delegated Administrator 7
(7.0-3.00)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWciqu
#####################################################
# Finished Undo of: Installing Indexing and Search Service 1u1
(1.1-4.4501)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWkiquc
#####################################################
# Finished Undo of: Installing Convergence 2 (2.0-0.06)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWkiqu
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWeiquc
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWeiqu
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWjiquc
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWjiqu
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWdiquc
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWdiqu
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWfiquc
#####################################################
# Finished Undo of: Installing Instant Messaging 8u3 (8.3-03.10)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWfiqu
#####################################################
# Finished Undo of: Installing Calendar Server (CALDAV) 7u1
(7.1-1.11)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqlen
```

```
#####################################################
# Finished Undo of: Installing Comms DSsetup 6.4 (6.4-6.03)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqcdv
#####################################################
# Finished Undo of: Installing Messaging Server (64bit) 7u4
(7.4-18.01)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqcrt
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqfs
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqjx
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqum
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiquc
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqdoc
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqu
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiqr
# no undo for removal of SUNWiqu
# no undo for removal of SUNWiqdoc
# no undo for removal of SUNWiquc
# no undo for removal of SUNWiqum
# no undo for removal of SUNWiqjx
# no undo for removal of SUNWiqfs
#####################################################
# Finished Undo of: Installing Message Queue Localization 4.4...
#####################################################
patchrm  126868-03
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6cfg
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6dvx
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6dev
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6rtx
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6rt
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWstosreg
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWservicetagu
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWservicetagr
# no undo for removal of SUNWservicetagr
#####################################################
# Finished Undo of: Installing Message Queue 4.4...
#####################################################
#####################################################
# Finished Undo of: Removing existing Message Queue 3.7 (3.7.0.1)...
#####################################################
# no undo for removal of SUNWservicetagu
#####################################################
# Finished Undo of: Installing patch 126868-03 for BZIP OS Component...
#####################################################
# no undo for removal of SUNWstosreg
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWldapcsdk-dev
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWldapcsdk-libs
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWtlsu
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWtlsd
#####################################################
# Finished Undo of: Installing JDK 1.6.0...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWtls
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWprd
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWpr
```

```
#####################################################
# Finished Undo of: Installing Service Tags 1.1.4...
#####################################################
#####################################################
# Finished Undo of: Removing existing Service Tags
1.0,REV=2007.05.21.20.36 (5.10/SunOS Development)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWjss
# no undo for removal of SUNWjss
#####################################################
# Finished Undo of: Installing LDAPCSDK6 6.0...
#####################################################
# no undo for removal of SUNWpr
# no undo for removal of SUNWprd
# no undo for removal of SUNWtls
# no undo for removal of SUNWtlsd
# no undo for removal of SUNWtlsu
patchrm  119963-19
#####################################################
# Finished Undo of: Installing NSS/NSPR/JSS 4.8.4...
#####################################################
#####################################################
# Finished Undo of: Removing existing NSS/NSPR/JSS
4.0,REV=2004.11.05.02.31 (4.2.6)...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWldapcsdk-tools
#####################################################
# Finished Undo of: Installing patch 119963-19 for LIBCPLUSPLUS...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWsasl
#####################################################
# Finished Undo of: Installing LDAPCSDK6 Tools 6.0...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWljdk
#####################################################
# Finished Undo of: Installing Simple Authentication and Security Layer
2.19...
#####################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiimdv
#####################################################
# Finished Undo of: Installing LDAPJDK 4.19...
#####################################################
patchrm  119254-71
#####################################################
# Finished Undo of: Installing Instant Messaging API 8...
#####################################################
# IRREVERSIBLE:
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a $ADMIN
#####################################################
# Finished Undo of: Installing patch 119254-71 for PATCHUTILS...
#####################################################
#####################################################
# Finished Undo of: Installing MySQL 5.1.36...
#####################################################
(26 root) cat
```

```
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100804221934
#
# Silent File for CommsInstaller 7.1-0.06
# Generated on 20100804221934
#

#
# NOTE: You must set ACCEPTLICENSE=yes below or alternatively
#       use --acceptLicense on the command line
#
#
# verb used to create this silent file
#
VERB=install

#
# alternate distro path if not found where commpkg resides
#    and no --distro switch specified is
#
ALTDISTROPATH=/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71

#
# The installation root
#
INSTALLROOT=/opt/sun/comms

#
# flag to indicate whether to use alternate root install mode
#
ALTROOT=no

#
# flag to indicate whether to perform pkg overwrite if the pkg already
exists
#
PKGOVERWRITE=no

#
# flag to indicate whether to exclude OS patches
#
EXCLUDEOS=no

#
# flag to indicate whether to exclude shared components
#
EXCLUDESC=no

#
# flag to indicate acceptance of the software license
#
ACCEPTLICENSE=no

#
# flag to indicate that all SC should or should not be upgraded without
prompting
#
```

```
UPGRADESC=no

#
# INSTALLROOT friendly name
#
INSTALLNAME=

#
# list of components (using mnemonics)
# A ~ in front of the product indicates that only the shared
# components are installed
#
COMPONENTS=MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA
COMPONENT_VERSIONS=
(27 root) ls -l
/var/opt/CommsInstaller/logs/CommsInstaller_20100804221934.log
 517 -rw-r--r--   1 root     root      172559 Aug  4 22:30
/var/opt/CommsInstaller/logs/CommsInstaller_20100804221934.log
(28 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20100804223103.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20100715
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20091123
  Product: Calendar Server (CALDAV) 7u1
           Version: 7.1-1.11
           Basedir: /opt/sun/comms/davserver
           Build Date: 20100716
  Product: Instant Messaging 8u3
           Version: 8.3-03.10
           Basedir: /opt/sun/comms/im
           Build Date: 20100622
  Product: Convergence 2
           Version: 2.0-0.06
           Basedir: /opt/sun/comms/iwc
           Build Date: 20100726
  Product: Indexing and Search Service 1u1
           Version: 1.1-4.4501
           Basedir: /opt/sun/comms/jiss
           Build Date: 20100618
```

```
  Product: Comms Delegated Administrator 7
           Version: 7.0-3.00
           Basedir: /opt/sun/comms/da
           Build Date: 20100715
  Product: Messaging Server Sun Cluster HA agent 7.0
           Version: 7.0-0.03
           Basedir: /opt/sun/comms/msg_scha
           Build Date: 20080519
  Product: Instant Messaging Sun Cluster HA agent 7.3
           Version: 7.3-01.02
           Basedir: /opt/sun/comms/im_scha
           Build Date: 20080403
  Product: Calendar Server 6.3
           Version: 6.3-23.01
           Basedir: /opt/sun/comms/calendar
           Build Date: 20100624
  Product: Calendar Server Sun Cluster HA agent 6.3
           Version: 6.3-1.01
           Basedir: /opt/sun/comms/cs_scha
           Build Date: 20080331

(29 root) ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20100804223224.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20100715
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 64
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWmessaging-server-64 7.0,REV=2008.06.20
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20091123
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server (CALDAV) 7u1
```

```
          Version: 7.1-1.11
          Basedir: /opt/sun/comms/davserver
          Build Date: 20100716
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWdavserver    7.0,REV=2009.08.27
Product: Instant Messaging 8u3
          Version: 8.3-03.10
          Basedir: /opt/sun/comms/im
          Build Date: 20100622
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiim          8.0,REV=2008.12.04
            PRESENT  SUNWiimin        8.0,REV=2008.12.04
            PRESENT  SUNWiimm         8.0,REV=2008.12.04
            PRESENT  SUNWiimjd        8.0,REV=2008.12.04
            PRESENT  SUNWiimid        8.0,REV=2008.12.04
            PRESENT  SUNWiimc         8.0,REV=2008.12.04
            PRESENT  SUNWiimd         8.0,REV=2008.12.04
            PRESENT  SUNWiimgw        8.0,REV=2008.12.04
Product: Convergence 2
          Version: 2.0-0.06
          Basedir: /opt/sun/comms/iwc
          Build Date: 20100726
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u1
          Version: 1.1-4.4501
          Basedir: /opt/sun/comms/jiss
          Build Date: 20100618
          getVersion UNAME: SunOS
          getVersion ARCH: all
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWjiss         1.0,REV=2009.09.09
Product: Comms Delegated Administrator 7
          Version: 7.0-3.00
          Basedir: /opt/sun/comms/da
          Build Date: 20100715
          getVersion UNAME: SunOS
          getVersion ARCH: sparc
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWcommda       7.0,REV=2009.03.31
```

```
   Product: Messaging Server Sun Cluster HA agent 7.0
            Version: 7.0-0.03
            Basedir: /opt/sun/comms/msg_scha
            Build Date: 20080519
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWmessaging-server-scha 7.0,REV=2008.05.19
   Product: Instant Messaging Sun Cluster HA agent 7.3
            Version: 7.3-01.02
            Basedir: /opt/sun/comms/im_scha
            Build Date: 20080403
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.34
   Product: Calendar Server 6.3
            Version: 6.3-23.01
            Basedir: /opt/sun/comms/calendar
            Build Date: 20100624
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWics5         6.0,REV=2003.11.14.18.12.58
              PRESENT  SUNWica5         6.0,REV=2003.11.14.18.12.58
   Product: Calendar Server Sun Cluster HA agent 6.3
            Version: 6.3-1.01
            Basedir: /opt/sun/comms/cs_scha
            Build Date: 20080331
            getVersion UNAME: SunOS
            getVersion ARCH: sparc
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWscics        6.3,REV=2008.03.31.18.10.20

(30 root) /bin/ls -l /opt/sun/comms
total 36
drwxr-xr-x   6 root     root           6 Aug  4 22:29 CommsInstaller
drwxr-xr-x   3 root     root           3 Aug  4 22:29 calendar
drwxr-xr-x   3 root     root           3 Aug  4 22:29 cs_scha
drwxr-xr-x   6 root     root           6 Aug  4 22:29 da
drwxr-xr-x   8 root     root           8 Aug  4 22:27 davserver
drwxr-xr-x   5 root     root           5 Aug  4 22:27 dssetup
drwxr-xr-x   8 root     root           8 Aug  4 22:27 im
drwxr-xr-x   5 root     root           5 Aug  4 22:29 im_scha
drwxr-xr-x   6 root     root           6 Aug  4 22:29 iwc
drwxr-xr-x  18 root     root          19 Aug  4 22:29 jiss
drwxr-xr-x   9 root     root          11 Aug  4 22:27 messaging64
drwxr-xr-x   4 root     root           4 Aug  4 22:29 msg_scha
```

```
(31 root) ./commpkg uninstall
-- LOGFILE: /tmp/CommsInstaller_20100804223352.log
Detecting Installed Products...
Detecting Installed Patches...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-18.01 64bit)
          Installed Version at /opt/sun/comms/messaging64
       2  Comms DSsetup 6.4 (6.4-6.03)
          Installed Version at /opt/sun/comms/dssetup
       3  Calendar Server (CALDAV) 7u1 (7.1-1.11)
          Installed Version at /opt/sun/comms/davserver
       4  Instant Messaging 8u3 (8.3-03.10)
          Installed Version at /opt/sun/comms/im
       5  Convergence 2 (2.0-0.06)
          Installed Version at /opt/sun/comms/iwc
       6  Indexing and Search Service 1u1 (1.1-4.4501)
          Installed Version at /opt/sun/comms/jiss
       7  Comms Delegated Administrator 7 (7.0-3.00)
          Installed Version at /opt/sun/comms/da
       8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
          Installed Version at /opt/sun/comms/msg_scha
       9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
          Installed Version at /opt/sun/comms/im_scha
      10  Calendar Server 6.3 (6.3-23.01)
          Installed Version at /opt/sun/comms/calendar
      11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
          Installed Version at /opt/sun/comms/cs_scha

Enter the items you wish to uninstall. Enter q to quit.
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to uninstall [1, 2, 3, 4, 5, 6, 7,
8, 9, 10, 11]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL UNINSTALL: Messaging Server (64bit) 7u4 (7.4-18.01)
                  at /opt/sun/comms/messaging64)
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-6.03)
                  at /opt/sun/comms/dssetup)
  WILL UNINSTALL: Calendar Server (CALDAV) 7u1 (7.1-1.11)
                  at /opt/sun/comms/davserver)
  WILL UNINSTALL: Instant Messaging 8u3 (8.3-03.10)
                  at /opt/sun/comms/im)
  WILL UNINSTALL: Convergence 2 (2.0-0.06)
                  at /opt/sun/comms/iwc)
  WILL UNINSTALL: Indexing and Search Service 1u1 (1.1-4.4501)
                  at /opt/sun/comms/jiss)
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-3.00)
                  at /opt/sun/comms/da)
  WILL UNINSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
```

```
                  at /opt/sun/comms/msg_scha)
  WILL UNINSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                  at /opt/sun/comms/im_scha)
  WILL UNINSTALL: Calendar Server 6.3 (6.3-23.01)
                  at /opt/sun/comms/calendar)
  WILL UNINSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                  at /opt/sun/comms/cs_scha)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to uninstall

Do you want to continue ? [yes] :

============================================================
Uninstalling Messaging Server (64bit) 7u4 (7.4-18.01 at
/opt/sun/comms/messaging64)...
------ Executing Task 1 of 19 ...

============================================================
Uninstalling Comms DSsetup 6.4 (6.4-6.03 at /opt/sun/comms/dssetup)...
------ Executing Task 2 of 19 ...

============================================================
Uninstalling Calendar Server (CALDAV) 7u1 (7.1-1.11 at
/opt/sun/comms/davserver)...
------ Executing Task 3 of 19 ...

============================================================
Uninstalling Instant Messaging 8u3 (8.3-03.10 at /opt/sun/comms/im)...
------ Executing Task 4 of 19 ...
------ Executing Task 5 of 19 ...
------ Executing Task 6 of 19 ...
------ Executing Task 7 of 19 ...
------ Executing Task 8 of 19 ...
------ Executing Task 9 of 19 ...
------ Executing Task 10 of 19 ...
------ Executing Task 11 of 19 ...

============================================================
Uninstalling Convergence 2 (2.0-0.06 at /opt/sun/comms/iwc)...
------ Executing Task 12 of 19 ...

============================================================
Uninstalling Indexing and Search Service 1u1 (1.1-4.4501 at
/opt/sun/comms/jiss)...
------ Executing Task 13 of 19 ...

============================================================
Uninstalling Comms Delegated Administrator 7 (7.0-3.00 at
/opt/sun/comms/da)...
------ Executing Task 14 of 19 ...

============================================================
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/sun/comms/msg_scha)...
------ Executing Task 15 of 19 ...
```

```
============================================================
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/sun/comms/im_scha)...
------ Executing Task 16 of 19 ...

============================================================
Uninstalling Calendar Server 6.3 (6.3-23.01 at
/opt/sun/comms/calendar)...
------ Executing Task 17 of 19 ...
------ Executing Task 18 of 19 ...

============================================================
Uninstalling Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01 at
/opt/sun/comms/cs_scha)...
------ Executing Task 19 of 19 ...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:


All tasks PASSED
Checking JES java symlink...
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100804223352
NOTICE: LOGFILE  created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20100804223352.log
(32 root) cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100804223352
#
# Silent File for CommsInstaller 7.1-0.06
# Generated on 20100804223352
#

#
#
# verb used to create this silent file
VERB=uninstall

#
# root directory
#
ROOTDIR=/

#
# list of components (using mnemonics)
# WARNING: for verb=uninstall, when there are multiple
#          instances, the latest known version found is uninstalled
#
COMPONENTS=MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA
COMPONENT_VERSIONS= 7.4 6.4 7.1 8.3 2.0 1.1 7.0 7.0 7.3 6.3 6.3
(33 root) cat
```

```
/var/opt/CommsInstaller/logs/CommsInstaller_20100804221934.log
============ LOGFILE started Wed Aug  4 22:19:34 2010 ==========
LOGFILE = /tmp/CommsInstaller_20100804221934.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg install
-- perl version: 5.008004 pid: 17184
-- basetime: 1280985574 Wed Aug  4 22:19:34 2010
-- scriptDir: /net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
-- LOGFILE: /tmp/CommsInstaller_20100804221934.log
-- UNAME = SunOS ARCH = sparc OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
-- Exit status: 0
!!! ENV
$VAR1 = {
          'SSH_CLIENT' => '192.18.75.229 56686 22',
          'CAPSAVE' => '/home/dl111122/.termcap',
          'PS1' => '# ',
          'LINES' => '55',
          'COLUMNS' => '80',
          'PWD' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71',
          'USER' => 'dl111122',
          'LANG' => 'C',
          'LC_MESSAGES' => 'C',
          'VISUAL' => 'gnuclient',
          'LOGNAME' => 'dl111122',
          'EMACS' => 't',
          'REMOTE' => '/home/dl111122/.remote',
          'USE_64' => '1',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:.:/home/dl111122/bin:/new/local/bin
'EMACS_TYPE' => 'pc',
          'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
          'MORE' => '-c',
          'TERM' => 'emacs',
          'SSH_TTY' => '/dev/pts/1',
          'PAGER' => 'cat',
          'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
          'HOME' => '/home/dl111122',
          'LD_LIBRARY_PATH' => '/usr/dt/lib:/usr/openwin/lib',
          'SSH_CONNECTION' => '192.18.75.229 56686 10.5.194.229 22',
          'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
          'TERMSAVE' => 'emacs',
          'CDPATH' => '.:..:/home/dl111122',
          'EDITOR' => 'gnuclient',
          'MAIL' => '/var/mail//dl111122',
          'TZ' => 'US/Pacific',
          'ESHELL' => '/bin/csh',
          'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info'
'MOTIFHOME' => '/usr/dt',
          'CVSROOT' =>
':pserver:dl111122@redcvs.red.iplanet.com:/m/src',
```

```
          'OPENWINHOME' => '/usr/openwin',
          'RCSINIT' => '-zLT',
          'SHELL' => '/bin/csh',
          'SKIP_UTEST' => '1',
          'TERMCAP' => '/home/dl111122/.termcap'
        };
cat /etc/release 2>&1
                      Solaris 10 10/08 s10s_u6wos_07b SPARC
           Copyright 2008 Sun Microsystems, Inc.  All Rights Reserved.
                        Use is subject to license terms.
                            Assembled 27 October 2008
-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
          'MS64',
          'DSSETUP',
          'DAV',
          'IM',
          'IWC',
          'JISS',
          'DA',
          'MS_SCHA',
          'IM_SCHA',
          'CS',
          'CS_SCHA'
        ];
/usr/bin/pkgcond -n is_what 2>&1
can_add_driver=0
can_remove_driver=0
can_update_driver=0
is_alternative_root=0
is_boot_environment=0
is_diskless_client=0
is_global_zone=1
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=0
is_path_writable=1
is_running_system=1
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=0
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 1
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
Reading Product Files...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
```

```
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
Reading OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
```

```
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
```

```
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/
'MS64_L10N' => 'none',
          'MS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS/C
'DSSETUP' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSE
'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64
'DAV' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CE/C
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS
'NSS' => 'none',
          'IM' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/C
'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_S
'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_S
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_S
'CS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/C
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/C
};
!!! prod_getVers
```

```
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-0.06',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-6.03',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-18.01',
          'DAV' => '7.1-1.11',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.1-0.06',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.1-4.4501',
          'NSS' => 0,
          'IM' => '8.3-03.10',
          'ST' => 0,
          'CS_L10N' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'MYSQL_MARKER' => 0,
          'BZIP' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-23.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-3.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20100726',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20091123',
          'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' => '20100715',
          'DAV' => '20100716',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
```

```
          'IMAPI' => 'none',
          'CI' => '20100726',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20100618',
          'NSS' => 'none',
          'IM' => '20100622',
          'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20100624',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20100715'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.4
INFO: prod_mktVers{SASL} (no map) = 2.19
INFO: prod_mktVers{LDAPCSDK6} (no map) = 6.0
INFO: prod_mktVers{LDAPCSDK6_TOOLS} (no map) = 6.0
INFO: prod_mktVers{ICU} (no map) = ICU2,ICU3
INFO: prod_mktVers{JDK} (no map) = 1.6.0
INFO: prod_mktVers{JHRT} (no map) = 2.0
INFO: prod_mktVers{MQ} (no map) = 4.4
INFO: prod_mktVers{MQ_L10N} (no map) = 4.4
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2010.06.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u1
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u1
INFO: prod_mktVers{IM} (w/ map) = 8u3
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3

CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
```

```
2010

Welcome to the Oracle Communications Unified Communications Suite
Product Installer
This program will install selected components of the Communications
Suite
on your computer. Do note that the installer lays down the
bits, but does not do configuration. Separate configuration
steps for each individual product will be required.

Copyright 2010 Oracle Corporation. All rights reserved.
Use is subject to license terms.

Before you install this product, you must read and accept the
entire Software License Agreement under which this product is
licensed for your use.
The Software License Agreement documents are under the Legal_Folder
directory.
Do you agree to the license terms ? [No] : yes
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Specify Install Location

This program will extract the server files and install them
into a directory you specify. That directory is called the
INSTALLROOT in the product documentation and will contain
the server programs.

To accept the default shown in brackets, press the Enter key.


Install location [/opt/sun/comms]: -- Creating /opt/sun/comms
-- Setting owner:group for /opt/sun/comms to bin:bin
/bin/chown bin:bin /opt/sun/comms 2>&1
-- Exit status: 0
-- Setting permission for /opt/sun/comms to 755
/bin/chmod 755 /opt/sun/comms 2>&1
-- Exit status: 0
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Checking LIBCPLUSPLUS 5.9 ...
  Checking pkg SUNWlibC... present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmdsu... present.
  Checking pkg SUNWswmt... present.
  Checking pkg SUNWinstall-patch-utils-root... present.
  Checking pkg SUNWcsr... present.
  Checking pkg SUNWdtrc... present.
  Checking pkg SUNWzoneu... present.
  PATCHUTILS Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2010.06.25 ...
  RECOMMENDED 2010.06.25 is not present.
Checking ST 1.1.4 ...
```

```
  Checking pkg SUNWservicetagr... present but with a different pkg
VERSION.
    checking SUNWservicetagr 1.1.4,REV=2008.03.21.07.54
  Checking pkg SUNWservicetagu... present but with a different pkg
VERSION.
    checking SUNWservicetagu 1.1.4,REV=2008.03.21.07.54
  Checking pkg SUNWstosreg... present but with a different pkg VERSION.
    checking SUNWstosreg 1.1.4,REV=2008.03.21.07.54
  NOTICE: Service Tags is present with a different pkg VERSION.
Checking NSS 4.8.4 ...
  Checking pkg SUNWjss... present but with a different pkg VERSION.
    checking SUNWjss 4.2.4,REV=2006.11.16.20.40
  Checking pkg SUNWpr... present but with a different pkg VERSION.
    checking SUNWpr 4.6.4,REV=2006.11.16.20.40
  Checking pkg SUNWprd... present but with a different pkg VERSION.
    checking SUNWprd 4.6.4,REV=2006.11.16.20.40
  Checking pkg SUNWtls... present but with a different pkg VERSION.
    checking SUNWtls 3.11.4,REV=2006.11.16.20.40
  Checking pkg SUNWtlsd... present but with a different pkg VERSION.
    checking SUNWtlsd 3.11.4,REV=2006.11.16.20.40
  Checking pkg SUNWtlsu... present but with a different pkg VERSION.
    checking SUNWtlsu 3.11.4,REV=2006.11.16.20.40
  NOTICE: NSS/NSPR/JSS is present with a different pkg VERSION.
Checking SASL 2.19 ...
  Checking pkg SUNWsasl... not present.
  SASL 2.19 is not present.
Checking LDAPCSDK6 6.0 ...
  Checking pkg SUNWldapcsdk-libs... not present.
  Checking pkg SUNWldapcsdk-dev... not present.
  LDAPCSDK6 6.0 is not present.
Checking LDAPCSDK6_TOOLS 6.0 ...
  Checking pkg SUNWldapcsdk-tools... not present.
  LDAPCSDK6_TOOLS 6.0 is not present.
Checking ICU ICU2,ICU3 ...
  Checking pkg SUNWicu... present.
  ICU ICU2,ICU3 is already present.
Checking JDK 1.6.0 ...
  Checking pkg SUNWj6rt... not present.
  Checking pkg SUNWj6rtx... not present.
  Checking pkg SUNWj6dev... not present.
  Checking pkg SUNWj6dvx... not present.
  Checking pkg SUNWj6cfg... not present.
  JDK 1.6.0 is not present.
Checking JDK 1.5.0 ...
  Checking pkg SUNWj5rt... present.
  Checking pkg SUNWj5rtx... present.
  Checking pkg SUNWj5cfg... present.
  JDK 1.5.0 is already present.
Checking JHRT 2.0 ...
  Checking pkg SUNWjhrt... present.
  Checking pkg SUNWjhdev... present.
  Checking pkg SUNWjhdem... present.
  Checking pkg SUNWjhdoc... present.
  JHRT 2.0 is already present.
Checking MQ 4.4 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
```

```
    checking SUNWiqr 4.4,REV=2009.08.27.08.32
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.4,REV=2009.08.27.08.32
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.4,REV=2009.08.27.08.32
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqcrt... not present.
  Checking pkg SUNWiqcdv... not present.
  Checking pkg SUNWiqlen... not present.
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 3.7 ...
  Checking pkg SUNWiqr... present.
  Checking pkg SUNWiqu... present.
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... present.
  Checking pkg SUNWiquc... present.
  Checking pkg SUNWiqum... present.
  Checking pkg SUNWiqjx... present.
  Checking pkg SUNWiqfs... present.
  Checking pkg SUNWiqcrt... not present.
  Checking pkg SUNWiqcdv... not present.
  Checking pkg SUNWiqlen... not present.
  NOTICE: Message Queue is partially present (missing some packages).
Checking MQ 4.1 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqcrt... not present.
  Checking pkg SUNWiqcdv... not present.
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ_L10N 4.4 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
```

```
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
  MQ_L10N 4.4 is not present.
Checking MQ_L10N 3.7 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
  MQ_L10N 3.7 is not present.
Checking MQ_L10N 4.1 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
  MQ_L10N 4.1 is not present.
Checking LDAPJDK 4.19 ...
  Checking pkg SUNWljdk... not present.
  LDAPJDK 4.19 is not present.
Checking IMAPI 8.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 8.0 is not present.
Checking IMAPI 7.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 7.0 is not present.
Checking IMAPI 7.3 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 7.3 is not present.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... not present.
  MYSQL 5.1.36 is not present.
Checking CI 7.1 ...
```

```
  Checking pkg SUNWcomms... not present.
  CI 7.1 is not present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.0 is not present.
Checking MS64 7.4 ...
  Checking pkg SUNWmessaging-server-64... not present.
  MS64 7.4 is not present.
Checking MS64 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS64 6.3_32 is not present.
Checking MS64 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS64 7.2_32 is not present.
Checking MS64 7.3_32 ...
  MS64 7.3_32 is not present.
Checking MS64 7.4_32 ...
  MS64 7.4_32 is not present.
Checking DSSETUP 6.4 ...
  Checking pkg SUNWcomds... not present.
  DSSETUP 6.4 is not present.
Checking DAV 7.1 ...
  Checking pkg SUNWdavserver... not present.
  DAV 7.1 is not present.
Checking IM 8.3 ...
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  Checking pkg SUNWiimgw... not present.
  IM 8.3 is not present.
Checking IM 7.0 ...
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  IM 7.0 is not present.
Checking IM 7.3 ...
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
```

```
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  IM 7.3 is not present.
Checking IWC 2.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 2.0 is not present.
Checking JISS 1.1 ...
  Checking pkg SUNWjiss... not present.
  JISS 1.1 is not present.
Checking JISS 0.9 ...
  Checking pkg SUNWjiss-common... not present.
  Checking pkg SUNWjiss-conf... not present.
  Checking pkg SUNWjiss-extjars... not present.
  Checking pkg SUNWjiss-indexapi... not present.
  Checking pkg SUNWjiss-jmqc... not present.
  Checking pkg SUNWjiss-rest... not present.
  Checking pkg SUNWjiss-search... not present.
  Checking pkg SUNWjiss-searchui... not present.
  Checking pkg SUNWjiss-store... not present.
  Checking pkg SUNWjiss-storeui... not present.
  JISS 0.9 is not present.
Checking DA 7.0 ...
  Checking pkg SUNWcommda... not present.
  DA 7.0 is not present.
Checking DA 6.4 ...
  Checking pkg SUNWcomic... not present.
  Checking pkg SUNWcomis... not present.
  DA 6.4 is not present.
Checking MS_SCHA 7.0 ...
  Checking pkg SUNWmessaging-server-scha... not present.
  MS_SCHA 7.0 is not present.
Checking MS_SCHA 6.0 ...
  Checking pkg SUNWscims... not present.
  MS_SCHA 6.0 is not present.
Checking IM_SCHA 7.3 ...
  Checking pkg SUNWiimsc... not present.
  IM_SCHA 7.3 is not present.
Checking IM_SCHA 7.0 ...
  Checking pkg SUNWiimsc... not present.
  IM_SCHA 7.0 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Checking CS_SCHA 6.0 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.0 is not present.
Checking MS 7.4 ...
  MS 7.4 is not present.
Checking MS 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
```

```
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS 6.3_32 is not present.
Checking MS 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS 7.2_32 is not present.
Checking MS 7.3_32 ...
  MS 7.3_32 is not present.
Checking MS_L10N 6.2 ...
  Checking pkg SUNWmsgde... not present.
  Checking pkg SUNWmsges... not present.
  Checking pkg SUNWmsgfr... not present.
  Checking pkg SUNWmsgja... not present.
  Checking pkg SUNWmsgko... not present.
  Checking pkg SUNWmsgzh... not present.
  Checking pkg SUNWmsgtw... not present.
  MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
  Checking pkg SUNWmsg-l10n... not present.
  MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
  Checking pkg SUNWmessaging-server-l10n-64... not present.
  MS64_L10N 6.3 is not present.
Checking CS_L10N 6.2 ...
  Checking pkg SUNWdeics... not present.
  Checking pkg SUNWesics... not present.
  Checking pkg SUNWfrics... not present.
  Checking pkg SUNWjaics... not present.
  Checking pkg SUNWkoics... not present.
  Checking pkg SUNWzhics... not present.
  Checking pkg SUNWtwics... not present.
  CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
  Checking pkg SUNWics-l10n... not present.
  CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
  Checking pkg SUNWdiimc... not present.
  Checking pkg SUNWdiimd... not present.
  Checking pkg SUNWdimid... not present.
  Checking pkg SUNWeiimc... not present.
  Checking pkg SUNWeiimd... not present.
  Checking pkg SUNWeiimin... not present.
  Checking pkg SUNWeimid... not present.
  Checking pkg SUNWfiimc... not present.
  Checking pkg SUNWfiimd... not present.
  Checking pkg SUNWfiimin... not present.
  Checking pkg SUNWfimid... not present.
  Checking pkg SUNWjiimc... not present.
  Checking pkg SUNWjiimd... not present.
  Checking pkg SUNWjiimin... not present.
  Checking pkg SUNWjimid... not present.
```

```
  Checking pkg SUNWkiimc... not present.
  Checking pkg SUNWkiimd... not present.
  Checking pkg SUNWkiimin... not present.
  Checking pkg SUNWkimid... not present.
  Checking pkg SUNWciimc... not present.
  Checking pkg SUNWciimd... not present.
  Checking pkg SUNWciimin... not present.
  Checking pkg SUNWcimid... not present.
  Checking pkg SUNWhiimc... not present.
  Checking pkg SUNWhiimd... not present.
  Checking pkg SUNWhiimin... not present.
  Checking pkg SUNWhimid... not present.
  IM_L10N 7.0 is not present.
Checking IM_L10N 7.2 ...
  Checking pkg SUNWiimc-l10n... not present.
  Checking pkg SUNWiimd-l10n... not present.
  Checking pkg SUNWiimid-l10n... not present.
  Checking pkg SUNWiimin-l10n... not present.
  IM_L10N 7.2 is not present.
Checking CE 6.3 ...
  Checking pkg SUNWuwc... not present.
  CE 6.3 is not present.
Checking CE_L10N 6.2 ...
  Checking pkg SUNWduwc... not present.
  Checking pkg SUNWeuwc... not present.
  Checking pkg SUNWfuwc... not present.
  Checking pkg SUNWjuwc... not present.
  Checking pkg SUNWkuwc... not present.
  Checking pkg SUNWcuwc... not present.
  Checking pkg SUNWhuwc... not present.
  CE_L10N 6.2 is not present.
Checking CE_L10N 6.3 ...
  Checking pkg SUNWuwc-l10n... not present.
  CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119963-19 /tmp/.patchout_20100804221934.17184
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20100804221934.17184
patchadd  -p > /tmp/.patchout_20100804221934.17184 2>>
/tmp/CommsInstaller_20100804221934.log
-- Exit status: 0
--  older version at lineno 464 found 119963-10 - not acceptable
--  Final return status: 0
  LIBCPLUSPLUS patch 119963-19 is not present.
-- chk4patch 120900-04 /tmp/.patchout_20100804221934.17184
--  Exact match found at line 48
--  Final return status: 1
  PATCHUTILS patch 120900-04 is already present.
-- chk4patch 121133-02 /tmp/.patchout_20100804221934.17184
--  Exact match found at line 30
--  Final return status: 1
  PATCHUTILS patch 121133-02 is already present.
-- chk4patch 119254-71 /tmp/.patchout_20100804221934.17184
--  older version at lineno 29 found 119254-59 - not acceptable
--  Final return status: 0
  PATCHUTILS patch 119254-71 is not present.
```

```
-- chk4patch 126868-03 /tmp/.patchout_20100804221934.17184
--  older version at lineno 445 found 126868-01 - not acceptable
--  Final return status: 0
  BZIP patch 126868-03 is not present.
-- chk4patch 137321-01 /tmp/.patchout_20100804221934.17184
--  Exact match found at line 446
--  Final return status: 1
  BZIP patch 137321-01 is already present.
-- chk4patch 119254-73 /tmp/.patchout_20100804221934.17184
--  older version at lineno 29 found 119254-59 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 119254-73 is not present.
-- chk4patch 118833-36 /tmp/.patchout_20100804221934.17184
--  Exact match found at line 33
--  Final return status: 1
  RECOMMENDED patch 118833-36 is already present.
-- chk4patch 120011-14 /tmp/.patchout_20100804221934.17184
--  Exact match found at line 46
--  Final return status: 1
  RECOMMENDED patch 120011-14 is already present.
-- chk4patch 120272-28 /tmp/.patchout_20100804221934.17184
--  older version at lineno 20 found 120272-21 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 120272-28 is not present.
-- chk4patch 137137-09 /tmp/.patchout_20100804221934.17184
--  Exact match found at line 56
--  Final return status: 1
  RECOMMENDED patch 137137-09 is already present.
-- chk4patch 141444-09 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  RECOMMENDED patch 141444-09 is not present.
-- chk4patch 142900-13 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  RECOMMENDED patch 142900-13 is not present.
-- chk4patch 125358-11 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  NSS patch 125358-11 is not present.
-- chk4patch 119345-07 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  SASL patch 119345-07 is not present.
-- chk4patch 136798-02 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  LDAPCSDK6_TOOLS patch 136798-02 is not present.
-- chk4patch 119810-05 /tmp/.patchout_20100804221934.17184
--  Exact match found at line 351
--  Final return status: 1
  ICU patch 119810-05 is already present.
-- chk4patch 125136-22 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  JDK patch 125136-22 is not present.
-- chk4patch 125137-22 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  JDK patch 125137-22 is not present.
-- chk4patch 119725-06 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  LDAPJDK patch 119725-06 is not present.
```

```
-- chk4patch 137204-18 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  MS64 patch 137204-18 is not present.
-- chk4patch 118242-03 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  DSSETUP patch 118242-03 is not present.
-- chk4patch 118245-22 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  DSSETUP patch 118245-22 is not present.
-- chk4patch 142785-01 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  DAV patch 142785-01 is not present.
-- chk4patch 139893-03 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  IM patch 139893-03 is not present.
-- chk4patch 142824-04 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  JISS patch 142824-04 is not present.
-- chk4patch 124581-03 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  DA patch 124581-03 is not present.
-- chk4patch 137571-01 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  IM_SCHA patch 137571-01 is not present.
-- chk4patch 121657-44 /tmp/.patchout_20100804221934.17184
--  Final return status: 0
  CS patch 121657-44 is not present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'NOT_PRESENT',
          '119254-73' => 'NOT_PRESENT',
          '137571-01' => 'NOT_PRESENT',
          'DSSETUP' => {
                         '6.4' => 'NOT_PRESENT'
                       },
          'MQ_L10N' => {
                         '3.7' => 'NOT_PRESENT',
                         '4.1' => 'NOT_PRESENT',
                         '4.4' => 'NOT_PRESENT'
                       },
          'ICU' => {
                     'ICU2,ICU3' => 'PRESENT'
                   },
          'MS64' => {
                      '7.4_32' => 'NOT_PRESENT',
                      '7.3_32' => 'NOT_PRESENT',
                      '7.2_32' => 'NOT_PRESENT',
                      '6.3_32' => 'NOT_PRESENT',
                      '7.4' => 'NOT_PRESENT'
                    },
          'DAV' => {
                     '7.1' => 'NOT_PRESENT'
                   },
          'CE' => {
```

```
          '6.3' => 'NOT_PRESENT'
        },
'MYSQL' => {
             '5.1.36' => 'NOT_PRESENT'
           },
'PATCHUTILS' => {
                  'Unknown' => 'PRESENT'
                },
'MQ' => {
          '3.7' => 'PARTIAL',
          '4.1' => 'DIFF_VERSION',
          '4.4' => 'DIFF_VERSION'
        },
'IMAPI' => {
             '8.0' => 'NOT_PRESENT',
             '7.0' => 'NOT_PRESENT',
             '7.3' => 'NOT_PRESENT'
           },
'LDAPCSDK6_TOOLS' => {
                       '6.0' => 'NOT_PRESENT'
                     },
'JISS' => {
            '0.9' => 'NOT_PRESENT',
            '1.1' => 'NOT_PRESENT'
          },
'ST' => {
          '1.1.4' => 'DIFF_VERSION'
        },
'118833-36' => 'PRESENT',
'IM_L10N' => {
               '7.2' => 'NOT_PRESENT',
               '7.0' => 'NOT_PRESENT'
             },
'LDAPJDK' => {
               '4.19' => 'NOT_PRESENT'
             },
'142785-01' => 'NOT_PRESENT',
'125358-11' => 'NOT_PRESENT',
'BZIP' => {
            '11.10' => 'PRESENT'
          },
'126868-03' => 'NOT_PRESENT',
'141444-09' => 'NOT_PRESENT',
'IM_SCHA' => {
               '7.0' => 'NOT_PRESENT',
               '7.3' => 'NOT_PRESENT'
             },
'MS_SCHA' => {
               '6.0' => 'NOT_PRESENT',
               '7.0' => 'NOT_PRESENT'
             },
'JHRT' => {
            '2.0' => 'PRESENT'
          },
'CE_L10N' => {
               '6.2' => 'NOT_PRESENT',
```

```
                '6.3' => 'NOT_PRESENT'
              },
'119810-05' => 'PRESENT',
'119963-19' => 'NOT_PRESENT',
'SASL' => {
            '2.19' => 'NOT_PRESENT'
          },
'IWC' => {
           '2.0' => 'NOT_PRESENT'
         },
'MS64_L10N' => {
                '6.3' => 'NOT_PRESENT'
              },
'MS' => {
          '7.3_32' => 'NOT_PRESENT',
          '7.2_32' => 'NOT_PRESENT',
          '6.3_32' => 'NOT_PRESENT',
          '7.4' => 'NOT_PRESENT'
        },
'139893-03' => 'NOT_PRESENT',
'142824-04' => 'NOT_PRESENT',
'119345-07' => 'NOT_PRESENT',
'120900-04' => 'PRESENT',
'118245-22' => 'NOT_PRESENT',
'136798-02' => 'NOT_PRESENT',
'120011-14' => 'PRESENT',
'120272-28' => 'NOT_PRESENT',
'LDAPCSDK6' => {
                '6.0' => 'NOT_PRESENT'
              },
'124581-03' => 'NOT_PRESENT',
'137137-09' => 'PRESENT',
'JDK' => {
           '1.6.0' => 'NOT_PRESENT',
           '1.5.0' => 'PRESENT'
         },
'121657-44' => 'NOT_PRESENT',
'CI' => {
          '7.1' => 'NOT_PRESENT'
        },
'137321-01' => 'PRESENT',
'NSS' => {
           '4.8.4' => 'DIFF_VERSION'
         },
'CS_L10N' => {
                '6.2' => 'NOT_PRESENT',
                '6.3' => 'NOT_PRESENT'
              },
'IM' => {
          '8.3' => 'NOT_PRESENT',
          '7.0' => 'NOT_PRESENT',
          '7.3' => 'NOT_PRESENT'
        },
'RECOMMENDED' => {
                   '2010.06.25' => 'NOT_PRESENT'
                 },
```

```
          '119254-71' => 'NOT_PRESENT',
          'CS_SCHA' => {
                         '6.0' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'MYSQL_MARKER' => {
                              '1.0' => 'NOT_PRESENT'
                            },
          '137204-18' => 'NOT_PRESENT',
          '142900-13' => 'NOT_PRESENT',
          'MS_L10N' => {
                         '6.2' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'LIBCPLUSPLUS' => {
                              '5.9' => 'PRESENT'
                            },
          '121133-02' => 'PRESENT',
          '118242-03' => 'NOT_PRESENT',
          '125136-22' => 'NOT_PRESENT',
          'CS' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          '125137-22' => 'NOT_PRESENT',
          'DA' => {
                    '6.4' => 'NOT_PRESENT',
                    '7.0' => 'NOT_PRESENT'
                  }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {},
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                 '1.0,REV=2007.05.21.20.36' => [

'SUNWservicetagu',
                                                                  '/',

'5.10/SunOS Development'
                                                                ]
                                },
          'SUNWjimid' => {},
          'SUNWdiquc' => {},
          'SUNWmsgko' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWics5' => {},
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {},
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {
                           '2.0,REV=2006.10.04' => [
                                                      'SUNWjhdem',
                                                      '/usr',
```

```
                                                        '2.0/FCS'
                                                      ]
                          },
          'SUNWiqfs' => {
                           '3.7,REV=2006.06.18.22.35' => [
                                                            'SUNWiqfs',
                                                            '/',
                                                            '3.7.0.1'
                                                          ]
                         },
          'SUNWfimid' => {},
          'SUNWcomds' => {},
          'SUNWj6rtx' => {},
          'SUNWjhdev' => {
                            '2.0,REV=2006.10.04' => [
                                                        'SUNWjhdev',
                                                        '/usr',
                                                        '2.0/FCS'
                                                      ]
                          },
          'SUNWiqum' => {
                           '3.7,REV=2006.06.18.22.35' => [
                                                            'SUNWiqum',
                                                            '/',
                                                            '3.7.0.1'
                                                          ]
                         },
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {},
          'SUNWj5rt' => {
                           '1.5.0,REV=2004.12.07.00.07' => [
                                                              'SUNWj5rt',
                                                              '/usr',

'1.5.0_16/1.5.0_16-b02'
                                                            ]
                         },
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {},
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {},
          'SUNWiimgw' => {},
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {},
          'SUNWzhics' => {},
          'SUNWkiimd' => {},
          'SUNWmsgmp' => {},
          'SUNWuwc' => {},
          'SUNWscics' => {},
```

```
          'SUNWiimc' => {},
          'SUNWhiimd' => {},
          'SUNWmessaging-server-scha' => {},
          'SUNWmsglb' => {},
          'SUNWtls' => {
                        '3.9.5,REV=2005.01.14.17.27' => [
                                                           'SUNWtls',
                                                           '/',
                                                           '3.11.9'
                                                         ]
                      },
          'SUNWj6dvx' => {},
          'SUNWfuwc' => {},
          'SUNWlibC' => {
                         '5.10,REV=2004.12.22' => [
                                                     'SUNWlibC',
                                                     '/',
                                                     '5.10'
                                                   ]
                       },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {},
          'SUNWscims' => {},
          'SUNWiimjd' => {},
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {},
          'SUNWiqlen' => {},
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {
                        '3.7,REV=2006.06.18.22.34' => [
                                                         'SUNWiqr',
                                                         '/',
                                                         '3.7.0.1'
                                                       ]
                      },
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWeiquc' => {},
          'SUNWmessaging-server-64' => {},
          'SUNWj5cfg' => {
                          '1.5.0,REV=2004.12.07.00.07' => [

'SUNWj5cfg',
                                                             '/',

'1.5.0_16/1.5.0_16-b02'
                                                           ]
                        },
          'SUNWhiqu' => {},
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {},
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {
                          '1.5.0,REV=2004.12.06.22.09' => [
```

```
'SUNWj5rtx',
                                                                '/usr',

'1.5.0_16/1.5.0_16-b02'
                                                              ]
                          },
          'SUNWiquc' => {
                           '3.7,REV=2006.06.18.22.35' => [
                                                            'SUNWiquc',
                                                            '/',
                                                            '3.7.0.1'
                                                          ]
                         },
          'SUNWiimid' => {},
          'SUNWmsgmt' => {},
          'SUNWljdk' => {},
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {},
          'SUNWservicetagr' => {
                                  '1.0,REV=2007.05.21.20.36' => [

'SUNWservicetagr',
                                                                     '/',

'5.10/SunOS Development'
                                                                   ]
                                 },
          'SUNWciimc' => {},
          'SUNWjhrt' => {
                           '2.0,REV=2006.10.31' => [
                                                      'SUNWjhrt',
                                                      '/usr',
                                                      '2.0/FCS'
                                                    ]
                         },
          'SUNWtlsd' => {
                           '3.9.5,REV=2005.01.14.17.27' => [
                                                              'SUNWtlsd',
                                                              '/',
                                                              '3.11.9'
                                                            ]
                         },
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                           '11.10.0,REV=2005.01.21.15.53' => [

'SUNWdtrc',
                                                                '/',

'5.10/Generic Patch'
                                                              ]
                         },
          'SUNWhuwc' => {},
          'mysql' => {},
          'SUNWiqdoc' => {
                            '3.7,REV=2006.06.18.22.35' => [
```

```
                                                          'SUNWiqdoc',
                                                          '/',
                                                          '3.7.0.1'
                                                        ]
                        },
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {},
          'SUNWiqcrt' => {},
          'SUNWmsgzh' => {},
          'SUNWprd' => {
                        '4.5.1,REV=2004.11.05.02.30' => [
                                                          'SUNWprd',
                                                          '/',
                                                          '4.7'
                                                        ]
                      },
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {},
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {},
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {},
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.23.05' => [

'SUNWinstall-patch-utils-root',

'/',

'SNAG Development'

]
                                              },
          'SUNWiimin' => {},
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {
                        '3.7,REV=2006.06.18.22.34' => [
                                                          'SUNWiqu',
                                                          '/',
                                                          '3.7.0.1'
                                                        ]
                      },
          'SUNWkiimc' => {},
          'SUNWiim' => {},
          'SUNWeiimin' => {},
          'SUNWcimid' => {},
          'SUNWiqcdv' => {},
          'SUNWldapcsdk-tools' => {},
          'SUNWjss' => {
                        '4.0,REV=2004.11.05.02.31' => [
                                                          'SUNWjss',
```

```
                                                                '/',
                                                                '4.2.6'
                                                              ]
                          },
          'SUNWdiqu' => {},
          'SUNWjiss' => {},
          'SUNWj6cfg' => {},
          'SUNWhimid' => {},
          'SUNWciquc' => {},
          'SUNWcomms' => {},
          'SUNWjiqu' => {},
          'SUNWkiqu' => {},
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {},
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {},
          'SUNWmsgtw' => {},
          'SUNWeiimc' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                              '11.11,REV=2005.01.09.23.05' => [

'SUNWpkgcmdsu',
                                                                    '/',
                                                                    'SNAG
Development'
                                                                  ]
                            },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {
                            '3.7,REV=2006.06.18.22.35' => [
                                                                  'SUNWiqjx',
                                                                  '/',
                                                                  '3.7.0.1'
                                                                ]
                          },
          'SUNWjhdoc' => {
                            '2.0,REV=2006.10.04' => [
                                                          'SUNWjhdoc',
                                                          '/usr',
                                                          '2.0/FCS'
                                                        ]
                          },
          'SUNWj6dev' => {},
          'SUNWmsges' => {},
          'SUNWpr' => {
                          '4.5.1,REV=2004.11.05.02.30' => [
                                                                  'SUNWpr',
                                                                  '/',
                                                                  '4.7'
                                                                ]
                        },
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
```

```
          'SUNWicu' => {
                         '1.2,REV=2005.01.06.14.13' => [
                                                          'SUNWicu',
                                                          '/usr',
                                                          '10/Generic'
                                                        ]
                       },
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                          '11.10,REV=2005.01.10.17.19' => [
                                                             'SUNWswmt',
                                                             '/',
                                                             'SNAG
Development'
                                                            ]
                        },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {},
          'SUNWstosreg' => {
                             '1.0,REV=2007.05.21.20.36' => [

'SUNWstosreg',
                                                              '/',
                                                              '5.10/SunOS
Development'
                                                             ]
                            },
          'SUNWmsgde' => {},
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                          '11.10.0,REV=2005.01.08.05.16' => [

'SUNWbzip',
                                                               '/',

'5.10/SunOS Development'
                                                             ]
                        },
          'SUNWtlsu' => {
                          '3.9.5,REV=2005.01.14.17.27' => [
                                                             'SUNWtlsu',
                                                             '/',
                                                             '3.11.9'
                                                            ]
                        },
          'SUNWfiqu' => {},
          'SUNWsasl' => {},
```

```
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                          '11.10.0,REV=2005.01.21.15.53' => [

'SUNWzoneu',
                                                                '/',

'5.10/Generic Patch'
                                                              ]
                        },
          'SUNWcsr' => {
                        '11.10.0,REV=2005.01.21.15.53' => [
                                                              'SUNWcsr',
                                                              '/',

'5.10/Generic Patch'
                                                            ]
                      },
          'SUNWesics' => {},
          'SUNWiimm' => {}
        };
!!! installedprod
$VAR1 = {
          'ST' => {
                    '1.0,REV=2007.05.21.20.36' => [
                                                     '/',
                                                     '5.10/SunOS
Development',
                                                     'none',

'1.0,REV=2007.05.21.20.36',
                                                     'none',
                                                     'none',
                                                     'none'
                                                   ]
                  },
          'LIBCPLUSPLUS' => {
                              '5.9' => [
                                         '/',
                                         '5.10',
                                         'none',
                                         '5.9',
                                         'none',
                                         'none',
                                         'none'
                                       ]
                            },
          'JDK' => {
                     '1.5.0' => [
                                 '/usr',
                                 '1.5.0_16/1.5.0_16-b02',
                                 'none',
                                 '1.5.0',
                                 'none',
                                 'none',
                                 'none'
```

```
                        ]
                },
        'MQ' => {
                  '3.7' => [
                              '/',
                              '3.7.0.1',
                              'none',
                              '3.7',
                              'none',
                              'none',
                              'none'
                            ]
                },
        'PATCHUTILS' => {
                           'Unknown' => [
                                          '/',
                                          'SNAG Development',
                                          'none',
                                          'Unknown',
                                          'none',
                                          'none',
                                          'none'
                                        ]
                         },
        'JHRT' => {
                    '2.0' => [
                               '/usr',
                               '2.0/FCS',
                               'none',
                               '2.0',
                               'none',
                               'none',
                               'none'
                             ]
                  },
        'BZIP' => {
                    '11.10' => [
                                 '/',
                                 '5.10/SunOS Development',
                                 'none',
                                 '11.10',
                                 'none',
                                 'none',
                                 'none'
                               ]
                  },
        'ICU' => {
                   'ICU2,ICU3' => [
                                    '/usr',
                                    '10/Generic',
                                    'none',
                                    'ICU2,ICU3',
                                    'none',
                                    'none',
                                    'none'
                                  ]
```

```
                    },
          'NSS' => {
                      '4.0,REV=2004.11.05.02.31' => [
                                                       '/',
                                                       '4.2.6',
                                                       'none',

'4.0,REV=2004.11.05.02.31',
                                                       'none',
                                                       'none',
                                                       'none'
                                                     ]
                    }
        };
====== End QQQ detectProducts ======
-- Checking for RECOMMENDED patch 119254-73
   patch 119254-73: NOT_PRESENT
-- Checking for RECOMMENDED patch 118833-36
   patch is PRESENT
-- Checking for RECOMMENDED patch 120011-14
   patch is PRESENT
-- Checking for RECOMMENDED patch 120272-28
   patch 120272-28: NOT_PRESENT
-- Checking for RECOMMENDED patch 137137-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 141444-09
   patch 141444-09: NOT_PRESENT
-- Checking for RECOMMENDED patch 142900-13
   patch 142900-13: NOT_PRESENT
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
Do you want to continue ? [yes] :
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
====== QQQ ======
QQQ Dumper
!!! isUpgradable
$VAR1 = {};
!!! usePkgUpgradeFlag
$VAR1 = {};
Product Selection:

Shared Components (not shown) will be installed as required.
  you will be prompted later if Shared Components need to be upgraded.
OS patches (not shown) will be installed as required.

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-18.01)
       2  Comms DSsetup 6.4 (6.4-6.03)
```

```
        3  Calendar Server (CALDAV) 7u1 (7.1-1.11)
        4  Instant Messaging 8u3 (8.3-03.10)
        5  Convergence 2 (2.0-0.06)
        6  Indexing and Search Service 1u1 (1.1-4.4501)
        7  Comms Delegated Administrator 7 (7.0-3.00)
        8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
        9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
       10  Calendar Server 6.3 (6.3-23.01)
       11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)


Enter the items you wish to install. Enter q to quit.
Prefix an item with ~ to indicate you only want
  to install shared component dependencies of that product
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to install [1, 2, 3, 4, 5, 6, 7, 8,
9, 10, 11]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: 0 MS64 0 DSSETUP 0 DAV 0 IM 0 IWC 0 JISS 0 DA 0 MS_SCHA
0 IM_SCHA 0 CS 0 CS_SCHA
Generating list of things to install...
NOTICE: toInstall - MYSQL PATCHUTILS IMAPI LDAPJDK SASL LDAPCSDK6_TOOLS
ICU LIBCPLUSPLUS NSS LDAPCSDK6 ST JDK BZIP JHRT MQ MQ_L10N MS64 DSSETUP
DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA CI
Checking for Shared Component Upgrade Requirements...

Shared component NSS/NSPR/JSS has a different pkg version installed
Description: Network Security Services,Netscape Portable Runtime
  Current pkg Version (SUNWjss): 4.0,REV=2004.11.05.02.31
  To be installed pkg version (SUNWjss): 4.2.4,REV=2006.11.16.20.40
  Product Version: 4.8.4
Note that changing pkg versions is irreversible
On the other hand, if you do not change it,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to change pkg versions for NSS/NSPR/JSS [n] : y

Service Tags has a different pkg version installed
Description: Service Tags
  Current pkg Version (SUNWservicetagr): 1.0,REV=2007.05.21.20.36
  To be installed pkg version (SUNWservicetagr):
1.1.4,REV=2008.03.21.07.54
  Product Version: 1.1.4
Note that changing pkg versions is irreversible

Do you wish to change pkg versions for Service Tags [n] : y

Shared component Message Queue has a different pkg version installed
Description: Message Queue
  Current pkg Version (SUNWiqr): 3.7,REV=2006.06.18.22.34
  To be installed pkg version (SUNWiqr): 4.4,REV=2009.08.27.08.32
  Product Version: 4.4
Note that changing pkg versions is irreversible
```

```
On the other hand, if you do not change it,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to change pkg versions for Message Queue [n] : y
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: MySQL 5.1.36
  Task:
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
WILL INSTALL: patch 119254-71 for PATCHUTILS
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/PATCH
WILL INSTALL: Instant Messaging API 8
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IMAPI
-r /tmp/.response_IMAPI_20100804221934 SUNWiimdv
  WILL INSTALL: LDAPJDK 4.19
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPJ
-r /tmp/.response_LDAPJDK_20100804221934 SUNWljdk
  WILL INSTALL: Simple Authentication and Security Layer 2.19
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/SASL/
-r /tmp/.response_SASL_20100804221934 SUNWsasl
  WILL INSTALL: LDAPCSDK6 Tools 6.0
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_TOOLS_20100804221934 SUNWldapcsdk-tools
  WILL INSTALL: patch 119963-19 for LIBCPLUSPLUS
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LIBCP
NOTICE: NSS/NSPR/JSS will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: NSS/NSPR/JSS 4.0,REV=2004.11.05.02.31 (4.2.6)
-- QQQ30 removeProductPkgs (product=NSS pkg=SUNWtlsu
3.9.5,REV=2005.01.14.17.27 i=10: realpkg=SUNWtlsu base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtlsu
-- QQQ30 removeProductPkgs (product=NSS pkg=SUNWtlsd
3.9.5,REV=2005.01.14.17.27 i=8: realpkg=SUNWtlsd base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtlsd
-- QQQ30 removeProductPkgs (product=NSS pkg=SUNWtls
3.9.5,REV=2005.01.14.17.27 i=6: realpkg=SUNWtls base=/
```

```
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtls
-- QQQ30 removeProductPkgs (product=NSS pkg=SUNWprd
4.5.1,REV=2004.11.05.02.30 i=4: realpkg=SUNWprd base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWprd
-- QQQ30 removeProductPkgs (product=NSS pkg=SUNWpr
4.5.1,REV=2004.11.05.02.30 i=2: realpkg=SUNWpr base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWpr
-- QQQ30 removeProductPkgs (product=NSS pkg=SUNWjss
4.0,REV=2004.11.05.02.31 i=0: realpkg=SUNWjss base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWjss
  WILL INSTALL: NSS/NSPR/JSS 4.8.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWjss
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWpr
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWprd
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtls
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtlsd
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtlsu
  WILL INSTALL: LDAPCSDK6 6.0
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100804221934 SUNWldapcsdk-libs
  Task: pkgadd -a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100804221934 SUNWldapcsdk-dev
  NOTICE: Service Tags will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: Service Tags 1.0,REV=2007.05.21.20.36
(5.10/SunOS Development)
-- QQQ30 removeProductPkgs (product=ST pkg=SUNWstosreg
1.0,REV=2007.05.21.20.36 i=4: realpkg=SUNWstosreg base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWstosreg
-- QQQ30 removeProductPkgs (product=ST pkg=SUNWservicetagu
1.0,REV=2007.05.21.20.36 i=2: realpkg=SUNWservicetagu base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWservicetagu
-- QQQ30 removeProductPkgs (product=ST pkg=SUNWservicetagr
1.0,REV=2007.05.21.20.36 i=0: realpkg=SUNWservicetagr base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWservicetagr
  WILL INSTALL: Service Tags 1.1.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWservicetagr
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWservicetagu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWstosreg
  WILL INSTALL: JDK 1.6.0
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6rt
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6rtx
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6dev
  Task: pkgadd -a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6dvx
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6cfg
  WILL INSTALL: patch 126868-03 for BZIP OS Component
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/BZIP/
NOTICE: Message Queue will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: Message Queue 3.7 (3.7.0.1)
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqfs
3.7,REV=2006.06.18.22.35 i=14: realpkg=SUNWiqfs base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqfs
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqjx
3.7,REV=2006.06.18.22.35 i=12: realpkg=SUNWiqjx base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqjx
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqum
3.7,REV=2006.06.18.22.35 i=10: realpkg=SUNWiqum base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqum
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiquc
3.7,REV=2006.06.18.22.35 i=8: realpkg=SUNWiquc base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiquc
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqdoc
3.7,REV=2006.06.18.22.35 i=6: realpkg=SUNWiqdoc base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqdoc
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqu
3.7,REV=2006.06.18.22.34 i=2: realpkg=SUNWiqu base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqu
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqr
3.7,REV=2006.06.18.22.34 i=0: realpkg=SUNWiqr base=/
  WILL INSTALL: Message Queue 4.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqr
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqdoc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqum
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqjx
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqfs
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqcrt
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqcdv
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqlen
  WILL INSTALL: Message Queue Localization 4.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWfiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWfiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWdiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWdiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWjiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWjiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWeiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWeiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWkiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWkiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWciqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWciquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWhiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
```

```
-r /tmp/.response_MQ_L10N_20100804221934 SUNWhiquc
  WILL INSTALL: Messaging Server (64bit) 7u4 (7.4-18.01)
                to /opt/sun/comms/messaging64
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
-r /tmp/.response_MS64_20100804221934 SUNWmessaging-server-64
  WILL INSTALL: Comms DSsetup 6.4 (6.4-6.03)
                to /opt/sun/comms/dssetup
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
-r /tmp/.response_DSSETUP_20100804221934 SUNWcomds
  WILL INSTALL: Calendar Server (CALDAV) 7u1 (7.1-1.11)
                to /opt/sun/comms/davserver
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/P
-r /tmp/.response_DAV_20100804221934 SUNWdavserver
  WILL INSTALL: Instant Messaging 8u3 (8.3-03.10)
                to /opt/sun/comms/im
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiim
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimin
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimm
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimjd
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimid
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimc
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
```

```
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimd
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimgw
  WILL INSTALL: Convergence 2 (2.0-0.06)
                to /opt/sun/comms/iwc
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/P
-r /tmp/.response_IWC_20100804221934 SUNWiwc
  WILL INSTALL: Indexing and Search Service 1u1 (1.1-4.4501)
                to /opt/sun/comms/jiss
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS/
-r /tmp/.response_JISS_20100804221934 SUNWjiss
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-3.00)
                to /opt/sun/comms/da
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/Pa
-r /tmp/.response_DA_20100804221934 SUNWcommda
  WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                to /opt/sun/comms/msg_scha
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_SC
-r /tmp/.response_MS_SCHA_20100804221934 SUNWmessaging-server-scha
  WILL INSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                to /opt/sun/comms/im_scha
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_SC
-r /tmp/.response_IM_SCHA_20100804221934 SUNWiimsc
  WILL INSTALL: Calendar Server 6.3 (6.3-23.01)
                to /opt/sun/comms/calendar
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100804221934 SUNWics5
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100804221934 SUNWica5
  WILL INSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
```

```
                to /opt/sun/comms/cs_scha
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_SC
-r /tmp/.response_CS_SCHA_20100804221934 SUNWscics
  WILL INSTALL: CommsInstaller 7u1 (7.1-0.06)
                to /opt/sun/comms/CommsInstaller
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
-r /tmp/.response_CI_20100804221934 SUNWcomms
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to install

Do you want to continue ? [yes] :

============================================================
Installing MySQL 5.1.36...
------ Executing Task 1 of 83 ...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
2>&1
-- LOGFILE: /tmp/ci-mysql-installer_20100804222019.log
-- Adding User mysql
-- Adding Group mysql
pkgadd -n -r /dev/null -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.
InnoDB: The first specified data file ./ibdata1 did not exist:
InnoDB: a new database to be created!
100804 22:23:30  InnoDB: Setting file ./ibdata1 size to 10 MB
InnoDB: Database physically writes the file full: wait...
100804 22:23:31  InnoDB: Log file ./ib_logfile0 did not exist: new to be
created
InnoDB: Setting log file ./ib_logfile0 size to 5 MB
InnoDB: Database physically writes the file full: wait...
100804 22:23:31  InnoDB: Log file ./ib_logfile1 did not exist: new to be
created
InnoDB: Setting log file ./ib_logfile1 size to 5 MB
InnoDB: Database physically writes the file full: wait...
InnoDB: Doublewrite buffer not found: creating new
InnoDB: Doublewrite buffer created
InnoDB: Creating foreign key constraint system tables
InnoDB: Foreign key constraint system tables created
100804 22:23:32  InnoDB: Started; log sequence number 0 0
100804 22:23:32  InnoDB: Starting shutdown...
```

```
100804 22:23:33  InnoDB: Shutdown completed; log sequence number 0 46409
100804 22:23:33 [Warning] Forcing shutdown of 1 plugins
100804 22:23:33  InnoDB: Started; log sequence number 0 46409
100804 22:23:35  InnoDB: Starting shutdown...
100804 22:23:36  InnoDB: Shutdown completed; log sequence number 0 46409
100804 22:23:36 [Warning] Forcing shutdown of 1 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h darkpaladin password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
-- Exit status: 0
--
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
LOGFILE: /tmp/ci-mysql-installer_20100804222019.log
-- Adding User mysql
-- Adding Group mysql
pkgadd -n -r /dev/null -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.
```

```
InnoDB: The first specified data file ./ibdata1 did not exist:
InnoDB: a new database to be created!
100804 22:23:30  InnoDB: Setting file ./ibdata1 size to 10 MB
InnoDB: Database physically writes the file full: wait...
100804 22:23:31  InnoDB: Log file ./ib_logfile0 did not exist: new to be
created
InnoDB: Setting log file ./ib_logfile0 size to 5 MB
InnoDB: Database physically writes the file full: wait...
100804 22:23:31  InnoDB: Log file ./ib_logfile1 did not exist: new to be
created
InnoDB: Setting log file ./ib_logfile1 size to 5 MB
InnoDB: Database physically writes the file full: wait...
InnoDB: Doublewrite buffer not found: creating new
InnoDB: Doublewrite buffer created
InnoDB: Creating foreign key constraint system tables
InnoDB: Foreign key constraint system tables created
100804 22:23:32  InnoDB: Started; log sequence number 0 0
100804 22:23:32  InnoDB: Starting shutdown...
100804 22:23:33  InnoDB: Shutdown completed; log sequence number 0 46409
100804 22:23:33 [Warning] Forcing shutdown of 1 plugins
100804 22:23:33  InnoDB: Started; log sequence number 0 46409
100804 22:23:35  InnoDB: Starting shutdown...
100804 22:23:36  InnoDB: Shutdown completed; log sequence number 0 46409
100804 22:23:36 [Warning] Forcing shutdown of 1 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h darkpaladin password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
```

```
==========================================================
Installing patch 119254-71 for PATCHUTILS...
------ Executing Task 2 of 83 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/PATCH
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

119254-71


Checking installed patches...
Executing prepatch script...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
/var/sadm/pkg

Patch 119254-71 has been successfully installed.
See /var/sadm/patch/119254-71/log for details
Executing postpatch script...

Patch packages installed:
  SUNWinstall-patch-utils-root
  SUNWpkgcmdsr
  SUNWpkgcmdsu
  SUNWswmt

-- Exit status: 0

==========================================================
Installing Instant Messaging API 8...
------ Executing Task 3 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IMAPI
-r /tmp/.response_IMAPI_20100804221934 SUNWiimdv 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.
```

```
Installation of <SUNWiimdv> was successful.
-- Exit status: 0

============================================================
Installing LDAPJDK 4.19...
------ Executing Task 4 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPJ
-r /tmp/.response_LDAPJDK_20100804221934 SUNWljdk 2>&1

Installation of <SUNWljdk> was successful.
-- Exit status: 0

============================================================
Installing Simple Authentication and Security Layer 2.19...
------ Executing Task 5 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/SASL/
-r /tmp/.response_SASL_20100804221934 SUNWsasl 2>&1
Copyright 2002 Sun Microsystems, Inc. All rights reserved.

Installation of <SUNWsasl> was successful.
-- Exit status: 0

============================================================
Installing LDAPCSDK6 Tools 6.0...
------ Executing Task 6 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_TOOLS_20100804221934 SUNWldapcsdk-tools 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.  Use is
subject to license terms.

Installation of <SUNWldapcsdk-tools> was successful.
-- Exit status: 0

============================================================
Installing patch 119963-19 for LIBCPLUSPLUS...
------ Executing Task 7 of 83 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LIBCP
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.
```

```
Done!

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

119963-19


Checking installed patches...
Installing patch packages...
/var/sadm/pkg

Patch 119963-19 has been successfully installed.
See /var/sadm/patch/119963-19/log for details

Patch packages installed:
  SUNWlibC

-- Exit status: 0

============================================================
Removing existing NSS/NSPR/JSS 4.0,REV=2004.11.05.02.31 (4.2.6)...
------ Executing Task 8 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtlsu 2>&1

Removal of <SUNWtlsu> was successful.
-- Exit status: 0
------ Executing Task 9 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtlsd 2>&1

Removal of <SUNWtlsd> was successful.
-- Exit status: 0
------ Executing Task 10 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtls 2>&1

Removal of <SUNWtls> was successful.
-- Exit status: 0
------ Executing Task 11 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWprd 2>&1

Removal of <SUNWprd> was successful.
-- Exit status: 0
------ Executing Task 12 of 83 ...
pkgrm -n -a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWpr 2>&1

Removal of <SUNWpr> was successful.
-- Exit status: 0
------ Executing Task 13 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWjss 2>&1

Removal of <SUNWjss> was successful.
-- Exit status: 0

============================================================
Installing NSS/NSPR/JSS 4.8.4...
------ Executing Task 14 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWjss 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
```

```
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWjss> was successful.
-- Exit status: 0
------ Executing Task 15 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWpr 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
```

```
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWpr> was successful.
-- Exit status: 0
------ Executing Task 16 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWprd 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
```

```
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWprd> was successful.
-- Exit status: 0
------ Executing Task 17 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtls 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
```

```
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWtls> was successful.
-- Exit status: 0
------ Executing Task 18 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtlsd 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
```

```
the terms of any one of the MPL, the GPL or the LGPL.


Installation of <SUNWtlsd> was successful.
-- Exit status: 0
------ Executing Task 19 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtlsu 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Version: MPL 1.1/GPL 2.0/LGPL 2.1

The contents of this package are subject to the Mozilla Public License
Version
1.1 (the "License"); you may not use this package except in compliance
with
the License. You may obtain a copy of the License at
http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS"
basis,
WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License
for the specific language governing rights and limitations under the
License.

The Original Code is the Netscape Portable Runtime (NSPR).

The Initial Developer of the Original Code is
Netscape Communications Corporation.
Portions created by the Initial Developer are Copyright (C) 1998-2000
the Initial Developer. All Rights Reserved.

Contributor(s):

Alternatively, the contents of this file may be used under the terms of
either the GNU General Public License Version 2 or later (the "GPL"), or
the GNU Lesser General Public License Version 2.1 or later (the "LGPL"),
in which case the provisions of the GPL or the LGPL are applicable
instead
of those above. If you wish to allow use of your version of this file
only
under the terms of either the GPL or the LGPL, and not to allow others
to
use your version of this file under the terms of the MPL, indicate your
decision by deleting the provisions above and replace them with the
notice
and other provisions required by the GPL or the LGPL. If you do not
delete
the provisions above, a recipient may use your version of this file
under
the terms of any one of the MPL, the GPL or the LGPL.
```

```
Installation of <SUNWtlsu> was successful.
-- Exit status: 0

============================================================
Installing LDAPCSDK6 6.0...
------ Executing Task 20 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100804221934 SUNWldapcsdk-libs 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.  Use is
subject to license terms.

Installation of <SUNWldapcsdk-libs> was successful.
-- Exit status: 0
------ Executing Task 21 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100804221934 SUNWldapcsdk-dev 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.  Use is
subject to license terms.

Installation of <SUNWldapcsdk-dev> was successful.
-- Exit status: 0

============================================================
Removing existing Service Tags 1.0,REV=2007.05.21.20.36 (5.10/SunOS
Development)...
------ Executing Task 22 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWstosreg 2>&1

Removal of <SUNWstosreg> was successful.
-- Exit status: 0
------ Executing Task 23 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWservicetagu 2>&1

Removal of <SUNWservicetagu> was successful.
-- Exit status: 0
------ Executing Task 24 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWservicetagr 2>&1

Removal of <SUNWservicetagr> was successful.
-- Exit status: 0

============================================================
Installing Service Tags 1.1.4...
```

```
------ Executing Task 25 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWservicetagr 2>&1
Copyright 2008 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWservicetagr> was successful.
-- Exit status: 0
------ Executing Task 26 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWservicetagu 2>&1
Copyright 2008 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWservicetagu> was successful.
-- Exit status: 0
------ Executing Task 27 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWstosreg 2>&1
Copyright 2008 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWstosreg> was successful.
-- Exit status: 0

============================================================
Installing JDK 1.6.0...
------ Executing Task 28 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6rt 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6rt> was successful.
-- Exit status: 0
------ Executing Task 29 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6rtx 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
```

```
Installation of <SUNWj6rtx> was successful.
-- Exit status: 0
------ Executing Task 30 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6dev 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6dev> was successful.
-- Exit status: 0
------ Executing Task 31 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6dvx 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6dvx> was successful.
-- Exit status: 0
------ Executing Task 32 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6cfg 2>&1
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6cfg> was successful.
-- Exit status: 0

============================================================
Installing patch 126868-03 for BZIP OS Component...
------ Executing Task 33 of 83 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/BZIP/
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

The following requested patches have packages not installed on the
system
Package SUNWbzipS from directory SUNWbzipS in patch 126868-03 is not
installed on the system. Changes for package SUNWbzipS will not be
```

```
applied to the system.

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

126868-03


Checking installed patches...
Installing patch packages...
/var/sadm/pkg

Patch 126868-03 has been successfully installed.
See /var/sadm/patch/126868-03/log for details

Patch packages installed:
  SUNWbzip
  SUNWsfman

-- Exit status: 0

============================================================
Removing existing Message Queue 3.7 (3.7.0.1)...
------ Executing Task 34 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqfs 2>&1

Removal of <SUNWiqfs> was successful.
-- Exit status: 0
------ Executing Task 35 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqjx 2>&1

Removal of <SUNWiqjx> was successful.
-- Exit status: 0
------ Executing Task 36 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqum 2>&1

Removal of <SUNWiqum> was successful.
-- Exit status: 0
------ Executing Task 37 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiquc 2>&1

Removal of <SUNWiquc> was successful.
-- Exit status: 0
------ Executing Task 38 of 83 ...
```

```
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqdoc 2>&1

Removal of <SUNWiqdoc> was successful.
-- Exit status: 0
------ Executing Task 39 of 83 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqu 2>&1

Removal of <SUNWiqu> was successful.
-- Exit status: 0

============================================================
Installing Message Queue 4.4...
------ Executing Task 40 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqr 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqr> was successful.
-- Exit status: 0
------ Executing Task 41 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqu> was successful.
-- Exit status: 0
------ Executing Task 42 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqdoc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqdoc> was successful.
-- Exit status: 0
------ Executing Task 43 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
```

```
Use is subject to license terms.

Installation of <SUNWiquc> was successful.
-- Exit status: 0
------ Executing Task 44 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqum 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqum> was successful.
-- Exit status: 0
------ Executing Task 45 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqjx 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqjx> was successful.
-- Exit status: 0
------ Executing Task 46 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqfs 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqfs> was successful.
-- Exit status: 0
------ Executing Task 47 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqcrt 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqcrt> was successful.
-- Exit status: 0
------ Executing Task 48 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqcdv 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
```

```
Installation of <SUNWiqcdv> was successful.
-- Exit status: 0
------ Executing Task 49 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqlen 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqlen> was successful.
-- Exit status: 0

============================================================
Installing Message Queue Localization 4.4...
------ Executing Task 50 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWfiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWfiqu> was successful.
-- Exit status: 0
------ Executing Task 51 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWfiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWfiquc> was successful.
-- Exit status: 0
------ Executing Task 52 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWdiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWdiqu> was successful.
-- Exit status: 0
------ Executing Task 53 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWdiquc 2>&1
```

```
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWdiquc> was successful.
-- Exit status: 0
------ Executing Task 54 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWjiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWjiqu> was successful.
-- Exit status: 0
------ Executing Task 55 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWjiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWjiquc> was successful.
-- Exit status: 0
------ Executing Task 56 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWeiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWeiqu> was successful.
-- Exit status: 0
------ Executing Task 57 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWeiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWeiquc> was successful.
-- Exit status: 0
------ Executing Task 58 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWkiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
```

```
Use is subject to license terms.

Installation of <SUNWkiqu> was successful.
-- Exit status: 0
------ Executing Task 59 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWkiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWkiquc> was successful.
-- Exit status: 0
------ Executing Task 60 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWciqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWciqu> was successful.
-- Exit status: 0
------ Executing Task 61 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWciquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWciquc> was successful.
-- Exit status: 0
------ Executing Task 62 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWhiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWhiqu> was successful.
-- Exit status: 0
------ Executing Task 63 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWhiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
```

```
Installation of <SUNWhiquc> was successful.
-- Exit status: 0

============================================================
Installing Messaging Server (64bit) 7u4 (7.4-18.01)...
------ Executing Task 64 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
-r /tmp/.response_MS64_20100804221934 SUNWmessaging-server-64 2>&1
Copyright 2003-2008 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

============================================================
Installing Comms DSsetup 6.4 (6.4-6.03)...
------ Executing Task 65 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
-r /tmp/.response_DSSETUP_20100804221934 SUNWcomds 2>&1
Copyright 2003 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWcomds> was successful.
-- Exit status: 0

============================================================
Installing Calendar Server (CALDAV) 7u1 (7.1-1.11)...
------ Executing Task 66 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/P
-r /tmp/.response_DAV_20100804221934 SUNWdavserver 2>&1
Copyright © 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWdavserver> was successful.
-- Exit status: 0

============================================================
Installing Instant Messaging 8u3 (8.3-03.10)...
------ Executing Task 67 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiim 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.
```

```
Installation of <SUNWiim> was successful.
-- Exit status: 0
------ Executing Task 68 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimin 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimin> was successful.
-- Exit status: 0
------ Executing Task 69 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimm 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimm> was successful.
-- Exit status: 0
------ Executing Task 70 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimjd 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimjd> was successful.
-- Exit status: 0
------ Executing Task 71 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimid 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimid> was successful.
-- Exit status: 0
------ Executing Task 72 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimc 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.
```

```
Installation of <SUNWiimc> was successful.
-- Exit status: 0
------ Executing Task 73 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimd 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimd> was successful.
-- Exit status: 0
------ Executing Task 74 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimgw 2>&1
Copyright ¬© 2008 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWiimgw> was successful.
-- Exit status: 0

============================================================
Installing Convergence 2 (2.0-0.06)...
------ Executing Task 75 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/P
-r /tmp/.response_IWC_20100804221934 SUNWiwc 2>&1
Copyright (c) 2010, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWiwc> was successful.
-- Exit status: 0

============================================================
Installing Indexing and Search Service 1u1 (1.1-4.4501)...
------ Executing Task 76 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS/
-r /tmp/.response_JISS_20100804221934 SUNWjiss 2>&1
Copyright (c) 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWjiss> was successful.
-- Exit status: 0

============================================================
Installing Comms Delegated Administrator 7 (7.0-3.00)...
------ Executing Task 77 of 83 ...
pkgadd -G -a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/Pa
-r /tmp/.response_DA_20100804221934 SUNWcommda 2>&1
Copyright 2003 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWcommda> was successful.
-- Exit status: 0

============================================================
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
------ Executing Task 78 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_SC
-r /tmp/.response_MS_SCHA_20100804221934 SUNWmessaging-server-scha 2>&1
Copyright 2003-2008 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWmessaging-server-scha> was successful.
-- Exit status: 0

============================================================
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
------ Executing Task 79 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_SC
-r /tmp/.response_IM_SCHA_20100804221934 SUNWiimsc 2>&1
Copyright (c) 2006 Sun Microsystems, Inc.  All rights reserved.

Use is subject to license terms.

Installation of <SUNWiimsc> was successful.
-- Exit status: 0

============================================================
Installing Calendar Server 6.3 (6.3-23.01)...
------ Executing Task 80 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100804221934 SUNWics5 2>&1
Copyright 2007 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Checking for existence of
/opt/sun/comms/calendar/SUNWics5/cal/bin/config
/opt/sun/comms/calendar/SUNWics5/cal/bin/config is clean

Checking for existence of /opt/sun/comms/calendar/SUNWics5/cal/config
/opt/sun/comms/calendar/SUNWics5/cal/config is clean
```

```
Checking for existence of /opt/sun/comms/calendar/SUNWics5/cal/bin/html
/opt/sun/comms/calendar/SUNWics5/cal/bin/html is clean

Checking for existence of /opt/sun/comms/calendar/SUNWics5/cal/bin/data
/opt/sun/comms/calendar/SUNWics5/cal/bin/data is clean

Checking for any files in /opt/sun/comms/calendar/SUNWics5/cal/bin/
/opt/sun/comms/calendar/SUNWics5/cal/bin is clean


Installation of <SUNWics5> was successful.
-- Exit status: 0
------ Executing Task 81 of 83 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100804221934 SUNWica5 2>&1
Copyright 2007 Sun Microsystems, Inc. All rights reserved
Use is subject to license terms.

Installation of <SUNWica5> was successful.
-- Exit status: 0

============================================================
Installing Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)...
------ Executing Task 82 of 83 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_SC
-r /tmp/.response_CS_SCHA_20100804221934 SUNWscics 2>&1
Copyright 2005 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
ln: cannot create /usr/cluster/lib/rgm/rtreg/SUNW.scics: No such file or
directory

Attempting to set following in ics.conf
    local.server.ha.enabled="yes"
    local.server.ha.agent="SUNWscics"


Sun Cluster 3.0_u1 Agent for iCS 5.1 Note
-----------------------------------------------------
Remember to add the following to the ics.conf file
    local.server.ha.enabled="yes"
    local.server.ha.agent="SUNWscics"


Installation of <SUNWscics> was successful.
-- Exit status: 0

============================================================
Installing CommsInstaller 7u1 (7.1-0.06)...
------ Executing Task 83 of 83 ...
```

```
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
-r /tmp/.response_CI_20100804221934 SUNWcomms 2>&1
Copyright (c) 2007, 2010, Oracle and/or its affiliates. All rights
reserved.
Use is subject to license terms.

Installation of <SUNWcomms> was successful.
-- Exit status: 0
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: generic
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
Output of Task 1: generic
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
--pkgcmd '-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
LOGFILE: /tmp/ci-mysql-installer_20100804222019.log
-- Adding User mysql
-- Adding Group mysql
pkgadd -n -r /dev/null -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.
InnoDB: The first specified data file ./ibdata1 did not exist:
InnoDB: a new database to be created!
100804 22:23:30  InnoDB: Setting file ./ibdata1 size to 10 MB
InnoDB: Database physically writes the file full: wait...
100804 22:23:31  InnoDB: Log file ./ib_logfile0 did not exist: new to be
created
InnoDB: Setting log file ./ib_logfile0 size to 5 MB
InnoDB: Database physically writes the file full: wait...
100804 22:23:31  InnoDB: Log file ./ib_logfile1 did not exist: new to be
created
InnoDB: Setting log file ./ib_logfile1 size to 5 MB
InnoDB: Database physically writes the file full: wait...
InnoDB: Doublewrite buffer not found: creating new
InnoDB: Doublewrite buffer created
InnoDB: Creating foreign key constraint system tables
InnoDB: Foreign key constraint system tables created
100804 22:23:32  InnoDB: Started; log sequence number 0 0
100804 22:23:32  InnoDB: Starting shutdown...
100804 22:23:33  InnoDB: Shutdown completed; log sequence number 0 46409
100804 22:23:33 [Warning] Forcing shutdown of 1 plugins
100804 22:23:33  InnoDB: Started; log sequence number 0 46409
```

```
100804 22:23:35  InnoDB: Starting shutdown...
100804 22:23:36  InnoDB: Shutdown completed; log sequence number 0 46409
100804 22:23:36 [Warning] Forcing shutdown of 1 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h darkpaladin password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default.  This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MYSQL
-a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
-- End of command output--
PASSED: Task 2: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/PATCH
Task 3: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IMAPI
-r /tmp/.response_IMAPI_20100804221934 SUNWiimdv
PASSED: Task 4: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPJ
-r /tmp/.response_LDAPJDK_20100804221934 SUNWljdk
PASSED: Task 5: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/SASL/
-r /tmp/.response_SASL_20100804221934 SUNWsasl
PASSED: Task 6: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_TOOLS_20100804221934 SUNWldapcsdk-tools
PASSED: Task 7: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LIBCF
Task 8: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtlsu
PASSED: Task 9: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtlsd
PASSED: Task 10: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWtls
PASSED: Task 11: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWprd
PASSED: Task 12: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWpr
PASSED: Task 13: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWjss
PASSED: Task 14: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWjss
PASSED: Task 15: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWpr
PASSED: Task 16: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWprd
PASSED: Task 17: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtls
PASSED: Task 18: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtlsd
PASSED: Task 19: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
-r /tmp/.response_NSS_20100804221934 SUNWtlsu
PASSED: Task 20: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
```

```
-r /tmp/.response_LDAPCSDK6_20100804221934 SUNWldapcsdk-libs
PASSED: Task 21: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
-r /tmp/.response_LDAPCSDK6_20100804221934 SUNWldapcsdk-dev
PASSED: Task 22: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWstosreg
PASSED: Task 23: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWservicetagu
PASSED: Task 24: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWservicetagr
PASSED: Task 25: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWservicetagr
PASSED: Task 26: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWservicetagu
PASSED: Task 27: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/ST/Pa
-r /tmp/.response_ST_20100804221934 SUNWstosreg
PASSED: Task 28: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6rt
PASSED: Task 29: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6rtx
PASSED: Task 30: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6dev
PASSED: Task 31: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6dvx
PASSED: Task 32: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
-r /tmp/.response_JDK_20100804221934 SUNWj6cfg
PASSED: Task 33: patchadd
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/BZIP/
Task 34: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqfs
PASSED: Task 35: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqjx
PASSED: Task 36: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqum
PASSED: Task 37: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiquc
PASSED: Task 38: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqdoc
PASSED: Task 39: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqu
PASSED: Task 40: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqr
PASSED: Task 41: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqu
PASSED: Task 42: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqdoc
PASSED: Task 43: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiquc
PASSED: Task 44: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqum
PASSED: Task 45: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqjx
PASSED: Task 46: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqfs
PASSED: Task 47: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
```

```
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqcrt
PASSED: Task 48: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqcdv
PASSED: Task 49: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100804221934 SUNWiqlen
PASSED: Task 50: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWfiqu
PASSED: Task 51: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWfiquc
PASSED: Task 52: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWdiqu
PASSED: Task 53: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWdiquc
PASSED: Task 54: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWjiqu
PASSED: Task 55: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWjiquc
PASSED: Task 56: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWeiqu
PASSED: Task 57: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWeiquc
PASSED: Task 58: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWkiqu
PASSED: Task 59: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWkiquc
PASSED: Task 60: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWciqu
PASSED: Task 61: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWciquc
PASSED: Task 62: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWhiqu
PASSED: Task 63: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100804221934 SUNWhiquc
PASSED: Task 64: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
-r /tmp/.response_MS64_20100804221934 SUNWmessaging-server-64
PASSED: Task 65: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
-r /tmp/.response_DSSETUP_20100804221934 SUNWcomds
PASSED: Task 66: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/P
-r /tmp/.response_DAV_20100804221934 SUNWdavserver
PASSED: Task 67: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiim
PASSED: Task 68: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimin
PASSED: Task 69: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
```

```
-r /tmp/.response_IM_20100804221934 SUNWiimm
PASSED: Task 70: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimjd
PASSED: Task 71: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimid
PASSED: Task 72: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimc
PASSED: Task 73: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimd
PASSED: Task 74: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/Pa
-r /tmp/.response_IM_20100804221934 SUNWiimgw
PASSED: Task 75: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/P
-r /tmp/.response_IWC_20100804221934 SUNWiwc
PASSED: Task 76: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS/
-r /tmp/.response_JISS_20100804221934 SUNWjiss
PASSED: Task 77: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/Pa
-r /tmp/.response_DA_20100804221934 SUNWcommda
PASSED: Task 78: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_SC
-r /tmp/.response_MS_SCHA_20100804221934 SUNWmessaging-server-scha
PASSED: Task 79: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_SC
-r /tmp/.response_IM_SCHA_20100804221934 SUNWiimsc
PASSED: Task 80: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100804221934 SUNWics5
```

```
PASSED: Task 81: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/Pa
-r /tmp/.response_CS_20100804221934 SUNWica5
PASSED: Task 82: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_SC
-r /tmp/.response_CS_SCHA_20100804221934 SUNWscics
PASSED: Task 83: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
-r /tmp/.response_CI_20100804221934 SUNWcomms

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Mar 18  2009 /usr/java ->
jdk/jdk1.5.0_16

/usr/jdk:
total 10
drwxr-xr-x   4 root     bin            4 Aug  4 22:25 instances
lrwxrwxrwx   1 root     other          7 Mar 18  2009 j2sdk1.4.2_18 ->
../j2se
lrwxrwxrwx   1 root     other         18 Mar 18  2009 jdk1.5.0_16 ->
instances/jdk1.5.0
lrwxrwxrwx   1 root     other         18 Aug  4 22:25 jdk1.6.0_20 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Aug  4 22:25 latest ->
jdk1.6.0_20
drwxr-xr-x   8 root     bin            8 Mar 18  2009 packages
-- Exit status: 0
ls -l /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
lrwxrwxrwx   1 root     other         11 Aug  4 22:25 /usr/jdk/latest ->
jdk1.6.0_20
-- Exit status: 2
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
/usr/jdk/latest:
total 38181
-rw-r--r--   1 root     bin         3767 Apr 12 15:32 COPYRIGHT
-rw-r--r--   1 root     bin        17179 Apr 12 15:32 LICENSE
-rw-r--r--   1 root     bin        28329 Apr 12 15:32 README.html
-rw-r--r--   1 root     bin        25390 Apr 12 15:32 README_ja.html
-rw-r--r--   1 root     bin        20768 Apr 12 15:32 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 Apr 12 15:32
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Aug  4 22:25 bin
drwxr-xr-x   3 root     bin            8 Aug  4 22:25 include
drwxr-xr-x   6 root     bin           11 Aug  4 22:25 jre
drwxr-xr-x   3 root     bin           11 Aug  4 22:25 lib
-r--r--r--   1 root     other       6634 Aug  4 22:25 register.html
```

```
-r--r--r--   1 root     other       7066 Aug  4 22:25 register_ja.html
-r--r--r--   1 root     other       6244 Aug  4 22:25
register_zh_CN.html
-rw-r--r--   1 root     bin      19050033 Apr 12 15:31 src.zip
-- Exit status: 2
INFO: /etc/softlist.xml updated

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.response_IMAPI_20100804221934
-- unlink /tmp/.response_LDAPJDK_20100804221934
-- unlink /tmp/.response_SASL_20100804221934
-- unlink /tmp/.response_LDAPCSDK6_TOOLS_20100804221934
-- unlink /tmp/.response_NSS_20100804221934
-- unlink /tmp/.response_LDAPCSDK6_20100804221934
-- unlink /tmp/.response_ST_20100804221934
-- unlink /tmp/.response_JDK_20100804221934
-- unlink /tmp/.response_MQ_20100804221934
-- unlink /tmp/.response_MQ_L10N_20100804221934
-- unlink /tmp/.response_MS64_20100804221934
-- unlink /tmp/.response_DSSETUP_20100804221934
-- unlink /tmp/.response_DAV_20100804221934
-- unlink /tmp/.response_IM_20100804221934
-- unlink /tmp/.response_IWC_20100804221934
-- unlink /tmp/.response_JISS_20100804221934
-- unlink /tmp/.response_DA_20100804221934
-- unlink /tmp/.response_MS_SCHA_20100804221934
-- unlink /tmp/.response_IM_SCHA_20100804221934
-- unlink /tmp/.response_CS_20100804221934
-- unlink /tmp/.response_CS_SCHA_20100804221934
-- unlink /tmp/.response_CI_20100804221934
-- unlink /tmp/.patchout_20100804221934.17184
mkdir -p /var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0

NOTICE: To undo the installation, run the commands in:
        /var/opt/CommsInstaller/logs/undoCommsInstall_20100804221934

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100804221934
-- Closing the log at Wed Aug  4 22:30:05 2010
(34 root) cat
/var/opt/CommsInstaller/logs/CommsInstaller_20100804223352.log
============ LOGFILE started Wed Aug  4 22:33:52 2010 ==========
LOGFILE = /tmp/CommsInstaller_20100804223352.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg uninstall
-- perl version: 5.008004 pid: 22777
-- basetime: 1280986432 Wed Aug  4 22:33:52 2010
-- scriptDir: /net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
-- LOGFILE: /tmp/CommsInstaller_20100804223352.log
-- UNAME = SunOS ARCH = sparc OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
-- Exit status: 0
```

```
!!! ENV
$VAR1 = {
          'SSH_CLIENT' => '192.18.75.229 56686 22',
          'CAPSAVE' => '/home/dl111122/.termcap',
          'PS1' => '# ',
          'LINES' => '55',
          'COLUMNS' => '80',
          'PWD' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71',
          'USER' => 'dl111122',
          'LANG' => 'C',
          'LC_MESSAGES' => 'C',
          'VISUAL' => 'gnuclient',
          'LOGNAME' => 'dl111122',
          'EMACS' => 't',
          'REMOTE' => '/home/dl111122/.remote',
          'USE_64' => '1',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:.:/home/dl111122/bin:/new/local/bir
'EMACS_TYPE' => 'pc',
          'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
          'MORE' => '-c',
          'TERM' => 'emacs',
          'SSH_TTY' => '/dev/pts/1',
          'PAGER' => 'cat',
          'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
          'HOME' => '/home/dl111122',
          'LD_LIBRARY_PATH' => '/usr/dt/lib:/usr/openwin/lib',
          'SSH_CONNECTION' => '192.18.75.229 56686 10.5.194.229 22',
          'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
          'TERMSAVE' => 'emacs',
          'CDPATH' => '.:..:/home/dl111122',
          'EDITOR' => 'gnuclient',
          'MAIL' => '/var/mail//dl111122',
          'TZ' => 'US/Pacific',
          'ESHELL' => '/bin/csh',
          'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info'
'MOTIFHOME' => '/usr/dt',
          'CVSROOT' =>
':pserver:dl111122@redcvs.red.iplanet.com:/m/src',
          'OPENWINHOME' => '/usr/openwin',
          'RCSINIT' => '-zLT',
          'SHELL' => '/bin/csh',
          'SKIP_UTEST' => '1',
          'TERMCAP' => '/home/dl111122/.termcap'
        };
cat /etc/release 2>&1
                      Solaris 10 10/08 s10s_u6wos_07b SPARC
           Copyright 2008 Sun Microsystems, Inc.  All Rights Reserved.
                        Use is subject to license terms.
                            Assembled 27 October 2008
-- Exit status: 0
-- Recognized OS_VERS
```

```
/usr/bin/pkgcond -n is_what 2>&1
can_add_driver=0
can_remove_driver=0
can_update_driver=0
is_alternative_root=0
is_boot_environment=0
is_diskless_client=0
is_global_zone=1
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=0
is_path_writable=1
is_running_system=1
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=0
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 1
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
Reading Product Files...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
```

```
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
Reading OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/
'MS64_L10N' => 'none',
          'MS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS/C
'DSSETUP' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSE
'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64
'DAV' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CE/C
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product
```

```
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS
'NSS' => 'none',
          'IM' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/C
'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_S
'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_S
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_S
'CS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/C
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/C
};
!!! prod_getVers
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-0.06',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-6.03',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-18.01',
          'DAV' => '7.1-1.11',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.1-0.06',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.1-4.4501',
          'NSS' => 0,
          'IM' => '8.3-03.10',
          'ST' => 0,
          'CS_L10N' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
```

```
          'LDAPJDK' => 0,
          'MYSQL_MARKER' => 0,
          'BZIP' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-23.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-3.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20100726',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20091123',
          'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' => '20100715',
          'DAV' => '20100716',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20100726',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20100618',
          'NSS' => 'none',
          'IM' => '20100622',
          'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20100624',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20100715'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.4
INFO: prod_mktVers{SASL} (no map) = 2.19
INFO: prod_mktVers{LDAPCSDK6} (no map) = 6.0
```

```
INFO: prod_mktVers{LDAPCSDK6_TOOLS} (no map) = 6.0
INFO: prod_mktVers{ICU} (no map) = ICU2,ICU3
INFO: prod_mktVers{JDK} (no map) = 1.6.0
INFO: prod_mktVers{JHRT} (no map) = 2.0
INFO: prod_mktVers{MQ} (no map) = 4.4
INFO: prod_mktVers{MQ_L10N} (no map) = 4.4
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2010.06.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u1
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u1
INFO: prod_mktVers{IM} (w/ map) = 8u3
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3
Detecting Installed Products...
Checking LIBCPLUSPLUS 5.9 ...
  Checking pkg SUNWlibC... present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmdsu... present.
  Checking pkg SUNWswmt... present.
  Checking pkg SUNWinstall-patch-utils-root... present.
  Checking pkg SUNWcsr... present.
  Checking pkg SUNWdtrc... present.
  Checking pkg SUNWzoneu... present.
  PATCHUTILS Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2010.06.25 ...
  RECOMMENDED 2010.06.25 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... present.
  Checking pkg SUNWservicetagu... present.
  Checking pkg SUNWstosreg... present.
  ST 1.1.4 is already present.
Checking NSS 4.8.4 ...
  Checking pkg SUNWjss... present.
  Checking pkg SUNWpr... present.
  Checking pkg SUNWprd... present.
  Checking pkg SUNWtls... present.
  Checking pkg SUNWtlsd... present.
  Checking pkg SUNWtlsu... present.
```

```
  NSS 4.8.4 is already present.
Checking SASL 2.19 ...
  Checking pkg SUNWsasl... present.
  SASL 2.19 is already present.
Checking LDAPCSDK6 6.0 ...
  Checking pkg SUNWldapcsdk-libs... present.
  Checking pkg SUNWldapcsdk-dev... present.
  LDAPCSDK6 6.0 is already present.
Checking LDAPCSDK6_TOOLS 6.0 ...
  Checking pkg SUNWldapcsdk-tools... present.
  LDAPCSDK6_TOOLS 6.0 is already present.
Checking ICU ICU2,ICU3 ...
  Checking pkg SUNWicu... present.
  ICU ICU2,ICU3 is already present.
Checking JDK 1.6.0 ...
  Checking pkg SUNWj6rt... present.
  Checking pkg SUNWj6rtx... present.
  Checking pkg SUNWj6dev... present.
  Checking pkg SUNWj6dvx... present.
  Checking pkg SUNWj6cfg... present.
  JDK 1.6.0 is already present.
Checking JDK 1.5.0 ...
  Checking pkg SUNWj5rt... present.
  Checking pkg SUNWj5rtx... present.
  Checking pkg SUNWj5cfg... present.
  JDK 1.5.0 is already present.
Checking JHRT 2.0 ...
  Checking pkg SUNWjhrt... present.
  Checking pkg SUNWjhdev... present.
  Checking pkg SUNWjhdem... present.
  Checking pkg SUNWjhdoc... present.
  JHRT 2.0 is already present.
Checking MQ 4.4 ...
  Checking pkg SUNWiqr... present.
  Checking pkg SUNWiqu... present.
  Checking pkg SUNWiqdoc... present.
  Checking pkg SUNWiquc... present.
  Checking pkg SUNWiqum... present.
  Checking pkg SUNWiqjx... present.
  Checking pkg SUNWiqfs... present.
  Checking pkg SUNWiqcrt... present.
  Checking pkg SUNWiqcdv... present.
  Checking pkg SUNWiqlen... present.
  MQ 4.4 is already present.
Checking MQ 3.7 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 3.7,REV=2006.06.18.22.34
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 3.7,REV=2006.06.18.22.34
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 3.7,REV=2006.06.18.22.35
```

```
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 3.7,REV=2006.06.18.22.35
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.1 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.1,REV=2007.07.26.10.59
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ_L10N 4.4 ...
  Checking pkg SUNWfiqu... present.
  Checking pkg SUNWfiquc... present.
  Checking pkg SUNWdiqu... present.
  Checking pkg SUNWdiquc... present.
  Checking pkg SUNWjiqu... present.
  Checking pkg SUNWjiquc... present.
  Checking pkg SUNWeiqu... present.
  Checking pkg SUNWeiquc... present.
  Checking pkg SUNWkiqu... present.
  Checking pkg SUNWkiquc... present.
  Checking pkg SUNWciqu... present.
  Checking pkg SUNWciquc... present.
  Checking pkg SUNWhiqu... present.
  Checking pkg SUNWhiquc... present.
  MQ_L10N 4.4 is already present.
Checking MQ_L10N 3.7 ...
  Checking pkg SUNWfiqu... present but with a different pkg VERSION.
    checking SUNWfiqu 3.7,REV=2006.09.28.02.20.49
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 3.7,REV=2006.09.28.02.21.13
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 3.7,REV=2006.09.28.02.20.38
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 3.7,REV=2006.09.28.02.21.09
```

```
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 3.7,REV=2006.09.02.02.06.39
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 3.7,REV=2006.09.02.02.07.00
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 3.7,REV=2006.09.28.02.20.43
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 3.7,REV=2006.09.28.02.21.11
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 3.7,REV=2006.09.28.02.20.59
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 3.7,REV=2006.09.28.02.21.19
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 3.7,REV=2006.09.02.02.06.49
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 3.7,REV=2006.09.02.02.07.03
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 3.7,REV=2006.10.28.02.59.24
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 3.7,REV=2006.10.28.02.59.36
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking MQ_L10N 4.1 ...
  Checking pkg SUNWfiqu... present but with a different pkg VERSION.
    checking SUNWfiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.1,REV=2007.08.02.12.38
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.1,REV=2007.08.02.12.38
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking LDAPJDK 4.19 ...
  Checking pkg SUNWljdk... present.
  LDAPJDK 4.19 is already present.
```

```
Checking IMAPI 8.0 ...
  Checking pkg SUNWiimdv... present.
  IMAPI 8.0 is already present.
Checking IMAPI 7.0 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 7.0,REV=2004.11.24.05.24.36
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking IMAPI 7.3 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 7.3,REV=2008.01.15
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... present.
  MYSQL 5.1.36 is already present.
Checking CI 7.1 ...
  Checking pkg SUNWcomms...
/opt/sun/comms/CommsInstaller/lib/getVersion VERSION BUILDDATE UNAME
ARCH BITS 2>&1
7.1-0.06
20100726
SunOS
sparc
32
-- Exit status: 0
 present.
  CI 7.1 is already present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... present.
  MYSQL_MARKER 1.0 is already present.
Checking MS64 7.4 ...
  Checking pkg SUNWmessaging-server-64...
/opt/sun/comms/messaging64/lib/getVersion VERSION BUILDDATE UNAME ARCH
BITS 2>&1
7.4-18.01
20100715
SunOS
sparc
64
-- Exit status: 0
 present.
  MS64 7.4 is already present.
Checking MS64 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS64 6.3_32 is not present.
Checking MS64 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS64 7.2_32 is not present.
Checking MS64 7.3_32 ...
```

```
  MS64 7.3_32 is not present.
Checking MS64 7.4_32 ...
  MS64 7.4_32 is not present.
Checking DSSETUP 6.4 ...
  Checking pkg SUNWcomds...
/opt/sun/comms/dssetup/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
6.4-6.03
20091123
SunOS
sparc
32
-- Exit status: 0
 present.
  DSSETUP 6.4 is already present.
Checking DAV 7.1 ...
  Checking pkg SUNWdavserver...
/opt/sun/comms/davserver/lib/getVersion VERSION BUILDDATE UNAME ARCH
BITS 2>&1
7.1-1.11
20100716
SunOS
sparc
32
-- Exit status: 0
 present.
  DAV 7.1 is already present.
Checking IM 8.3 ...
  Checking pkg SUNWiim...
/opt/sun/comms/im/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
8.3-03.10
20100622
SunOS
sparc
32
-- Exit status: 0
 present.
  Checking pkg SUNWiimin... present.
  Checking pkg SUNWiimm... present.
  Checking pkg SUNWiimjd... present.
  Checking pkg SUNWiimid... present.
  Checking pkg SUNWiimc... present.
  Checking pkg SUNWiimd... present.
  Checking pkg SUNWiimgw... present.
  IM 8.3 is already present.
Checking IM 7.0 ...
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.0,REV=2004.11.24.05.24.36
```

```
  Checking pkg SUNWiimc... present but with a different pkg VERSION.
    checking SUNWiimc 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimd... present but with a different pkg VERSION.
    checking SUNWiimd 7.0,REV=2004.11.24.05.24.36
  NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IM 7.3 ...
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 7.3,REV=2008.01.15
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.3,REV=2008.01.15
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.3,REV=2008.01.15
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.3,REV=2008.01.15
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.3,REV=2008.01.15
  Checking pkg SUNWiimc... present but with a different pkg VERSION.
    checking SUNWiimc 7.3,REV=2008.01.15
  Checking pkg SUNWiimd... present but with a different pkg VERSION.
    checking SUNWiimd 7.3,REV=2008.01.15
  NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IWC 2.0 ...
  Checking pkg SUNWiwc...
/opt/sun/comms/iwc/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
2.0-0.06
20100726
SunOS
sparc
32
-- Exit status: 0
 present.
  IWC 2.0 is already present.
Checking JISS 1.1 ...
  Checking pkg SUNWjiss...
/opt/sun/comms/jiss/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
1.1-4.4501
20100618
SunOS
all
32
-- Exit status: 0
 present.
  JISS 1.1 is already present.
Checking JISS 0.9 ...
  Checking pkg SUNWjiss-common... not present.
  Checking pkg SUNWjiss-conf... not present.
  Checking pkg SUNWjiss-extjars... not present.
  Checking pkg SUNWjiss-indexapi... not present.
  Checking pkg SUNWjiss-jmqc... not present.
  Checking pkg SUNWjiss-rest... not present.
  Checking pkg SUNWjiss-search... not present.
  Checking pkg SUNWjiss-searchui... not present.
  Checking pkg SUNWjiss-store... not present.
  Checking pkg SUNWjiss-storeui... not present.
  JISS 0.9 is not present.
```

```
Checking DA 7.0 ...
  Checking pkg SUNWcommda...
/opt/sun/comms/da/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
7.0-3.00
20100715
SunOS
sparc
32
-- Exit status: 0
 present.
  DA 7.0 is already present.
Checking DA 6.4 ...
  Checking pkg SUNWcomic... not present.
  Checking pkg SUNWcomis... not present.
  DA 6.4 is not present.
Checking MS_SCHA 7.0 ...
  Checking pkg SUNWmessaging-server-scha...
/opt/sun/comms/msg_scha/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
7.0-0.03
20080519
SunOS
sparc
32
-- Exit status: 0
 present.
  MS_SCHA 7.0 is already present.
Checking MS_SCHA 6.0 ...
  Checking pkg SUNWscims... not present.
  MS_SCHA 6.0 is not present.
Checking IM_SCHA 7.3 ...
  Checking pkg SUNWiimsc...
/opt/sun/comms/im_scha/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
7.3-01.02
20080403
SunOS
sparc
32
-- Exit status: 0
 present.
  IM_SCHA 7.3 is already present.
Checking IM_SCHA 7.0 ...
  Checking pkg SUNWiimsc... present but with a different pkg VERSION.
    checking SUNWiimsc 7.0,REV=2005.08.03.09.41.41
  NOTICE: Instant Messaging Sun Cluster HA agent is present with a
different pkg VERSION.
Checking CS 6.3 ...
  Checking pkg SUNWics5...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/CI
--installed /opt/sun/comms/calendar VERSION BUILDDATE UNAME ARCH BITS
2>&1
6.3-23.01
20100624
SunOS
sparc
```

```
32
-- Exit status: 0
 present.
  Checking pkg SUNWica5... present.
  CS 6.3 is already present.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_SC
--installed /opt/sun/comms/cs_scha VERSION BUILDDATE UNAME ARCH BITS
2>&1
6.3-1.01
20080331
SunOS
sparc
32
-- Exit status: 0
 present.
  CS_SCHA 6.3 is already present.
Checking CS_SCHA 6.0 ...
  Checking pkg SUNWscics... present but with a different pkg VERSION.
    checking SUNWscics 6.0,REV=2003.11.14
  NOTICE: Calendar Server Sun Cluster HA agent is present with a
different pkg VERSION.
Checking MS 7.4 ...
  MS 7.4 is not present.
Checking MS 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS 6.3_32 is not present.
Checking MS 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS 7.2_32 is not present.
Checking MS 7.3_32 ...
  MS 7.3_32 is not present.
Checking MS_L10N 6.2 ...
  Checking pkg SUNWmsgde... not present.
  Checking pkg SUNWmsges... not present.
  Checking pkg SUNWmsgfr... not present.
  Checking pkg SUNWmsgja... not present.
  Checking pkg SUNWmsgko... not present.
  Checking pkg SUNWmsgzh... not present.
  Checking pkg SUNWmsgtw... not present.
  MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
  Checking pkg SUNWmsg-l10n... not present.
  MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
  Checking pkg SUNWmessaging-server-l10n-64... not present.
  MS64_L10N 6.3 is not present.
```

```
Checking CS_L10N 6.2 ...
  Checking pkg SUNWdeics... not present.
  Checking pkg SUNWesics... not present.
  Checking pkg SUNWfrics... not present.
  Checking pkg SUNWjaics... not present.
  Checking pkg SUNWkoics... not present.
  Checking pkg SUNWzhics... not present.
  Checking pkg SUNWtwics... not present.
  CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
  Checking pkg SUNWics-l10n... not present.
  CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
  Checking pkg SUNWdiimc... not present.
  Checking pkg SUNWdiimd... not present.
  Checking pkg SUNWdimid... not present.
  Checking pkg SUNWeiimc... not present.
  Checking pkg SUNWeiimd... not present.
  Checking pkg SUNWeiimin... not present.
  Checking pkg SUNWeimid... not present.
  Checking pkg SUNWfiimc... not present.
  Checking pkg SUNWfiimd... not present.
  Checking pkg SUNWfiimin... not present.
  Checking pkg SUNWfimid... not present.
  Checking pkg SUNWjiimc... not present.
  Checking pkg SUNWjiimd... not present.
  Checking pkg SUNWjiimin... not present.
  Checking pkg SUNWjimid... not present.
  Checking pkg SUNWkiimc... not present.
  Checking pkg SUNWkiimd... not present.
  Checking pkg SUNWkiimin... not present.
  Checking pkg SUNWkimid... not present.
  Checking pkg SUNWciimc... not present.
  Checking pkg SUNWciimd... not present.
  Checking pkg SUNWciimin... not present.
  Checking pkg SUNWcimid... not present.
  Checking pkg SUNWhiimc... not present.
  Checking pkg SUNWhiimd... not present.
  Checking pkg SUNWhiimin... not present.
  Checking pkg SUNWhimid... not present.
  IM_L10N 7.0 is not present.
Checking IM_L10N 7.2 ...
  Checking pkg SUNWiimc-l10n... not present.
  Checking pkg SUNWiimd-l10n... not present.
  Checking pkg SUNWiimid-l10n... not present.
  Checking pkg SUNWiimin-l10n... not present.
  IM_L10N 7.2 is not present.
Checking CE 6.3 ...
  Checking pkg SUNWuwc... not present.
  CE 6.3 is not present.
Checking CE_L10N 6.2 ...
  Checking pkg SUNWduwc... not present.
  Checking pkg SUNWeuwc... not present.
  Checking pkg SUNWfuwc... not present.
  Checking pkg SUNWjuwc... not present.
  Checking pkg SUNWkuwc... not present.
```

```
  Checking pkg SUNWcuwc... not present.
  Checking pkg SUNWhuwc... not present.
  CE_L10N 6.2 is not present.
Checking CE_L10N 6.3 ...
  Checking pkg SUNWuwc-l10n... not present.
  CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119963-19 /tmp/.patchout_20100804223352.22777
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20100804223352.22777
patchadd  -p > /tmp/.patchout_20100804223352.22777 2>>
/tmp/CommsInstaller_20100804223352.log
-- Exit status: 0
--  older version at lineno 481 found 119963-10 - not acceptable
--  Exact match found at line 482
--  Final return status: 1
  LIBCPLUSPLUS patch 119963-19 is already present.
-- chk4patch 120900-04 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 51
--  Final return status: 1
  PATCHUTILS patch 120900-04 is already present.
-- chk4patch 121133-02 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 32
--  Final return status: 1
  PATCHUTILS patch 121133-02 is already present.
-- chk4patch 119254-71 /tmp/.patchout_20100804223352.22777
--  older version at lineno 31 found 119254-59 - not acceptable
--  Exact match found at line 34
--  Final return status: 1
  PATCHUTILS patch 119254-71 is already present.
-- chk4patch 126868-03 /tmp/.patchout_20100804223352.22777
--  older version at lineno 459 found 126868-01 - not acceptable
--  Exact match found at line 461
--  Final return status: 1
  BZIP patch 126868-03 is already present.
-- chk4patch 137321-01 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 460
--  Final return status: 1
  BZIP patch 137321-01 is already present.
-- chk4patch 119254-73 /tmp/.patchout_20100804223352.22777
--  older version at lineno 31 found 119254-59 - not acceptable
--  older version at lineno 34 found 119254-71 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 119254-73 is not present.
-- chk4patch 118833-36 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 36
--  Final return status: 1
  RECOMMENDED patch 118833-36 is already present.
-- chk4patch 120011-14 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 49
--  Final return status: 1
  RECOMMENDED patch 120011-14 is already present.
-- chk4patch 120272-28 /tmp/.patchout_20100804223352.22777
--  older version at lineno 22 found 120272-21 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 120272-28 is not present.
```

```
-- chk4patch 137137-09 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 59
--  Final return status: 1
  RECOMMENDED patch 137137-09 is already present.
-- chk4patch 141444-09 /tmp/.patchout_20100804223352.22777
--  Final return status: 0
  RECOMMENDED patch 141444-09 is not present.
-- chk4patch 142900-13 /tmp/.patchout_20100804223352.22777
--  Final return status: 0
  RECOMMENDED patch 142900-13 is not present.
-- chk4patch 125358-11 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 41
--  Final return status: 1
  NSS patch 125358-11 is already present.
-- chk4patch 119345-07 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 16
--  Final return status: 1
  SASL patch 119345-07 is already present.
-- chk4patch 136798-02 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 109
--  Final return status: 1
  LDAPCSDK6_TOOLS patch 136798-02 is already present.
-- chk4patch 119810-05 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 362
--  Final return status: 1
  ICU patch 119810-05 is already present.
-- chk4patch 125136-22 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 156
--  Final return status: 1
  JDK patch 125136-22 is already present.
-- chk4patch 125137-22 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 20
--  Final return status: 1
  JDK patch 125137-22 is already present.
-- chk4patch 119725-06 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 524
--  Final return status: 1
  LDAPJDK patch 119725-06 is already present.
-- chk4patch 137204-18 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 82
--  Final return status: 1
  MS64 patch 137204-18 is already present.
-- chk4patch 118242-03 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 391
--  Final return status: 1
  DSSETUP patch 118242-03 is already present.
-- chk4patch 118245-22 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 392
--  Final return status: 1
  DSSETUP patch 118245-22 is already present.
-- chk4patch 142785-01 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 219
--  Final return status: 1
  DAV patch 142785-01 is already present.
-- chk4patch 139893-03 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 94
```

```
--  Final return status: 1
  IM patch 139893-03 is already present.
-- chk4patch 142824-04 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 333
--  Final return status: 1
  JISS patch 142824-04 is already present.
-- chk4patch 124581-03 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 471
--  Final return status: 1
  DA patch 124581-03 is already present.
-- chk4patch 137571-01 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 451
--  Final return status: 1
  IM_SCHA patch 137571-01 is already present.
-- chk4patch 121657-44 /tmp/.patchout_20100804223352.22777
--  Exact match found at line 162
--  Final return status: 1
  CS patch 121657-44 is already present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'PRESENT',
          '119254-73' => 'NOT_PRESENT',
          '137571-01' => 'PRESENT',
          'DSSETUP' => {
                         '6.4' => 'PRESENT'
                       },
          'MQ_L10N' => {
                         '3.7' => 'DIFF_VERSION',
                         '4.1' => 'DIFF_VERSION',
                         '4.4' => 'PRESENT'
                       },
          'ICU' => {
                     'ICU2,ICU3' => 'PRESENT'
                   },
          'MS64' => {
                      '7.4_32' => 'NOT_PRESENT',
                      '7.3_32' => 'NOT_PRESENT',
                      '7.2_32' => 'NOT_PRESENT',
                      '6.3_32' => 'NOT_PRESENT',
                      '7.4' => 'PRESENT'
                    },
          'DAV' => {
                     '7.1' => 'PRESENT'
                   },
          'CE' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          'MYSQL' => {
                       '5.1.36' => 'PRESENT'
                     },
          'PATCHUTILS' => {
                            'Unknown' => 'PRESENT'
                          },
          'MQ' => {
```

```
                '3.7' => 'DIFF_VERSION',
                '4.1' => 'DIFF_VERSION',
                '4.4' => 'PRESENT'
              },
      'IMAPI' => {
                  '8.0' => 'PRESENT',
                  '7.0' => 'DIFF_VERSION',
                  '7.3' => 'DIFF_VERSION'
                },
      'LDAPCSDK6_TOOLS' => {
                            '6.0' => 'PRESENT'
                          },
      'JISS' => {
                  '0.9' => 'NOT_PRESENT',
                  '1.1' => 'PRESENT'
                },
      'ST' => {
                '1.1.4' => 'PRESENT'
              },
      '118833-36' => 'PRESENT',
      'IM_L10N' => {
                     '7.2' => 'NOT_PRESENT',
                     '7.0' => 'NOT_PRESENT'
                   },
      'LDAPJDK' => {
                     '4.19' => 'PRESENT'
                   },
      '142785-01' => 'PRESENT',
      '125358-11' => 'PRESENT',
      'BZIP' => {
                  '11.10' => 'PRESENT'
                },
      '126868-03' => 'PRESENT',
      '141444-09' => 'NOT_PRESENT',
      'IM_SCHA' => {
                     '7.0' => 'DIFF_VERSION',
                     '7.3' => 'PRESENT'
                   },
      'MS_SCHA' => {
                     '6.0' => 'NOT_PRESENT',
                     '7.0' => 'PRESENT'
                   },
      'JHRT' => {
                  '2.0' => 'PRESENT'
                },
      'CE_L10N' => {
                     '6.2' => 'NOT_PRESENT',
                     '6.3' => 'NOT_PRESENT'
                   },
      '119810-05' => 'PRESENT',
      '119963-19' => 'PRESENT',
      'SASL' => {
                  '2.19' => 'PRESENT'
                },
      'IWC' => {
                 '2.0' => 'PRESENT'
```

```
          },
'MS64_L10N' => {
                 '6.3' => 'NOT_PRESENT'
               },
'MS' => {
          '7.3_32' => 'NOT_PRESENT',
          '7.2_32' => 'NOT_PRESENT',
          '6.3_32' => 'NOT_PRESENT',
          '7.4' => 'NOT_PRESENT'
        },
'139893-03' => 'PRESENT',
'142824-04' => 'PRESENT',
'119345-07' => 'PRESENT',
'120900-04' => 'PRESENT',
'118245-22' => 'PRESENT',
'136798-02' => 'PRESENT',
'120011-14' => 'PRESENT',
'120272-28' => 'NOT_PRESENT',
'LDAPCSDK6' => {
                 '6.0' => 'PRESENT'
               },
'124581-03' => 'PRESENT',
'137137-09' => 'PRESENT',
'JDK' => {
           '1.6.0' => 'PRESENT',
           '1.5.0' => 'PRESENT'
          },
'121657-44' => 'PRESENT',
'CI' => {
          '7.1' => 'PRESENT'
        },
'137321-01' => 'PRESENT',
'NSS' => {
           '4.8.4' => 'PRESENT'
          },
'CS_L10N' => {
               '6.2' => 'NOT_PRESENT',
               '6.3' => 'NOT_PRESENT'
             },
'IM' => {
          '8.3' => 'PRESENT',
          '7.0' => 'DIFF_VERSION',
          '7.3' => 'DIFF_VERSION'
        },
'RECOMMENDED' => {
                   '2010.06.25' => 'NOT_PRESENT'
                 },
'119254-71' => 'PRESENT',
'CS_SCHA' => {
               '6.0' => 'DIFF_VERSION',
               '6.3' => 'PRESENT'
             },
'MYSQL_MARKER' => {
                    '1.0' => 'PRESENT'
                  },
'137204-18' => 'PRESENT',
```

```
          '142900-13' => 'NOT_PRESENT',
          'MS_L10N' => {
                         '6.2' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'LIBCPLUSPLUS' => {
                              '5.9' => 'PRESENT'
                            },
          '121133-02' => 'PRESENT',
          '118242-03' => 'PRESENT',
          '125136-22' => 'PRESENT',
          'CS' => {
                    '6.3' => 'PRESENT'
                  },
          '125137-22' => 'PRESENT',
          'DA' => {
                    '6.4' => 'NOT_PRESENT',
                    '7.0' => 'PRESENT'
                  }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {
                          '6.0,REV=2003.11.14.18.12.58' => [
                                                             'SUNWica5',

'/opt/sun/comms/calendar',
                                                             '6.3-23.01'
                                                           ]
                        },
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                 '1.1.4,REV=2008.03.21.07.54' => [

'SUNWservicetagu',
                                                                  '/',

'1.1.4.1'
                                                                    ]
                                },
          'SUNWjimid' => {},
          'SUNWdiquc' => {
                           '4.4,REV=2009.10.01.09.43.03' => [

'SUNWdiquc',
                                                             '/',
                                                             '4.4.1.0'
                                                           ]
                         },
          'SUNWmsgko' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWics5' => {
                          '6.0,REV=2003.11.14.18.12.58' => [
                                                             'SUNWics5',
```

```
'/opt/sun/comms/calendar',
                                                                '6.3-23.01'
                                                              ]
                        },
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {
                          '4.4,REV=2009.10.01.09.42.16' => [

'SUNWfiquc',
                                                                '/',
                                                                '4.4.1.0'
                                                              ]
                        },
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {
                          '2.0,REV=2006.10.04' => [
                                                     'SUNWjhdem',
                                                     '/usr',
                                                     '2.0/FCS'
                                                   ]
                        },
          'SUNWiqfs' => {
                         '4.4,REV=2009.08.27.08.33' => [
                                                          'SUNWiqfs',
                                                          '/',
                                                          '4.4.0.0'
                                                        ]
                        },
          'SUNWfimid' => {},
          'SUNWcomds' => {
                          '6.3,REV=2004.08.12' => [
                                                     'SUNWcomds',

'/opt/sun/comms/dssetup',
                                                     '6.4-6.03'
                                                   ]
                        },
          'SUNWj6rtx' => {
                          '1.6.0,REV=2006.11.29.04.58' => [

'SUNWj6rtx',
                                                                '/usr',

'1.6.0_20/1.6.0_20-b02'
                                                              ]
                        },
          'SUNWjhdev' => {
                          '2.0,REV=2006.10.04' => [
                                                     'SUNWjhdev',
                                                     '/usr',
                                                     '2.0/FCS'
                                                   ]
                        },
          'SUNWiqum' => {
                         '4.4,REV=2009.08.27.08.33' => [
```

```
                                                            'SUNWiqum',
                                                            '/',
                                                            '4.4.1.0'
                                                          ]
                        },
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {
                          '1.6.0,REV=2006.11.29.05.57' => [
                                                              'SUNWj6rt',
                                                              '/usr',

'1.6.0_20/1.6.0_20-b02'
                                                            ]
                        },
          'SUNWj5rt' => {
                          '1.5.0,REV=2004.12.07.00.07' => [
                                                              'SUNWj5rt',
                                                              '/usr',

'1.5.0_16/1.5.0_16-b02'
                                                            ]
                        },
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {
                          '4.4,REV=2009.10.01.09.46.01' => [
                                                               'SUNWciqu',
                                                               '/',
                                                               '4.4.1.0'
                                                             ]
                        },
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {
                           '4.4,REV=2009.10.01.09.45.18' => [

'SUNWjiquc',
                                                                '/',
                                                                '4.4.1.0'
                                                              ]
                         },
          'SUNWiimgw' => {
                           '8.0,REV=2008.12.04' => [
                                                      'SUNWiimgw',

'/opt/sun/comms/im',
                                                      '8.0-03'
                                                    ]
                         },
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {
```

```
                          '4.4,REV=2009.10.01.09.46.50' => [

'SUNWhiquc',
                                                                '/',
                                                                '4.4.1.0'
                                                              ]
                        },
          'SUNWzhics' => {},
          'SUNWkiimd' => {},
          'SUNWmsgmp' => {},
          'SUNWuwc' => {},
          'SUNWscics' => {
                          '6.3,REV=2008.03.31.18.10.20' => [

'SUNWscics',

'/opt/sun/comms/cs_scha',
                                                                '6.3-1.01'
                                                              ]
                        },
          'SUNWiimc' => {
                         '8.0,REV=2008.12.04' => [
                                                    'SUNWiimc',
                                                    '/opt/sun/comms/im',
                                                    '8.0-03'
                                                  ]
                       },
          'SUNWhiimd' => {},
          'SUNWmessaging-server-scha' => {
                                            '7.0,REV=2008.05.19' => [

'SUNWmessaging-server-scha',

'/opt/sun/comms/msg_scha',

'7.0-0.03'
                                                                        ]
                                          },
          'SUNWmsglb' => {},
          'SUNWtls' => {
                        '3.11.4,REV=2006.11.16.20.40' => [
                                                            'SUNWtls',
                                                            '/',
                                                            '3.12.6'
                                                          ]
                       },
          'SUNWj6dvx' => {
                          '1.6.0,REV=2006.11.29.04.58' => [

'SUNWj6dvx',
                                                              '/usr',

'1.6.0_20/1.6.0_20-b02'
                                                            ]
                        },
          'SUNWfuwc' => {},
```

```
          'SUNWlibC' => {
                         '5.10,REV=2004.12.22' => [
                                                   'SUNWlibC',
                                                   '/',
                                                   '5.10'
                                                 ]
                       },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {
                                       '1.0,REV=2009.09.09' => [

'SUNWcomms-mysql-marker',

'/var/opt/CommsInstaller/Markers/MYSQL',

'1.0-0.01'
                                                                ]
                                     },
          'SUNWscims' => {},
          'SUNWiimjd' => {
                          '8.0,REV=2008.12.04' => [
                                                   'SUNWiimjd',

'/opt/sun/comms/im',
                                                   '8.0-03'
                                                 ]
                        },
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {
                                 '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-dev',
                                                                   '/',

'6.00'
                                                                    ]
                                },
          'SUNWiqlen' => {
                          '4.4,REV=2009.08.27.08.33' => [
                                                         'SUNWiqlen',
                                                         '/',
                                                         '4.4.1.0'
                                                       ]
                        },
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {
                        '4.4,REV=2009.08.27.08.32' => [
                                                       'SUNWiqr',
                                                       '/',
                                                       '4.4.1.0'
                                                     ]
                       },
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWeiquc' => {
```

```
                            '4.4,REV=2009.10.01.09.43.47' => [

'SUNWeiquc',
                                                                '/',
                                                                '4.4.1.0'
                                                              ]
                          },
          'SUNWmessaging-server-64' => {
                                          '7.0,REV=2008.06.20' => [

'SUNWmessaging-server-64',

'/opt/sun/comms/messaging64',

'7.4-18.01'
                                                                    ]
                                        },
          'SUNWj5cfg' => {
                            '1.5.0,REV=2004.12.07.00.07' => [

'SUNWj5cfg',
                                                                  '/',

'1.5.0_16/1.5.0_16-b02'
                                                                ]
                          },
          'SUNWhiqu' => {
                           '4.4,REV=2009.10.01.09.46.48' => [
                                                                  'SUNWhiqu',
                                                                  '/',
                                                                  '4.4.1.0'
                                                                ]
                         },
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {
                            '8.0,REV=2008.12.04' => [
                                                       'SUNWiimdv',
                                                       '/',
                                                       '8.0-00'
                                                     ]
                          },
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {
                            '1.5.0,REV=2004.12.06.22.09' => [

'SUNWj5rtx',
                                                                  '/usr',

'1.5.0_16/1.5.0_16-b02'
                                                                ]
                          },
          'SUNWiquc' => {
                           '4.4,REV=2009.08.27.08.33' => [
                                                            'SUNWiquc',
                                                            '/',
                                                            '4.4.1.0'
```

```
                                                                ]
                          },
          'SUNWiimid' => {
                            '8.0,REV=2008.12.04' => [
                                                        'SUNWiimid',

'/opt/sun/comms/im',
                                                        '8.0-03'
                                                      ]
                           },
          'SUNWmsgmt' => {},
          'SUNWljdk' => {
                           '1.0,REV=2004.10.11.06.02' => [
                                                             'SUNWljdk',
                                                             '/',
                                                             '4.21'
                                                           ]
                          },
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {
                                    '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-libs',
                                                                          '/',

'6.02'
                                                                           ]
                                  },
          'SUNWservicetagr' => {
                                  '1.1.4,REV=2008.03.21.07.54' => [

'SUNWservicetagr',
                                                                            '/',

'1.1.4.1'
                                                                          ]
                                 },
          'SUNWciimc' => {},
          'SUNWjhrt' => {
                           '2.0,REV=2006.10.31' => [
                                                       'SUNWjhrt',
                                                       '/usr',
                                                       '2.0/FCS'
                                                     ]
                          },
          'SUNWtlsd' => {
                           '3.11.4,REV=2006.11.16.20.40' => [
                                                               'SUNWtlsd',
                                                               '/',
                                                               '3.12.6'
                                                             ]
                          },
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                           '11.10.0,REV=2005.01.21.15.53' => [
```

```
'SUNWdtrc',
                                                                '/',

'5.10/Generic Patch'
                                                              ]
                        },
          'SUNWhuwc' => {},
          'mysql' => {
                      '5.1.36' => [
                                   'mysql',
                                   '/opt/mysql',
                                   ''
                                 ]
                    },
          'SUNWiqdoc' => {
                          '4.4,REV=2009.08.27.08.32' => [
                                                         'SUNWiqdoc',
                                                         '/',
                                                         '4.4.0.0'
                                                       ]
                        },
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {
                         '8.0,REV=2008.12.04' => [
                                                  'SUNWiimd',
                                                  '/opt/sun/comms/im',
                                                  '8.0-03'
                                                ]
                        },
          'SUNWiqcrt' => {
                          '4.4,REV=2009.08.27.08.33' => [
                                                         'SUNWiqcrt',
                                                         '/opt',
                                                         '4.4.1.0'
                                                       ]
                        },
          'SUNWmsgzh' => {},
          'SUNWprd' => {
                        '4.6.4,REV=2006.11.16.20.40' => [
                                                         'SUNWprd',
                                                         '/',
                                                         '4.8.4'
                                                       ]
                      },
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {
                           '7.0,REV=2009.03.31' => [
                                                    'SUNWcommda',

'/opt/sun/comms/da',
                                                    '7.0-3.00'
                                                  ]
                         },
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
```

```
          'SUNWiwc' => {
                        '2.0,REV=2010.07.26' => [
                                                  'SUNWiwc',
                                                  '/opt/sun/comms/iwc',
                                                  '2.0-0.06'
                                                ]
                      },
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {
                          '7.3,REV=2008.01.07.20.24.34' => [

'SUNWiimsc',

'/opt/sun/comms/im_scha',
                                                                '7.3-01'
                                                              ]
                        },
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.23.05' => [

'SUNWinstall-patch-utils-root',

'/',

'SNAG Development'

]
                                              },
          'SUNWiimin' => {
                          '8.0,REV=2008.12.04' => [
                                                    'SUNWiimin',

'/opt/sun/comms/im',
                                                    '8.0-03'
                                                  ]
                        },
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {
                        '4.4,REV=2009.08.27.08.32' => [
                                                        'SUNWiqu',
                                                        '/',
                                                        '4.4.1.0'
                                                      ]
                      },
          'SUNWkiimc' => {},
          'SUNWiim' => {
                        '8.0,REV=2008.12.04' => [
                                                  'SUNWiim',
                                                  '/opt/sun/comms/im',
                                                  '8.0-03'
                                                ]
                      },
          'SUNWeiimin' => {},
```

```
          'SUNWcimid' => {},
          'SUNWiqcdv' => {
                          '4.4,REV=2009.08.27.08.33' => [
                                                          'SUNWiqcdv',
                                                          '/opt',
                                                          '4.4.1.0'
                                                        ]
                        },
          'SUNWldapcsdk-tools' => {
                                   '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-tools',

'/opt/SUNWdsee',

'6.02'
                                                                    ]
                                  },
          'SUNWjss' => {
                        '4.2.4,REV=2006.11.16.20.40' => [
                                                          'SUNWjss',
                                                          '/',
                                                          '4.3.2'
                                                        ]
                      },
          'SUNWdiqu' => {
                         '4.4,REV=2009.10.01.09.42.59' => [
                                                            'SUNWdiqu',
                                                            '/',
                                                            '4.4.1.0'
                                                          ]
                       },
          'SUNWjiss' => {
                         '1.0,REV=2009.09.09' => [
                                                   'SUNWjiss',

'/opt/sun/comms/jiss',
                                                   '1.1-4.4501'
                                                 ]
                       },
          'SUNWj6cfg' => {
                          '1.6.0,REV=2006.11.29.05.57' => [

'SUNWj6cfg',
                                                            '/',

'1.6.0_20/1.6.0_20-b02'
                                                          ]
                        },
          'SUNWhimid' => {},
          'SUNWciquc' => {
                          '4.4,REV=2009.10.01.09.46.03' => [

'SUNWciquc',
                                                             '/',
                                                             '4.4.1.0'
```

```
                                                                ]
                          },
          'SUNWcomms' => {
                            '7.1,REV=2010.07.26' => [
                                                        'SUNWcomms',

'/opt/sun/comms/CommsInstaller',
                                                        '7.1-0.06'
                                                      ]
                          },
          'SUNWjiqu' => {
                           '4.4,REV=2009.10.01.09.45.16' => [
                                                              'SUNWjiqu',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                        },
          'SUNWkiqu' => {
                           '4.4,REV=2009.10.01.09.44.30' => [
                                                              'SUNWkiqu',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                        },
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {
                           '4.4,REV=2009.10.01.09.43.44' => [
                                                              'SUNWeiqu',
                                                              '/',
                                                              '4.4.1.0'
                                                            ]
                        },
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {
                                '7.0,REV=2009.08.27' => [

'SUNWdavserver',

'/opt/sun/comms/davserver',
                                                                '7.1-1.11'
                                                              ]
                              },
          'SUNWmsgtw' => {},
          'SUNWeiimc' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                               '11.11,REV=2005.01.09.23.05' => [

'SUNWpkgcmdsu',
                                                                    '/',
                                                                    'SNAG
Development'
                                                                  ]
                             },
          'SUNWjiimc' => {},
```

```
          'SUNWeimid' => {},
          'SUNWiqjx' => {
                         '4.4,REV=2009.08.27.08.33' => [
                                                         'SUNWiqjx',
                                                         '/',
                                                         '4.4.1.0'
                                                       ]
                        },
          'SUNWjhdoc' => {
                          '2.0,REV=2006.10.04' => [
                                                    'SUNWjhdoc',
                                                    '/usr',
                                                    '2.0/FCS'
                                                  ]
                         },
          'SUNWj6dev' => {
                          '1.6.0,REV=2006.11.29.05.57' => [

'SUNWj6dev',
                                                             '/usr',

'1.6.0_20/1.6.0_20-b02'
                                                            ]
                         },
          'SUNWmsges' => {},
          'SUNWpr' => {
                       '4.6.4,REV=2006.11.16.20.40' => [
                                                         'SUNWpr',
                                                         '/',
                                                         '4.8.4'
                                                       ]
                      },
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {
                        '1.2,REV=2005.01.06.14.13' => [
                                                        'SUNWicu',
                                                        '/usr',
                                                        '10/Generic'
                                                      ]
                       },
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                         '11.10,REV=2005.01.10.17.19' => [
                                                           'SUNWswmt',
                                                           '/',
                                                           'SNAG
Development'
                                                         ]
                        },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
```

```
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {
                          '4.4,REV=2009.10.01.09.44.32' => [

'SUNWkiquc',
                                                            '/',
                                                            '4.4.1.0'
                                                          ]
                        },
          'SUNWstosreg' => {
                            '1.1.4,REV=2008.03.21.07.54' => [

'SUNWstosreg',
                                                              '/',
                                                              '1.1.4.1'
                                                            ]
                          },
          'SUNWmsgde' => {},
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                         '11.10.0,REV=2005.01.08.05.16' => [

'SUNWbzip',
                                                            '/',

'5.10/SunOS Development'
                                                          ]
                       },
          'SUNWtlsu' => {
                         '3.11.4,REV=2006.11.16.20.40' => [
                                                            'SUNWtlsu',
                                                            '/',
                                                            '3.12.6'
                                                          ]
                       },
          'SUNWfiqu' => {
                         '4.4,REV=2009.10.01.09.42.14' => [
                                                            'SUNWfiqu',
                                                            '/',
                                                            '4.4.1.0'
                                                          ]
                       },
          'SUNWsasl' => {
                         '2.17,REV=2004.04.06.15.24' => [
                                                          'SUNWsasl',
                                                          '/',
                                                          '2.19'
                                                        ]
                       },
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                          '11.10.0,REV=2005.01.21.15.53' => [
```

```
'SUNWzoneu',
                                                                    '/',

'5.10/Generic Patch'
                                                                  ]
                          },
          'SUNWcsr' => {
                          '11.10.0,REV=2005.01.21.15.53' => [
                                                                  'SUNWcsr',
                                                                  '/',

'5.10/Generic Patch'
                                                                ]
                         },
          'SUNWesics' => {},
          'SUNWiimm' => {
                           '8.0,REV=2008.12.04' => [
                                                      'SUNWiimm',
                                                      '/opt/sun/comms/im',
                                                      '8.0-03'
                                                    ]
                         }
        };
!!! installedprod
$VAR1 = {
          'IWC' => {
                      '2.0' => [
                                  '/opt/sun/comms/iwc',
                                  '2.0-0.06',
                                  '20100726',
                                  '2',
                                  'SunOS',
                                  'sparc',
                                  '32'
                                ]
                    },
          'IM' => {
                     '8.3' => [
                                '/opt/sun/comms/im',
                                '8.3-03.10',
                                '20100622',
                                '8u3',
                                'SunOS',
                                'sparc',
                                '32'
                              ]
                   },
          'SASL' => {
                       '2.19' => [
                                    '/',
                                    '2.19',
                                    'none',
                                    '2.19',
                                    'none',
                                    'none',
                                    'none'
```

```
                                ]
                        },
                'ST' => {
                        '1.1.4' => [
                                        '/',
                                        '1.1.4.1',
                                        'none',
                                        '1.1.4',
                                        'none',
                                        'none',
                                        'none'
                                    ]
                        },
                'DSSETUP' => {
                                '6.4' => [
                                          '/opt/sun/comms/dssetup',
                                          '6.4-6.03',
                                          '20091123',
                                          '6.4',
                                          'SunOS',
                                          'sparc',
                                          '32'
                                         ]
                              },
                'CS_SCHA' => {
                                '6.3' => [
                                          '/opt/sun/comms/cs_scha',
                                          '6.3-1.01',
                                          '20080331',
                                          '6.3',
                                          'SunOS',
                                          'sparc',
                                          '32'
                                         ]
                              },
                'LDAPJDK' => {
                                '4.19' => [
                                           '/',
                                           '4.21',
                                           'none',
                                           '4.19',
                                           'none',
                                           'none',
                                           'none'
                                          ]
                              },
                'MQ_L10N' => {
                                '4.4' => [
                                          '/',
                                          '4.4.1.0',
                                          'none',
                                          '4.4',
                                          'none',
                                          'none',
                                          'none'
                                         ]
```

```
                        },
          'MYSQL_MARKER' => {
                              '1.0' => [

'/var/opt/CommsInstaller/Markers/MYSQL',
                                          '1.0-0.01',
                                          'none',
                                          '1.0',
                                          'none',
                                          'none',
                                          'none'
                                        ]
                            },
          'BZIP' => {
                      '11.10' => [
                                    '/',
                                    '5.10/SunOS Development',
                                    'none',
                                    '11.10',
                                    'none',
                                    'none',
                                    'none'
                                  ]
                    },
          'IM_SCHA' => {
                         '7.3' => [
                                     '/opt/sun/comms/im_scha',
                                     '7.3-01.02',
                                     '20080403',
                                     '7.3',
                                     'SunOS',
                                     'sparc',
                                     '32'
                                   ]
                        },
          'ICU' => {
                     'ICU2,ICU3' => [
                                       '/usr',
                                       '10/Generic',
                                       'none',
                                       'ICU2,ICU3',
                                       'none',
                                       'none',
                                       'none'
                                     ]
                   },
          'MS64' => {
                      '7.4' => [
                                  '/opt/sun/comms/messaging64',
                                  '7.4-18.01',
                                  '20100715',
                                  '7u4',
                                  'SunOS',
                                  'sparc',
                                  '64'
                                ]
```

```
                 },
          'DAV' => {
                    '7.1' => [
                                '/opt/sun/comms/davserver',
                                '7.1-1.11',
                                '20100716',
                                '7u1',
                                'SunOS',
                                'sparc',
                                '32'
                              ]
                  },
          'LIBCPLUSPLUS' => {
                              '5.9' => [
                                        '/',
                                        '5.10',
                                        'none',
                                        '5.9',
                                        'none',
                                        'none',
                                        'none'
                                      ]
                            },
          'LDAPCSDK6' => {
                           '6.0' => [
                                     '/',
                                     '6.02',
                                     'none',
                                     '6.0',
                                     'none',
                                     'none',
                                     'none'
                                   ]
                         },
          'JDK' => {
                    '1.6.0' => [
                                '/usr',
                                '1.6.0_20/1.6.0_20-b02',
                                'none',
                                '1.6.0',
                                'none',
                                'none',
                                'none'
                              ]
                  },
          'MS_SCHA' => {
                         '7.0' => [
                                   '/opt/sun/comms/msg_scha',
                                   '7.0-0.03',
                                   '20080519',
                                   '7.0',
                                   'SunOS',
                                   'sparc',
                                   '32'
                                 ]
                       },
```

```
            'MYSQL' => {
                        '5.1.36' => [
                                      '/opt/mysql',
                                      'none',
                                      'none',
                                      '5.1.36',
                                      'none',
                                      'none',
                                      'none'
                                    ]
                       },
            'CS' => {
                     '6.3' => [
                               '/opt/sun/comms/calendar',
                               '6.3-23.01',
                               '20100624',
                               '6.3',
                               'SunOS',
                               'sparc',
                               '32'
                              ]
                    },
            'PATCHUTILS' => {
                             'Unknown' => [
                                           '/',
                                           'SNAG Development',
                                           'none',
                                           'Unknown',
                                           'none',
                                           'none',
                                           'none'
                                          ]
                            },
            'MQ' => {
                     '4.4' => [
                               '/',
                               '4.4.1.0',
                               'none',
                               '4.4',
                               'none',
                               'none',
                               'none'
                              ]
                    },
            'JHRT' => {
                       '2.0' => [
                                 '/usr',
                                 '2.0/FCS',
                                 'none',
                                 '2.0',
                                 'none',
                                 'none',
                                 'none'
                                ]
                      },
            'IMAPI' => {
```

```
                '8.0' => [
                            '/',
                            '8.0-00',
                            'none',
                            '8',
                            'none',
                            'none',
                            'none'
                          ]
              },
'CI' => {
          '7.1' => [
                      '/opt/sun/comms/CommsInstaller',
                      '7.1-0.06',
                      '20100726',
                      '7u1',
                      'SunOS',
                      'sparc',
                      '32'
                    ]
        },
'DA' => {
          '7.0' => [
                      '/opt/sun/comms/da',
                      '7.0-3.00',
                      '20100715',
                      '7',
                      'SunOS',
                      'sparc',
                      '32'
                    ]
        },
'LDAPCSDK6_TOOLS' => {
                        '6.0' => [
                                    '/opt/SUNWdsee',
                                    '6.02',
                                    'none',
                                    '6.0',
                                    'none',
                                    'none',
                                    'none'
                                  ]
                      },
'JISS' => {
            '1.1' => [
                        '/opt/sun/comms/jiss',
                        '1.1-4.4501',
                        '20100618',
                        '1u1',
                        'SunOS',
                        'all',
                        '32'
                      ]
          },
'NSS' => {
            '4.8.4' => [
```

```
                                  '/',
                                  '4.3.2',
                                  'none',
                                  '4.8.4',
                                  'none',
                                  'none',
                                  'none'
                                ]
                    }
        };
====== End QQQ detectProducts ======
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-18.01 64bit)
          Installed Version at /opt/sun/comms/messaging64
       2  Comms DSsetup 6.4 (6.4-6.03)
          Installed Version at /opt/sun/comms/dssetup
       3  Calendar Server (CALDAV) 7u1 (7.1-1.11)
          Installed Version at /opt/sun/comms/davserver
       4  Instant Messaging 8u3 (8.3-03.10)
          Installed Version at /opt/sun/comms/im
       5  Convergence 2 (2.0-0.06)
          Installed Version at /opt/sun/comms/iwc
       6  Indexing and Search Service 1u1 (1.1-4.4501)
          Installed Version at /opt/sun/comms/jiss
       7  Comms Delegated Administrator 7 (7.0-3.00)
          Installed Version at /opt/sun/comms/da
       8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
          Installed Version at /opt/sun/comms/msg_scha
       9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
          Installed Version at /opt/sun/comms/im_scha
      10  Calendar Server 6.3 (6.3-23.01)
          Installed Version at /opt/sun/comms/calendar
      11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
          Installed Version at /opt/sun/comms/cs_scha

Enter the items you wish to uninstall. Enter q to quit.
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to uninstall [1, 2, 3, 4, 5, 6, 7,
8, 9, 10, 11]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: MS64 7.4 DSSETUP 6.4 DAV 7.1 IM 8.3 IWC 2.0 JISS 1.1 DA
7.0 MS_SCHA 7.0 IM_SCHA 7.3 CS 6.3 CS_SCHA 6.3
  WILL UNINSTALL: Messaging Server (64bit) 7u4 (7.4-18.01)
                  at /opt/sun/comms/messaging64)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWmessaging-server-64
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-6.03)
```

```
                  at /opt/sun/comms/dssetup)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcomds
  WILL UNINSTALL: Calendar Server (CALDAV) 7u1 (7.1-1.11)
                  at /opt/sun/comms/davserver)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWdavserver
  WILL UNINSTALL: Instant Messaging 8u3 (8.3-03.10)
                  at /opt/sun/comms/im)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimgw
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimd
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimc
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimid
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimjd
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimm
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimin
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiim
  WILL UNINSTALL: Convergence 2 (2.0-0.06)
                  at /opt/sun/comms/iwc)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiwc
  WILL UNINSTALL: Indexing and Search Service 1u1 (1.1-4.4501)
                  at /opt/sun/comms/jiss)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWjiss
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-3.00)
                  at /opt/sun/comms/da)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcommda
  WILL UNINSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                  at /opt/sun/comms/msg_scha)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWmessaging-server-scha
  WILL UNINSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
```

```
                  at /opt/sun/comms/im_scha)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimsc
  WILL UNINSTALL: Calendar Server 6.3 (6.3-23.01)
                  at /opt/sun/comms/calendar)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWica5
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWics5
  WILL UNINSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                  at /opt/sun/comms/cs_scha)
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWscics
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to uninstall

Do you want to continue ? [yes] :

============================================================
Uninstalling Messaging Server (64bit) 7u4 (7.4-18.01 at
/opt/sun/comms/messaging64)...
------ Executing Task 1 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWmessaging-server-64 2>&1

Removal of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

============================================================
Uninstalling Comms DSsetup 6.4 (6.4-6.03 at /opt/sun/comms/dssetup)...
------ Executing Task 2 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcomds 2>&1

Removal of <SUNWcomds> was successful.
-- Exit status: 0

============================================================
Uninstalling Calendar Server (CALDAV) 7u1 (7.1-1.11 at
/opt/sun/comms/davserver)...
------ Executing Task 3 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWdavserver 2>&1

Removal of <SUNWdavserver> was successful.
-- Exit status: 0

============================================================
Uninstalling Instant Messaging 8u3 (8.3-03.10 at /opt/sun/comms/im)...
```

```
------ Executing Task 4 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimgw 2>&1

Removal of <SUNWiimgw> was successful.
-- Exit status: 0
------ Executing Task 5 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimd 2>&1

Removal of <SUNWiimd> was successful.
-- Exit status: 0
------ Executing Task 6 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimc 2>&1

Removal of <SUNWiimc> was successful.
-- Exit status: 0
------ Executing Task 7 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimid 2>&1

Removal of <SUNWiimid> was successful.
-- Exit status: 0
------ Executing Task 8 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimjd 2>&1

Removal of <SUNWiimjd> was successful.
-- Exit status: 0
------ Executing Task 9 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimm 2>&1

Removal of <SUNWiimm> was successful.
-- Exit status: 0
------ Executing Task 10 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimin 2>&1

Removal of <SUNWiimin> was successful.
-- Exit status: 0
------ Executing Task 11 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiim 2>&1

Removal of <SUNWiim> was successful.
-- Exit status: 0
```

```
============================================================
Uninstalling Convergence 2 (2.0-0.06 at /opt/sun/comms/iwc)...
------ Executing Task 12 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiwc 2>&1

Removal of <SUNWiwc> was successful.
-- Exit status: 0

============================================================
Uninstalling Indexing and Search Service 1u1 (1.1-4.4501 at
/opt/sun/comms/jiss)...
------ Executing Task 13 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWjiss 2>&1

Removal of <SUNWjiss> was successful.
-- Exit status: 0

============================================================
Uninstalling Comms Delegated Administrator 7 (7.0-3.00 at
/opt/sun/comms/da)...
------ Executing Task 14 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcommda 2>&1

Removal of <SUNWcommda> was successful.
-- Exit status: 0

============================================================
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/sun/comms/msg_scha)...
------ Executing Task 15 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWmessaging-server-scha 2>&1

Removal of <SUNWmessaging-server-scha> was successful.
-- Exit status: 0

============================================================
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/sun/comms/im_scha)...
------ Executing Task 16 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimsc 2>&1

Removal of <SUNWiimsc> was successful.
-- Exit status: 0

============================================================
```

```
Uninstalling Calendar Server 6.3 (6.3-23.01 at
/opt/sun/comms/calendar)...
------ Executing Task 17 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWica5 2>&1

Removal of <SUNWica5> was successful.
-- Exit status: 0
------ Executing Task 18 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWics5 2>&1

Removal of <SUNWics5> was successful.
-- Exit status: 0

============================================================
Uninstalling Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01 at
/opt/sun/comms/cs_scha)...
------ Executing Task 19 of 19 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWscics 2>&1

Attempting to change the following in ics.conf
    local.server.ha.enabled="no"
    local.server.ha.agent="none"
grep: can't open "/tmp/ics.conf"
Done...

Removal of <SUNWscics> was successful.
-- Exit status: 0
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWmessaging-server-64
PASSED: Task 2: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcomds
PASSED: Task 3: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWdavserver
PASSED: Task 4: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimgw
PASSED: Task 5: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimd
PASSED: Task 6: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimc
PASSED: Task 7: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
```

```
SUNWiimid
PASSED: Task 8: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimjd
PASSED: Task 9: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimm
PASSED: Task 10: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimin
PASSED: Task 11: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiim
PASSED: Task 12: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiwc
PASSED: Task 13: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWjiss
PASSED: Task 14: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcommda
PASSED: Task 15: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWmessaging-server-scha
PASSED: Task 16: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiimsc
PASSED: Task 17: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWica5
PASSED: Task 18: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWics5
PASSED: Task 19: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWscics

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Mar 18  2009 /usr/java ->
jdk/jdk1.5.0_16

/usr/jdk:
total 10
drwxr-xr-x   4 root     bin            4 Aug  4 22:25 instances
lrwxrwxrwx   1 root     other          7 Mar 18  2009 j2sdk1.4.2_18 ->
../j2se
lrwxrwxrwx   1 root     other         18 Mar 18  2009 jdk1.5.0_16 ->
instances/jdk1.5.0
lrwxrwxrwx   1 root     other         18 Aug  4 22:25 jdk1.6.0_20 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Aug  4 22:25 latest ->
jdk1.6.0_20
drwxr-xr-x   8 root     bin            8 Mar 18  2009 packages
```

```
-- Exit status: 0
ls -l /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
lrwxrwxrwx   1 root     other         11 Aug  4 22:25 /usr/jdk/latest ->
jdk1.6.0_20
-- Exit status: 2
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
/usr/jdk/latest:
total 38181
-rw-r--r--   1 root     bin         3767 Apr 12 15:32 COPYRIGHT
-rw-r--r--   1 root     bin        17179 Apr 12 15:32 LICENSE
-rw-r--r--   1 root     bin        28329 Apr 12 15:32 README.html
-rw-r--r--   1 root     bin        25390 Apr 12 15:32 README_ja.html
-rw-r--r--   1 root     bin        20768 Apr 12 15:32 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 Apr 12 15:32
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Aug  4 22:25 bin
drwxr-xr-x   3 root     bin            8 Aug  4 22:25 include
drwxr-xr-x   6 root     bin           11 Aug  4 22:25 jre
drwxr-xr-x   3 root     bin           11 Aug  4 22:25 lib
-r--r--r--   1 root     other       6634 Aug  4 22:25 register.html
-r--r--r--   1 root     other       7066 Aug  4 22:25 register_ja.html
-r--r--r--   1 root     other       6244 Aug  4 22:25
register_zh_CN.html
-rw-r--r--   1 root     bin      19050033 Apr 12 15:31 src.zip
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.patchout_20100804223352.22777
mkdir -p /var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0

NOTICE: silent file created in:
```

```
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100804223352
-- Closing the log at Wed Aug  4 22:34:45 2010
```

Shared Components

Shared Components Bundled With the Communications Suite Installer

For the list of shared components that can be installed by the Communications Suite installer, run the `commpkg info --listPackages` command. See commpkg info Usage for additional information.

GlassFish Message Queue is automatically installed with the other shared components.

See the following output for each supported operating system for more information:

- listPackages for Solaris OS 10 SPARC
- listPackages for Solaris OS 10 x64
- listPackages for Solaris OS 9 SPARC
- listPackages for Red Hat Linux 4
- listPackages for Red Hat Linux 5 x86

listPackages for Red Hat Linux 4

listPackages for Red Hat Linux 4

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 1 on Red Hat Linux 4u8.

```
% ./commpkg -V
CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010
% uname -a
Linux gregariuos.sfbay.sun.com 2.6.9-89.EL #1 Mon Apr 20 10:23:08 EDT
2009 i686 i686 i386 GNU/Linux
% cat /etc/redhat-release
Red Hat Enterprise Linux AS release 4 (Nahant Update 8)
% ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20100810004751.log
Package list per product

Product: Messaging Server (32bit)
Product Group: Comms
Description: Messaging Server 32bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-18.01
Build Date: 20100715
Mnemonic: MS
Installation directory: <INSTALLROOT>/messaging
Patches:
Dependencies:
  MQ
  MQ_L10N
  ICU
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-messaging-server           7.4-18.01.i386

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-6.03
Build Date: 20091123
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches:
Dependencies:
  LDAPCSDK6_TOOLS
Package Name/Version:
  sun-comms-dssetup              6.4-6.03.i386
```

```
Product: Comms Delegated Administrator
Product Group: Comms
Description: Comms Delegated Administrator
Version: 7.0
Marketing Version: 7
Full Version: 7.0-3.00
Build Date: 20100715
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
Patches:
Dependencies:
  ST
  JDK
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-commda                     7.0-3.00.i386

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-23.01
Build Date: 20100624
Mnemonic: CS
Installation directory: <INSTALLROOT>/calendar
Patches:
Dependencies:
  MQ
  SASL
  ST
  MQ_L10N
  JDK
  ICU
  NSS
Package Name/Version:
  sun-calendar-core              6.3-23.01.i386
  sun-calendar-api               6.3-23.01.i386

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.4
Marketing Version: 4.8.4
Mnemonic: NSS
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-nspr                       4.8.4-1.i386
  sun-nss                        3.12.6-1.i386
  sun-jss                        4.3.2-1.i386

Product: Simple Authentication and Security Layer
```

```
Product Group: Shared Component
Description:
Version: 2.19
Marketing Version: 2.19
Mnemonic: SASL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-sasl                        2.19-6.i386

Product: LDAPCSDK6
Product Group: Shared Component
Description: ldap c sdk 6
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6
Installation directory: <package default>
Patches:
Dependencies:
  SASL
  ICU
  NSS
Package Name/Version:
  sun-ldapcsdk-libs               6.00-8.i386
  sun-ldapcsdk-dev                6.00-8.i386

Product: LDAPCSDK6 Tools
Product Group: Shared Component
Description: ldap c sdk 6 Tools
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6_TOOLS
Installation directory: <INSTALLROOT>/directory
Patches:
Dependencies:
  LDAPCSDK6
Package Name/Version:
  sun-ldapcsdk-tools              6.00-8.i386

Product: International Components for Unicode
Product Group: Shared Component
Description:
Version: ICU2,ICU3
Marketing Version: ICU2,ICU3
Mnemonic: ICU
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-icu                         3.2.1-5.i386

Product: JDK
Product Group: Shared Component
Description: Java Development Kit
Version: 1.6.0
```

```
Marketing Version: 1.6.0
Mnemonic: JDK
Installation directory: <package default>
Patches:
Dependencies:
  ST
Package Name/Version:
  jdk                           1.6.0_20-fcs.i586

Product: Java Help Runtime
Product Group: Shared Component
Description: Java Help Runtime
Version: 2.0
Marketing Version: 2.0
Mnemonic: JHRT
Installation directory: <package default>
Patches:
Dependencies:
  JDK
Package Name/Version:
  sun-javahelp                  2.0-fcs.i586

Product: Message Queue
Product Group: Shared Component
Description: Message Queue
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ
Installation directory: <package default>
Patches:
Dependencies:
  JHRT
  JDK
  NSS
Package Name/Version:
  sun-mq-config                 4.4-10.i386
  sun-mq-var                    4.4-10.i386
  sun-mq-jaxm                   4.4-10.i386
  sun-mq-jmsclient              4.4-10.i386
  sun-mq-xmlclient              4.4-10.i386
  sun-mq-capi                   4.4-10.i386
  sun-mq                        4.4-10.i386
  sun-mq-ent                    4.4-10.i386

Product: Message Queue Localization
Product Group: Shared Component
Description: Message Queue Localization
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ_L10N
Installation directory: <package default>
Patches:
Dependencies:
  MQ
Package Name/Version:
  sun-mq-de                     4.4-1.i386
```

```
  sun-mq-es                       4.4-1.i386
  sun-mq-fr                       4.4-1.i386
  sun-mq-ja                       4.4-1.i386
  sun-mq-ko                       4.4-1.i386
  sun-mq-zh_CN                    4.4-1.i386
  sun-mq-zh_TW                    4.4-1.i386

Product: LDAPJDK
Product Group: Shared Component
Description: LDAP JDK
Version: 4.19
Marketing Version: 4.19
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-ljdk                        4.21-1.i386

Product: Instant Messaging API
Product Group: Shared Component
Description: Instant Messaging API
Version: 8.0
Marketing Version: 8
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-im-dev                      8.0-00.i386

Product: MySQL
Product Group: Shared Component
Description: MySQL
Version: 5.1.36
Marketing Version: 5.1.36
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:

Product: Service Tags
Product Group: OS Auxiliary
Description: Service Tags
Version: 1.1.4
Marketing Version: 1.1.4
Mnemonic: ST
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-servicetag                  1.1.4-1.i386

Product: CommsInstaller
Product Group: CI Products
```

```
Description: The CommsInstaller installed as a package
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-0.06
Build Date: 20100726
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
Package Name/Version:
  sun-comms-installer            7.1-0.06.i386

Product: MySQL Marker
Product Group: CI Products
Description: MySQL Marker
Version: 1.0
Marketing Version: 1.0
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
```

```
Dependencies:
Package Name/Version:
```

listPackages for Red Hat Linux 5 x64

listPackages for Red Hat Linux 5 x64

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 1 on Red Hat Linux 5.3 64-bit.

Topics:

- Session

Session

```
% ./commpkg -V
CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010
% uname -a
Linux priest.red.iplanet.com 2.6.18-128.el5 #1 SMP Wed Dec 17 11:41:38
EST 2008 x86_64 x86_64 x86_64 GNU/Linux
% cat /etc/redhat-release
Red Hat Enterprise Linux Server release 5.3 (Tikanga)
% ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20100810005623.log
Package list per product

Product: Messaging Server (32bit)
Product Group: Comms
Description: Messaging Server 32bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-18.01
Build Date: 20100715
Mnemonic: MS
Installation directory: <INSTALLROOT>/messaging
Patches:
Dependencies:
  MQ
  MQ_L10N
  ICU
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-messaging-server           7.4-18.01.i386

Product: Messaging Server (64bit)
Product Group: Comms
Description: Messaging Server 64bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-18.01
Build Date: 20100715
Mnemonic: MS64
Installation directory: <INSTALLROOT>/messaging64
```

```
Patches:
Dependencies:
  MQ
  MQ_L10N
  ICU
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-messaging-server64         7.4-18.01.x86_64

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-6.03
Build Date: 20091123
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches:
Dependencies:
  LDAPCSDK6_TOOLS
Package Name/Version:
  sun-comms-dssetup              6.4-6.03.i386

Product: Calendar Server (CALDAV)
Product Group: Comms
Description: Calendar Server
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-1.11
Build Date: 20100716
Mnemonic: DAV
Installation directory: <INSTALLROOT>/davserver
Patches:
Dependencies:
  ST
  JDK
  LDAPCSDK6_TOOLS
  MYSQL
Package Name/Version:
  sun-davserver                  7.1-1.11.i386

Product: Instant Messaging
Product Group: Comms
Description: Instant Messaging
Version: 8.3
Marketing Version: 8u3
Full Version: 8.3-03.10
Build Date: 20100622
Mnemonic: IM
Installation directory: <INSTALLROOT>/im
Patches:
Dependencies:
  MQ
  LDAPJDK
```

```
  ST
  IMAPI
  MQ_L10N
  JDK
  NSS
Package Name/Version:
  sun-im-server                  8.3-03.10.i386
  sun-im-install                 8.3-03.10.i386
  sun-im-mux                     8.3-03.10.i386
  sun-im-apidoc                  8.3-03.10.i386
  sun-im-ident                   8.3-03.10.i386
  sun-im-client                  8.3-03.10.i386
  sun-im-olh                     8.3-03.10.i386
  sun-im-gateways                8.3-03.10.i386

Product: Convergence
Product Group: Comms
Description: Integrated Web Client
Version: 2.0
Marketing Version: 2
Full Version: 2.0-0.06
Build Date: 20100726
Mnemonic: IWC
Installation directory: <INSTALLROOT>/iwc
Patches:
Dependencies:
  ST
  JDK
Package Name/Version:
  sun-iwc                        2.0-0.06.i386

Product: Indexing and Search Service
Product Group: Comms
Description: Indexing Search Services
Version: 1.1
Marketing Version: 1u1
Full Version: 1.1-4.4501
Build Date: 20100618
Mnemonic: JISS
Installation directory: <INSTALLROOT>/jiss
Patches:
Dependencies:
  MQ
  ST
  MQ_L10N
  JDK
  LDAPCSDK6_TOOLS
Package Name/Version:
  sun-jiss                       1.1-4.4501.noarch

Product: Comms Delegated Administrator
Product Group: Comms
Description: Comms Delegated Administrator
Version: 7.0
Marketing Version: 7
Full Version: 7.0-3.00
```

```
Build Date: 20100715
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
Patches:
Dependencies:
  ST
  JDK
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-commda                    7.0-3.00.i386

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-23.01
Build Date: 20100624
Mnemonic: CS
Installation directory: <INSTALLROOT>/calendar
Patches:
Dependencies:
  MQ
  SASL
  ST
  MQ_L10N
  JDK
  ICU
  NSS
Package Name/Version:
  sun-calendar-core             6.3-23.01.i386
  sun-calendar-api              6.3-23.01.i386

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.4
Marketing Version: 4.8.4
Mnemonic: NSS
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-nspr                      4.8.4-1.x86_64
  sun-nspr                      4.8.4-1.i386
  sun-nss                       3.12.6-1.x86_64
  sun-nss                       3.12.6-1.i386
  sun-jss                       4.3.2-1.x86_64
  sun-jss                       4.3.2-1.i386

Product: Simple Authentication and Security Layer
Product Group: Shared Component
Description:
Version: 2.19
Marketing Version: 2.19
```

```
Mnemonic: SASL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-sasl                        2.19-6.x86_64
  sun-sasl                        2.19-6.i386

Product: LDAPCSDK6
Product Group: Shared Component
Description: ldap c sdk 6
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6
Installation directory: <package default>
Patches:
Dependencies:
  SASL
  ICU
  NSS
Package Name/Version:
  sun-ldapcsdk-libs               6.00-8.x86_64
  sun-ldapcsdk-libs               6.00-8.i386
  sun-ldapcsdk-dev                6.00-8.i386

Product: LDAPCSDK6 Tools
Product Group: Shared Component
Description: ldap c sdk 6 Tools
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6_TOOLS
Installation directory: <INSTALLROOT>/directory
Patches:
Dependencies:
  LDAPCSDK6
Package Name/Version:
  sun-ldapcsdk-tools              6.00-8.x86_64

Product: International Components for Unicode
Product Group: Shared Component
Description:
Version: ICU2,ICU3
Marketing Version: ICU2,ICU3
Mnemonic: ICU
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-icu                         3.2.1-5.x86_64
  sun-icu                         3.2.1-5.i386

Product: JDK
Product Group: Shared Component
Description: Java Development Kit
Version: 1.6.0
Marketing Version: 1.6.0
```

```
Mnemonic: JDK
Installation directory: <package default>
Patches:
Dependencies:
  ST
Package Name/Version:
  jdk                           1.6.0_20-fcs.i586

Product: Java Help Runtime
Product Group: Shared Component
Description: Java Help Runtime
Version: 2.0
Marketing Version: 2.0
Mnemonic: JHRT
Installation directory: <package default>
Patches:
Dependencies:
  JDK
Package Name/Version:
  sun-javahelp                  2.0-fcs.i586

Product: Message Queue
Product Group: Shared Component
Description: Message Queue
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ
Installation directory: <package default>
Patches:
Dependencies:
  JHRT
  JDK
  NSS
Package Name/Version:
  sun-mq-config                 4.4-10.i386
  sun-mq-var                    4.4-10.i386
  sun-mq-jaxm                   4.4-10.i386
  sun-mq-jmsclient              4.4-10.i386
  sun-mq-xmlclient              4.4-10.i386
  sun-mq-capi                   4.4-10.i386
  sun-mq                        4.4-10.i386
  sun-mq-ent                    4.4-10.i386

Product: Message Queue Localization
Product Group: Shared Component
Description: Message Queue Localization
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ_L10N
Installation directory: <package default>
Patches:
Dependencies:
  MQ
Package Name/Version:
  sun-mq-de                     4.4-1.i386
  sun-mq-es                     4.4-1.i386
```

```
  sun-mq-fr                       4.4-1.i386
  sun-mq-ja                       4.4-1.i386
  sun-mq-ko                       4.4-1.i386
  sun-mq-zh_CN                    4.4-1.i386
  sun-mq-zh_TW                    4.4-1.i386

Product: LDAPJDK
Product Group: Shared Component
Description: LDAP JDK
Version: 4.19
Marketing Version: 4.19
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-ljdk                        4.21-1.i386

Product: Instant Messaging API
Product Group: Shared Component
Description: Instant Messaging API
Version: 8.0
Marketing Version: 8
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-im-dev                      8.0-00.i386

Product: MySQL
Product Group: Shared Component
Description: MySQL
Version: 5.1.36
Marketing Version: 5.1.36
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  MySQL-server-enterprise         5.1.36-0.rhel5.x86_64
  MySQL-client-enterprise         5.1.36-0.rhel5.x86_64

Product: Service Tags
Product Group: OS Auxiliary
Description: Service Tags
Version: 1.1.4
Marketing Version: 1.1.4
Mnemonic: ST
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-servicetag                  1.1.4-1.i386

Product: CommsInstaller
```

```
Product Group: CI Products
Description: The CommsInstaller installed as a package
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-0.06
Build Date: 20100726
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
Package Name/Version:
  sun-comms-installer            7.1-0.06.i386

Product: MySQL Marker
Product Group: CI Products
Description: MySQL Marker
Version: 1.0
Marketing Version: 1.0
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
Dependencies:
```

```
Package Name/Version:
  sun-comms-mysql-marker         1.0-0.01.i386
```

listPackages for Red Hat Linux 5 x86

listPackages for Red Hat Linux 5 x86

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 1 on Red Hat Linux 5.3 32-bit.

```
% ./commpkg -V
CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010
% uname -a
Linux garrulous 2.6.18-128.el5PAE #1 SMP Wed Dec 17 12:02:33 EST 2008
i686 i686 i386 GNU/Linux
% cat /etc/redhat-release
Red Hat Enterprise Linux Server release 5.3 (Tikanga)
% ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20100809200350.log
Package list per product

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-6.03
Build Date: 20091123
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches:
Dependencies:
  LDAPCSDK6_TOOLS
Package Name/Version:
  sun-comms-dssetup              6.4-6.03.i386

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.4
Marketing Version: 4.8.4
Mnemonic: NSS
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-nspr                       4.8.4-1.i386
  sun-nss                        3.12.6-1.i386
  sun-jss                        4.3.2-1.i386

Product: Simple Authentication and Security Layer
Product Group: Shared Component
Description:
Version: 2.19
```

```
Marketing Version: 2.19
Mnemonic: SASL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-sasl                        2.19-6.i386

Product: LDAPCSDK6
Product Group: Shared Component
Description: ldap c sdk 6
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6
Installation directory: <package default>
Patches:
Dependencies:
  SASL
  ICU
  NSS
Package Name/Version:
  sun-ldapcsdk-libs               6.00-8.i386
  sun-ldapcsdk-dev                6.00-8.i386

Product: LDAPCSDK6 Tools
Product Group: Shared Component
Description: ldap c sdk 6 Tools
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6_TOOLS
Installation directory: <INSTALLROOT>/directory
Patches:
Dependencies:
  LDAPCSDK6
Package Name/Version:
  sun-ldapcsdk-tools              6.00-8.i386

Product: International Components for Unicode
Product Group: Shared Component
Description:
Version: ICU2,ICU3
Marketing Version: ICU2,ICU3
Mnemonic: ICU
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-icu                         3.2.1-5.i386

Product: JDK
Product Group: Shared Component
Description: Java Development Kit
Version: 1.6.0
Marketing Version: 1.6.0
Mnemonic: JDK
Installation directory: <package default>
```

```
Patches:
Dependencies:
  ST
Package Name/Version:
  jdk                           1.6.0_20-fcs.i586

Product: Java Help Runtime
Product Group: Shared Component
Description: Java Help Runtime
Version: 2.0
Marketing Version: 2.0
Mnemonic: JHRT
Installation directory: <package default>
Patches:
Dependencies:
  JDK
Package Name/Version:
  sun-javahelp                  2.0-fcs.i586

Product: Message Queue
Product Group: Shared Component
Description: Message Queue
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ
Installation directory: <package default>
Patches:
Dependencies:
  JHRT
  JDK
  NSS
Package Name/Version:
  sun-mq-config                 4.4-10.i386
  sun-mq-var                    4.4-10.i386
  sun-mq-jaxm                   4.4-10.i386
  sun-mq-jmsclient              4.4-10.i386
  sun-mq-xmlclient              4.4-10.i386
  sun-mq-capi                   4.4-10.i386
  sun-mq                        4.4-10.i386
  sun-mq-ent                    4.4-10.i386

Product: Message Queue Localization
Product Group: Shared Component
Description: Message Queue Localization
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ_L10N
Installation directory: <package default>
Patches:
Dependencies:
  MQ
Package Name/Version:
  sun-mq-de                     4.4-1.i386
  sun-mq-es                     4.4-1.i386
  sun-mq-fr                     4.4-1.i386
  sun-mq-ja                     4.4-1.i386
```

```
  sun-mq-ko                       4.4-1.i386
  sun-mq-zh_CN                    4.4-1.i386
  sun-mq-zh_TW                    4.4-1.i386

Product: LDAPJDK
Product Group: Shared Component
Description: LDAP JDK
Version: 4.19
Marketing Version: 4.19
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-ljdk                        4.21-1.i386

Product: Instant Messaging API
Product Group: Shared Component
Description: Instant Messaging API
Version: 8.0
Marketing Version: 8
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-im-dev                      8.0-00.i386

Product: MySQL
Product Group: Shared Component
Description: MySQL
Version: 5.1.36
Marketing Version: 5.1.36
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:

Product: Service Tags
Product Group: OS Auxiliary
Description: Service Tags
Version: 1.1.4
Marketing Version: 1.1.4
Mnemonic: ST
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-servicetag                  1.1.4-1.i386

Product: CommsInstaller
Product Group: CI Products
Description: The CommsInstaller installed as a package
Version: 7.1
Marketing Version: 7u1
```

```
Full Version: 7.1-0.06
Build Date: 20100726
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
Package Name/Version:
  sun-comms-installer            7.1-0.06.i386

Product: MySQL Marker
Product Group: CI Products
Description: MySQL Marker
Version: 1.0
Marketing Version: 1.0
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
```

```
Dependencies:
Package Name/Version:
```

listPackages for Solaris OS 9 SPARC

listPackages for Solaris OS 9 SPARC

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 1 on Solaris 9 OS SPARC.

```
% ./commpkg -V
CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010
% uname -a
SunOS riot1 5.9 Generic_117171-07 sun4u sparc SUNW,Sun-Fire-V210
% cat /etc/release
                         Solaris 9 9/04 s9s_u7wos_09 SPARC
           Copyright 2004 Sun Microsystems, Inc.  All Rights Reserved.
                         Use is subject to license terms.
                              Assembled 29 June 2004
% isainfo -b
64
% ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20100810011226.log
WARNING: Note that Solaris 9 is a legacy platform, most Comms Products
         no longer support Solaris 9
Package list per product

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-6.03
Build Date: 20091123
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches: 118242-03 118245-22
Dependencies:
  LDAPCSDK6_TOOLS (136798-02)
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWcomds                      6.3,REV=2004.08.12

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-23.01
Build Date: 20100624
Mnemonic: CS
Installation directory: <INSTALLROOT>/calendar
Patches: 121657-44
```

```
Dependencies:
  LIBCPLUSPLUS (111711-25 111712-25)
  LIBMTMALLOC (115697-02)
  JDK (125136-22 125137-22)
  NSS (125358-11)
  SASL (115342-08)
  PKGINSTALL (113713-28)
  MQ_L10N
  ICU (114677-15)
  ST
  MQ
Package Name/Version:
  SUNWics5                       6.0,REV=2003.11.14.18.12.58
  SUNWica5                       6.0,REV=2003.11.14.18.12.58

Product: Calendar Server Sun Cluster HA agent
Product Group: Comms
Description: Calendar Server Sun Cluster HA Agent
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-1.01
Build Date: 20080331
Mnemonic: CS_SCHA
Installation directory: <INSTALLROOT>/cs_scha
Patches:
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWscics                      6.3,REV=2008.03.31.18.10.20

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.4
Marketing Version: 4.8.4
Mnemonic: NSS
Installation directory: <package default>
Patches: 125358-11
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWjss                        4.2.4,REV=2006.11.16.20.40
  SUNWpr                         4.6.4,REV=2006.11.16.20.40
  SUNWprd                        4.6.4,REV=2006.11.16.20.40
  SUNWtls                        3.11.4,REV=2006.11.16.20.40
  SUNWtlsd                       3.11.4,REV=2006.11.16.20.40
  SUNWtlsu                       3.11.4,REV=2006.11.16.20.40

Product: Simple Authentication and Security Layer
Product Group: Shared Component
Description:
Version: 2.19
Marketing Version: 2.19
Mnemonic: SASL
Installation directory: <package default>
Patches: 115342-08
```

```
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWsasl                        2.17,REV=2002.10.18.11.13
  SUNWsaslx                       2.17,REV=2002.10.18.11.13

Product: LDAPCSDK6
Product Group: Shared Component
Description: ldap c sdk 6
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6
Installation directory: <package default>
Patches:
Dependencies:
  SASL (115342-08)
  NSS (125358-11)
  ICU (114677-15)
Package Name/Version:
  SUNWldapcsdk-libs               6.00,REV=2006.12.11.00.08
  SUNWldapcsdk-dev                6.00,REV=2006.12.11.00.08

Product: LDAPCSDK6 Tools
Product Group: Shared Component
Description: ldap c sdk 6 Tools
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6_TOOLS
Installation directory: <INSTALLROOT>/directory
Patches: 136798-02
Dependencies:
  LDAPCSDK6
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWldapcsdk-tools              6.00,REV=2006.12.11.00.08

Product: International Components for Unicode
Product Group: Shared Component
Description:
Version: ICU2,ICU3
Marketing Version: ICU2,ICU3
Mnemonic: ICU
Installation directory: <package default>
Patches: 114677-15
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWicu                         1.1,REV=2002.08.14.12.32

Product: JDK
Product Group: Shared Component
Description: Java Development Kit
Version: 1.6.0
Marketing Version: 1.6.0
Mnemonic: JDK
Installation directory: <package default>
```

```
Patches: 125136-22 125137-22
Dependencies:
  PKGINSTALL (113713-28)
  ST
Package Name/Version:
  SUNWj6rt                        1.6.0,REV=2006.11.29.05.57
  SUNWj6rtx                       1.6.0,REV=2006.11.29.04.58
  SUNWj6dev                       1.6.0,REV=2006.11.29.05.57
  SUNWj6dvx                       1.6.0,REV=2006.11.29.04.58
  SUNWj6cfg                       1.6.0,REV=2006.11.29.05.57

Product: Java Help Runtime
Product Group: Shared Component
Description: Java Help Runtime
Version: 2.0
Marketing Version: 2.0
Mnemonic: JHRT
Installation directory: <package default>
Patches:
Dependencies:
  PKGINSTALL (113713-28)
  JDK (125136-22 125137-22)
Package Name/Version:
  SUNWjhrt                        2.0,REV=2006.10.31
  SUNWjhdev                       2.0,REV=2006.10.04
  SUNWjhdem                       2.0,REV=2006.10.04
  SUNWjhdoc                       2.0,REV=2006.10.04

Product: Message Queue
Product Group: Shared Component
Description: Message Queue
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ
Installation directory: <package default>
Patches:
Dependencies:
  JHRT
  NSS (125358-11)
  PKGINSTALL (113713-28)
  JDK (125136-22 125137-22)
Package Name/Version:
  SUNWiqr                         4.4,REV=2009.08.27.08.32
  SUNWiqu                         4.4,REV=2009.08.27.08.32
  SUNWiqdoc                       4.4,REV=2009.08.27.08.32
  SUNWiquc                        4.4,REV=2009.08.27.08.33
  SUNWiqum                        4.4,REV=2009.08.27.08.33
  SUNWiqjx                        4.4,REV=2009.08.27.08.33
  SUNWiqfs                        4.4,REV=2009.08.27.08.33
  SUNWiqcrt                       4.4,REV=2009.08.27.08.33
  SUNWiqcdv                       4.4,REV=2009.08.27.08.33
  SUNWiqlen                       4.4,REV=2009.08.27.08.33

Product: Message Queue Localization
Product Group: Shared Component
Description: Message Queue Localization
```

```
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ_L10N
Installation directory: <package default>
Patches:
Dependencies:
  PKGINSTALL (113713-28)
  MQ
Package Name/Version:
  SUNWfiqu                        4.4,REV=2009.10.01.09.42.14
  SUNWfiquc                       4.4,REV=2009.10.01.09.42.16
  SUNWdiqu                        4.4,REV=2009.10.01.09.42.59
  SUNWdiquc                       4.4,REV=2009.10.01.09.43.03
  SUNWjiqu                        4.4,REV=2009.10.01.09.45.16
  SUNWjiquc                       4.4,REV=2009.10.01.09.45.18
  SUNWeiqu                        4.4,REV=2009.10.01.09.43.44
  SUNWeiquc                       4.4,REV=2009.10.01.09.43.47
  SUNWkiqu                        4.4,REV=2009.10.01.09.44.30
  SUNWkiquc                       4.4,REV=2009.10.01.09.44.32
  SUNWciqu                        4.4,REV=2009.10.01.09.46.01
  SUNWciquc                       4.4,REV=2009.10.01.09.46.03
  SUNWhiqu                        4.4,REV=2009.10.01.09.46.48
  SUNWhiquc                       4.4,REV=2009.10.01.09.46.50

Product: LDAPJDK
Product Group: Shared Component
Description: LDAP JDK
Version: 4.19
Marketing Version: 4.19
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches: 119725-06
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWljdk                        1.0,REV=2004.10.11.06.02

Product: Instant Messaging API
Product Group: Shared Component
Description: Instant Messaging API
Version: 8.0
Marketing Version: 8
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWiimdv                       8.0,REV=2008.12.04

Product: MySQL
Product Group: Shared Component
Description: MySQL
Version: 5.1.36
Marketing Version: 5.1.36
Mnemonic: MYSQL
```

```
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:

Product: Service Tags
Product Group: OS Auxiliary
Description: Service Tags
Version: 1.1.4
Marketing Version: 1.1.4
Mnemonic: ST
Installation directory: <package default>
Patches:
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWservicetagr                1.1.4,REV=2008.03.21.07.56
  SUNWservicetagu                1.1.4,REV=2008.03.21.07.56
  SUNWstosreg                    1.1.4,REV=2008.03.21.07.56

Product: LIBMTMALLOC
Product Group: OS - Patches only
Description: libmtmalloc patch for Solaris
Version: 11.9.0
Marketing Version: 11.9.0
Mnemonic: LIBMTMALLOC
Installation directory: <package default>
Patches: 115697-02
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWarc                        11.9.0,REV=2002.04.06.15.27
  SUNWarcx                       11.9.0,REV=2002.04.06.15.27
  SUNWcsl                        11.9.0,REV=2002.04.06.15.27
  SUNWcslx                       11.9.0,REV=2002.04.06.15.27
  SUNWcstl                       11.9.0,REV=2002.04.06.15.27
  SUNWcstlx                      11.9.0,REV=2002.04.06.15.27

Product: LIBCPLUSPLUS
Product Group: OS - Patches only
Description: libC (C++) patch for Solaris
Version: 5.9
Marketing Version: 5.9
Mnemonic: LIBCPLUSPLUS
Installation directory: <package default>
Patches: 111711-25 111712-25
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWlibC                       5.9,REV=2002.03.18

Product: Package Install Utilities
Product Group: OS - Patches only
Description: Solaris patch for packaging utilities
Version: Unknown
Marketing Version: Unknown
```

```
Mnemonic: PKGINSTALL
Installation directory: <package default>
Patches: 113713-28 113713-27
Dependencies:
Package Name/Version:
  SUNWcsr                        11.9.0,REV=2002.04.06.15.27
  SUNWcsu                        11.9.0,REV=2002.04.06.15.27

Product: BZIP OS Component
Product Group: OS - Patches only
Description: Solaris patch for bzip
Version: 11.10
Marketing Version: 11.10
Mnemonic: BZIP
Installation directory: <package default>
Patches:
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWbzip                       11.9.0,REV=2002.03.02.00.35

Product: SSH OS Component
Product Group: OS - Patches only
Description: Solaris patch for ssh
Version: 11.9.0
Marketing Version: 11.9.0
Mnemonic: SSH
Installation directory: <package default>
Patches:
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWsshu                       11.9.0,REV=2002.04.06.15.27

Product: RECOMMENDED PATCH CLUSTER
Product Group: OS - Patches only
Description: Representative sample of patches from the Recommended Patch
Cluster
Version: 2010.06.25
Marketing Version: 2010.06.25
Mnemonic: RECOMMENDED
Installation directory: <package default>
Patches: 112951-14 113713-28 118558-39 122300-51 117171-17
Dependencies:
Package Name/Version:
  No packages defines for this OS version

Product: CommsInstaller
Product Group: CI Products
Description: The CommsInstaller installed as a package
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-0.06
Build Date: 20100726
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
```

```
Patches:
Dependencies:
  PKGINSTALL (113713-28)
Package Name/Version:
  SUNWcomms                       7.1,REV=2010.07.26

Product: MySQL Marker
Product Group: CI Products
Description: MySQL Marker
Version: 1.0
Marketing Version: 1.0
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
Dependencies:
```

```
Package Name/Version:
There were 1 Warning(s). Please consult the log file
```

listPackages for Solaris OS 10 SPARC

listPackages for Solaris OS 10 SPARC

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 1 on Solaris 10 OS SPARC.

```
% ./commpkg -V
CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010
% uname -a
SunOS worfin 5.10 Generic_139555-08 sun4u sparc SUNW,Sun-Fire-V210
% cat /etc/release
                       Solaris 10 5/09 s10s_u7wos_08 SPARC
           Copyright 2009 Sun Microsystems, Inc.  All Rights Reserved.
                        Use is subject to license terms.
                             Assembled 30 March 2009
% isainfo -b
64
% ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20100810011124.log
Package list per product

Product: Messaging Server (64bit)
Product Group: Comms
Description: Messaging Server 64bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-18.01
Build Date: 20100715
Mnemonic: MS64
Installation directory: <INSTALLROOT>/messaging64
Patches: 137204-18
Dependencies:
  MQ
  PATCHUTILS (120900-04 121133-02 119254-71)
  LIBCPLUSPLUS (119963-19)
  MQ_L10N
  BZIP (126868-03 137321-01)
  ICU (119810-05)
  LDAPCSDK6_TOOLS (136798-02)
  NSS (125358-11)
Package Name/Version:
  SUNWmessaging-server-64        7.0,REV=2008.06.20

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-6.03
Build Date: 20091123
```

```
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches: 118242-03 118245-22
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  LDAPCSDK6_TOOLS (136798-02)
Package Name/Version:
  SUNWcomds                      6.3,REV=2004.08.12

Product: Calendar Server (CALDAV)
Product Group: Comms
Description: Calendar Server
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-1.11
Build Date: 20100716
Mnemonic: DAV
Installation directory: <INSTALLROOT>/davserver
Patches: 142785-01
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
  JDK (125136-22 125137-22)
  LDAPCSDK6_TOOLS (136798-02)
  MYSQL
Package Name/Version:
  SUNWdavserver                  7.0,REV=2009.08.27

Product: Instant Messaging
Product Group: Comms
Description: Instant Messaging
Version: 8.3
Marketing Version: 8u3
Full Version: 8.3-03.10
Build Date: 20100622
Mnemonic: IM
Installation directory: <INSTALLROOT>/im
Patches: 139893-03
Dependencies:
  ST
  JDK (125136-22 125137-22)
  PATCHUTILS (120900-04 121133-02 119254-71)
  MQ
  LDAPJDK (119725-06)
  MQ_L10N
  IMAPI
  NSS (125358-11)
Package Name/Version:
  SUNWiim                        8.0,REV=2008.12.04
  SUNWiimin                      8.0,REV=2008.12.04
  SUNWiimm                       8.0,REV=2008.12.04
  SUNWiimjd                      8.0,REV=2008.12.04
  SUNWiimid                      8.0,REV=2008.12.04
  SUNWiimc                       8.0,REV=2008.12.04
  SUNWiimd                       8.0,REV=2008.12.04
  SUNWiimgw                      8.0,REV=2008.12.04
```

```
Product: Convergence
Product Group: Comms
Description: Integrated Web Client
Version: 2.0
Marketing Version: 2
Full Version: 2.0-0.06
Build Date: 20100726
Mnemonic: IWC
Installation directory: <INSTALLROOT>/iwc
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
  JDK (125136-22 125137-22)
Package Name/Version:
  SUNWiwc                        2.0,REV=2010.07.26

Product: Indexing and Search Service
Product Group: Comms
Description: Indexing Search Services
Version: 1.1
Marketing Version: 1u1
Full Version: 1.1-4.4501
Build Date: 20100618
Mnemonic: JISS
Installation directory: <INSTALLROOT>/jiss
Patches: 142824-04
Dependencies:
  MQ
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
  MQ_L10N
  JDK (125136-22 125137-22)
  LDAPCSDK6_TOOLS (136798-02)
Package Name/Version:
  SUNWjiss                       1.0,REV=2009.09.09

Product: Comms Delegated Administrator
Product Group: Comms
Description: Comms Delegated Administrator
Version: 7.0
Marketing Version: 7
Full Version: 7.0-3.00
Build Date: 20100715
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
Patches: 124581-03
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
  JDK (125136-22 125137-22)
  LDAPCSDK6_TOOLS (136798-02)
  NSS (125358-11)
Package Name/Version:
  SUNWcommda                     7.0,REV=2009.03.31
```

```
Product: Messaging Server Sun Cluster HA agent
Product Group: Comms
Description: Messaging Server Sun Cluster HA Agent
Version: 7.0
Marketing Version: 7.0
Full Version: 7.0-0.03
Build Date: 20080519
Mnemonic: MS_SCHA
Installation directory: <INSTALLROOT>/msg_scha
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWmessaging-server-scha      7.0,REV=2008.05.19

Product: Instant Messaging Sun Cluster HA agent
Product Group: Comms
Description: Instant Messaging Sun Cluster HA Agent
Version: 7.3
Marketing Version: 7.3
Full Version: 7.3-01.02
Build Date: 20080403
Mnemonic: IM_SCHA
Installation directory: <INSTALLROOT>/im_scha
Patches: 137571-01
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWiimsc                      7.3,REV=2008.01.07.20.24.34

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-23.01
Build Date: 20100624
Mnemonic: CS
Installation directory: <INSTALLROOT>/calendar
Patches: 121657-44
Dependencies:
  SASL (119345-07)
  ST
  LIBCPLUSPLUS (119963-19)
  JDK (125136-22 125137-22)
  PATCHUTILS (120900-04 121133-02 119254-71)
  MQ
  MQ_L10N
  ICU (119810-05)
  NSS (125358-11)
Package Name/Version:
  SUNWics5                       6.0,REV=2003.11.14.18.12.58
  SUNWica5                       6.0,REV=2003.11.14.18.12.58

Product: Calendar Server Sun Cluster HA agent
```

```
Product Group: Comms
Description: Calendar Server Sun Cluster HA Agent
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-1.01
Build Date: 20080331
Mnemonic: CS_SCHA
Installation directory: <INSTALLROOT>/cs_scha
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWscics                      6.3,REV=2008.03.31.18.10.20

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.4
Marketing Version: 4.8.4
Mnemonic: NSS
Installation directory: <package default>
Patches: 125358-11
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWjss                        4.2.4,REV=2006.11.16.20.40
  SUNWpr                         4.6.4,REV=2006.11.16.20.40
  SUNWprd                        4.6.4,REV=2006.11.16.20.40
  SUNWtls                        3.11.4,REV=2006.11.16.20.40
  SUNWtlsd                       3.11.4,REV=2006.11.16.20.40
  SUNWtlsu                       3.11.4,REV=2006.11.16.20.40

Product: Simple Authentication and Security Layer
Product Group: Shared Component
Description:
Version: 2.19
Marketing Version: 2.19
Mnemonic: SASL
Installation directory: <package default>
Patches: 119345-07
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWsasl                       2.17,REV=2004.04.06.15.24

Product: LDAPCSDK6
Product Group: Shared Component
Description: ldap c sdk 6
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6
Installation directory: <package default>
Patches:
Dependencies:
  SASL (119345-07)
  ICU (119810-05)
```

```
  NSS (125358-11)
Package Name/Version:
  SUNWldapcsdk-libs              6.00,REV=2006.12.11.00.08
  SUNWldapcsdk-dev               6.00,REV=2006.12.11.00.08

Product: LDAPCSDK6 Tools
Product Group: Shared Component
Description: ldap c sdk 6 Tools
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6_TOOLS
Installation directory: <INSTALLROOT>/directory
Patches: 136798-02
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  LDAPCSDK6
Package Name/Version:
  SUNWldapcsdk-tools             6.00,REV=2006.12.11.00.08

Product: International Components for Unicode
Product Group: Shared Component
Description:
Version: ICU2,ICU3
Marketing Version: ICU2,ICU3
Mnemonic: ICU
Installation directory: <package default>
Patches: 119810-05
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWicu                        1.2,REV=2005.01.06.14.13

Product: JDK
Product Group: Shared Component
Description: Java Development Kit
Version: 1.6.0
Marketing Version: 1.6.0
Mnemonic: JDK
Installation directory: <package default>
Patches: 125136-22 125137-22
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  ST
Package Name/Version:
  SUNWj6rt                       1.6.0,REV=2006.11.29.05.57
  SUNWj6rtx                      1.6.0,REV=2006.11.29.04.58
  SUNWj6dev                      1.6.0,REV=2006.11.29.05.57
  SUNWj6dvx                      1.6.0,REV=2006.11.29.04.58
  SUNWj6cfg                      1.6.0,REV=2006.11.29.05.57

Product: Java Help Runtime
Product Group: Shared Component
Description: Java Help Runtime
Version: 2.0
Marketing Version: 2.0
Mnemonic: JHRT
```

```
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  BZIP (126868-03 137321-01)
  JDK (125136-22 125137-22)
Package Name/Version:
  SUNWjhrt                        2.0,REV=2006.10.31
  SUNWjhdev                       2.0,REV=2006.10.04
  SUNWjhdem                       2.0,REV=2006.10.04
  SUNWjhdoc                       2.0,REV=2006.10.04

Product: Message Queue
Product Group: Shared Component
Description: Message Queue
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
  JHRT
  JDK (125136-22 125137-22)
  NSS (125358-11)
Package Name/Version:
  SUNWiqr                         4.4,REV=2009.08.27.08.32
  SUNWiqu                         4.4,REV=2009.08.27.08.32
  SUNWiqdoc                       4.4,REV=2009.08.27.08.32
  SUNWiquc                        4.4,REV=2009.08.27.08.33
  SUNWiqum                        4.4,REV=2009.08.27.08.33
  SUNWiqjx                        4.4,REV=2009.08.27.08.33
  SUNWiqfs                        4.4,REV=2009.08.27.08.33
  SUNWiqcrt                       4.4,REV=2009.08.27.08.33
  SUNWiqcdv                       4.4,REV=2009.08.27.08.33
  SUNWiqlen                       4.4,REV=2009.08.27.08.33

Product: Message Queue Localization
Product Group: Shared Component
Description: Message Queue Localization
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ_L10N
Installation directory: <package default>
Patches:
Dependencies:
  MQ
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWfiqu                        4.4,REV=2009.10.01.09.42.14
  SUNWfiquc                       4.4,REV=2009.10.01.09.42.16
  SUNWdiqu                        4.4,REV=2009.10.01.09.42.59
  SUNWdiquc                       4.4,REV=2009.10.01.09.43.03
  SUNWjiqu                        4.4,REV=2009.10.01.09.45.16
  SUNWjiquc                       4.4,REV=2009.10.01.09.45.18
  SUNWeiqu                        4.4,REV=2009.10.01.09.43.44
```

```
  SUNWeiquc                       4.4,REV=2009.10.01.09.43.47
  SUNWkiqu                        4.4,REV=2009.10.01.09.44.30
  SUNWkiquc                       4.4,REV=2009.10.01.09.44.32
  SUNWciqu                        4.4,REV=2009.10.01.09.46.01
  SUNWciquc                       4.4,REV=2009.10.01.09.46.03
  SUNWhiqu                        4.4,REV=2009.10.01.09.46.48
  SUNWhiquc                       4.4,REV=2009.10.01.09.46.50

Product: LDAPJDK
Product Group: Shared Component
Description: LDAP JDK
Version: 4.19
Marketing Version: 4.19
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches: 119725-06
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWljdk                        1.0,REV=2004.10.11.06.02

Product: Instant Messaging API
Product Group: Shared Component
Description: Instant Messaging API
Version: 8.0
Marketing Version: 8
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWiimdv                       8.0,REV=2008.12.04

Product: MySQL
Product Group: Shared Component
Description: MySQL
Version: 5.1.36
Marketing Version: 5.1.36
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  mysql                           5.1.36

Product: Service Tags
Product Group: OS Auxiliary
Description: Service Tags
Version: 1.1.4
Marketing Version: 1.1.4
Mnemonic: ST
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
```

```
Package Name/Version:
  SUNWservicetagr                1.1.4,REV=2008.03.21.07.54
  SUNWservicetagu                1.1.4,REV=2008.03.21.07.54
  SUNWstosreg                    1.1.4,REV=2008.03.21.07.54

Product: LIBCPLUSPLUS
Product Group: OS - Patches only
Description: libC (C++) patch for Solaris
Version: 5.9
Marketing Version: 5.9
Mnemonic: LIBCPLUSPLUS
Installation directory: <package default>
Patches: 119963-19
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWlibC                       5.10,REV=2004.12.22

Product: PATCHUTILS
Product Group: OS - Patches only
Description: Solaris patch for install/patching utilities
Version: Unknown
Marketing Version: Unknown
Mnemonic: PATCHUTILS
Installation directory: <package default>
Patches: 120900-04 121133-02 119254-71
Dependencies:
Package Name/Version:
  SUNWpkgcmdsu                   11.11,REV=2005.01.09.23.05
  SUNWswmt                       11.10,REV=2005.01.10.17.19
  SUNWinstall-patch-utils-root   11.10,REV=2005.01.09.23.05
  SUNWcsr                        11.10.0,REV=2005.01.21.15.53
  SUNWdtrc                       11.10.0,REV=2005.01.21.15.53
  SUNWzoneu                      11.10.0,REV=2005.01.21.15.53

Product: BZIP OS Component
Product Group: OS - Patches only
Description: Solaris patch for bzip
Version: 11.10
Marketing Version: 11.10
Mnemonic: BZIP
Installation directory: <package default>
Patches: 126868-03 137321-01
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWbzip                       11.10.0,REV=2005.01.08.05.16

Product: RECOMMENDED PATCH CLUSTER
Product Group: OS - Patches only
Description: Representative sample of patches from the Recommended Patch
Cluster
Version: 2010.06.25
Marketing Version: 2010.06.25
Mnemonic: RECOMMENDED
Installation directory: <package default>
```

```
Patches: 119254-73 118833-36 120011-14 120272-28 137137-09 141444-09
142900-13
Dependencies:
Package Name/Version:
  No packages defines for this OS version

Product: CommsInstaller
Product Group: CI Products
Description: The CommsInstaller installed as a package
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-0.06
Build Date: 20100726
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-71)
Package Name/Version:
  SUNWcomms                      7.1,REV=2010.07.26

Product: MySQL Marker
Product Group: CI Products
Description: MySQL Marker
Version: 1.0
Marketing Version: 1.0
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
Dependencies:
```

```
Package Name/Version:
  SUNWcomms-mysql-marker         1.0,REV=2009.09.09
```

listPackages for Solaris OS 10 x64

listPackages for Solaris OS 10 x64

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 1 on Solaris 10 OS x64.

```
% ./commpkg -V
CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010
% uname -a
SunOS redpanda 5.10 Generic_139556-08 i86pc i386 i86pc
% cat /etc/release
                         Solaris 10 6/06 s10x_u2wos_09a X86
           Copyright 2006 Sun Microsystems, Inc.  All Rights Reserved.
                         Use is subject to license terms.
                              Assembled 09 June 2006
% isainfo -b
64
% ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20100810011530.log
Package list per product

Product: Messaging Server (64bit)
Product Group: Comms
Description: Messaging Server 64bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-18.01
Build Date: 20100715
Mnemonic: MS64
Installation directory: <INSTALLROOT>/messaging64
Patches: 137205-18
Dependencies:
  LIBCPLUSPLUS (119964-19)
  SNMP (120273-06)
  PATCHUTILS (120901-03 121334-04 119255-71)
  MQ
  MQ_L10N
  BZIP (126869-04 137322-01)
  LDAPCSDK6_TOOLS (136800-02)
  ICU (119811-05)
  NSS (125359-11)
Package Name/Version:
  SUNWmessaging-server-64        7.0,REV=2008.06.20

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-6.03
```

```
Build Date: 20091123
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches: 118243-03 118246-22
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
  LDAPCSDK6_TOOLS (136800-02)
Package Name/Version:
  SUNWcomds                      6.3,REV=2004.08.12

Product: Calendar Server (CALDAV)
Product Group: Comms
Description: Calendar Server
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-1.11
Build Date: 20100716
Mnemonic: DAV
Installation directory: <INSTALLROOT>/davserver
Patches: 142786-01
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
  ST
  JDK (125138-22 125139-22)
  LDAPCSDK6_TOOLS (136800-02)
  MYSQL
Package Name/Version:
  SUNWdavserver                  7.0,REV=2009.08.27

Product: Instant Messaging
Product Group: Comms
Description: Instant Messaging
Version: 8.3
Marketing Version: 8u3
Full Version: 8.3-03.10
Build Date: 20100622
Mnemonic: IM
Installation directory: <INSTALLROOT>/im
Patches: 139894-03
Dependencies:
  ST
  JDK (125138-22 125139-22)
  PATCHUTILS (120901-03 121334-04 119255-71)
  MQ
  LDAPJDK (119725-06)
  MQ_L10N
  IMAPI
  NSS (125359-11)
Package Name/Version:
  SUNWiim                        8.0,REV=2008.12.04
  SUNWiimin                      8.0,REV=2008.12.04
  SUNWiimm                       8.0,REV=2008.12.04
  SUNWiimjd                      8.0,REV=2008.12.04
  SUNWiimid                      8.0,REV=2008.12.04
  SUNWiimc                       8.0,REV=2008.12.04
  SUNWiimd                       8.0,REV=2008.12.04
```

```
  SUNWiimgw                       8.0,REV=2008.12.04

Product: Convergence
Product Group: Comms
Description: Integrated Web Client
Version: 2.0
Marketing Version: 2
Full Version: 2.0-0.06
Build Date: 20100726
Mnemonic: IWC
Installation directory: <INSTALLROOT>/iwc
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
  ST
  JDK (125138-22 125139-22)
Package Name/Version:
  SUNWiwc                         2.0,REV=2010.07.26

Product: Indexing and Search Service
Product Group: Comms
Description: Indexing Search Services
Version: 1.1
Marketing Version: 1u1
Full Version: 1.1-4.4501
Build Date: 20100618
Mnemonic: JISS
Installation directory: <INSTALLROOT>/jiss
Patches: 142823-04
Dependencies:
  MQ
  PATCHUTILS (120901-03 121334-04 119255-71)
  ST
  MQ_L10N
  JDK (125138-22 125139-22)
  LDAPCSDK6_TOOLS (136800-02)
Package Name/Version:
  SUNWjiss                        1.0,REV=2009.09.09

Product: Comms Delegated Administrator
Product Group: Comms
Description: Comms Delegated Administrator
Version: 7.0
Marketing Version: 7
Full Version: 7.0-3.00
Build Date: 20100715
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
Patches: 124582-03
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
  ST
  JDK (125138-22 125139-22)
  LDAPCSDK6_TOOLS (136800-02)
  NSS (125359-11)
Package Name/Version:
```

```
  SUNWcommda                      7.0,REV=2009.03.31

Product: Messaging Server Sun Cluster HA agent
Product Group: Comms
Description: Messaging Server Sun Cluster HA Agent
Version: 7.0
Marketing Version: 7.0
Full Version: 7.0-0.03
Build Date: 20080519
Mnemonic: MS_SCHA
Installation directory: <INSTALLROOT>/msg_scha
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWmessaging-server-scha      7.0,REV=2008.05.19

Product: Instant Messaging Sun Cluster HA agent
Product Group: Comms
Description: Instant Messaging Sun Cluster HA Agent
Version: 7.3
Marketing Version: 7.3
Full Version: 7.3-01.02
Build Date: 20080403
Mnemonic: IM_SCHA
Installation directory: <INSTALLROOT>/im_scha
Patches: 137572-01
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWiimsc                       7.3,REV=2008.01.07.20.24.17

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-23.01
Build Date: 20100624
Mnemonic: CS
Installation directory: <INSTALLROOT>/calendar
Patches: 121658-44
Dependencies:
  SASL (119346-07)
  ST
  LIBCPLUSPLUS (119964-19)
  JDK (125138-22 125139-22)
  PATCHUTILS (120901-03 121334-04 119255-71)
  MQ
  MQ_L10N
  ICU (119811-05)
  NSS (125359-11)
Package Name/Version:
  SUNWics5                        6.0,REV=2003.11.14.17.38.10
  SUNWica5                        6.0,REV=2003.11.14.17.38.10
```

```
Product: Calendar Server Sun Cluster HA agent
Product Group: Comms
Description: Calendar Server Sun Cluster HA Agent
Version: 6.3
Marketing Version: 6.3
Full Version: 6.3-1.01
Build Date: 20080331
Mnemonic: CS_SCHA
Installation directory: <INSTALLROOT>/cs_scha
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWscics                      6.3,REV=2008.03.31.18.09.39

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.4
Marketing Version: 4.8.4
Mnemonic: NSS
Installation directory: <package default>
Patches: 125359-11
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWjss                        4.2.4,REV=2006.11.16.21.41
  SUNWpr                         4.6.4,REV=2006.11.16.21.41
  SUNWprd                        4.6.4,REV=2006.11.16.21.41
  SUNWtls                        3.11.4,REV=2006.11.16.21.41
  SUNWtlsd                       3.11.4,REV=2006.11.16.21.41
  SUNWtlsu                       3.11.4,REV=2006.11.16.21.41

Product: Simple Authentication and Security Layer
Product Group: Shared Component
Description:
Version: 2.19
Marketing Version: 2.19
Mnemonic: SASL
Installation directory: <package default>
Patches: 119346-07
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWsasl                       2.17,REV=2003.07.18.13.13

Product: LDAPCSDK6
Product Group: Shared Component
Description: ldap c sdk 6
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6
Installation directory: <package default>
Patches:
Dependencies:
  SASL (119346-07)
```

```
  ICU (119811-05)
  NSS (125359-11)
Package Name/Version:
  SUNWldapcsdk-libs              6.00,REV=2006.12.11.00.35
  SUNWldapcsdk-dev               6.00,REV=2006.12.11.00.35

Product: LDAPCSDK6 Tools
Product Group: Shared Component
Description: ldap c sdk 6 Tools
Version: 6.0
Marketing Version: 6.0
Mnemonic: LDAPCSDK6_TOOLS
Installation directory: <INSTALLROOT>/directory
Patches: 136800-02
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
  LDAPCSDK6
Package Name/Version:
  SUNWldapcsdk-tools             6.00,REV=2006.12.11.00.35

Product: International Components for Unicode
Product Group: Shared Component
Description:
Version: ICU2,ICU3
Marketing Version: ICU2,ICU3
Mnemonic: ICU
Installation directory: <package default>
Patches: 119811-05
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWicu                        1.2,REV=2005.01.06.14.13

Product: JDK
Product Group: Shared Component
Description: Java Development Kit
Version: 1.6.0
Marketing Version: 1.6.0
Mnemonic: JDK
Installation directory: <package default>
Patches: 125138-22 125139-22
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
  ST
Package Name/Version:
  SUNWj6rt                       1.6.0,REV=2006.11.29.05.03
  SUNWj6rtx                      1.6.0,REV=2006.11.29.02.51
  SUNWj6dev                      1.6.0,REV=2006.11.29.05.03
  SUNWj6dvx                      1.6.0,REV=2006.11.29.02.51
  SUNWj6cfg                      1.6.0,REV=2006.11.29.05.03

Product: Java Help Runtime
Product Group: Shared Component
Description: Java Help Runtime
Version: 2.0
Marketing Version: 2.0
```

```
Mnemonic: JHRT
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
  BZIP (126869-04 137322-01)
  JDK (125138-22 125139-22)
Package Name/Version:
  SUNWjhrt                       2.0,REV=2006.10.31
  SUNWjhdev                      2.0,REV=2006.10.04
  SUNWjhdem                      2.0,REV=2006.10.04
  SUNWjhdoc                      2.0,REV=2006.10.04

Product: Message Queue
Product Group: Shared Component
Description: Message Queue
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
  JHRT
  JDK (125138-22 125139-22)
  NSS (125359-11)
Package Name/Version:
  SUNWiqr                        4.4,REV=2009.08.27.09.45
  SUNWiqu                        4.4,REV=2009.08.27.09.45
  SUNWiqdoc                      4.4,REV=2009.08.27.09.46
  SUNWiquc                       4.4,REV=2009.08.27.09.46
  SUNWiqum                       4.4,REV=2009.08.27.09.46
  SUNWiqjx                       4.4,REV=2009.08.27.09.46
  SUNWiqfs                       4.4,REV=2009.08.27.09.46
  SUNWiqcrt                      4.4,REV=2009.08.27.09.46
  SUNWiqcdv                      4.4,REV=2009.08.27.09.46
  SUNWiqlen                      4.4,REV=2009.08.27.09.46

Product: Message Queue Localization
Product Group: Shared Component
Description: Message Queue Localization
Version: 4.4
Marketing Version: 4.4
Mnemonic: MQ_L10N
Installation directory: <package default>
Patches:
Dependencies:
  MQ
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWfiqu                       4.4,REV=2009.10.01.09.34.22
  SUNWfiquc                      4.4,REV=2009.10.01.09.34.22
  SUNWdiqu                       4.4,REV=2009.10.01.09.34.32
  SUNWdiquc                      4.4,REV=2009.10.01.09.34.32
  SUNWjiqu                       4.4,REV=2009.10.01.09.34.58
  SUNWjiquc                      4.4,REV=2009.10.01.09.34.58
```

```
  SUNWeiqu                        4.4,REV=2009.10.01.09.34.40
  SUNWeiquc                       4.4,REV=2009.10.01.09.34.40
  SUNWkiqu                        4.4,REV=2009.10.01.09.34.50
  SUNWkiquc                       4.4,REV=2009.10.01.09.34.50
  SUNWciqu                        4.4,REV=2009.10.01.09.35.07
  SUNWciquc                       4.4,REV=2009.10.01.09.35.07
  SUNWhiqu                        4.4,REV=2009.10.01.09.35.15
  SUNWhiquc                       4.4,REV=2009.10.01.09.35.15

Product: LDAPJDK
Product Group: Shared Component
Description: LDAP JDK
Version: 4.19
Marketing Version: 4.19
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches: 119725-06
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWljdk                        1.0,REV=2004.10.11.06.02

Product: Instant Messaging API
Product Group: Shared Component
Description: Instant Messaging API
Version: 8.0
Marketing Version: 8
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWiimdv                       8.0,REV=2008.12.04

Product: MySQL
Product Group: Shared Component
Description: MySQL
Version: 5.1.36
Marketing Version: 5.1.36
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  mysql                           5.1.36

Product: Service Tags
Product Group: OS Auxiliary
Description: Service Tags
Version: 1.1.4
Marketing Version: 1.1.4
Mnemonic: ST
Installation directory: <package default>
Patches:
Dependencies:
```

```
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWservicetagr                1.1.4,REV=2008.03.21.07.56
  SUNWservicetagu                1.1.4,REV=2008.03.21.07.56
  SUNWstosreg                    1.1.4,REV=2008.03.21.07.56

Product: LIBCPLUSPLUS
Product Group: OS - Patches only
Description: libC (C++) patch for Solaris
Version: 5.9
Marketing Version: 5.9
Mnemonic: LIBCPLUSPLUS
Installation directory: <package default>
Patches: 119964-19
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWlibC                       5.10,REV=2004.12.20

Product: PATCHUTILS
Product Group: OS - Patches only
Description: Solaris patch for install/patching utilities
Version: Unknown
Marketing Version: Unknown
Mnemonic: PATCHUTILS
Installation directory: <package default>
Patches: 120901-03 121334-04 119255-71
Dependencies:
Package Name/Version:
  SUNWpkgcmdsu                   11.11,REV=2005.01.09.21.19
  SUNWswmt                       11.10,REV=2005.01.10.15.35
  SUNWinstall-patch-utils-root   11.10,REV=2005.01.09.21.19
  SUNWcsr                        11.10.0,REV=2005.01.21.16.34
  SUNWdtrc                       11.10.0,REV=2005.01.21.16.34
  SUNWzoneu                      11.10.0,REV=2005.01.21.16.34

Product: SNMP OS Patch
Product Group: OS - Patches only
Description: SNMP patch for Solaris
Version: Unknown
Marketing Version: Unknown
Mnemonic: SNMP
Installation directory: <package default>
Patches: 120273-06
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWsmagt                      1.0,REV=2005.01.08.01.09
  SUNWsmcmd                      1.0,REV=2005.01.08.01.09
  SUNWsmmgr                      1.0,REV=2005.01.08.01.09

Product: BZIP OS Component
Product Group: OS - Patches only
Description: Solaris patch for bzip
Version: 11.10
Marketing Version: 11.10
```

```
Mnemonic: BZIP
Installation directory: <package default>
Patches: 126869-04 137322-01
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWbzip                       11.10.0,REV=2005.01.08.01.09

Product: RECOMMENDED PATCH CLUSTER
Product Group: OS - Patches only
Description: Representative sample of patches from the Recommended Patch
Cluster
Version: 2010.06.25
Marketing Version: 2010.06.25
Mnemonic: RECOMMENDED
Installation directory: <package default>
Patches: 119255-73 118855-36 120012-14 120273-30 137138-09 141445-09
142901-13
Dependencies:
Package Name/Version:
  No packages defines for this OS version

Product: CommsInstaller
Product Group: CI Products
Description: The CommsInstaller installed as a package
Version: 7.1
Marketing Version: 7u1
Full Version: 7.1-0.06
Build Date: 20100726
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-71)
Package Name/Version:
  SUNWcomms                      7.1,REV=2010.07.26

Product: MySQL Marker
Product Group: CI Products
Description: MySQL Marker
Version: 1.0
Marketing Version: 1.0
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
Dependencies:
```

```
Package Name/Version:
  SUNWcomms-mysql-marker         1.0,REV=2009.09.09
```

Uninstalling Communications Suite in Silent Mode

Uninstalling Oracle Communications Unified Communications Suite in Silent Mode
Version 7 Update 1

If you run the uninstaller in Silent mode, you are running a non-interactive session. The uninstallation inputs are taken from a silent uninstallation file (also known as a state file), from command line arguments, or defaults.

To run a silent uninstallation, follow these steps:

1. Run an interactive uninstallation session.
   A state file similar to `/var/opt/CommsInstaller/logs/silent_CommsInstaller_20070501135358` is automatically created.

   > **Note**
   > The silent installation and uninstallation files have the same syntax and file naming convention. To determine if it is an installation or uninstallation silent file consult the value of the VERB property.

2. Copy the state file to each host machine and edit the file as needed.
3. Run the silent uninstallation on each host. See usage in commpkg uninstall Usage.

   > **Note**
   > Command-line arguments override the values and arguments in the state file.

   The following is a sample uninstall silent file:

```
#
# Silent File for CommsInstaller 7.1-0.06
# Generated on 20100818185348
#

#
#
# verb used to create this silent file
VERB=uninstall

#
# root directory
#
ROOTDIR=/

#
# list of components (using mnemonics)
# WARNING: for verb=uninstall, when there are multiple
#          instances, the latest known version found is uninstalled
#
COMPONENTS=MS64 DSSETUP
COMPONENT_VERSIONS= 7.4 6.4
```

Using the ALTROOT Command-Line Argument

Using the ALTROOT | name Command-Line Argument

Topics:

- About the Alternate Root
- ALTROOT | name Syntax and Examples
- Understanding INSTALLROOT and ALTROOT
- Running Multiple Installations of the Same Product on One Host: Conflicting Ports

About the Alternate Root

The Communications Suite installer enables you to install multiple copies of the same product version on the same Solaris OS machine or Solaris zone by using the alternate root feature of the `commpkg install` command. For example, you might deploy a host with an installation in the default root directory, `/opt/sun/comms`, and a second, separate installation in the `/opt/sun/comms2` alternate root directory. The alternate root installation directory is the top-level directory underneath which the Communications Suite component products and shared components are installed in their respective directories.

Some possible uses for multiple installations include:

1. Performing a side-by-side upgrade. For more information about the side-by-side upgrade scenario, see Using the Side-by-Side Strategy to Upgrade Messaging Server.
2. Installing the symmetric HA scenario.
3. Enabling an installation to be easily moved from one machine to another.

> **Note**
> The alternate root feature is available only on Solaris OS. This feature is a "power user" feature. If you are interested in installing more than one instance of the same version of a Communications Suite product on the same physical host, another option is to use Solaris zones. For more information, see Installing Communications Suite on Solaris Zones.

ALTROOT | name Syntax and Examples

The Communications Suite installer uses the optional *ALTROOT* | *name* command-line argument to the `commpkg install`, `commpkg upgrade`, `commpkg uninstall`, and `commpkg verify` commands. You use either *ALTROOT* or *name*. The *name* acts as an alias for the alternate root installation path. The *name* is registered in an internal software list maintained by the installer. You can use the *name* in place of the alternate root's path in commands that accept the alternate root. The distinction between the alternate root and name is that the alternate root always begins with a slash (`/`) whereas the name does not.

Syntax:
`commpkg` [`install` | `upgrade` | `uninstall` | `verify`] [*ALTROOT* | *name*]

Example 1:

```
./commpkg install /opt/sun/comms2
```

In this example, the path `/opt/sun/comms2` is the alternate root, which becomes the top-level directory underneath which the Communications Suite component products and shared components are installed.

Example 2:

```
./commpkg install Comms2
```

In this example, `Comms2` is the name for the alternate root. During the installation process, the installer prompts you to type in the alternate root installation directory.

Example 3:

In this example, you avoid installing the shared components in the alternate root by using the `--excludeSC` option:

```
./commpkg install --excludeSC /opt/sun/comms2
```

Example 4:

To install only the shared components, run `commpkg install` and select the product you want to install, but prepend a tilde (~).

For example, if you plan to install Messaging Server in the alternate root, you select `~1` during the default installation. This tells the installer to install the dependencies but not the product itself.

Notes on the *ALTROOT* | *name* command-line argument:

- Specifying a slash (`/`) as an alternate root is the same as specifying the default root installation directory. That is, specifying a slash is interpreted by the Installer as having specified no alternate root.
- Likewise, specifying "" as an alternate root is interpreted as having specified no alternate root. (The "friendly name" for the default alternate root is "".)
- If you specify the `--installroot` option in addition to *ALTROOT* | *name*, the two must match.
- Operating system patches are always installed into the default root (`/`). Some shared components are installed into the *ALTROOT* and some are installed into the default root (`/`). MySQL Server is an example of a shared component that is always installed into the default root.
- You can quickly uninstall an *ALTROOT* installation by using the `rm -r` command on the alternate root directory. The next time that you run the `commpkg info` command, the internal software list that maintains the alternate root information is updated.
- The `--altroot` [*name*] argument has been deprecated in favor of the *ALTROOT* | *name* argument.
- You can create as many alternate roots as you like. Running the `commpkg info` command reports on the various alternate roots.

Understanding INSTALLROOT and ALTROOT

The following concepts define an alternate root (*ALTROOT*):

- An alternate root directory is a Solaris OS feature that is used by `commpkg` to enable multiple installations of Communications Suite products on the same host.
- The default alternate root is the standard root directory (`/`) and is always present.

The following concepts define an installation root (*INSTALLROOT*):

- An *INSTALLROOT* is the top-level umbrella installation path for the Communications Suite products.

- On the default alternate root (that is, `/`), you can specify an *INSTALLROOT*.
- On an alternate root, the *INSTALLROOT* is the same as the alternate root.

What Is the Default?

If you use the default root, the default *INSTALLROOT* is:

```
/opt/sun/comms/
```

Example Using Both a Default Root and Alternate Root

Suppose you want to install one instance of the Communications Suite products in the `/opt/sun/mycompany/comms/` directory, and another instance of the same products in the `/opt/sun/mycompany/comms2/` directory. You would use the following commands:

For the default root:

```
./commpkg install --installroot /opt/sun/mycompany/comms
```

For the alternate root:

```
commpkg install /opt/sun/mycompany/comms2/
```

Running Multiple Installations of the Same Product on One Host: Conflicting Ports

By default, after you initially configure the product on alternate roots, the ports used by the different product installations are the same and thus conflict with each other.

This is not a problem if you install multiple installations of the same product on the same host but only intend to have one instance running at one time. For example, you may perform a side-by-side upgrade scenario in which you plan to stop the old instance before you start the new instance.

However, you may plan to test the new instance while the old instance is still running (and supporting end users). In this scenario, the ports are used simultaneously.

There are two ways to resolve this conflict:

- Configure individual ports
- Use a multi-home configuration

These approaches are described in the following sections.

Configuring Individual Ports

See Configuring Individual Ports for Multiple Installations of the Same Product.

Configuring a Host to Be Multi-Homed

See Configuring a Host to be Multi-Homed.

Installing Communications Suite Using Silent Mode

Installing Oracle Communications Unified Communications Suite in Silent Mode
Version 7 Update 1

When you run the installer in *silent mode*, you are running a non-interactive session. The installation inputs are taken from the following sources:

- A silent installation file (also known as a state file)
- Command-line arguments
- Default settings

You can use silent mode to install multiple instances of the same software component and configuration without having to manually run an interactive installation for each instance.

Topics:

- To Run a Communications Suite Silent Installation
- About Upgrading Shared Components
- Silent Mode File Format

To Run a Communications Suite Silent Installation

1. Obtain the state file by one of the following two means.
   - Run an interactive installation session and use the state file that is created in the `/var/opt/CommsInstaller/logs/` directory. The state file name is similar to `silent_CommsInstaller_20070501135358`. A state file is automatically created for every run of the installation.
   - Create a silent state file without actually installing the software during the interactive session by using the `--dry-run` option, then modifying the state file. For example:

     ```
     # commpkg install --dry-run
     ```

2. Copy the state file to each host machine and edit the file as needed. See Silent Mode File Format.
3. Run the silent installation on each host.
   For example:

   ```
   # commpkg install --acceptLicense --silent <Input File>
   ```

   where *Input File* is the path and name of the silent state file, for example `/var/opt/CommsInstaller/logs/silent_CommsInstaller_20070501135358`.
   For details about the `--silent` option, see the silent installation usage in commpkg install usage.

   > **Note**
   > Command-line arguments override the values and arguments in the state file.

About Upgrading Shared Components

By default, shared components that require user acceptance for upgrading are not upgraded when you

run a silent installation. The option to upgrade shared components in the silent state file is automatically disabled. That is, the option is set to `UPGRADESC=No`. This is true *even* if you explicitly asked to upgrade shared components when you ran the interactive installation that generated the silent state file. That is, you ran either `commpkg install --upgradeSC y` or you answered "yes" when prompted for each shared component that needed upgrading.

Disabling upgrading shared components in the silent state file is done because the other hosts on which you are propagating the installation might have different shared components installed, or different versions of the shared components. Therefore, it is safer to not upgrade the shared components by default.

You can upgrade shared components when you run a silent installation by performing either of the following actions:

- Use the `--upgradeSC y` option when you run the silent installation. (The command-line argument overrides the argument in the state file.)
- Edit the `UPGRADESC=No` option in the silent state file to: `UPGRADESC=Yes`.

Caution
If you do not upgrade shared components your installation might not work properly.

Silent Mode File Format

The silent mode file (also known as a state file) is formatted like a property file: blank lines are ignored, comment lines begin with a number sign (#) and properties are key/value pairs separated by an equals (=) sign. The following table shows which parameters you can change and provides examples:

Silent Mode File Parameters

Parameter	Description	Example
VERB	Indicates which function to perform. For a silent install, this is set to install.	VERB=install
ALTDISTROPATH	Indicates an alternate distro path	ALTDISTROPATH= SunOS5.10_i86pc_DBG.OBJ/release
PKGOVERWRITE	A boolean indicating whether to overwrite the existing installation packages. (See the --pkgOverwrite switch)	PKGOVERWRITE=YES
INSTALLROOT	Specifies installation root.	INSTALLROOT=/opt/sun/comms
ALTROOT	A boolean indicating whether this is an alternate root install.	ALTROOT=yes
EXCLUDEOS	Specifies to not upgrade operating system patches.	EXCLUDEOS=YES
COMPONENTS	A space separated list of mnemonics of the components to be installed. You can precede the mnemonic with a ~ to indicate that only the shared components for that product be installed.	COMPONENTS=MS64 for 64-bit Messaging Server.
ACCEPTLICENSE	Indicates whether or not to accept license. This property must be specified either in the state file or as a command line argument.	ACCEPTLICENSE=yes.
UPGRADESC	Indicates whether all shared components should or should not be upgraded without prompting.	UPGRADESC=no
INSTALLNAME	The friendly name for the INSTALLROOT	INSTALLNAME=
COMPONENT_VERSIONS	unused	

To display a complete list of the product names (such as MS, MS64, CS) to use with the COMPONENTS property, run the commpkg info --listPackages command. This command displays the mnemonics for each product.

Verifying the GlassFish Server Version

Verifying the Oracle GlassFish Server Version

To verify which version of GlassFish Server you have installed, run the following command on the host where you have installed the software:

```
# /opt/SUNWappserver/bin/asadmin version
```

Example output:

- GlassFish Server 2.1.1:

```
Version = Sun GlassFish Enterprise Server v2.1.1 Patch01
```

You can obtain other relevant information by running the following commands:

```
# grep -i admin_profile /opt/SUNWappserver/config/asadminenv.conf
AS_ADMIN_PROFILE=enterprise
```

```
# grep -i hadb /opt/SUNWappserver/config/asenv.conf
AS_HADB="/opt/SUNWappserver/hadb/4.4.3-21"
```

```
# grep -i jdk /opt/SUNWappserver/config/asenv.conf
AS_JAVA="/opt/SUNWappserver/jdk"
```

```
# /opt/SUNWappserver/jdk/bin/java -version
java version "1.6.0_16"
Java(TM) SE Runtime Environment (build 1.6.0_16-b01)
Java HotSpot(TM) Server VM (build 14.2-b01, mixed mode)
```

Chapter 7. Communications Suite Installation Scenarios

Oracle Communications Unified Communications Suite Installation Scenarios
Version 7 Update 1

This page automatically lists the installation scenario information you need when installing Communications Suite components in a multiple-host environment. Use the following information to install particular Communications Suite software components on individual machines or Solaris zones in a multiple-host deployment.

Page: Installation Scenario - Access Manager

Page: Installation Scenario - Convergence

Page: Installation Scenario - Delegated Administrator

Page: Installation Scenario - Directory Server

Page: Installation Scenario - GlassFish Server

Page: Installation Scenario - Indexing and Search Service

Page: Installation Scenario - Instant Messaging Server

Page: Installation Scenario - Instant Messaging Server Multiplexor

Page: Installation Scenario - Message Store

Page: Installation Scenario - Message Transfer Agent

Page: Installation Scenario - Messaging Multiplexor

Page: Installation Scenario - Messaging Server Webmail Server

Page: Installation Scenario - Oracle Communications Calendar Server Back End

Page: Installation Scenario - Oracle Communications Calendar Server for CALDAV Clients

Page: Installation Scenario - Oracle Communications Calendar Server Front End

Chapter 8. Communications Suite Upgrade Guide

Oracle Communications Unified Communications Suite Upgrade Guide
Version 7 Update 1

This information describes the best practices for upgrading prior versions of Communications Suite (formerly known as Sun Java Communications Suite) to Oracle Communications Unified Communications Suite. (For a list of those individual product version numbers see Oracle Communications Unified Communications Suite Products and Components.)

Topics:

- About This Information
- About the Communications Suite Upgrade Process
- Defining Your Target Communications Suite Deployment
- Determining the Sequence of Product Upgrades
- Upgrading Messaging Server
  - Upgrading Messaging Server in a High Availability (HA) Environment
- Upgrading Calendar Server for CALDAV Clients (Calendar Server 7)
- Upgrading Calendar Server in Solaris OS
  - Upgrading Calendar Server in a High Availability (HA) Environment
- Upgrading Instant Messaging Server
  - Upgrading the Instant Messaging Server in a High Availability (HA) Environment
- Upgrading Convergence
- Upgrading Indexing and Search Service
- Upgrading Delegated Administrator for Oracle Communications Unified Communications Suite
- Upgrading `comm_dssetup.pl`
- Upgrading Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite

About This Information

In this information, the terms products, product components, and shared components are used. *Products* are items such as Messaging Server, Calendar Server, Delegated Administrator, and Instant Messaging Server. *Product components* are functional parts of the products. For example, Messaging Server has message stores, relays, and messaging multiplexors. Calendar Server has front-end and back-end servers. *Shared resources* are software components that are not part of Communications Suite or other support products, but are required for Communications Suite products to operate. Examples include Network File System (NFS), Simple Authentication and Security Layer (SASL), and Java software.

About the Communications Suite Upgrade Process

Communications Suite consists of a number of individual products, product components, and shared resources. Unfortunately, Communications Suite does not provide a single system utility to upgrade all Communications Suite components at the same time. Therefore, upgrading a Communications Suite deployment consists of upgrading one component at a time and one computer at a time, by using the component-specific upgrade procedures described in the following sections. Some upgrade procedures are simple, such as applying a patch to the existing software. Other procedures are more complex and require considerably more planning and preparation. Proper upgrading starts with knowing what products you want to upgrade and the order in which to upgrade them.

Defining Your Target Communications Suite Deployment

A successful upgrade depends on identifying both your current deployment and your target deployment. By defining your target deployment, you identify which products and components you need to upgrade and which ones can remain as is.

The three most common Communications Suite upgrade scenarios include:

- **Upgrade for a product feature.** You want a feature from a specific product and you are only interested in upgrading the products and components that are necessary to support that feature.

  In this scenario, you upgrade the desired product as described in the upgrade information for that product.

- **Upgrade to use Convergence (formerly known as Sun Convergence).** You only want to upgrade the products and components that are necessary to use Convergence.

  See Product Version Compatibility Requirements for Convergence 2 for the minimum versions of products that run Convergence.

- **Upgrade all products and components to the latest release.** You want to run the latest versions of all Communications Suite products and components.

  Upgrade each product and component individually, host by host. See Requirements for Communications Suite.

When you have chosen the scenario that best fits your situation, you can determine what products to upgrade.

> **Tip**
> Installing only shared components: To install just the shared components for a component product, launch the Communications Suite installer, then prefix your product selection with a tilde (~). For example, to install only the shared components for Messaging Server 64-bit, at the Product Selection prompt, type **~1**. You can type multiple selections, separating each of your entries with a comma.

Determining the Sequence of Product Upgrades

The order in which you update the Communications Suite products and versions can be critical. Use the following guidelines to determine the sequence for upgrading Communications Suite products:

- To upgrade a pre-6.3 Messaging Server, first you must upgrade the message store components to version 6.3 or later, then you can upgrade the webmail server (previously called MEM) to version 6.3 or later.

The following sections describe how to upgrade each of the Communications Suite products.

Upgrading Messaging Server

See Messaging Server Upgrade.

Upgrading Messaging Server in a High Availability (HA) Environment

See Upgrading to Messaging Server in an HA Environment.

Upgrading Calendar Server for CALDAV Clients (Calendar Server 7)

See Upgrading Calendar Server for CALDAV Clients (Calendar Server 7).

Upgrading Calendar Server in Solaris OS

See Calendar Server 6.3 Upgrade.

Upgrading Calendar Server in a High Availability (HA) Environment

See Upgrading Calendar Server 6.3 in an HA Environment.

Upgrading Instant Messaging Server

See Instant Messaging Upgrade.

Upgrading the Instant Messaging Server in a High Availability (HA) Environment

See Upgrading to Instant Messaging in an HA Environment.

Upgrading Convergence

To upgrade from Sun Convergence 1 Update 3 to Convergence 2, see Upgrading Convergence.

Upgrading Indexing and Search Service

See Upgrading Indexing and Search Service.

Upgrading Delegated Administrator for Oracle Communications Unified Communications Suite

See Delegated Administrator Upgrade.

Upgrading `comm_dssetup.pl`

Run the latest version of `comm_dssetup.pl` to prepare the schema, index, and data in your Directory Server to work with Messaging Server, Calendar Server, Instant Messaging, Delegated Administrator, or any products that depend on the Directory Server.

Run `commpkg upgrade` to upgrade `comm_dssetup.pl`, and then run `perl comm_dssetup.pl`. For upgrade details, see `commpkg upgrade` Usage.

Upgrading Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite

See Connector for Microsoft Outlook Upgrade Guide.

Calendar Server 6.3 Upgrade

Upgrading to Oracle Communications Calendar Server 6.3 with Convergence

As of Communications Suite 7, Calendar Server 6.3 has been deprecated.

This information describes how to upgrade Oracle Communications Calendar Server (formerly Sun Java System Calendar Server, also known as Calendar Server 6) to be able to use Convergence. Convergence requires Calendar Server 6.3 with the latest patches installed. Upgrading consists of choosing an upgrade strategy, then upgrading each of the individual servers using that strategy. The procedure for upgrading individual servers depends on the Calendar Server version.

To upgrade Calendar Server from the Communications Suite Release 5 release to the Communications Suite 7 Update 1 release, use the `commpkg upgrade` command. Both versions are 6.3, but `commpkg upgrade` installs the required patches. To upgrade from Calendar Server 6.2, see To Upgrade From Calendar Server 6.2 on Solaris OS. To upgrade from a version prior to Calendar Server 6.2, first refer to the Chapter 5, Upgrading Calendar Server, from the Sun Java Communications Suite 5 Upgrade Guide to upgrade to 6.3. Then return here for instructions on how to apply the appropriate patches.

Topics:

- Calendar Server Upgrade Strategies
- Upgrading Individual Calendar Servers
- Verifying the Upgrade
- Upgrading Calendar Server With HA
- Calendar Server Backoff

Calendar Server Upgrade Strategies

There are two possible Calendar Server upgrade strategies: the *parallel system upgrade* or the *in-place upgrade*.

In an in-place upgrade, the existing software is upgraded to the new version in the same location.

In a parallel system upgrade, the existing software remains operating while the new version is installed in another location. A parallel system upgrade is useful for deployments consisting of multiple servers in a distributed network. The servers interoperate by using adjacent builds (in adjacent directories) so that the network can be upgraded in phases.

Each strategy has its advantages and disadvantages:

- In a parallel system upgrade, users have access to the calendar (though, readonly) throughout the upgrade process. During an in-place upgrade, some downtime is incurred.
- A parallel system upgrade limits the impact on global and distributed services during the upgrades.
- In a parallel system upgrade, a smaller staff is required to administer the upgrades on many distributed machines. Conversely, this approach limits the extended downtime a small staff needs to upgrade many machines together.
- If the upgrade is not successful, parallel system upgrades offer an easier roll-back procedure. Parallel system upgrades reduce the risk of attempting to change all installations at once before

being able to verify that the solution is workable. In-place upgrades have a more complex roll-back procedure.

- Parallel system upgrades require additional hardware. In-place upgrades do not require additional hardware.

> **Upgrade Strategy for Calendar Server Deployments Using the DWP Protocol**
> For Calendar Server deployments that use the Database Wire Protocol (DWP) protocol, you are *strongly* urged to consider a parallel system upgrade. Here's why:
>
> DWP design constraints require all nodes in a distributed deployment to be upgraded at the same time. With its versionless state, the DWP protocol presumes (requires) the front-end and back-end servers to be the same build/version.
>
> For example, suppose an organization running Calendar Server with DWP has back-end servers in Europe, Asia, and the Americas and front-end servers in a multitude of countries. To perform an in-place upgrade, this deployment would need to shut down the entire Calendar Server network. A parallel system upgrade would enable the existing Calendar Servers to continue running while the network is upgraded in phases.

Parallel System Upgrade Procedures

In a parallel system upgrade, you do the following:

1. Create a separate new Calendar Server environment. Refer to the Sun Java Communications Suite 5 Deployment Planning Guide for details.

2. Set the existing Calendar server to a read-only mode and inform users that calendar entries cannot be created or modified until the migration is complete.

   Set `caldb.berkeleydb.readonly` to `yes` in `ics.conf` and restart the services.

3. Migrate the configuration and calendar data to the new environment. (See the version-specific section.)

4. Switch over to the new system and verify that everything works.

   End users, or any applications that depend on this server, will need to connect to this box instead of the old box.

5. Inform users that calendar entries can be created or modified and the migration is complete.

6. Shut down the legacy servers.

7. If the switchover does not work, switch back to the legacy servers.

In-place Upgrade Procedures

In an in-place upgrade, you do the following:

1. Back up your calendar database.

   See csbackup.

2. Perform the upgrade procedures as described in the following sections.

3. Verify that the new system works.

   For example, check that users can log in and create events and to-do's.

4. If the new system does not work, remove the upgrade patches and then restore the data.

   Restore the database save in step 1. See csrestore.

   > **Note**
   > You cannot remove the upgrade patches and restore the data in Red Hat Linux by using an in-place upgrade.

   The rest of this section describes how to upgrade your individual Calendar Servers by using these two strategies.

Upgrading Individual Calendar Servers

Whether you are doing an in-place or parallel upgrade, the process for upgrading individual servers is the same. How those individual Servers are upgraded to use Sun Convergence depends on whether you are using the version 6.3 or an earlier version of Calendar Server. To upgrade from a version earlier then 6.2, refer to the Chapter 5, Upgrading Calendar Server of the Sun Java Communications Suite 5 Upgrade Guide to upgrade to 6.3, then return here for instructions on how to apply the appropriate patches. To upgrade from 6.3 or 6.2 you'll need to install the latest patches listed in Release Notes. Detailed instructions are provided in later sections.

The localization patches and packages are no longer required separately, as localization resources are bundled with core packages. Before applying this patch, remove the old l10n packages if installed. For example:

```
pkgrm -n SUNWics-l10n
```

or

```
pkgrm -n SUNWfrics SUNWdeics SUNWesics SUNWjaics SUNWkoics SUNWzhics
SUNWtwics
```

for Red Hat Linux:

```
rpm -e sun-calendar-core-l10n
```

or

```
rpm -e sun-calendar-core-fr
rpm -e sun-calendar-core-de
rpm -e sun-calendar-core-es
rpm -e sun-calendar-core-ja
rpm -e sun-calendar-core-ko
rpm -e sun-calendar-core-zh
rpm -e sun-calendar-core-zh_TW
```

Other Calendar Server Upgrade Notes:

- At some sites, Calendar Server 6.3 might not start after patching. If this problem occurs, follow the procedure described in the Known Issues section of Calendar Server 6.3 Release Notes .
- Calendar Server should be shut down when patches are being applied to the installed image.
- In architectures in which different Calendar Server subcomponents reside on different computers, for example, Calendar Server back-end store on one computer and Calendar Server front-end

processes (such as cshttpd) on another, the upgrade must be performed on all such computers.
- The Calendar Server upgrade applies to multiple Calendar Server subcomponents on one computer using the same installed image.
- Data created in the Solaris OS x86 version of Calendar Server 6.3 patch 121658-19 or earlier is corrupted when you upgrade to patch 121658-20 or later. This issue occurs on Solaris OS x86 platforms only (CR 6642958). With patch 121658-20 and later, Calendar Server uses the new Berkeley Database library, which is incompatible with the database created by earlier versions. In order to use the database created by patch 121658-19 (or prior) with this patch, you must update the database. See Release Notes for details on how to update the database and further details.
- Calendar Server 6.3 requires has the software dependencies listed in the Release Notes . For a list of all Communications Suite requirements, see the Requirements for Communications Suite 6 Update 1.

If you want to upgrade Calendar Server 6.3 so that it can be used by Sun Convergence, you can simply run the `commpkg upgrade` command.

To Upgrade From Calendar Server 6.3

Note that Communications Suite 5 and 6 Update 1 both use Calendar Server 6.3, but Communications Suite 6 Update 1has the required patches that work with Sun Convergence.

1. Run `commpkg upgrade` command.

To Upgrade From Calendar Server 6.2 on Solaris OS

To upgrade Calendar Server 6.2 to Convergence-enabled Calendar Server 6.3, use the following directions:

1. Obtain the required patch. See Release Notes .

   You can download patches to `/tmp from: http://sunsolve.sun.com`.

2. Log in to the machine where you are upgrading Calendar Server (as superuser or root).

   ```
   > su -
   ```

3. Stop Calendar Server if it is running.

   ```
   cal-svr-base/cal/sbin/stop-cal
   ```

4. If you have not already done so, upgrade shared components to the current version of Communications Suite.

5. Apply the Calendar Server core patch (see Release Notes).

   ```
   patchadd <patch_ID>
   ```

6. Confirm that the patch upgrades were successful:

   ```
   showrev -p | grep ics
   ```

   The output should return the versions of patch IDs applied in Step 5.

7. Reconfigure Calendar Server.

   ```
   cd cal-svr-base/sbin
   ./csconfigurator.sh -noconsole -nodisplay -novalidate
   ```

   The `-noconsole -nodisplay -novalidate` arguments pick up the existing Calendar Server

6.x configuration values and perform the necessary reconfiguration for the upgraded software.

If the Calendar Server 6.x installation had been configured in nonhosted domain (legacy) mode, the configurator gives the choice either to stay in that mode or switch to hosted domain mode, the default for this version of Calendar Server. Switching to hosted domain mode is not reversible.

The `csconfigurator` command is documented in the Calendar Server Administration Guide .

8. Move Calendar Server data files to a temporary location.

```
mkdir /var/cal-svr-base/old_csdb
mv /var/cal-svr-base/csdb/* /var/cal-svr-base/old_csdb
```

The `old_csdb` directory is a temporary location.

9. Change permissions on the temporary location.

```
chown -R icsuser:icsgroup /var/cal-svr-base/oldcsdb
```

10. Migrate the Calendar Server 6.2 (Java Enterprise System 2005Q4) data using the `csmigrate` migration tool.

```
cd cal-svr-base/cal/sbin
./csmigrate -l max /var/cal-svr-base/old_csddb /var/cal-svr-base/csdb
```

The general syntax for `csmigrate` is as follows:

```
csmigrate [-q] [-d] [-l min|max] [-b backup_dir] source_dbdir
target_dbdir
```

Command options and operands are documented in the following table.

TABLE 1. csmigrate Command Options and Operands

Option/Operand	Description
-q	Specifies quiet mode, no print statements
-d	Specifies dry run mode, no new db written
-l min or max	Specifies log level. csmigrate creates the following log files: cal-svr-base/logs/csmigrate.log cal-svr-base/logs/csmigrateError.log
-b *backup_dir*	Specifies directory to which to back up the source database. The program works on the backed-up copy to prevent any damage to the source database. The default location is `source_dbdir/backup`.
source_dbdir	Directory where pre-migration database files are located.
target_dbdir	Directory where pos-tmigration files will be written

If you choose an arbitrary *target_dbdir* rather than `/var/cal-svr-base/csdb`, then you have to change the value of the `caldb.berkeleydb.homedir.path` property in the Calendar Server configuration file to point to that location.

Note: If the `csmigrate` command fails on the Solaris OS 10 platform, set the library path to null when running the command:

```
LD_LIBRARY_PATH= ./csmigrate ...
```

11. Restart the Calendar Server that was stopped in the earlier step.

```
cal-svr-base/cal/sbin/start-cal
```

To Upgrade From Calendar Server 6.2 on Red Hat Linux

The following procedure applies to Calendar Server on the computer where the upgrade is taking place.

1. Obtain the required patches by using the patch numbers and RPM names from Release Notes . Use this information to obtain the version numbers for the RPM.

   Patches can be downloaded to `/tmp` from: http://sunsolve.sun.com.

2. Log in as `root` or become superuser.

   ```
   su -
   ```

3. Stop Calendar Server if it is running.

   ```
   cal-svr-base/sbin/stop-cal
   ```

4. If you have not already done so, synchronize all shared components to the current Communications Suite release.

   See Upgrade Calendar Server Dependencies.
5. Remove the 6.2 calendar-api package

   ```
   rpm -e sun-calendar-api-6.2-10.28
   ```
   Note: The version number on the package name might be different, depending on the version of calendar patch installed. Confirm the package name to be deleted by using `rpm -qa | grep sun-calendar`
6. Apply the core and calendar-api in the following order. (The following *rpm files are an example. Use the `*rpm` files that came with the patch download.)

   ```
   rpm -Fvh sun-calendar-core-6.3-7.03.i386.rpm
   rpm -i sun-calendar-api-6.3-7.03.i386.rpm
   ```

7. Confirm that the patch upgrades were successful:

   ```
   rpm -qa | grep sun-calendar
   ```

   The new version numbers of the RPMs in Step 5 should be returned.

8. Reconfigure Calendar Server.
   cd cal-svr-base/sbin
   ./csconfigurator.sh

   If the Calendar Server 6.2 or earlier Calendar Server installation had been configured in non-hosted domain (legacy) mode, the configurator offers the choice of either staying in that mode or switching to hosted domain mode, which is the default for Calendar Server 6.3 with the latest patches. Switching to hosted domain mode is not reversible.

   The `csconfigurator` command is documented in the Calendar Server Administration Guide .

9. Move Calendar Server data files to a temporary location.

   ```
   mkdir /var/cal-svr-base/oldcsdb
   mv /var/cal-svr-base/csdb/* /var/cal-svr-base/oldcsdb
   ```

   where oldcsdb is a temporary location.

10. Change permissions on the temporary location.

    ```
    chown -R icsuser:icsgroup /var/cal-svr-base/oldcsdb
    ```

11. Migrate the Calendar Server 6.2 or earlier data by using the csmigrate migration tool.

    ```
    cd cal-svr-base/sbin
    ./csmigrate -l max /var/cal-svr-base/old_csddb /var/cal-svr-base/csdb
    ```

    The general syntax for csmigrate is as follows:

    `csmigrate [-q] [-d] [-l min|max] [-b` *`backup_dir`*`] `*`source_dbdir target_dbdir`*

    Command options and operands are documented in Table 1, shown previously.

12. Restart the Calendar Server that was stopped in Step 3.

    ```
    cal-svr-base/sbin/start-cal
    ```

Verifying the Upgrade

You can verify the upgrade of Calendar Server by running the following commands:

Solaris OS: `cal-svr-base/cal/sbin/csversion`

Red Hat Linux: `cal-svr-base/sbin/csversion`

See the Release Notes for the appropriate version values.

Upgrading Calendar Server With HA

Calendar Server instances running in a cluster environment must share the same configuration. Ensure that the `config` directory is mounted on the node that you are upgrading. Apply Calendar Server upgrade patches to each of the instances as described previously. No reconfiguration is required.

Calendar Server Backoff

To roll back to the previous version of Calendar Server, install a fresh copy of the old version of Calendar Server and perform a `csrestore` on the database you backed up prior to starting the upgrade.

commpkg upgrade Usage

commpkg upgrade Usage
Version 7 Update 1

Topics:

- About commpkg upgrade
- commpkg upgrade Command Syntax
- commpkg upgrade Command Options
- commpkg upgrade Sample Session

About commpkg upgrade

The `commpkg upgrade` command enables you to upgrade the Communications Suite products and shared components. To use the command, as `root`, invoke `commpkg upgrade`. Additional "power user" options are available for more complicated upgrade scenarios.

The `upgrade` sub-command upgrades the Communications Suite components' software installation. However, some components require additional steps after running the command.

For more information about upgrading specific components, see the Communications Suite Upgrade Guide. Consult a specific component's upgrade information to see if additional steps are required before or after running the `upgrade` sub-command.

commpkg upgrade Command Syntax

`commpkg` [*general options*] `upgrade` [*upgrade options*] [*ALTROOT* | *name*]

For information about the `commpkg` general syntax, other sub-commands, and general options, see:

commpkg - General Syntax and Commands

Using the ALTROOT | name Command-Line Argument

This argument is supported only on Solaris OS. Specify *ALTROOT* | *name* on the command line to upgrade components that were previously installed in an alternate root.

If you specify the *name* command-line argument, it must exist in the software list, otherwise an error is returned. The *name* is looked up in the software list and is used for the corresponding *ALTROOT*.

For more information, see Using the ALTROOT Command-Line Argument.

commpkg upgrade Command Options

The following options are used by the `commpkg upgrade` command:

commpkg upgrade Options	Description
`--excludeOS`	Does not apply operating system patches during product upgrade.
`--excludeSC`	Does not install, upgrade, or patch any shared components.

`--acceptLicense`	Accepts the software license agreement under *Legal_Folder/*.
`--altroot` [*name*]	**This option has been deprecated.** Use the *ALTROOT* | *name* command line argument instead. This option is available only on Solaris OS. Specifies an alternate root directory during a multi-host installation. The `INSTALLROOT` (the top-level installation directory for all products and shared components) is the alternate root. If you specify a *name*, it is an "alias" associated with the alternate root that is registered in the software list. The *name* option is supported only on Solaris OS (not on Red Hat Linux). You can use this option to install multiple instances of Communications Suite products on the same host or Solaris zone. You can use this option to perform a side-by-side upgrade of Communications Suite products.
`--distro` *path*	Specifies the *path* to packages and patches for the products. Default: Location of `commpkg` script
`--installroot` *path*	Specifies the *path* of `INSTALLROOT`, the top-level installation directory for Communications Suite products and shared components. Default `INSTALLROOT` on Solaris OS and Red Hat Linux: `/opt/sun/comms`. The subdirectories for individual Communications Suite products are installed under the `INSTALLROOT`.
`--silent` *INPUTFILE*	Runs silent upgrade, taking the inputs from the *INPUTFILE* and the command-line arguments. The command-line arguments override entries in the *INPUTFILE*. Upgrade proceeds without interactive prompts. Use `--dry-run` to test silent upgrade without actually installing the software. When running a silent upgrade, you must use the `--acceptLicense` option in the command line or set `ACCEPTLICENSE=YES` in the *INPUTFILE*. Specify `NONE` for *INPUTFILE* if you want to run in silent mode without using an input file. When you specify `NONE`, the upgrade uses default values. For more information about running a silent upgrade, see Upgrading Communications Suite in Silent Mode.
`--dry-run` or `-n`	Does not upgrade Communications Suite components. Performs checks. This option creates a silent upgrade file in the `/tmp` directory.

`--upgradeSC [y|n]`	Indicates whether or not to upgrade shared components as required. If this option is not specified, you are prompted for each shared component that needs to be upgraded by the package uninstall/install. Default: n **Caution** Upgrading shared components is irreversible. However, if you do not upgrade required shared components, products might not work as designed. The `--excludeSC` flag has precedence over this flag.
`--auditDistro`	Audits the distribution to verify that the required patches and packages are present and that the packages have the correct versions. Compares the installed distribution to the product files internal to `commpkg`.
`--pkgOverwrite`	This option is only for Solaris OS systems. Overwrites the existing installation package. You might use this option when you are installing a shared component in a global zone where either the shared component does not exist in a global zone, or the shared component exists in the whole root zone. The default is not to override the existing package. In general, shared components should be managed in the global zone.
`--components` *`comp1 comp2 ...`*	Specifies the Communications Suite component products to be upgraded. Separate each component product with a space. (Thus, the list is a space-delimited set.) To specify each component product, use the mnemonic associated with that product. For example, Messaging Server (32-bit) uses MS, Messaging Server (64-bit) uses MS64, Calendar Server uses CS, and so on. To display a list of the mnemonics for all the component products, use the `commpkg info --listpackages` command.
`--usePkgUpgrade`	For Communications Suite products, if the upgrade can be performed by using a patch or an in-place package upgrade, this option uses the in-place package upgrade. The default is to use a patch to upgrade, if possible. Note: Patches are only used on Solaris OS.

commpkg upgrade Sample Session

Here is a sample session of `commpkg upgrade`.

commpkg upgrade Sample Session

commpkg upgrade Sample Session

This sample session shows an upgrade of the following Communications Suite 7 Update 1 products:

- Messaging Server, from version 7 Update 3 to version 7 Update 4
- Comms Directory Server Setup Script, from version 6.4-5.05 to 6.4-6.03.

The session uses the `commpkg upgrade` command to perform the upgrade.

Topics:

- Upgrade Comments
- Summary of Commands Run
- Session

Upgrade Comments

```
- Only products that are upgradable are listed. E.g. if MS was already
  at the latest version, then it would not be displayed as a selection
  for upgrade.
- Different products may require additional steps after
  upgrade.
  - Dssetup in particular requires that you run the new version to
    update the DS. This isn't shown in the sample session.
  - For MS, there are no additional steps required unless you are in a
    cluster.
  - For DA you typically have to upgrade DSsetup first prior to
    upgrading DA, entailing that you have to run commpkg upgrade twice
    (unfortunately)
- Shared components (SCs) will be upgraded as required. In this session
  you'll see the following patches applied:
  WILL INSTALL: patch 119254-71 for PATCHUTILS
  WILL INSTALL: patch 136798-02 for LDAPCSDK6 Tools
  WILL INSTALL: patch 119963-19 for LIBCPLUSPLUS
  WILL INSTALL: patch 125358-11 for NSS/NSPR/JSS
  WILL INSTALL: patch 125136-22 for JDK
  WILL INSTALL: patch 125137-22 for JDK
  WILL INSTALL: patch 126868-03 for BZIP OS Component
  and MQ and CI upgraded.
  - If you don't want SCs upgraded use the --excludeSC switch
- Note that upgrade will either do a pkgrm/pkgadd or a patchadd for
  the upgrade depending on what is installed. In the case of MS for
  this session, patchadd is done. If the original MS installation was
  6.3, a pkgrm/pkgadd would have been done. For Dssetup, the new
  version is a  patch, so patchadd is used. Note that you can backout
  a patch with patchrm, but there is no easy way to backout an upgrade
  that uses pkgrm/pkgadd. In either case, it is always advisable to have
a
  backup of your system (e.g. using zfs snapshot)
```

Summary of Commands Run

```
24 pwd
    25 uname -a
    26 ./commpkg upgrade --acceptLicense
    27 cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100805124251
    28 cat
/var/opt/CommsInstaller/logs/CommsInstaller_20100805124251.log
    29 ./commpkg info
    30 ./commpkg info --verbose
```

Session

```
(24 root) pwd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
(25 root) uname -a
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
(26 root) ./commpkg upgrade --acceptLicense
-- LOGFILE: /tmp/CommsInstaller_20100805124251.log

CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010

Welcome to the Oracle Communications Unified Communications Suite
Product Installer
This program will install selected components of the Communications
Suite
on your computer. Do note that the installer lays down the
bits, but does not do configuration. Separate configuration
steps for each individual product will be required.

Copyright 2010 Oracle Corporation. All rights reserved.
Use is subject to license terms.

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
  NOTICE: Message Queue is present with a different pkg VERSION.
  NOTICE: CommsInstaller is present with a different pkg VERSION.
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
Do you want to continue ? [yes] :
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
```

```
       1  Messaging Server (64bit) 7u4 (7.4-18.01)
          Installed Version 7u3 (7.3-11.01) at
/opt/sun/comms/messaging64
       2  Comms DSsetup 6.4 (6.4-6.03)
          Installed Version 6.4 (6.4-5.05) at /opt/sun/comms/dssetup

Enter the items you wish to upgrade. Enter q to quit.
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to upgrade [1, 2]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Checking for Shared Component Upgrade Requirements...

Shared component Message Queue has a different pkg version installed
Description: Message Queue
  Current pkg Version (SUNWiqr): 4.3,REV=2008.11.07.18.44
  To be installed pkg version (SUNWiqr): 4.4,REV=2009.08.27.08.32
  Product Version: 4.4
Note that changing pkg versions is irreversible
On the other hand, if you do not change it,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to change pkg versions for Message Queue [n] : y
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: patch 119254-71 for PATCHUTILS
  WILL INSTALL: patch 136798-02 for LDAPCSDK6 Tools
  WILL INSTALL: patch 119963-19 for LIBCPLUSPLUS
  WILL INSTALL: patch 125358-11 for NSS/NSPR/JSS
  WILL INSTALL: patch 125136-22 for JDK
  WILL INSTALL: patch 125137-22 for JDK
  WILL INSTALL: patch 126868-03 for BZIP OS Component
  NOTICE: Message Queue will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: Message Queue 4.3,REV=2008.11.07.18.44 (4.3.0.0)
  WILL INSTALL: Message Queue 4.4
  WILL INSTALL: Message Queue Localization 4.4
  NOTICE: CommsInstaller will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: CommsInstaller 7 (7.0-0.02)
  WILL INSTALL: CommsInstaller 7u1 (7.1-0.06)
                to /opt/sun/comms/CommsInstaller
  NOTICE: Upgrading Messaging Server (64bit) 7u3 (7.3-11.01)
          to 7u4 (7.4-18.01 at /opt/sun/comms/messaging64)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 137204-18 for Messaging Server (64bit)
  NOTICE: Upgrading Comms DSsetup 6.4 (6.4-5.05)
          to 6.4 (6.4-6.03 at /opt/sun/comms/dssetup)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 118245-22 for Comms DSsetup
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to upgrade

Do you want to continue ? [yes] :
```

```
============================================================
Installing patch 119254-71 for PATCHUTILS...
------ Executing Task 1 of 46 ...

============================================================
Installing patch 136798-02 for LDAPCSDK6 Tools...
------ Executing Task 2 of 46 ...

============================================================
Installing patch 119963-19 for LIBCPLUSPLUS...
------ Executing Task 3 of 46 ...

============================================================
Installing patch 125358-11 for NSS/NSPR/JSS...
------ Executing Task 4 of 46 ...

============================================================
Installing patch 125136-22 for JDK...
------ Executing Task 5 of 46 ...

============================================================
Installing patch 125137-22 for JDK...
------ Executing Task 6 of 46 ...

============================================================
Installing patch 126868-03 for BZIP OS Component...
------ Executing Task 7 of 46 ...

============================================================
Removing existing Message Queue 4.3,REV=2008.11.07.18.44 (4.3.0.0)...
------ Executing Task 8 of 46 ...
------ Executing Task 9 of 46 ...
------ Executing Task 10 of 46 ...
------ Executing Task 11 of 46 ...
------ Executing Task 12 of 46 ...
------ Executing Task 13 of 46 ...
------ Executing Task 14 of 46 ...
------ Executing Task 15 of 46 ...
------ Executing Task 16 of 46 ...

============================================================
Installing Message Queue 4.4...
------ Executing Task 17 of 46 ...
------ Executing Task 18 of 46 ...
------ Executing Task 19 of 46 ...
------ Executing Task 20 of 46 ...
------ Executing Task 21 of 46 ...
------ Executing Task 22 of 46 ...
------ Executing Task 23 of 46 ...
------ Executing Task 24 of 46 ...
------ Executing Task 25 of 46 ...
------ Executing Task 26 of 46 ...

============================================================
Installing Message Queue Localization 4.4...
------ Executing Task 27 of 46 ...
```

```
------ Executing Task 28 of 46 ...
------ Executing Task 29 of 46 ...
------ Executing Task 30 of 46 ...
------ Executing Task 31 of 46 ...
------ Executing Task 32 of 46 ...
------ Executing Task 33 of 46 ...
------ Executing Task 34 of 46 ...
------ Executing Task 35 of 46 ...
------ Executing Task 36 of 46 ...
------ Executing Task 37 of 46 ...
------ Executing Task 38 of 46 ...
------ Executing Task 39 of 46 ...
------ Executing Task 40 of 46 ...

============================================================
Removing existing CommsInstaller 7 (7.0-0.02)...
------ Executing Task 41 of 46 ...

============================================================
Installing CommsInstaller 7u1 (7.1-0.06)...
------ Executing Task 42 of 46 ...

============================================================
Upgrading Messaging Server (64bit) 7u3 (7.3-11.01 at
/opt/sun/comms/messaging64)...
------ Executing Task 43 of 46 ...
--
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18"

============================================================
Installing patch 137204-18 for Messaging Server (64bit)...
------ Executing Task 44 of 46 ...
------ Executing Task 45 of 46 ...
--
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18"
-- /opt/sun/comms/messaging64/bin/patch-config
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/patch-config_20100805125
New: /opt/sun/comms/messaging64/config/msg.conf.defaults
-- New: /opt/sun/comms/messaging64/config/mappings.locale
-- New: /opt/sun/comms/messaging64/config/option.dat
-- New: /opt/sun/comms/messaging64/config/mappings
-- New: /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- New: /opt/sun/comms/messaging64/data/install/Sun_MsgSvr
--
-- Number of new config files: 6
-- Number of config files to delete: 0
-- Number of config files with conflicts: 0
-- Number of config files that are images (gif png ico or jpg): 0
-- The list of new config files are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/newconfig.list
-- The list of config files to be deleted are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/delconfig.list
```

```
--
-- Please review the changes in the new config files before installing
them.
-- To install the updated config files, run
-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18

-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/install-newconfig_201008
Stopping services: /opt/sun/comms/messaging64/bin/stop-msg
/opt/sun/comms/messaging64/bin/stop-msg
Connecting to watcher ...
Warning: Cannot connect to watcher
job_controller server is not running
dispatcher server is not running
sched server is not running
http server is not running
pop server is not running
imap server is not running
purge server is not running
store server is not running
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/msg.conf.def
/opt/sun/comms/messaging64/config/msg.conf.defaults
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.loc
/opt/sun/comms/messaging64/config/mappings.locale
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/option.dat.n
/opt/sun/comms/messaging64/config/option.dat
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.new
/opt/sun/comms/messaging64/config/mappings
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/ugdir_
/opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/Sun_Ms
/opt/sun/comms/messaging64/data/install/Sun_MsgSvr
-- Number of different files: 6
-- Number of deleted files: 0
-- Original files are backed up under
/opt/sun/comms/messaging64/install/patch/137204-18/config_20100805125642
-- Running imsimta clbuild, chbuild, cnbuild, version...
/opt/sun/comms/messaging64/bin/imsimta clbuild
-image_file=/opt/sun/comms/messaging64/config/advanced/command_data
/opt/sun/comms/messaging64/lib/pmdf.cld
/opt/sun/comms/messaging64/bin/imsimta chbuild
No compiled configuration, skipping cnbuild
/opt/sun/comms/messaging64/bin/imsimta version
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
Oracle Communications Messaging Exchange Server 7u4-18.01 64bit (built
Jul 15 2010)
```

```
libimta.so 7u4-18.01 64bit (built 13:23:35, Jul 15 2010)
Using /opt/sun/comms/messaging64/config/imta.cnf (not compiled)
-- Running imsimta test -rewrite postmaster (output to logfile only)...
-- The final step is to apply the ldif file
-- /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- to the user/group Directory
-- This is not performed automatically, you must do this manually
============================================================
Done Upgrading Messaging Server (64bit) to 7u4 (7.4-18.01 at
/opt/sun/comms/messaging64)

============================================================
Upgrading Comms DSsetup 6.4 (6.4-5.05 at /opt/sun/comms/dssetup)...

============================================================
Installing patch 118245-22 for Comms DSsetup...
------ Executing Task 46 of 46 ...
============================================================
Done Upgrading Comms DSsetup to 6.4 (6.4-6.03 at /opt/sun/comms/dssetup)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

-- Output of Task 45: postupgrade
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18"
-- /opt/sun/comms/messaging64/bin/patch-config
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/patch-config_20100805125
New: /opt/sun/comms/messaging64/config/msg.conf.defaults
-- New: /opt/sun/comms/messaging64/config/mappings.locale
-- New: /opt/sun/comms/messaging64/config/option.dat
-- New: /opt/sun/comms/messaging64/config/mappings
-- New: /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- New: /opt/sun/comms/messaging64/data/install/Sun_MsgSvr
--
-- Number of new config files: 6
-- Number of config files to delete: 0
-- Number of config files with conflicts: 0
-- Number of config files that are images (gif png ico or jpg): 0
-- The list of new config files are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/newconfig.list
-- The list of config files to be deleted are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/delconfig.list

--
-- Please review the changes in the new config files before installing
them.
-- To install the updated config files, run
-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18

-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/install-newconfig_201008
```

```
Stopping services: /opt/sun/comms/messaging64/bin/stop-msg
/opt/sun/comms/messaging64/bin/stop-msg
Connecting to watcher ...
Warning: Cannot connect to watcher
job_controller server is not running
dispatcher server is not running
sched server is not running
http server is not running
pop server is not running
imap server is not running
purge server is not running
store server is not running
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/msg.conf.def
/opt/sun/comms/messaging64/config/msg.conf.defaults
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.loc
/opt/sun/comms/messaging64/config/mappings.locale
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/option.dat.n
/opt/sun/comms/messaging64/config/option.dat
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.new
/opt/sun/comms/messaging64/config/mappings
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/ugdir_
/opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/Sun_Ms
/opt/sun/comms/messaging64/data/install/Sun_MsgSvr
-- Number of different files: 6
-- Number of deleted files: 0
-- Original files are backed up under
/opt/sun/comms/messaging64/install/patch/137204-18/config_20100805125642
-- Running imsimta clbuild, chbuild, cnbuild, version...
/opt/sun/comms/messaging64/bin/imsimta clbuild
-image_file=/opt/sun/comms/messaging64/config/advanced/command_data
/opt/sun/comms/messaging64/lib/pmdf.cld
/opt/sun/comms/messaging64/bin/imsimta chbuild
No compiled configuration, skipping cnbuild
/opt/sun/comms/messaging64/bin/imsimta version
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
Oracle Communications Messaging Exchange Server 7u4-18.01 64bit (built
Jul 15 2010)
libimta.so 7u4-18.01 64bit (built 13:23:35, Jul 15 2010)
Using /opt/sun/comms/messaging64/config/imta.cnf (not compiled)
-- Running imsimta test -rewrite postmaster (output to logfile only)...
-- The final step is to apply the ldif file
-- /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- to the user/group Directory
-- This is not performed automatically, you must do this manually
-- End of command output--

All tasks PASSED
Checking JES java symlink...
INFO: no update to /etc/softlist.xml required
```

```
Hit Return to Continue:
=-=-=-
```

```
#
# INSTALLROOT friendly name
#
INSTALLNAME=

#
# flag to indicate whether to perform upgrade using pkgrm/pkgadd
#
USEPKGUPGRADE=no

#
# list of components (using mnemonics)
#
COMPONENTS=MS64 DSSETUP
COMPONENT_VERSIONS= 7.4 6.4
(28 root) cat
/var/opt/CommsInstaller/logs/CommsInstaller_20100805124251.log
============ LOGFILE started Thu Aug  5 12:42:51 2010 ==========
LOGFILE = /tmp/CommsInstaller_20100805124251.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg upgrade --acceptLicense
-- perl version: 5.008004 pid: 8859
-- basetime: 1281037371 Thu Aug  5 12:42:51 2010
-- scriptDir: /net/comms-nfs/export/megan/wspace/dl111122/releases/ci71
-- LOGFILE: /tmp/CommsInstaller_20100805124251.log
-- UNAME = SunOS ARCH = sparc OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
-- Exit status: 0
!!! ENV
$VAR1 = {
          'SSH_CLIENT' => '192.18.75.229 56686 22',
          'CAPSAVE' => '/home/dl111122/.termcap',
          'PS1' => '# ',
          'LINES' => '55',
          'COLUMNS' => '80',
          'PWD' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71',
          'USER' => 'dl111122',
          'LANG' => 'C',
          'LC_MESSAGES' => 'C',
          'VISUAL' => 'gnuclient',
          'LOGNAME' => 'dl111122',
          'EMACS' => 't',
          'REMOTE' => '/home/dl111122/.remote',
          'USE_64' => '1',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:.:/home/dl111122/bin:/new/local/bin
'EMACS_TYPE' => 'pc',
          'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
          'MORE' => '-c',
          'TERM' => 'emacs',
          'SSH_TTY' => '/dev/pts/1',
          'PAGER' => 'cat',
          'LM_LICENSE_FILE' =>
```

```
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
          'HOME' => '/home/dl111122',
          'LD_LIBRARY_PATH' => '/usr/dt/lib:/usr/openwin/lib',
          'SSH_CONNECTION' => '192.18.75.229 56686 10.5.194.229 22',
          'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
          'TERMSAVE' => 'emacs',
          'CDPATH' => '.:..:/home/dl111122',
          'EDITOR' => 'gnuclient',
          'MAIL' => '/var/mail//dl111122',
          'TZ' => 'US/Pacific',
          'ESHELL' => '/bin/csh',
          'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info'
'MOTIFHOME' => '/usr/dt',
          'CVSROOT' =>
':pserver:dl111122@redcvs.red.iplanet.com:/m/src',
          'OPENWINHOME' => '/usr/openwin',
          'RCSINIT' => '-zLT',
          'SHELL' => '/bin/csh',
          'SKIP_UTEST' => '1',
          'TERMCAP' => '/home/dl111122/.termcap'
        };
cat /etc/release 2>&1
                      Solaris 10 10/08 s10s_u6wos_07b SPARC
           Copyright 2008 Sun Microsystems, Inc.  All Rights Reserved.
                        Use is subject to license terms.
                            Assembled 27 October 2008
-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
          'MS64',
          'DSSETUP',
          'DAV',
          'IM',
          'IWC',
          'JISS',
          'DA',
          'MS_SCHA',
          'IM_SCHA',
          'CS',
          'CS_SCHA'
        ];
/usr/bin/pkgcond -n is_what 2>&1
can_add_driver=0
can_remove_driver=0
can_update_driver=0
is_alternative_root=0
is_boot_environment=0
is_diskless_client=0
is_global_zone=1
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=0
is_path_writable=1
```

```
is_running_system=1
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=0
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 1
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
Reading Product Files...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
does not exist...
Reading
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
```

```
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
not found, skipping...
Reading OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
OLD
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product/
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IWC/
'MS64_L10N' => 'none',
          'MS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS/C
'DSSETUP' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSE
'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64
'DAV' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DAV/
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CE/C
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Product
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JISS
'NSS' => 'none',
          'IM' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM/C
'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS_S
```

```
'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/IM_S
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS_S
'CS' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CS/C
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DA/C
};
!!! prod_getVers
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-0.06',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-6.03',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-18.01',
          'DAV' => '7.1-1.11',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.1-0.06',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.1-4.4501',
          'NSS' => 0,
          'IM' => '8.3-03.10',
          'ST' => 0,
          'CS_L10N' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'MYSQL_MARKER' => 0,
          'BZIP' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-23.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-3.00'
        };
```

```
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20100726',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20091123',
          'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' => '20100715',
          'DAV' => '20100716',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20100726',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20100618',
          'NSS' => 'none',
          'IM' => '20100622',
          'ST' => 'none',
          'CS_L10N' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'MYSQL_MARKER' => 'none',
          'BZIP' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20100624',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20100715'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.4
INFO: prod_mktVers{SASL} (no map) = 2.19
INFO: prod_mktVers{LDAPCSDK6} (no map) = 6.0
INFO: prod_mktVers{LDAPCSDK6_TOOLS} (no map) = 6.0
INFO: prod_mktVers{ICU} (no map) = ICU2,ICU3
INFO: prod_mktVers{JDK} (no map) = 1.6.0
INFO: prod_mktVers{JHRT} (no map) = 2.0
INFO: prod_mktVers{MQ} (no map) = 4.4
INFO: prod_mktVers{MQ_L10N} (no map) = 4.4
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
```

```
INFO: prod_mktVers{RECOMMENDED} (no map) = 2010.06.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u1
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u1
INFO: prod_mktVers{IM} (w/ map) = 8u3
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3

CommsInstaller version R7u1 (7.1-0.06) built on Mon Jul 26 23:30:36 PDT
2010

Welcome to the Oracle Communications Unified Communications Suite
Product Installer
This program will install selected components of the Communications
Suite
on your computer. Do note that the installer lays down the
bits, but does not do configuration. Separate configuration
steps for each individual product will be required.

Copyright 2010 Oracle Corporation. All rights reserved.
Use is subject to license terms.

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Checking LIBCPLUSPLUS 5.9 ...
  Checking pkg SUNWlibC... present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmdsu... present.
  Checking pkg SUNWswmt... present.
  Checking pkg SUNWinstall-patch-utils-root... present.
  Checking pkg SUNWcsr... present.
  Checking pkg SUNWdtrc... present.
  Checking pkg SUNWzoneu... present.
  PATCHUTILS Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2010.06.25 ...
  RECOMMENDED 2010.06.25 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... present.
  Checking pkg SUNWservicetagu... present.
  Checking pkg SUNWstosreg... present.
  ST 1.1.4 is already present.
Checking NSS 4.8.4 ...
  Checking pkg SUNWjss... present.
  Checking pkg SUNWpr... present.
```

```
  Checking pkg SUNWprd... present.
  Checking pkg SUNWtls... present.
  Checking pkg SUNWtlsd... present.
  Checking pkg SUNWtlsu... present.
  NSS 4.8.4 is already present.
Checking SASL 2.19 ...
  Checking pkg SUNWsasl... present.
  SASL 2.19 is already present.
Checking LDAPCSDK6 6.0 ...
  Checking pkg SUNWldapcsdk-libs... present.
  Checking pkg SUNWldapcsdk-dev... present.
  LDAPCSDK6 6.0 is already present.
Checking LDAPCSDK6_TOOLS 6.0 ...
  Checking pkg SUNWldapcsdk-tools... present.
  LDAPCSDK6_TOOLS 6.0 is already present.
Checking ICU ICU2,ICU3 ...
  Checking pkg SUNWicu... present.
  ICU ICU2,ICU3 is already present.
Checking JDK 1.6.0 ...
  Checking pkg SUNWj6rt... present.
  Checking pkg SUNWj6rtx... present.
  Checking pkg SUNWj6dev... present.
  Checking pkg SUNWj6dvx... present.
  Checking pkg SUNWj6cfg... present.
  JDK 1.6.0 is already present.
Checking JDK 1.5.0 ...
  Checking pkg SUNWj5rt... present.
  Checking pkg SUNWj5rtx... present.
  Checking pkg SUNWj5cfg... present.
  JDK 1.5.0 is already present.
Checking JHRT 2.0 ...
  Checking pkg SUNWjhrt... present.
  Checking pkg SUNWjhdev... present.
  Checking pkg SUNWjhdem... present.
  Checking pkg SUNWjhdoc... present.
  JHRT 2.0 is already present.
Checking MQ 4.4 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.4,REV=2009.08.27.08.32
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.4,REV=2009.08.27.08.32
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.4,REV=2009.08.27.08.32
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.4,REV=2009.08.27.08.33
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
```

```
    checking SUNWiqlen 4.4,REV=2009.08.27.08.33
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 3.7 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 3.7,REV=2006.06.18.22.34
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 3.7,REV=2006.06.18.22.34
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 3.7,REV=2006.06.18.22.35
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 3.7,REV=2006.06.18.22.35
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.1 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.1,REV=2007.07.26.10.58
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.1,REV=2007.07.26.10.59
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.1,REV=2007.07.26.10.59
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ_L10N 4.4 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
```

```
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
  MQ_L10N 4.4 is not present.
Checking MQ_L10N 3.7 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
  MQ_L10N 3.7 is not present.
Checking MQ_L10N 4.1 ...
  Checking pkg SUNWfiqu... not present.
  Checking pkg SUNWfiquc... not present.
  Checking pkg SUNWdiqu... not present.
  Checking pkg SUNWdiquc... not present.
  Checking pkg SUNWjiqu... not present.
  Checking pkg SUNWjiquc... not present.
  Checking pkg SUNWeiqu... not present.
  Checking pkg SUNWeiquc... not present.
  Checking pkg SUNWkiqu... not present.
  Checking pkg SUNWkiquc... not present.
  Checking pkg SUNWciqu... not present.
  Checking pkg SUNWciquc... not present.
  Checking pkg SUNWhiqu... not present.
  Checking pkg SUNWhiquc... not present.
  MQ_L10N 4.1 is not present.
Checking LDAPJDK 4.19 ...
  Checking pkg SUNWljdk... present.
  LDAPJDK 4.19 is already present.
Checking IMAPI 8.0 ...
  Checking pkg SUNWiimdv... present.
  IMAPI 8.0 is already present.
Checking IMAPI 7.0 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 7.0,REV=2004.11.24.05.24.36
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking IMAPI 7.3 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 7.3,REV=2008.01.15
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... present.
  MYSQL 5.1.36 is already present.
Checking CI 7.1 ...
  Checking pkg SUNWcomms...
```

```
/opt/sun/comms/CommsInstaller/lib/getVersion VERSION BUILDDATE UNAME
ARCH BITS 2>&1
7.0-0.02
20090909
SunOS
sparc
32
-- Exit status: 0
 present but with a different pkg VERSION.
    checking SUNWcomms 7.1,REV=2010.07.26
  NOTICE: CommsInstaller is present with a different pkg VERSION.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.0 is not present.
Checking MS64 7.4 ...
  Checking pkg SUNWmessaging-server-64...
/opt/sun/comms/messaging64/lib/getVersion VERSION BUILDDATE UNAME ARCH
BITS 2>&1
7.3-11.01
20090901
SunOS
sparc
64
-- Exit status: 0
 present.
  MS64 7.4 is already present.
Checking MS64 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS64 6.3_32 is not present.
Checking MS64 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS64 7.2_32 is not present.
Checking MS64 7.3_32 ...
  MS64 7.3_32 is not present.
Checking MS64 7.4_32 ...
  MS64 7.4_32 is not present.
Checking DSSETUP 6.4 ...
  Checking pkg SUNWcomds...
/opt/sun/comms/dssetup/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
6.4-5.05
20090808
SunOS
sparc
32
-- Exit status: 0
 present.
  DSSETUP 6.4 is already present.
```

```
Checking DAV 7.1 ...
  Checking pkg SUNWdavserver... not present.
  DAV 7.1 is not present.
Checking IM 8.3 ...
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  Checking pkg SUNWiimgw... not present.
  IM 8.3 is not present.
Checking IM 7.0 ...
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  IM 7.0 is not present.
Checking IM 7.3 ...
  Checking pkg SUNWiim... not present.
  Checking pkg SUNWiimin... not present.
  Checking pkg SUNWiimm... not present.
  Checking pkg SUNWiimjd... not present.
  Checking pkg SUNWiimid... not present.
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  IM 7.3 is not present.
Checking IWC 2.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 2.0 is not present.
Checking JISS 1.1 ...
  Checking pkg SUNWjiss... not present.
  JISS 1.1 is not present.
Checking JISS 0.9 ...
  Checking pkg SUNWjiss-common... not present.
  Checking pkg SUNWjiss-conf... not present.
  Checking pkg SUNWjiss-extjars... not present.
  Checking pkg SUNWjiss-indexapi... not present.
  Checking pkg SUNWjiss-jmqc... not present.
  Checking pkg SUNWjiss-rest... not present.
  Checking pkg SUNWjiss-search... not present.
  Checking pkg SUNWjiss-searchui... not present.
  Checking pkg SUNWjiss-store... not present.
  Checking pkg SUNWjiss-storeui... not present.
  JISS 0.9 is not present.
Checking DA 7.0 ...
  Checking pkg SUNWcommda... not present.
  DA 7.0 is not present.
Checking DA 6.4 ...
  Checking pkg SUNWcomic... not present.
  Checking pkg SUNWcomis... not present.
  DA 6.4 is not present.
```

```
Checking MS_SCHA 7.0 ...
  Checking pkg SUNWmessaging-server-scha... not present.
  MS_SCHA 7.0 is not present.
Checking MS_SCHA 6.0 ...
  Checking pkg SUNWscims... not present.
  MS_SCHA 6.0 is not present.
Checking IM_SCHA 7.3 ...
  Checking pkg SUNWiimsc... not present.
  IM_SCHA 7.3 is not present.
Checking IM_SCHA 7.0 ...
  Checking pkg SUNWiimsc... not present.
  IM_SCHA 7.0 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Checking CS_SCHA 6.0 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.0 is not present.
Checking MS 7.4 ...
  MS 7.4 is not present.
Checking MS 6.3_32 ...
  Checking pkg SUNWmsgin... not present.
  Checking pkg SUNWmsgen... not present.
  Checking pkg SUNWmsglb... not present.
  Checking pkg SUNWmsgco... not present.
  Checking pkg SUNWmsgmt... not present.
  Checking pkg SUNWmsgst... not present.
  Checking pkg SUNWmsgmp... not present.
  Checking pkg SUNWmsgwm... not present.
  Checking pkg SUNWmsgmf... not present.
  MS 6.3_32 is not present.
Checking MS 7.2_32 ...
  Checking pkg SUNWmessaging-server... not present.
  MS 7.2_32 is not present.
Checking MS 7.3_32 ...
  MS 7.3_32 is not present.
Checking MS_L10N 6.2 ...
  Checking pkg SUNWmsgde... not present.
  Checking pkg SUNWmsges... not present.
  Checking pkg SUNWmsgfr... not present.
  Checking pkg SUNWmsgja... not present.
  Checking pkg SUNWmsgko... not present.
  Checking pkg SUNWmsgzh... not present.
  Checking pkg SUNWmsgtw... not present.
  MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
  Checking pkg SUNWmsg-l10n... not present.
  MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
  Checking pkg SUNWmessaging-server-l10n-64... not present.
  MS64_L10N 6.3 is not present.
Checking CS_L10N 6.2 ...
```

```
  Checking pkg SUNWdeics... not present.
  Checking pkg SUNWesics... not present.
  Checking pkg SUNWfrics... not present.
  Checking pkg SUNWjaics... not present.
  Checking pkg SUNWkoics... not present.
  Checking pkg SUNWzhics... not present.
  Checking pkg SUNWtwics... not present.
  CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
  Checking pkg SUNWics-l10n... not present.
  CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
  Checking pkg SUNWdiimc... not present.
  Checking pkg SUNWdiimd... not present.
  Checking pkg SUNWdimid... not present.
  Checking pkg SUNWeiimc... not present.
  Checking pkg SUNWeiimd... not present.
  Checking pkg SUNWeiimin... not present.
  Checking pkg SUNWeimid... not present.
  Checking pkg SUNWfiimc... not present.
  Checking pkg SUNWfiimd... not present.
  Checking pkg SUNWfiimin... not present.
  Checking pkg SUNWfimid... not present.
  Checking pkg SUNWjiimc... not present.
  Checking pkg SUNWjiimd... not present.
  Checking pkg SUNWjiimin... not present.
  Checking pkg SUNWjimid... not present.
  Checking pkg SUNWkiimc... not present.
  Checking pkg SUNWkiimd... not present.
  Checking pkg SUNWkiimin... not present.
  Checking pkg SUNWkimid... not present.
  Checking pkg SUNWciimc... not present.
  Checking pkg SUNWciimd... not present.
  Checking pkg SUNWciimin... not present.
  Checking pkg SUNWcimid... not present.
  Checking pkg SUNWhiimc... not present.
  Checking pkg SUNWhiimd... not present.
  Checking pkg SUNWhiimin... not present.
  Checking pkg SUNWhimid... not present.
  IM_L10N 7.0 is not present.
Checking IM_L10N 7.2 ...
  Checking pkg SUNWiimc-l10n... not present.
  Checking pkg SUNWiimd-l10n... not present.
  Checking pkg SUNWiimid-l10n... not present.
  Checking pkg SUNWiimin-l10n... not present.
  IM_L10N 7.2 is not present.
Checking CE 6.3 ...
  Checking pkg SUNWuwc... not present.
  CE 6.3 is not present.
Checking CE_L10N 6.2 ...
  Checking pkg SUNWduwc... not present.
  Checking pkg SUNWeuwc... not present.
  Checking pkg SUNWfuwc... not present.
  Checking pkg SUNWjuwc... not present.
  Checking pkg SUNWkuwc... not present.
  Checking pkg SUNWcuwc... not present.
```

```
  Checking pkg SUNWhuwc... not present.
  CE_L10N 6.2 is not present.
Checking CE_L10N 6.3 ...
  Checking pkg SUNWuwc-l10n... not present.
  CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119963-19 /tmp/.patchout_20100805124251.8859
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20100805124251.8859
patchadd  -p > /tmp/.patchout_20100805124251.8859 2>>
/tmp/CommsInstaller_20100805124251.log
-- Exit status: 0
--  older version at lineno 474 found 119963-10 - not acceptable
--  older version at lineno 475 found 119963-16 - not acceptable
--  Final return status: 0
  LIBCPLUSPLUS patch 119963-19 is not present.
-- chk4patch 120900-04 /tmp/.patchout_20100805124251.8859
--  Exact match found at line 53
--  Final return status: 1
  PATCHUTILS patch 120900-04 is already present.
-- chk4patch 121133-02 /tmp/.patchout_20100805124251.8859
--  Exact match found at line 33
--  Final return status: 1
  PATCHUTILS patch 121133-02 is already present.
-- chk4patch 119254-71 /tmp/.patchout_20100805124251.8859
--  older version at lineno 32 found 119254-59 - not acceptable
--  older version at lineno 35 found 119254-67 - not acceptable
--  Final return status: 0
  PATCHUTILS patch 119254-71 is not present.
-- chk4patch 126868-03 /tmp/.patchout_20100805124251.8859
--  older version at lineno 453 found 126868-01 - not acceptable
--  older version at lineno 455 found 126868-02 - not acceptable
--  Final return status: 0
  BZIP patch 126868-03 is not present.
-- chk4patch 137321-01 /tmp/.patchout_20100805124251.8859
--  Exact match found at line 454
--  Final return status: 1
  BZIP patch 137321-01 is already present.
-- chk4patch 119254-73 /tmp/.patchout_20100805124251.8859
--  older version at lineno 32 found 119254-59 - not acceptable
--  older version at lineno 35 found 119254-67 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 119254-73 is not present.
-- chk4patch 118833-36 /tmp/.patchout_20100805124251.8859
--  Exact match found at line 37
--  Final return status: 1
  RECOMMENDED patch 118833-36 is already present.
-- chk4patch 120011-14 /tmp/.patchout_20100805124251.8859
--  Exact match found at line 51
--  Final return status: 1
  RECOMMENDED patch 120011-14 is already present.
-- chk4patch 120272-28 /tmp/.patchout_20100805124251.8859
--  older version at lineno 23 found 120272-21 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 120272-28 is not present.
-- chk4patch 137137-09 /tmp/.patchout_20100805124251.8859
```

```
--  Exact match found at line 61
--  Final return status: 1
  RECOMMENDED patch 137137-09 is already present.
-- chk4patch 141444-09 /tmp/.patchout_20100805124251.8859
--  Final return status: 0
  RECOMMENDED patch 141444-09 is not present.
-- chk4patch 142900-13 /tmp/.patchout_20100805124251.8859
--  Final return status: 0
  RECOMMENDED patch 142900-13 is not present.
-- chk4patch 125358-11 /tmp/.patchout_20100805124251.8859
--  older version at lineno 42 found 125358-06 - not acceptable
--  older version at lineno 43 found 125358-08 - not acceptable
--  Final return status: 0
  NSS patch 125358-11 is not present.
-- chk4patch 119345-07 /tmp/.patchout_20100805124251.8859
--  older version at lineno 16 found 119345-05 - not acceptable
--  Exact match found at line 17
--  Final return status: 1
  SASL patch 119345-07 is already present.
-- chk4patch 136798-02 /tmp/.patchout_20100805124251.8859
--  older version at lineno 110 found 136798-01 - not acceptable
--  Final return status: 0
  LDAPCSDK6_TOOLS patch 136798-02 is not present.
-- chk4patch 119810-05 /tmp/.patchout_20100805124251.8859
--  Exact match found at line 357
--  Final return status: 1
  ICU patch 119810-05 is already present.
-- chk4patch 125136-22 /tmp/.patchout_20100805124251.8859
--  older version at lineno 156 found 125136-17 - not acceptable
--  Final return status: 0
  JDK patch 125136-22 is not present.
-- chk4patch 125137-22 /tmp/.patchout_20100805124251.8859
--  older version at lineno 21 found 125137-17 - not acceptable
--  Final return status: 0
  JDK patch 125137-22 is not present.
-- chk4patch 119725-06 /tmp/.patchout_20100805124251.8859
--  Exact match found at line 517
--  Final return status: 1
  LDAPJDK patch 119725-06 is already present.
-- chk4patch 137204-18 /tmp/.patchout_20100805124251.8859
--  older version at lineno 84 found 137204-11 - not acceptable
--  Final return status: 0
  MS64 patch 137204-18 is not present.
-- chk4patch 118242-03 /tmp/.patchout_20100805124251.8859
--  Exact match found at line 386
--  Final return status: 1
  DSSETUP patch 118242-03 is already present.
-- chk4patch 118245-22 /tmp/.patchout_20100805124251.8859
--  older version at lineno 387 found 118245-21 - not acceptable
--  Final return status: 0
  DSSETUP patch 118245-22 is not present.
-- chk4patch 142785-01 /tmp/.patchout_20100805124251.8859
--  Final return status: 0
  DAV patch 142785-01 is not present.
-- chk4patch 139893-03 /tmp/.patchout_20100805124251.8859
--  Final return status: 0
```

```
  IM patch 139893-03 is not present.
-- chk4patch 142824-04 /tmp/.patchout_20100805124251.8859
--  Final return status: 0
  JISS patch 142824-04 is not present.
-- chk4patch 124581-03 /tmp/.patchout_20100805124251.8859
--  Final return status: 0
  DA patch 124581-03 is not present.
-- chk4patch 137571-01 /tmp/.patchout_20100805124251.8859
--  Final return status: 0
  IM_SCHA patch 137571-01 is not present.
-- chk4patch 121657-44 /tmp/.patchout_20100805124251.8859
--  Final return status: 0
  CS patch 121657-44 is not present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'PRESENT',
          '119254-73' => 'NOT_PRESENT',
          '137571-01' => 'NOT_PRESENT',
          'DSSETUP' => {
                         '6.4' => 'PRESENT'
                       },
          'MQ_L10N' => {
                         '3.7' => 'NOT_PRESENT',
                         '4.1' => 'NOT_PRESENT',
                         '4.4' => 'NOT_PRESENT'
                       },
          'ICU' => {
                     'ICU2,ICU3' => 'PRESENT'
                   },
          'MS64' => {
                      '7.4_32' => 'NOT_PRESENT',
                      '7.3_32' => 'NOT_PRESENT',
                      '7.2_32' => 'NOT_PRESENT',
                      '6.3_32' => 'NOT_PRESENT',
                      '7.4' => 'PRESENT'
                    },
          'DAV' => {
                     '7.1' => 'NOT_PRESENT'
                   },
          'CE' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          'MYSQL' => {
                       '5.1.36' => 'PRESENT'
                     },
          'PATCHUTILS' => {
                            'Unknown' => 'PRESENT'
                          },
          'MQ' => {
                    '3.7' => 'DIFF_VERSION',
                    '4.1' => 'DIFF_VERSION',
                    '4.4' => 'DIFF_VERSION'
                  },
          'IMAPI' => {
```

```
                '8.0' => 'PRESENT',
                '7.0' => 'DIFF_VERSION',
                '7.3' => 'DIFF_VERSION'
              },
'LDAPCSDK6_TOOLS' => {
                        '6.0' => 'PRESENT'
                      },
'JISS' => {
            '0.9' => 'NOT_PRESENT',
            '1.1' => 'NOT_PRESENT'
          },
'ST' => {
          '1.1.4' => 'PRESENT'
        },
'118833-36' => 'PRESENT',
'IM_L10N' => {
                '7.2' => 'NOT_PRESENT',
                '7.0' => 'NOT_PRESENT'
              },
'LDAPJDK' => {
                '4.19' => 'PRESENT'
              },
'142785-01' => 'NOT_PRESENT',
'125358-11' => 'NOT_PRESENT',
'BZIP' => {
            '11.10' => 'PRESENT'
          },
'126868-03' => 'NOT_PRESENT',
'141444-09' => 'NOT_PRESENT',
'IM_SCHA' => {
                '7.0' => 'NOT_PRESENT',
                '7.3' => 'NOT_PRESENT'
              },
'MS_SCHA' => {
                '6.0' => 'NOT_PRESENT',
                '7.0' => 'NOT_PRESENT'
              },
'JHRT' => {
            '2.0' => 'PRESENT'
          },
'CE_L10N' => {
                '6.2' => 'NOT_PRESENT',
                '6.3' => 'NOT_PRESENT'
              },
'119810-05' => 'PRESENT',
'119963-19' => 'NOT_PRESENT',
'SASL' => {
            '2.19' => 'PRESENT'
          },
'IWC' => {
           '2.0' => 'NOT_PRESENT'
         },
'MS64_L10N' => {
                  '6.3' => 'NOT_PRESENT'
                },
'MS' => {
```

```
                  '7.3_32' => 'NOT_PRESENT',
                  '7.2_32' => 'NOT_PRESENT',
                  '6.3_32' => 'NOT_PRESENT',
                  '7.4' => 'NOT_PRESENT'
                },
        '139893-03' => 'NOT_PRESENT',
        '142824-04' => 'NOT_PRESENT',
        '119345-07' => 'PRESENT',
        '120900-04' => 'PRESENT',
        '118245-22' => 'NOT_PRESENT',
        '136798-02' => 'NOT_PRESENT',
        '120011-14' => 'PRESENT',
        '120272-28' => 'NOT_PRESENT',
        'LDAPCSDK6' => {
                        '6.0' => 'PRESENT'
                      },
        '124581-03' => 'NOT_PRESENT',
        '137137-09' => 'PRESENT',
        'JDK' => {
                   '1.6.0' => 'PRESENT',
                   '1.5.0' => 'PRESENT'
                 },
        '121657-44' => 'NOT_PRESENT',
        'CI' => {
                  '7.1' => 'DIFF_VERSION'
                },
        '137321-01' => 'PRESENT',
        'NSS' => {
                   '4.8.4' => 'PRESENT'
                 },
        'CS_L10N' => {
                      '6.2' => 'NOT_PRESENT',
                      '6.3' => 'NOT_PRESENT'
                    },
        'IM' => {
                  '8.3' => 'NOT_PRESENT',
                  '7.0' => 'NOT_PRESENT',
                  '7.3' => 'NOT_PRESENT'
                },
        'RECOMMENDED' => {
                          '2010.06.25' => 'NOT_PRESENT'
                        },
        '119254-71' => 'NOT_PRESENT',
        'CS_SCHA' => {
                      '6.0' => 'NOT_PRESENT',
                      '6.3' => 'NOT_PRESENT'
                    },
        'MYSQL_MARKER' => {
                           '1.0' => 'NOT_PRESENT'
                         },
        '137204-18' => 'NOT_PRESENT',
        '142900-13' => 'NOT_PRESENT',
        'MS_L10N' => {
                      '6.2' => 'NOT_PRESENT',
                      '6.3' => 'NOT_PRESENT'
                    },
```

```
          'LIBCPLUSPLUS' => {
                              '5.9' => 'PRESENT'
                            },
          '121133-02' => 'PRESENT',
          '118242-03' => 'PRESENT',
          '125136-22' => 'NOT_PRESENT',
          'CS' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          '125137-22' => 'NOT_PRESENT',
          'DA' => {
                    '6.4' => 'NOT_PRESENT',
                    '7.0' => 'NOT_PRESENT'
                  }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {},
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                  '1.1.4,REV=2008.03.21.07.54' => [

'SUNWservicetagu',
                                                                     '/',

'1.1.4.1'
                                                                   ]
                                 },
          'SUNWjimid' => {},
          'SUNWdiquc' => {},
          'SUNWmsgko' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWics5' => {},
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {},
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {
                            '2.0,REV=2006.10.04' => [
                                                      'SUNWjhdem',
                                                      '/usr',
                                                      '2.0/FCS'
                                                    ]
                          },
          'SUNWiqfs' => {
                           '4.3,REV=2008.11.07.18.44' => [
                                                           'SUNWiqfs',
                                                           '/',
                                                           '4.3.0.0'
                                                         ]
                         },
          'SUNWfimid' => {},
          'SUNWcomds' => {
                            '6.3,REV=2004.08.12' => [
                                                      'SUNWcomds',
```

```
'/opt/sun/comms/dssetup',
                                                        '6.4-5.05'
                                                      ]
                          },
          'SUNWj6rtx' => {
                            '1.6.0,REV=2006.11.29.04.58' => [

'SUNWj6rtx',
                                                                '/usr',

'1.6.0_16/1.6.0_16-b01'
                                                                ]
                          },
          'SUNWjhdev' => {
                            '2.0,REV=2006.10.04' => [
                                                        'SUNWjhdev',
                                                        '/usr',
                                                        '2.0/FCS'
                                                      ]
                          },
          'SUNWiqum' => {
                            '4.3,REV=2008.11.07.18.44' => [
                                                            'SUNWiqum',
                                                            '/',
                                                            '4.3.0.0'
                                                          ]
                        },
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {
                            '1.6.0,REV=2006.11.29.05.57' => [
                                                              'SUNWj6rt',
                                                              '/usr',

'1.6.0_16/1.6.0_16-b01'
                                                            ]
                        },
          'SUNWj5rt' => {
                            '1.5.0,REV=2004.12.07.00.07' => [
                                                              'SUNWj5rt',
                                                              '/usr',

'1.5.0_16/1.5.0_16-b02'
                                                            ]
                        },
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {},
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {},
```

```
          'SUNWiimgw' => {},
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {},
          'SUNWzhics' => {},
          'SUNWkiimd' => {},
          'SUNWmsgmp' => {},
          'SUNWuwc' => {},
          'SUNWscics' => {},
          'SUNWiimc' => {},
          'SUNWhiimd' => {},
          'SUNWmessaging-server-scha' => {},
          'SUNWmsglb' => {},
          'SUNWtls' => {
                        '3.11.4,REV=2006.11.16.20.40' => [
                                                            'SUNWtls',
                                                            '/',
                                                            '3.12.3'
                                                          ]
                      },
          'SUNWj6dvx' => {
                          '1.6.0,REV=2006.11.29.04.58' => [

'SUNWj6dvx',
                                                              '/usr',

'1.6.0_16/1.6.0_16-b01'
                                                             ]
                        },
          'SUNWfuwc' => {},
          'SUNWlibC' => {
                          '5.10,REV=2004.12.22' => [
                                                      'SUNWlibC',
                                                      '/',
                                                      '5.10'
                                                    ]
                       },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {},
          'SUNWscims' => {},
          'SUNWiimjd' => {},
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {
                                 '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-dev',
                                                                  '/',

'6.00'
                                                                     ]
                               },
          'SUNWiqlen' => {
                          '4.3,REV=2008.11.07.18.45' => [
                                                          'SUNWiqlen',
                                                          '/',
                                                          '4.3.0.0'
```

```
                                                                ]
                          },
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {
                          '4.3,REV=2008.11.07.18.44' => [
                                                                  'SUNWiqr',
                                                                  '/',
                                                                  '4.3.0.0'
                                                                ]
                        },
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWeiquc' => {},
          'SUNWmessaging-server-64' => {
                                            '7.0,REV=2008.06.20' => [

'SUNWmessaging-server-64',

'/opt/sun/comms/messaging64',

'7.3-11.01'
                                                                                  ]
                                          },
          'SUNWj5cfg' => {
                            '1.5.0,REV=2004.12.07.00.07' => [

'SUNWj5cfg',
                                                                      '/',

'1.5.0_16/1.5.0_16-b02'
                                                                    ]
                          },
          'SUNWhiqu' => {},
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {
                            '8.0,REV=2008.12.04' => [
                                                        'SUNWiimdv',
                                                        '/',
                                                        '8.0-00'
                                                      ]
                          },
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {
                            '1.5.0,REV=2004.12.06.22.09' => [

'SUNWj5rtx',
                                                                      '/usr',

'1.5.0_16/1.5.0_16-b02'
                                                                    ]
                          },
          'SUNWiquc' => {
                           '4.3,REV=2008.11.07.18.44' => [
                                                                  'SUNWiquc',
                                                                  '/',
                                                                  '4.3.0.0'
```

```
                                                          ]
                         },
          'SUNWiimid' => {},
          'SUNWmsgmt' => {},
          'SUNWljdk' => {
                           '1.0,REV=2004.10.11.06.02' => [
                                                            'SUNWljdk',
                                                            '/',
                                                            '4.21'
                                                          ]
                         },
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {
                                    '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-libs',
                                                                        '/',

'6.00'
                                                                         ]
                                  },
          'SUNWservicetagr' => {
                                  '1.1.4,REV=2008.03.21.07.54' => [

'SUNWservicetagr',
                                                                          '/',

'1.1.4.1'
                                                                        ]
                                },
          'SUNWciimc' => {},
          'SUNWjhrt' => {
                           '2.0,REV=2006.10.31' => [
                                                      'SUNWjhrt',
                                                      '/usr',
                                                      '2.0/FCS'
                                                    ]
                         },
          'SUNWtlsd' => {
                           '3.11.4,REV=2006.11.16.20.40' => [
                                                              'SUNWtlsd',
                                                              '/',
                                                              '3.12.3'
                                                            ]
                         },
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                           '11.10.0,REV=2005.01.21.15.53' => [

'SUNWdtrc',
                                                                '/',

'5.10/Generic Patch'
                                                               ]
                         },
          'SUNWhuwc' => {},
```

```
          'mysql' => {
                      '5.1.36' => [
                                   'mysql',
                                   '/opt/mysql',
                                   ''
                                 ]
                    },
          'SUNWiqdoc' => {
                          '4.3,REV=2008.11.07.18.44' => [
                                                         'SUNWiqdoc',
                                                         '/',
                                                         '4.3.0.0'
                                                        ]
                        },
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {},
          'SUNWiqcrt' => {
                          '4.3,REV=2008.11.07.18.44' => [
                                                         'SUNWiqcrt',
                                                         '/opt',
                                                         '4.3.0.0'
                                                        ]
                        },
          'SUNWmsgzh' => {},
          'SUNWprd' => {
                        '4.6.4,REV=2006.11.16.20.40' => [
                                                         'SUNWprd',
                                                         '/',
                                                         '4.7.4'
                                                        ]
                      },
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {},
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {},
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {},
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.23.05' => [

'SUNWinstall-patch-utils-root',

'/',

'SNAG Development'

]
                                             },
          'SUNWiimin' => {},
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {
```

```
                        '4.3,REV=2008.11.07.18.44' => [
                                                        'SUNWiqu',
                                                        '/',
                                                        '4.3.0.0'
                                                      ]
                      },
          'SUNWkiimc' => {},
          'SUNWiim' => {},
          'SUNWeiimin' => {},
          'SUNWcimid' => {},
          'SUNWiqcdv' => {
                          '4.3,REV=2008.11.07.18.44' => [
                                                          'SUNWiqcdv',
                                                          '/opt',
                                                          '4.3.0.0'
                                                        ]
                        },
          'SUNWldapcsdk-tools' => {
                                   '6.00,REV=2006.12.11.00.08' => [

'SUNWldapcsdk-tools',

'/opt/SUNWdsee',

'6.00'
                                                                    ]
                                  },
          'SUNWjss' => {
                        '4.2.4,REV=2006.11.16.20.40' => [
                                                          'SUNWjss',
                                                          '/',
                                                          '4.3'
                                                        ]
                      },
          'SUNWdiqu' => {},
          'SUNWjiss' => {},
          'SUNWj6cfg' => {
                          '1.6.0,REV=2006.11.29.05.57' => [

'SUNWj6cfg',
                                                              '/',

'1.6.0_16/1.6.0_16-b01'
                                                            ]
                        },
          'SUNWhimid' => {},
          'SUNWciquc' => {},
          'SUNWcomms' => {
                          '7.0,REV=2009.09.09' => [
                                                     'SUNWcomms',

'/opt/sun/comms/CommsInstaller',
                                                     '7.0-0.02'
                                                   ]
                        },
          'SUNWjiqu' => {},
```

```
          'SUNWkiqu' => {},
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {},
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {},
          'SUNWmsgtw' => {},
          'SUNWeiimc' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                              '11.11,REV=2005.01.09.23.05' => [

'SUNWpkgcmdsu',
                                                                '/',
                                                                'SNAG
Development'
                                                              ]
                            },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {
                           '4.3,REV=2008.11.07.18.44' => [
                                                            'SUNWiqjx',
                                                            '/',
                                                            '4.3.0.0'
                                                          ]
                         },
          'SUNWjhdoc' => {
                            '2.0,REV=2006.10.04' => [
                                                       'SUNWjhdoc',
                                                       '/usr',
                                                       '2.0/FCS'
                                                     ]
                          },
          'SUNWj6dev' => {
                            '1.6.0,REV=2006.11.29.05.57' => [

'SUNWj6dev',
                                                                  '/usr',

'1.6.0_16/1.6.0_16-b01'
                                                                ]
                          },
          'SUNWmsges' => {},
          'SUNWpr' => {
                         '4.6.4,REV=2006.11.16.20.40' => [
                                                            'SUNWpr',
                                                            '/',
                                                            '4.7.4'
                                                          ]
                       },
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {
                          '1.2,REV=2005.01.06.14.13' => [
                                                           'SUNWicu',
```

```
                                                          '/usr',
                                                          '10/Generic'
                                                        ]
                        },
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                          '11.10,REV=2005.01.10.17.19' => [
                                                            'SUNWswmt',
                                                            '/',
                                                            'SNAG
Development'
                                                          ]
                        },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {},
          'SUNWstosreg' => {
                             '1.1.4,REV=2008.03.21.07.54' => [

'SUNWstosreg',
                                                              '/',
                                                              '1.1.4.1'
                                                            ]
                           },
          'SUNWmsgde' => {},
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                          '11.10.0,REV=2005.01.08.05.16' => [

'SUNWbzip',
                                                              '/',

'5.10/SunOS Development'
                                                            ]
                        },
          'SUNWtlsu' => {
                          '3.11.4,REV=2006.11.16.20.40' => [
                                                            'SUNWtlsu',
                                                            '/',
                                                            '3.12.3'
                                                           ]
                        },
          'SUNWfiqu' => {},
          'SUNWsasl' => {
                          '2.17,REV=2004.04.06.15.24' => [
                                                           'SUNWsasl',
                                                           '/',
                                                           '2.19'
```

```
                                                                ]
                        },
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                          '11.10.0,REV=2005.01.21.15.53' => [

'SUNWzoneu',
                                                                  '/',

'5.10/Generic Patch'
                                                                ]
                        },
          'SUNWcsr' => {
                        '11.10.0,REV=2005.01.21.15.53' => [
                                                                'SUNWcsr',
                                                                '/',

'5.10/Generic Patch'
                                                               ]
                       },
          'SUNWesics' => {},
          'SUNWiimm' => {}
        };
!!! installedprod
$VAR1 = {
          'SASL' => {
                      '2.19' => [
                                  '/',
                                  '2.19',
                                  'none',
                                  '2.19',
                                  'none',
                                  'none',
                                  'none'
                                ]
                    },
          'ST' => {
                    '1.1.4' => [
                                '/',
                                '1.1.4.1',
                                'none',
                                '1.1.4',
                                'none',
                                'none',
                                'none'
                              ]
                  },
          'DSSETUP' => {
                        '6.4' => [
                                  '/opt/sun/comms/dssetup',
                                  '6.4-5.05',
                                  '20090808',
                                  '6.4',
                                  'SunOS',
                                  'sparc',
                                  '32'
```

```
                                ]
                        },
                'LDAPJDK' => {
                                '4.19' => [
                                            '/',
                                            '4.21',
                                            'none',
                                            '4.19',
                                            'none',
                                            'none',
                                            'none'
                                          ]
                        },
                'BZIP' => {
                            '11.10' => [
                                        '/',
                                        '5.10/SunOS Development',
                                        'none',
                                        '11.10',
                                        'none',
                                        'none',
                                        'none'
                                      ]
                          },
                'ICU' => {
                           'ICU2,ICU3' => [
                                           '/usr',
                                           '10/Generic',
                                           'none',
                                           'ICU2,ICU3',
                                           'none',
                                           'none',
                                           'none'
                                         ]
                         },
                'MS64' => {
                            '7.4' => [
                                      '/opt/sun/comms/messaging64',
                                      '7.3-11.01',
                                      '20090901',
                                      '7u3',
                                      'SunOS',
                                      'sparc',
                                      '64'
                                    ]
                          },
                'LIBCPLUSPLUS' => {
                                   '5.9' => [
                                             '/',
                                             '5.10',
                                             'none',
                                             '5.9',
                                             'none',
                                             'none',
                                             'none'
                                           ]
```

```
                                },
          'LDAPCSDK6' => {
                                  '6.0' => [
                                              '/',
                                              '6.00',
                                              'none',
                                              '6.0',
                                              'none',
                                              'none',
                                              'none'
                                            ]
                              },
          'JDK' => {
                      '1.6.0' => [
                                    '/usr',
                                    '1.6.0_16/1.6.0_16-b01',
                                    'none',
                                    '1.6.0',
                                    'none',
                                    'none',
                                    'none'
                                  ]
                    },
          'MYSQL' => {
                        '5.1.36' => [
                                       '/opt/mysql',
                                       'none',
                                       'none',
                                       '5.1.36',
                                       'none',
                                       'none',
                                       'none'
                                     ]
                      },
          'PATCHUTILS' => {
                             'Unknown' => [
                                             '/',
                                             'SNAG Development',
                                             'none',
                                             'Unknown',
                                             'none',
                                             'none',
                                             'none'
                                           ]
                           },
          'MQ' => {
                    '4.3,REV=2008.11.07.18.44' => [
                                                     '/',
                                                     '4.3.0.0',
                                                     'none',

'4.3,REV=2008.11.07.18.44',
                                                     'none',
                                                     'none',
                                                     'none'
                                                   ]
```

```
                    },
          'JHRT' => {
                      '2.0' => [
                                  '/usr',
                                  '2.0/FCS',
                                  'none',
                                  '2.0',
                                  'none',
                                  'none',
                                  'none'
                                ]
                    },
          'IMAPI' => {
                       '8.0' => [
                                   '/',
                                   '8.0-00',
                                   'none',
                                   '8',
                                   'none',
                                   'none',
                                   'none'
                                 ]
                     },
          'CI' => {
                    '7.0,REV=2009.09.09' => [

'/opt/sun/comms/CommsInstaller',
                                                '7.0-0.02',
                                                '20090909',
                                                '7',
                                                'SunOS',
                                                'sparc',
                                                '32'
                                              ]
                    },
          'LDAPCSDK6_TOOLS' => {
                                  '6.0' => [
                                              '/opt/SUNWdsee',
                                              '6.00',
                                              'none',
                                              '6.0',
                                              'none',
                                              'none',
                                              'none'
                                            ]
                                },
          'NSS' => {
                     '4.8.4' => [
                                   '/',
                                   '4.3',
                                   'none',
                                   '4.8.4',
                                   'none',
                                   'none',
                                   'none'
                                 ]
```

```
                    }
        };
====== End QQQ detectProducts ======
-- Checking for RECOMMENDED patch 119254-73
   patch 119254-73: NOT_PRESENT
-- Checking for RECOMMENDED patch 118833-36
   patch is PRESENT
-- Checking for RECOMMENDED patch 120011-14
   patch is PRESENT
-- Checking for RECOMMENDED patch 120272-28
   patch 120272-28: NOT_PRESENT
-- Checking for RECOMMENDED patch 137137-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 141444-09
   patch 141444-09: NOT_PRESENT
-- Checking for RECOMMENDED patch 142900-13
   patch 142900-13: NOT_PRESENT
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
Do you want to continue ? [yes] :
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
INFO: isUpgradable MS64 7.4: 1
      Cmd:
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0
      This version is upgradable to distro version (7.4-18.01)

INFO: isUpgradable DSSETUP 6.4: 1
      Cmd:
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
6.4-5.05 /opt/sun/comms/dssetup 0
      This version is upgradable to distro version (6.4-6.03)

====== QQQ ======
QQQ Dumper
!!! isUpgradable
$VAR1 = {
          'MS64' => {
                      '7.4' => {
                                 'status' => '1'
                               }
                    },
          'DSSETUP' => {
                         '6.4' => {
                                    'status' => '1'
                                  }
                       }
        };
!!! usePkgUpgradeFlag
$VAR1 = {
          'MS64' => {
```

```
                      '7.4' => 0
                    },
          'DSSETUP' => {
                         '6.4' => 0
                       }
        };
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-18.01)
          Installed Version 7u3 (7.3-11.01) at
/opt/sun/comms/messaging64
       2  Comms DSsetup 6.4 (6.4-6.03)
          Installed Version 6.4 (6.4-5.05) at /opt/sun/comms/dssetup

Enter the items you wish to upgrade. Enter q to quit.
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to upgrade [1, 2]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: MS64 7.4 DSSETUP 6.4
INFO: sc_dependencies - PATCHUTILS SASL LDAPCSDK6_TOOLS ICU LIBCPLUSPLUS
NSS LDAPCSDK6 ST JDK BZIP JHRT MQ MQ_L10N CI
Checking for Shared Component Upgrade Requirements...

Shared component Message Queue has a different pkg version installed
Description: Message Queue
  Current pkg Version (SUNWiqr): 4.3,REV=2008.11.07.18.44
  To be installed pkg version (SUNWiqr): 4.4,REV=2009.08.27.08.32
  Product Version: 4.4
Note that changing pkg versions is irreversible
On the other hand, if you do not change it,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to change pkg versions for Message Queue [n] : y
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: patch 119254-71 for PATCHUTILS
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/PATCH
WILL INSTALL: patch 136798-02 for LDAPCSDK6 Tools
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
WILL INSTALL: patch 119963-19 for LIBCPLUSPLUS
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LIBCP
WILL INSTALL: patch 125358-11 for NSS/NSPR/JSS
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
WILL INSTALL: patch 125136-22 for JDK
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
```

```
WILL INSTALL: patch 125137-22 for JDK
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
WILL INSTALL: patch 126868-03 for BZIP OS Component
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/BZIP/
NOTICE: Message Queue will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: Message Queue 4.3,REV=2008.11.07.18.44 (4.3.0.0)
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqlen
4.3,REV=2008.11.07.18.45 i=18: realpkg=SUNWiqlen base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqlen
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqcdv
4.3,REV=2008.11.07.18.44 i=16: realpkg=SUNWiqcdv base=/opt
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqcdv
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqcrt
4.3,REV=2008.11.07.18.44 i=14: realpkg=SUNWiqcrt base=/opt
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqcrt
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqfs
4.3,REV=2008.11.07.18.44 i=12: realpkg=SUNWiqfs base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqfs
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqjx
4.3,REV=2008.11.07.18.44 i=10: realpkg=SUNWiqjx base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqjx
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqum
4.3,REV=2008.11.07.18.44 i=8: realpkg=SUNWiqum base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqum
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiquc
4.3,REV=2008.11.07.18.44 i=6: realpkg=SUNWiquc base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiquc
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqdoc
4.3,REV=2008.11.07.18.44 i=4: realpkg=SUNWiqdoc base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqdoc
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqu
4.3,REV=2008.11.07.18.44 i=2: realpkg=SUNWiqu base=/
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqu
-- QQQ30 removeProductPkgs (product=MQ pkg=SUNWiqr
4.3,REV=2008.11.07.18.44 i=0: realpkg=SUNWiqr base=/
```

```
  WILL INSTALL: Message Queue 4.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqr
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqdoc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqum
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqjx
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqfs
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqcrt
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqcdv
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqlen
  WILL INSTALL: Message Queue Localization 4.4
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
```

```
-r /tmp/.response_MQ_L10N_20100805124251 SUNWfiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWfiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWdiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWdiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWjiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWjiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWeiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWeiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWkiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWkiquc
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWciqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWciquc
```

```
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWhiqu
  Task: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWhiquc
  NOTICE: CommsInstaller will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: CommsInstaller 7 (7.0-0.02)
-- QQQ30 removeProductPkgs (product=CI pkg=SUNWcomms 7.0,REV=2009.09.09
i=0: realpkg=SUNWcomms base=/opt/sun/comms/CommsInstaller
  Task: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
SUNWcomms
  WILL INSTALL: CommsInstaller 7u1 (7.1-0.06)
                to /opt/sun/comms/CommsInstaller
  Task: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
-r /tmp/.response_CI_20100805124251 SUNWcomms
  NOTICE: Upgrading Messaging Server (64bit) 7u3 (7.3-11.01)
          to 7u4 (7.4-18.01 at /opt/sun/comms/messaging64)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 137204-18 for Messaging Server (64bit)
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
NOTICE: Upgrading Comms DSsetup 6.4 (6.4-5.05)
          to 6.4 (6.4-6.03 at /opt/sun/comms/dssetup)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 118245-22 for Comms DSsetup
  Task: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
to upgrade

Do you want to continue ? [yes] :

============================================================
Installing patch 119254-71 for PATCHUTILS...
------ Executing Task 1 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/PATCH
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!
```

```
Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

119254-71


Checking installed patches...
Executing prepatch script...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
/var/sadm/pkg

Patch 119254-71 has been successfully installed.
See /var/sadm/patch/119254-71/log for details
Executing postpatch script...

Patch packages installed:
  SUNWinstall-patch-utils-root
  SUNWpkgcmdsr
  SUNWpkgcmdsu
  SUNWswmt

-- Exit status: 0

============================================================
Installing patch 136798-02 for LDAPCSDK6 Tools...
------ Executing Task 2 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

136798-02


Checking installed patches...
```

```
Installing patch packages...
/var/sadm/pkg

Patch 136798-02 has been successfully installed.
See /var/sadm/patch/136798-02/log for details

Patch packages installed:
  SUNWldapcsdk-libs
  SUNWldapcsdk-tools

-- Exit status: 0

============================================================
Installing patch 119963-19 for LIBCPLUSPLUS...
------ Executing Task 3 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LIBCP
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

119963-19


Checking installed patches...
Installing patch packages...
/var/sadm/pkg

Patch 119963-19 has been successfully installed.
See /var/sadm/patch/119963-19/log for details

Patch packages installed:
  SUNWlibC

-- Exit status: 0

============================================================
Installing patch 125358-11 for NSS/NSPR/JSS...
------ Executing Task 4 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/P
2>&1
```

```
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

125358-11


Checking installed patches...
Executing prepatch script...
Installing patch packages...
/var/sadm/pkg

Patch 125358-11 has been successfully installed.
See /var/sadm/patch/125358-11/log for details
Executing postpatch script...

Patch packages installed:
  SUNWjss
  SUNWpr
  SUNWprd
  SUNWtls
  SUNWtlsd
  SUNWtlsu

-- Exit status: 0

============================================================
Installing patch 125136-22 for JDK...
------ Executing Task 5 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

The following requested patches have packages not installed on the
```

```
system
Package SUNWj6man from directory SUNWj6man in patch 125136-22 is not
installed on the system. Changes for package SUNWj6man will not be
applied to the system.
Package SUNWj6dmo from directory SUNWj6dmo in patch 125136-22 is not
installed on the system. Changes for package SUNWj6dmo will not be
applied to the system.
Package SUNWj6jmp from directory SUNWj6jmp in patch 125136-22 is not
installed on the system. Changes for package SUNWj6jmp will not be
applied to the system.

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

125136-22


Checking installed patches...
Installing patch packages...
/var/sadm/pkg

Patch 125136-22 has been successfully installed.
See /var/sadm/patch/125136-22/log for details

Patch packages installed:
  SUNWj6cfg
  SUNWj6dev
  SUNWj6rt

-- Exit status: 0

============================================================
Installing patch 125137-22 for JDK...
------ Executing Task 6 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/P
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

The following requested patches have packages not installed on the
system
Package SUNWj6dmx from directory SUNWj6dmx in patch 125137-22 is not
installed on the system. Changes for package SUNWj6dmx will not be
applied to the system.
```

```
Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

125137-22


Checking installed patches...
Installing patch packages...
/var/sadm/pkg

Patch 125137-22 has been successfully installed.
See /var/sadm/patch/125137-22/log for details

Patch packages installed:
  SUNWj6dvx
  SUNWj6rtx

-- Exit status: 0

============================================================
Installing patch 126868-03 for BZIP OS Component...
------ Executing Task 7 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/BZIP/
2>&1
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

The following requested patches have packages not installed on the
system
Package SUNWbzipS from directory SUNWbzipS in patch 126868-03 is not
installed on the system. Changes for package SUNWbzipS will not be
applied to the system.

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

126868-03
```

```
Checking installed patches...
Installing patch packages...
/var/sadm/pkg

Patch 126868-03 has been successfully installed.
See /var/sadm/patch/126868-03/log for details

Patch packages installed:
  SUNWbzip
  SUNWsfman

-- Exit status: 0

============================================================
Removing existing Message Queue 4.3,REV=2008.11.07.18.44 (4.3.0.0)...
------ Executing Task 8 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqlen 2>&1

Removal of <SUNWiqlen> was successful.
-- Exit status: 0
------ Executing Task 9 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqcdv 2>&1

Removal of <SUNWiqcdv> was successful.
-- Exit status: 0
------ Executing Task 10 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqcrt 2>&1

Removal of <SUNWiqcrt> was successful.
-- Exit status: 0
------ Executing Task 11 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqfs 2>&1

Removal of <SUNWiqfs> was successful.
-- Exit status: 0
------ Executing Task 12 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqjx 2>&1

Removal of <SUNWiqjx> was successful.
-- Exit status: 0
------ Executing Task 13 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqum 2>&1

Removal of <SUNWiqum> was successful.
```

```
-- Exit status: 0
------ Executing Task 14 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiquc 2>&1

Removal of <SUNWiquc> was successful.
-- Exit status: 0
------ Executing Task 15 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqdoc 2>&1

Removal of <SUNWiqdoc> was successful.
-- Exit status: 0
------ Executing Task 16 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqu 2>&1

Removal of <SUNWiqu> was successful.
-- Exit status: 0

============================================================
Installing Message Queue 4.4...
------ Executing Task 17 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqr 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqr> was successful.
-- Exit status: 0
------ Executing Task 18 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqu> was successful.
-- Exit status: 0
------ Executing Task 19 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqdoc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
```

```
Installation of <SUNWiqdoc> was successful.
-- Exit status: 0
------ Executing Task 20 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiquc> was successful.
-- Exit status: 0
------ Executing Task 21 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqum 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqum> was successful.
-- Exit status: 0
------ Executing Task 22 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqjx 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqjx> was successful.
-- Exit status: 0
------ Executing Task 23 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqfs 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqfs> was successful.
-- Exit status: 0
------ Executing Task 24 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqcrt 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqcrt> was successful.
```

```
-- Exit status: 0
------ Executing Task 25 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqcdv 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqcdv> was successful.
-- Exit status: 0
------ Executing Task 26 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqlen 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqlen> was successful.
-- Exit status: 0

============================================================
Installing Message Queue Localization 4.4...
------ Executing Task 27 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWfiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWfiqu> was successful.
-- Exit status: 0
------ Executing Task 28 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWfiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWfiquc> was successful.
-- Exit status: 0
------ Executing Task 29 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWdiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
```

```
Installation of <SUNWdiqu> was successful.
-- Exit status: 0
------ Executing Task 30 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWdiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWdiquc> was successful.
-- Exit status: 0
------ Executing Task 31 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWjiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWjiqu> was successful.
-- Exit status: 0
------ Executing Task 32 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWjiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWjiquc> was successful.
-- Exit status: 0
------ Executing Task 33 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWeiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWeiqu> was successful.
-- Exit status: 0
------ Executing Task 34 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWeiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
```

```
Installation of <SUNWeiquc> was successful.
-- Exit status: 0
------ Executing Task 35 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWkiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWkiqu> was successful.
-- Exit status: 0
------ Executing Task 36 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWkiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWkiquc> was successful.
-- Exit status: 0
------ Executing Task 37 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWciqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWciqu> was successful.
-- Exit status: 0
------ Executing Task 38 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWciquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWciquc> was successful.
-- Exit status: 0
------ Executing Task 39 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWhiqu 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWhiqu> was successful.
```

```
-- Exit status: 0
------ Executing Task 40 of 46 ...
pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWhiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.

Installation of <SUNWhiquc> was successful.
-- Exit status: 0

============================================================
Removing existing CommsInstaller 7 (7.0-0.02)...
------ Executing Task 41 of 46 ...
pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcomms 2>&1

Removal of <SUNWcomms> was successful.
-- Exit status: 0

============================================================
Installing CommsInstaller 7u1 (7.1-0.06)...
------ Executing Task 42 of 46 ...
pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
-r /tmp/.response_CI_20100805124251 SUNWcomms 2>&1
Copyright (c) 2007, 2010, Oracle and/or its affiliates. All rights
reserved.
Use is subject to license terms.

Installation of <SUNWcomms> was successful.
-- Exit status: 0

============================================================
Upgrading Messaging Server (64bit) 7u3 (7.3-11.01 at
/opt/sun/comms/messaging64)...
------ Executing Task 43 of 46 ...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18" 2>&1
-- Exit status: 0
--
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18"

============================================================
Installing patch 137204-18 for Messaging Server (64bit)...
------ Executing Task 44 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
2>&1
Validating patches...
```

```
Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

137204-18


Checking installed patches...
Executing prepatch script...
-- Stopping Messaging Server...
Installing patch packages...
/var/sadm/pkg

Patch 137204-18 has been successfully installed.
See /var/sadm/patch/137204-18/log for details
Executing postpatch script...
--
-- To generate updated config files, run
-- /opt/sun/comms/messaging64/bin/patch-config
/opt/sun/comms/messaging64/install/patch/137204-18
-- After that, to install the updated config files, run
-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18

Patch packages installed:
  SUNWmessaging-server-64

-- Exit status: 0
------ Executing Task 45 of 46 ...
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18" 2>&1
-- /opt/sun/comms/messaging64/bin/patch-config
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/patch-config_20100805125
New: /opt/sun/comms/messaging64/config/msg.conf.defaults
-- New: /opt/sun/comms/messaging64/config/mappings.locale
-- New: /opt/sun/comms/messaging64/config/option.dat
-- New: /opt/sun/comms/messaging64/config/mappings
-- New: /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- New: /opt/sun/comms/messaging64/data/install/Sun_MsgSvr
--
-- Number of new config files: 6
-- Number of config files to delete: 0
```

```
-- Number of config files with conflicts: 0
-- Number of config files that are images (gif png ico or jpg): 0
-- The list of new config files are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/newconfig.list
-- The list of config files to be deleted are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/delconfig.list

--
-- Please review the changes in the new config files before installing
them.
-- To install the updated config files, run
-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18

-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/install-newconfig_201008
Stopping services: /opt/sun/comms/messaging64/bin/stop-msg
/opt/sun/comms/messaging64/bin/stop-msg
Connecting to watcher ...
Warning: Cannot connect to watcher
job_controller server is not running
dispatcher server is not running
sched server is not running
http server is not running
pop server is not running
imap server is not running
purge server is not running
store server is not running
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/msg.conf.def
/opt/sun/comms/messaging64/config/msg.conf.defaults
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.loc
/opt/sun/comms/messaging64/config/mappings.locale
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/option.dat.n
/opt/sun/comms/messaging64/config/option.dat
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.new
/opt/sun/comms/messaging64/config/mappings
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/ugdir_
/opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/Sun_Ms
/opt/sun/comms/messaging64/data/install/Sun_MsgSvr
-- Number of different files: 6
-- Number of deleted files: 0
-- Original files are backed up under
/opt/sun/comms/messaging64/install/patch/137204-18/config_20100805125642
-- Running imsimta clbuild, chbuild, cnbuild, version...
/opt/sun/comms/messaging64/bin/imsimta clbuild
-image_file=/opt/sun/comms/messaging64/config/advanced/command_data
/opt/sun/comms/messaging64/lib/pmdf.cld
```

```
/opt/sun/comms/messaging64/bin/imsimta chbuild
No compiled configuration, skipping cnbuild
/opt/sun/comms/messaging64/bin/imsimta version
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
Oracle Communications Messaging Exchange Server 7u4-18.01 64bit (built
Jul 15 2010)
libimta.so 7u4-18.01 64bit (built 13:23:35, Jul 15 2010)
Using /opt/sun/comms/messaging64/config/imta.cnf (not compiled)
-- Running imsimta test -rewrite postmaster (output to logfile only)...
-- The final step is to apply the ldif file
-- /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- to the user/group Directory
-- This is not performed automatically, you must do this manually
-- Exit status: 0
--
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18"
-- /opt/sun/comms/messaging64/bin/patch-config
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/patch-config_20100805125
New: /opt/sun/comms/messaging64/config/msg.conf.defaults
-- New: /opt/sun/comms/messaging64/config/mappings.locale
-- New: /opt/sun/comms/messaging64/config/option.dat
-- New: /opt/sun/comms/messaging64/config/mappings
-- New: /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- New: /opt/sun/comms/messaging64/data/install/Sun_MsgSvr
--
-- Number of new config files: 6
-- Number of config files to delete: 0
-- Number of config files with conflicts: 0
-- Number of config files that are images (gif png ico or jpg): 0
-- The list of new config files are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/newconfig.list
-- The list of config files to be deleted are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/delconfig.list

--
-- Please review the changes in the new config files before installing
them.
-- To install the updated config files, run
-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18

-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/install-newconfig_201008
Stopping services: /opt/sun/comms/messaging64/bin/stop-msg
/opt/sun/comms/messaging64/bin/stop-msg
Connecting to watcher ...
Warning: Cannot connect to watcher
job_controller server is not running
dispatcher server is not running
sched server is not running
http server is not running
```

```
pop server is not running
imap server is not running
purge server is not running
store server is not running
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/msg.conf.def
/opt/sun/comms/messaging64/config/msg.conf.defaults
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.loc
/opt/sun/comms/messaging64/config/mappings.locale
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/option.dat.n
/opt/sun/comms/messaging64/config/option.dat
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.new
/opt/sun/comms/messaging64/config/mappings
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/ugdir_
/opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/Sun_Ms
/opt/sun/comms/messaging64/data/install/Sun_MsgSvr
-- Number of different files: 6
-- Number of deleted files: 0
-- Original files are backed up under
/opt/sun/comms/messaging64/install/patch/137204-18/config_20100805125642
-- Running imsimta clbuild, chbuild, cnbuild, version...
/opt/sun/comms/messaging64/bin/imsimta clbuild
-image_file=/opt/sun/comms/messaging64/config/advanced/command_data
/opt/sun/comms/messaging64/lib/pmdf.cld
/opt/sun/comms/messaging64/bin/imsimta chbuild
No compiled configuration, skipping cnbuild
/opt/sun/comms/messaging64/bin/imsimta version
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
Oracle Communications Messaging Exchange Server 7u4-18.01 64bit (built
Jul 15 2010)
libimta.so 7u4-18.01 64bit (built 13:23:35, Jul 15 2010)
Using /opt/sun/comms/messaging64/config/imta.cnf (not compiled)
-- Running imsimta test -rewrite postmaster (output to logfile only)...
-- The final step is to apply the ldif file
-- /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- to the user/group Directory
-- This is not performed automatically, you must do this manually
============================================================
Done Upgrading Messaging Server (64bit) to 7u4 (7.4-18.01 at
/opt/sun/comms/messaging64)

============================================================
Upgrading Comms DSsetup 6.4 (6.4-5.05 at /opt/sun/comms/dssetup)...

============================================================
Installing patch 118245-22 for Comms DSsetup...
------ Executing Task 46 of 46 ...
patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
2>&1
```

```
Validating patches...

Loading patches installed on the system...

Done!

Loading patches requested to install.

Done!

Checking patches that you specified for installation.

Done!


Approved patches will be installed in this order:

118245-22


Checking installed patches...
Executing prepatch script...
Installing patch packages...
/var/sadm/pkg

Patch 118245-22 has been successfully installed.
See /var/sadm/patch/118245-22/log for details
Executing postpatch script...

Patch packages installed:
  SUNWcomds

-- Exit status: 0
============================================================
Done Upgrading Comms DSsetup to 6.4 (6.4-6.03 at /opt/sun/comms/dssetup)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/PATCH
Task 2: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LDAPC
Task 3: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/LIBCF
Task 4: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/NSS/F
Task 5: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/F
Task 6: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/JDK/F
Task 7: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/BZIP/
Task 8: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqlen
PASSED: Task 9: pkgrm -n -a
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqcdv
PASSED: Task 10: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqcrt
PASSED: Task 11: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqfs
PASSED: Task 12: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqjx
PASSED: Task 13: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqum
PASSED: Task 14: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiquc
PASSED: Task 15: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqdoc
PASSED: Task 16: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWiqu
PASSED: Task 17: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqr
PASSED: Task 18: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqu
PASSED: Task 19: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqdoc
PASSED: Task 20: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiquc
PASSED: Task 21: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqum
PASSED: Task 22: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqjx
PASSED: Task 23: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
```

```
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqfs
PASSED: Task 24: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqcrt
PASSED: Task 25: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqcdv
PASSED: Task 26: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ/Pa
-r /tmp/.response_MQ_20100805124251 SUNWiqlen
PASSED: Task 27: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWfiqu
PASSED: Task 28: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWfiquc
PASSED: Task 29: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWdiqu
PASSED: Task 30: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWdiquc
PASSED: Task 31: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWjiqu
PASSED: Task 32: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWjiquc
PASSED: Task 33: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWeiqu
PASSED: Task 34: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ad
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
```

```
-r /tmp/.response_MQ_L10N_20100805124251 SUNWeiquc
PASSED: Task 35: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWkiqu
PASSED: Task 36: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWkiquc
PASSED: Task 37: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWciqu
PASSED: Task 38: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWciquc
PASSED: Task 39: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWhiqu
PASSED: Task 40: pkgadd -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MQ_L1
-r /tmp/.response_MQ_L10N_20100805124251 SUNWhiquc
PASSED: Task 41: pkgrm -n -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
SUNWcomms
PASSED: Task 42: pkgadd -G -a
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/.install/Tools/ac
-n  -d
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/CI/Pa
-r /tmp/.response_CI_20100805124251 SUNWcomms
PASSED: Task 43: preupgrade
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18"
PASSED: Task 44: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
Task 45: postupgrade
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18"
-- Output of Task 45: postupgrade
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/MS64/
7.3-11.01 /opt/sun/comms/messaging64 0 "137204-18"
-- /opt/sun/comms/messaging64/bin/patch-config
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/patch-config_20100805125
New: /opt/sun/comms/messaging64/config/msg.conf.defaults
-- New: /opt/sun/comms/messaging64/config/mappings.locale
```

```
-- New: /opt/sun/comms/messaging64/config/option.dat
-- New: /opt/sun/comms/messaging64/config/mappings
-- New: /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- New: /opt/sun/comms/messaging64/data/install/Sun_MsgSvr
--
-- Number of new config files: 6
-- Number of config files to delete: 0
-- Number of config files with conflicts: 0
-- Number of config files that are images (gif png ico or jpg): 0
-- The list of new config files are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/newconfig.list
-- The list of config files to be deleted are in:
    /opt/sun/comms/messaging64/install/patch/137204-18/delconfig.list

--
-- Please review the changes in the new config files before installing
them.
-- To install the updated config files, run
-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18

-- /opt/sun/comms/messaging64/bin/install-newconfig -f
/opt/sun/comms/messaging64/install/patch/137204-18
-- LOGFILE:
/opt/sun/comms/messaging64/install/patch/137204-18/install-newconfig_201008
Stopping services: /opt/sun/comms/messaging64/bin/stop-msg
/opt/sun/comms/messaging64/bin/stop-msg
Connecting to watcher ...
Warning: Cannot connect to watcher
job_controller server is not running
dispatcher server is not running
sched server is not running
http server is not running
pop server is not running
imap server is not running
purge server is not running
store server is not running
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/msg.conf.def
/opt/sun/comms/messaging64/config/msg.conf.defaults
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.loc
/opt/sun/comms/messaging64/config/mappings.locale
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/option.dat.n
/opt/sun/comms/messaging64/config/option.dat
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/config/mappings.new
/opt/sun/comms/messaging64/config/mappings
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/ugdir_
/opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
copy
/opt/sun/comms/messaging64/install/patch/137204-18/save/data/install/Sun_Ms
/opt/sun/comms/messaging64/data/install/Sun_MsgSvr
-- Number of different files: 6
```

```
-- Number of deleted files: 0
-- Original files are backed up under
/opt/sun/comms/messaging64/install/patch/137204-18/config_20100805125642
-- Running imsimta clbuild, chbuild, cnbuild, version...
/opt/sun/comms/messaging64/bin/imsimta clbuild
-image_file=/opt/sun/comms/messaging64/config/advanced/command_data
/opt/sun/comms/messaging64/lib/pmdf.cld
/opt/sun/comms/messaging64/bin/imsimta chbuild
No compiled configuration, skipping cnbuild
/opt/sun/comms/messaging64/bin/imsimta version
SunOS darkpaladin 5.10 Generic_137137-09 sun4v sparc SUNW,Sun-Fire-T1000
Oracle Communications Messaging Exchange Server 7u4-18.01 64bit (built
Jul 15 2010)
libimta.so 7u4-18.01 64bit (built 13:23:35, Jul 15 2010)
Using /opt/sun/comms/messaging64/config/imta.cnf (not compiled)
-- Running imsimta test -rewrite postmaster (output to logfile only)...
-- The final step is to apply the ldif file
-- /opt/sun/comms/messaging64/data/install/ugdir_diff.ldif
-- to the user/group Directory
-- This is not performed automatically, you must do this manually
-- End of command output--
PASSED: Task 46: patchadd
/net/comms-nfs/export/megan/wspace/dl111122/releases/ci71/SunOS_sparc/DSSET
tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Mar 18  2009 /usr/java ->
jdk/jdk1.5.0_16

/usr/jdk:
total 10
drwxr-xr-x   4 root     bin            4 Aug  5 12:26 instances
lrwxrwxrwx   1 root     other          7 Mar 18  2009 j2sdk1.4.2_18 ->
../j2se
lrwxrwxrwx   1 root     other         18 Mar 18  2009 jdk1.5.0_16 ->
instances/jdk1.5.0
lrwxrwxrwx   1 root     other         18 Aug  5 12:51 jdk1.6.0_20 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Aug  5 12:51 latest ->
jdk1.6.0_20
drwxr-xr-x   8 root     bin            8 Aug  5 12:28 packages
-- Exit status: 0
ls -l /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
lrwxrwxrwx   1 root     other         11 Aug  5 12:51 /usr/jdk/latest ->
jdk1.6.0_20
-- Exit status: 2
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
/usr/jdk/latest:
total 38177
-rw-r--r--   1 root     bin         3767 Apr 12 15:32 COPYRIGHT
-rw-r--r--   1 root     bin        17179 Apr 12 15:32 LICENSE
-rw-r--r--   1 root     bin        28329 Apr 12 15:32 README.html
-rw-r--r--   1 root     bin        25390 Apr 12 15:32 README_ja.html
-rw-r--r--   1 root     bin        20768 Apr 12 15:32 README_zh_CN.html
```

```
-rw-r--r--   1 root     bin       183173 Apr 12 15:32
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           49 Aug  5 12:49 bin
drwxr-xr-x   3 root     bin            8 Aug  5 12:47 include
drwxr-xr-x   6 root     bin           11 Aug  5 12:49 jre
drwxr-xr-x   3 root     bin           11 Aug  5 12:47 lib
-r--r--r--   1 root     other       5890 Aug  5 12:52 register.html
-r--r--r--   1 root     other       6322 Aug  5 12:52 register_ja.html
-r--r--r--   1 root     other       5500 Aug  5 12:52
register_zh_CN.html
-rw-r--r--   1 root     bin      19050033 Apr 12 15:31 src.zip
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.response_MQ_20100805124251
-- unlink /tmp/.response_MQ_L10N_20100805124251
-- unlink /tmp/.response_CI_20100805124251
-- unlink /tmp/.patchout_20100805124251.8859
mkdir -p /var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20100805124251
-- Closing the log at Thu Aug  5 13:47:10 2010
(29 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20100805134736.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20100715
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20091123

(30 root) ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20100805134810.log
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2010.06.25)
```

```
          has not been applied. Specifically the following
          patches are missing:
          119254-73 120272-28 141444-09 142900-13
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
  Product: Messaging Server (64bit) 7u4 64bit
           Version: 7.4-18.01
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20100715
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 64
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWmessaging-server-64 7.0,REV=2008.06.20
  Product: Comms DSsetup 6.4
           Version: 6.4-6.03
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20091123
           getVersion UNAME: SunOS
           getVersion ARCH: sparc
           getVersion BITS: 32
           Product Installation Status: PRESENT
```

```
Package Status/Name/Version:
  PRESENT  SUNWcomds        6.3,REV=2004.08.12
```

Connector for Microsoft Outlook Upgrade Guide

Upgrading to Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Version 7.3 Update 1

This document describes how to upgrade from Connector for Microsoft Outlook 7.1, 7.2, 7.2 U1, and 7.3 to Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite.

This document includes the following sections:

- Upgrading to Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite
- Upgrading Shared Components
- Rolling Back to Previous Version

Upgrading to Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite

This section explains how you can upgrade from Connector for Microsoft Outlook 7.1 and subsequent versions to Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite. Before you upgrade, as a prerequisite, set the Default Mail Client as Microsoft Outlook. For information on setting the default mail client, see Designating Outlook as Default Mail Client.

Upgrading to Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite is a two step process.

Step1: Upgrading Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Deployment Configuration Program

1. Double-click `setup.exe` from the Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite package.
2. Choose the preferred language from the drop-down list in the Install/Upgrade wizard.
   The system checks if you wish to upgrade the Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Deployment Configuration Program.
3. Click Yes to confirm or No to exit.
   The wizard starts the installation.
4. Click OK.

Step2: Upgrading User Profiles

> **Note:**
> Starting with Connector for Microsoft Outlook 7.2, this step is not required.

1. Invoke Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Deployment Configuration Program from the desktop.
2. Clear the Create/convert/upgrade user profile option in the Processes tab.
3. Select the Install or upgrade Connector for Microsoft Outlook option.
4. Click File and save it as `filename.ini`.
   The Connector for Microsoft Outlook Deployment Configuration Program creates an executable with the configuration file(.ini) you created.
5. Run the executable to start the upgrade:

```
C:\Program Files\Sun\Deployment Configuration
Program\Packages\filename.exe
```

The Connector for Microsoft Outlook Setup Wizard is displayed.

6. Click Next to start upgrading the user profiles.
7. Click Exit to close the window.
   The user profiles are now upgraded.

Upgrade Scenarios

- If you are using Communications Express address book server and Outlook Connector for Mail Filters and Out of Office Messages, then you may follow the upgrade procedure as mentioned in Step 2.
- If you are using Convergence's address book server and Communications Express for Mail Filters and Out of Office Messages, perform the following steps after creating the configuration file:

1. Open the configuration (`.ini`) file that you created.
2. Enter the value for `Use_UWC_Url` as 1.
3. Enter the value for `UWC_Url` key in the following format:

```
servername:portnumber/relativepath
```

For example, the value of the key may be:

```
UWC_Url=florizel.com:80/uwc
```

4. Invoke Outlook Connector Deployment Configuration Program.
5. Open the configuration (.ini) file that you modified and click File -> Save to create a new package.
6. Click Yes when prompted to overwrite the existing package.
7. Run the newly created package.

Upgrading Shared Components

The following table lists the possible combinations of current versions of components that are either required or optional for Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite.

Communications Suite Component Requirements for Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite

Product	Version	Communications Suite Release	Comment
Messaging Server	6.3	5	Required to provide mail service
Messaging Server	7.0, 7 Update 1	6	Required to provide mail service
Calendar Server	6.3, 6.3.1	5	Required to provide calendar service
Convergence	1.0, 1 Update 1	6	Optional (Recommended). Either Communications Express or Convergence can be used to provide address book service, mail filters and out of office message features
Communications Express	6.3	6	Optional
Directory Server	5.2	4	Required for GAL – corporate address book service
Directory Server	at least 6.0	5 (for 6.0 or higher) or 6 (6.3 or higher)	Required for GAL – corporate address book service

Note
Calendar Server customers who have deployed previous versions of Calendar Server need to engage with Oracle to enable their data to be converted and migrated to the new format. This migration is required for the use of Outlook, and is necessary because of the underlying changes in the storage and management of recurring events. No migration service is required for new customers of Calendar Server 6 2004Q2 minimum.

Communications Suite 6 Update 1 is compatible with Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite.

For more information on upgrading the Communications Suite 6 Update 1 Components, see Communications Suite Upgrade Guide

Rolling Back to Previous Version

You cannot roll back to the previous version of Connector for Microsoft Outlook. You can uninstall the current version by using Add/Remove Programs from the Control Panel, and then install the required version.

See the Connector for Microsoft Outlook Installation Guide for more information.

Delegated Administrator Upgrade

Upgrading to Delegated Administrator for Oracle Communications Unified Communications Suite Version 7

This information explains how you can upgrade to Delegated Administrator for Oracle Communications Unified Communications Suite. For Delegated Administrator 6.4, run the `commpkg upgrade` command to upgrade to Delegated Administrator for Oracle Communications Unified Communications Suite. For versions prior to 6.4, you need to first upgrade to 6.4. See Sun Java Communications Suite 5 Upgrade Guide, Upgrading Delegated Administrator. Then you upgrade from 6.4 to 7 by using `commpkg upgrade`.

Topic:

- Preserving Customized Data When You Upgrade Delegated Administrator

Preserving Customized Data When You Upgrade Delegated Administrator

If you are upgrading to this release of Delegated Administrator from an earlier release, you might have to perform the following tasks before you configure Delegated Administrator with the `config-commda` program:

- Preserving an Existing Customized Configuration
- Upgrading Customized Service Packages in Delegated Administrator if you are upgrading from Delegated Administrator 6.4.

Preserve an Existing Customized Configuration

This section concerns you only if you previously have installed and configured Delegated Administrator and have customized the Delegated Administrator configuration.

If you have a customized configuration and you rerun the Delegated Administrator configuration program, `config-commda`, the properties in the configuration files are reset to their default values. These files are listed below, in Delegated Administrator Properties Files.

For information about how you can customize Delegated Administrator, see Customizing Delegated Administrator in the *Sun Java System Delegated Administrator Administration Guide*.

You should preserve your customized configuration before you run Delegated Administrator configuration (config-commda) for any reason, including:

- Upgrade Delegated Administrator
- Patch upgrade of Delegated Administrator
- Rerun the Delegated Administrator configuration program for any other reason.

Delegated Administrator Properties Files

Delegated Administrator installs the following properties files:

- Delegated Administrator utility
  - `cli-usrprefs.properties`
    Location: *da-base*`/data/config`
- Delegated Administrator console

    - `daconfig.properties`
    - `logger.properties`
    - `Resources.properties`
    - `Security.properties`

      For the default location of the Delegated Administrator console files, see Configuration Files and Directories in the *Sun Java System Delegated Administrator Administration Guide*.
- Delegated Administrator server
    - `resource.properties`
    - `serverconfig.properties`
      Most of the configuration related properties are moved from `resource.properties` to the `serverconfig.properties` file.

For the default location of the `resource.properties` file, see Configuration Files and Directories in the *Sun Java System Delegated Administrator Administration Guide*.

To Preserve an Existing Customized Configuration

1. Back up the properties files you have customized.
   For a list of the properties files, see Delegated Administrator Properties Files.

2. Run the `config-commda` program, as described in the following sections.
   The remaining steps use the `resource.properties` file as an example. Repeat these steps for each file you have customized.

3. Edit the new `resource.properties` file created by the `config-commda` program, as follows:
   a. Open the new `resource.properties` file.
   b. Open your back-up copy of the `resource.properties` file.
   c. Locate the properties that were customized in the back-up copy. Apply the customized values to the corresponding properties in the new `resource.properties` file.
      Do not simply overwrite the new `resource.properties` file with the entire back-up copy. The new file may contain new properties created to support this release of Delegated Administrator.

4. Redeploy the edited `resource.properties` file to the Web container used by the Delegated Administrator server.

   Before the change can take effect, you must run the script that deploys the customized `resource.properties` file to your Web container.

   For instructions on how to deploy a customized properties file to a particular Web container, see To Deploy a Customized Configuration File in the *Sun Java System Administration Guide*.

> **Note**
> If you have customized values in the `resource.properties` file from previous releases, ensure that the same customization is made in the new `serverconfig.properties` file.

Upgrading Customized Service Packages in Delegated Administrator

Upgrading Customized Service Packages in Delegated Administrator for Oracle Communications Unified Communications Suite Version 7

This information applies only if you are upgrading from Communications Services 6 2005Q4 Delegated Administrator, or a prior version, to Delegated Administrator for Oracle Communications Unified Communications Suite 7, and you created custom service packages in the prior release (6 2005Q4 or earlier). If you created custom service packages in the Delegated Administrator 6.4 release, you do not have to take the steps described in this section.

In Delegated Administrator 6.4 and 7 (the current release), service package templates are located in a different node in the directory than they were in the previous (6 2005Q4) release.

For more information about preserving customized configurations during upgrades, see

- Preserving Delegated Administrator Customizations During Upgrades

Topics:

- Sample Class-of-Service Templates
- Customized Service Packages

Sample Class-of-Service Templates

When you run the Delegated Administrator configuration program, the previously installed sample Class-of-Service templates installed by the Delegated Administrator configuration program are upgraded automatically. (In the configuration program, you should select **Load sample service packages** in the **Service Package and Organization Samples** panel.)

If you use only the sample templates to assign service packages to users and groups, no action is required.

Customized Service Packages

The configuration program does not upgrade customized service packages created in the 6 2005Q4 release. You must upgrade your customized service packages manually.

For information on how customized service packages are created, see CommSuite:Creating Your Own Service Packages.

To Upgrade Customized Service Packages

Perform the following operations on the LDAP directory:

1. Copy your service package templates from this directory node:

   ```
   o=cosTemplates,o=rootsuffix
   ```

   to this directory node:

   ```
   o=service_target,o=cosTemplates,o=rootsuffix
   ```

where *service_target* is one of the following:

```
mailuser
calendaruser
mailcalendaruser
mailgroup
calendargroup
mailcalendargroup
```

For example, if a service package template is called `myservicepackage`, and it provides mail service to users, the service package template's new `dn` would be:

```
o=myservicepackage,o=mailuser,o=cosTemplates,o=rootsuffix
```

2. Remove the entries for your service package templates from the original directory node:

```
o=cosTemplates,o=rootsuffix
```

3. Edit each customized service package by adding the following line to the ldif file defining the service package:

```
daServiceType:service type target
```

> **Note**
> If your ldif file already contains the `daServiceType` attribute, you can skip this step.

The `daServiceType` attribute defines the type of service provided by the service package and the target for the service package.

The *service* can be `mail` or `calendar`.

The *target* can be `users` or `groups`.

For example:

```
daServiceType: mail user
```

The following example shows what the edited ldif file might look like:

```
dn: cn=myservicepackage,o=mailuser,o=cosTemplates,o=mycompanysuffix
changetype: modify
replace: daServiceType
daServiceType: mail user
```

> **Note**
> The following step assumes that you are familiar with using LDAP directory tools such as `ldapmodify`.

Use the LDAP directory tool `ldapmodify` to update the service package in the directory.
For example, you could run the following command:

```
ldapmodify -D <directory manager> -w <password> -f myservicepackagemodldif
```

where

`<directory manager>` is the name of the Directory Server administrator.

`<password>` is the password of the Directory Service administrator.

`myservicepackagemodldif` is the name of the ldif file containing the modifications described in the preceding steps.

Upgrading Customized Service Packages in Delegated Administrator 6.4

Upgrading Customized Service Packages in Delegated Adminstrator 6.4

This information applies only to upgrading from Communications Services 6 2005Q4 Delegated Administrator to Delegated Administrator 6.4, and you created customized service packages in the previous release (6 2005Q4).

In Delegated Administrator 6.4, service package templates are located in a different node in the directory than they were in the previous (6 2005Q4) release.

For more information about preserving customized configurations during upgrades, see

- Upgrading Delegated Administrator

Topics:

- Sample Class-of-Service Templates
- Customized Service Packages

Sample Class-of-Service Templates

When you run the Delegated Administrator configuration program, the previously installed sample Class-of-Service templates installed by the Delegated Administrator configuration program are upgraded automatically. (In the configuration program, you should select **Load sample service packages** in the **Service Package and Organization Samples** panel.)

If you use only the sample templates to assign service packages to users and groups, no action is required.

Customized Service Packages

The configuration program does not upgrade customized service packages created in the 6 2005Q4 release. You must upgrade your customized service packages manually.

For information on how customized service packages are created, see Creating Your Own Service Packages.

To Upgrade Customized Service Packages

Perform the following operations on the LDAP directory:

1. Copy your service package templates from this directory node:

   ```
   o=cosTemplates,o=rootsuffix
   ```

   to this directory node:

   ```
   o=service_target,o=cosTemplates,o=rootsuffix
   ```

   where *service_target* is one of the following:

```
mailuser
calendaruser
mailcalendaruser
mailgroup
calendargroup
mailcalendargroup
```

For example, if a service package template is called `myservicepackage`, and it provides mail service to users, the service package template's new `dn` would be:

```
o=myservicepackage,o=mailuser,o=cosTemplates,o=rootsuffix
```

2. Remove the entries for your service package templates from the original directory node:

```
o=cosTemplates,o=rootsuffix
```

3. Edit each customized service package by adding the following line to the ldif file defining the service package:
`daServiceType:`*service type target*

> **Note**
> If your ldif file already contains the `daServiceType` attribute, you can skip this step.

The `daServiceType` attribute defines the type of service provided by the service package and the target for the service package.
The *service* can be `mail` or `calendar`.
The *target* can be `users` or `groups`.
For example:

```
daServiceType: mail user
```

The following example shows what the edited ldif file might look like:

```
dn:
cn=myservicepackage,o=mailuser,o=cosTemplates,o=mycompanysuffix
changetype: modify
replace: daServiceType
daServiceType: mail user
```

> **Note**
> The following step assumes that you are familiar with using LDAP directory tools such as `ldapmodify`.

4. Use the LDAP directory tool `ldapmodify` to update the service package in the directory.
For example, you could run the following command:

`ldapmodify -D` *directory manager* `-w` *password* `-f myservicepackagemodldif`
where:
directory manager is the name of the Directory Server administrator.
password is the password of the Directory Service administrator.
`myservicepackagemodldif` is the name of the ldif file containing the modifications described in the preceding steps.

Instant Messaging Upgrade

Upgrading to Oracle Communications Instant Messaging Server Version 8 Update 3

This information describes how to upgrade to Oracle Communications Instant Messaging Server 8 Update 3, from previous versions of Instant Messaging starting with Instant Messaging 7.3

- For information on how to upgrade from the 7.1 or prior versions of Instant Messaging to Instant Messaging version 7.2, see Chapter 7, Upgrading Instant Messaging of the Sun Java Communications Suite 5 Upgrade Guide .
- For information on how to upgrade from Instant Messaging version 7.2 to Instant Messaging version 7.3, see Upgrading to Instant Messaging 7.3.

> **Note**
> You can upgrade to the Oracle Communications Instant Messaging Server only by using the Communication Suite installer.

Topics:

- Upgrading Instant Messaging Servers
- Rolling Back to the Legacy Instant Messaging Version

Upgrading Instant Messaging Servers

The process for upgrading the Instant Messaging server and multiplexor is the same and should only take a few minutes. The upgrade procedure automatically copies the pre-upgrade release product configuration and other data such as notifications, alerts, and conversations to the post-upgrade version. If Instant Messaging is configured to provide email notifications, Calendar alerts or Access Manager policy features such as authenticating or single-sign on, the configuration data of these features are migrated to the post-upgrade version.

To upgrade the Instant Messaging version, perform the following steps on an existing installation of Instant Messaging:

1. Stop the Instant Messaging server.

```
<im_svr_base>/sbin/imadmin stop
```

2. Use the Communications Suite installer to upgrade Instant Messaging.

```
./commpkg upgrade
```

3. Select the components you want to upgrade.
4. Restart the Instant Messaging server.

```
<im_svr_base>/sbin/imadmin start
```

5. Redeploy the Instant Messaging server.

```
<im_svr_base>/sbin/iwadmin redeploy all
```

or

```
<im_svr_base>/html/redeploy
```

This step completes the upgrade process and redeploys all client-side components.

6. (Optional) Invoke the `configure` utility.

```
./configure
```

Perform step 6 only if you want to configure the server-side components such as SMS, MSN, AIM, and YAHOO gateways.

> **Note**
> When you configure the server, all previous configuration data is overwritten. The old configuration files are backed up in the `config` directory with the string `-pre 8.3` suffixed to the filename. For example, the old `iim.conf` file is backed up as `iim.conf-pre8.3`. This file can be used to roll back to the previous working version in case of a upgrade failure.

Rolling Back to the Legacy Instant Messaging Version

If the upgrade fails or if you need to go back to the previously working version of Instant Messaging, you can roll back to the upgrade process.

To roll back the upgrade process, perform the following steps:

1. Stop all services.
2. Remove the 8.0 Update 3 packages by using the `pkgrm` command.
3. Install the old version of Instant Messaging, for example, version 7.2 ,7.3 or 8.0, by using the Communications Suite installer for that version.

> **Note**
> The pre-8.3 configuration files are backed up in the `config` directory with the string `-pre8.3` suffixed to the filename. For example, the old `iim.conf` file is backed up as `iim.conf-pre8.3`.

4. Rename the old configuration files with their correct names.
   That is, rename `iim.conf-pre8.3` to `iim.conf`.
5. Restart the services.

Messaging Server Upgrade

Oracle Communications Messaging Exchange Server Upgrade Version 7 Update 4

This information describes the three Messaging Server upgrade strategies to upgrade individual hosts within a deployment. It assumes that you have chosen a target deployment, and have developed an architectural design and deployment plan for your target deployment.

Topics:

- Overview
- Messaging Server Upgrade Strategies
- Using the Side-by-Side Strategy to Upgrade Messaging Server
- Using the In-Place Upgrade on Messaging Server
- Upgrading Messaging Server with Webmail Over IMAP Protocol

> **Note**
> If you are upgrading from Sun Java System Messaging Server 5.2, refer to Coexistent Upgrades From iPlanet Messaging Server 5.2 for additional information.

Overview

Messaging Server can have multiple back-end message stores, multiple Webmail servers, front-end MMPs, and MTA relays. Like all upgrades, you simply upgrade host by host. The major steps for upgrading a Messaging Server deployment are as follows:

- Upgrade and run comm_dssetup.pl to the latest version before upgrading Messaging Server. Messaging 7 Update 4 requires `comm_dssetup.pl` 6.4p5 (6.4-5.05) at a minimum be applied to the Directory Server.
- Define your upgrade target and the required products and components for that target.
- Design and Plan Your Messaging Server Architecture and Topology.
  Refer to Convergence Deployment Planning and Communications Suite Installation Guide for details on deploying Convergence into your current environment. In addition, although you might be satisfied with your current Messaging Server architecture and topology, upgrading can provide the opportunity to redesign your deployment for more optimal performance. Refer to the Communications Suite Deployment Planning Guide for more information.
- Select the sequence of upgrading Individual Messaging Server Hosts.
  This includes upgrading components such as the message store servers, proxies, webmail servers, and front-end relays.
- Choose a Messaging Server Upgrade Strategy for Each Host.
  Three Messaging Server upgrade strategies offer choices that strike a balance between system downtime, cost, simplicity, and risk. You choose a strategy for each host, and you can use different strategies on different hosts within a Messaging Server deployment.

> **Note**
> As of Communications Suite 7, Messaging Server 32-bit has been dropped on Oracle Solaris.

Technical Features Supporting Messaging Server Upgrade

The following features support Messaging Server Upgrade:

- You migrate mailboxes by using the `imsbackup` and `imsrestore` commands. See Migrating User Mailboxes to a New System. These commands support moving mailboxes from old message store versions to new ones (including when the message store database format changes, for example, from Messaging Server 32-bit to Messaging Server 64-bit). These commands also support moving mailboxes from new message store versions to old ones for back out purposes.
- In-place Upgrade supports changing the old mailbox format to the new format, but it does not support going from the new format back to the old. You **cannot** back out from new data format to old data format by using the In-place Upgrade Strategy. The conversion is done "on-the-fly" as mailboxes are accessed.
- Migrating the Messaging Server configuration from the old system to the new system is done by using the `migrate-config` utility.
- Alternate Root install is supported on Oracle Solaris. See Using the ALTROOT Command-Line Argument for more information.
- In-place server upgrade is by done using commpkg upgrade.

Messaging Server Upgrade Strategies

Messaging Server supports the following three upgrade strategies for individual hosts. These strategies provide a balance between downtime, risk of extended downtime, complexity, and potential hardware costs.

- *In-place Upgrade.* The binaries of the old version are replaced with the binaries of the new version on the same host.
- *Side-by-side Upgrade on the same host.* The new software version is installed on the same host as the old version in a different directory. After you migrate the software configuration to the new version, you switch the deployment over to the new version.
- *Coexistent Upgrade.* You keep existing services online while you construct a new host on separate hardware.

The strategy chosen for any particular host might differ. For example, you might wish to use an in-place upgrade on your front-end servers (relays, MMPs, and webmail servers) but you might want to do a coexistent upgrade on your message stores.

> **Caution**
> There is a data format change in the message store starting with Messaging Server 7 (see Upgrading the Message Store). Coexistent Upgrade is recommended to facilitate backout.

The strategy you chose also depends upon the version you currently have installed and whether you are using 32-bit or 64-bit Messaging Server product. Issues and compatibilities are described next.

Table 1. Upgrading to Messaging Server 7 Update 4 32-bit (Red Hat Linux only)

From	Online/Coexistence	Side-by-Side Migration	In-place Upgrade by Using rpm -U?
6.1, 6.2, 6.3 (32-bit) (R2 through R5)	Yes (recommended for store)	Yes (alternative for store) Note: No back out to old data format.	Yes (recommended for MTA relay, MMP, and webmail server)
7, 7u1, 7u2, 7u3 (R6, R6u1, R6u2)	Yes	Yes	Yes

Table 2. Upgrading to Messaging Server 7 Update 4 64-bit (Oracle Solaris Only)

From	Online/Coexistence	Side-by-Side Migration	In-place Upgrade via pkgadd/pkgrm or Patch?
5.2	Yes (recommended for all components)	Yes (alternative for all Messaging Server components) Note: Messaging Server 5.2 did not use SVR4 packaging, so this is just a fresh install.	No
6.0,6.1,6.2,6.3 (32-bit) (R1 through R5)	Yes (recommended for store)	Yes (alternative for store)	No
6.3 (64-bit) (R5)	Yes (recommended for store)	Yes (alternative for store)	Yes: `pkgadd`/`pkgrm` only (recommended for MTA relay, MMP, and webmail server)
7, 7u1, 7u2 (32bit)	Yes	Yes	Yes: `pkgadd`/`pkgrm` only
7, 7u1, 7u2, 7u3 (R6, R6u1, R6u2) (64bit)	Yes	Yes	Yes: `pkgadd`/`pkgrm` or `patchadd`

Note
When upgrading/migrating between SPARC and x86 hardware, you need to use the Online/Coexistence strategy. Also, see Migrating from x86 to SPARC.

The Coexistence Migration Strategy is the safest and most secure method of upgrading. It also has the lowest downtime of the three upgrade strategies. In the coexistence model, existing services remain online while you construct a new target host (or entire Messaging Server environment) on new hardware or in a Oracle Solaris whole root zone on the existing hardware. After the new host/environment is established, you can migrate a small number of friendly users to the new system to verify operations and administrative procedures. For a certain period both systems are accessible to user traffic. This is called a coexistence phase. Messaging access is not disrupted and proceeds invisibly to users. When all users are migrated to the new environment, you can decommission your legacy deployment. This phased approach ensures that the new system is fully prepared to handle production users before making the full migration.

Note
Read Coexistent Upgrades From iPlanet Messaging Server 5.2 for useful information on coexistent upgrades.

Advantages and Disadvantages of Coexistence Migration:

- Service downtimes are usually rare and short. There is less danger that they will be longer than the off-line windows imposed by service level agreements.
- Allows a gradual adoption of the new software so that you can gain confidence by trying it out with a small group of sympathetic users before migrating production users.
- The risk of upgrade failure is mitigated by the fact that your legacy system remains fully functioning throughout the upgrade process.
- Because the new system is built alongside a functional old one, you do not need to install or modify anything on the working legacy machines. This is an advantage as there is always a natural reluctance to modify or reconfigure a working legacy system in significant ways.
- Coexistence is the safest upgrade model and has the least amount of user downtime.

- Simpler back off procedure. Anytime you upgrade software, you need to make provisions for backing off from the new system to the old system in case of failure. Other upgrade models might require that you back up and turn off the old system, install, configure, and migrate to the new system. Only when you switch on the new system do you know if the upgrade succeeded. If it turns out, that it did not, then you might have to use your back off plan to put everything back into place. A coexistence migration is much simpler as a working legacy system is already in place.
- You must move user data, i.e mailboxes, from one host to another, typically using imsbackup/imsrestore.
- Might require extra hardware to set up a parallel system. (This can be mitigated by upgrading legacy machines after they are no longer used.)

Specific Steps for Upgrading Messaging Server Using the Coexistence Model

1. Make sure that your hardware is installed as per the deployment plan created from the Convergence Deployment Planning and Communications Suite Deployment Planning Guide. See also the Requirements for Communications Suite 7.
2. Install new version of Messaging Server in the proper sequence on new machine, by using the `commpkg install` command.
3. Configure Messaging Server.
   You must do so manually. Basically you must clone the legacy machine's configuration to this new machine.
4. If you are doing a coexistent migration on a message store, migrate user mailboxes (a few at a time) to the new machine. See Migrating or Moving Mailboxes to a New System. Details on message store internals can be found in Upgrading the Message Store.

Using the Side-by-Side Strategy to Upgrade Messaging Server

In this model, you install the new software version on the same machine as the old version. After migrating the configuration to the new version, you can switch over to the new version. This upgrade strategy is new starting with Communications Suite 6. The basic steps are as follows:

1. Install Messaging Server 7 Update 4 side-by-side on the same machine with your earlier version of Messaging Server by using the `commpkg install` command.
2. Back up configuration and mailbox data just in case a back out is required.
   For the configuration data, simply back up the configuration directory. For mailbox data you can do a snapshot or use the `imsbackup` command.
3. Migrate the configuration from Messaging Server to 7 Update 4 by using the `migrate-config` utility.
4. Start Messaging Server 7 Update 4.

Advantages and Disadvantages of Side-by-Side Messaging Server Migration

- Second best minimal downtime.
- Second best in backout.
- Does not require extra machines
- Does require different directory location for fresh install. Any custom scripts that reference the install location has to be modified.
- Does not involve moving the mailboxes. New version just "points" to the mailboxes and mailbox conversion to the new version is automatic and transparent.
- Backout is problematic if there are mailbox format changes. Simply stopping the new version and starting the old version will not work.
- The only advantage of side-by-side over in-place is that the binaries of the old version remain intact on the system so you do not have to reinstall and reconfigure in the case of a back out.

Specific Steps for Upgrading Messaging Server Using the Side-by-side Migration Model

1. Back up the message store.
   You can use either the volume snapshot of the file system or perform an `imsbackup` and

imsrestore.

2. Install the new version of Messaging Server on the same system as your previous version of Messaging Server, but in a different directory (for example, in this procedure, /opt/sun/comms/messaging64/).
3. To migrate the configuration and message store data from the previous version of Messaging Server, run the migrate-config (migration configuration) utility: /opt/sun/comms/messaging64/bin/migrate-config *old-msg-svr-root*. (In the example below *old-msg-svr-root* is /opt/SUNWmsgsr)
   For example:

```
/opt/sun/comms/messaging64/bin/migrate-config /opt/SUNWmsgsr
```

4. Run the following command:

```
/opt/sun/comms/messaging64/bin/patch-config
```

5. Run the following command:

```
/opt/sun/comms/messaging64/bin/install-newconfig
```

6. To back out the migration, run the following command:

```
/opt/sun/comms/messaging64/bin/migrate-config -u /opt/SUNWmsgsr
```

   where -u is the undo flag.

Next Steps

- Once you complete the migration, stop using the old server-root directory:
  - Update PATH and any scripts referencing the old server-root location.
  - If you are using EMC Networker (formerly Legato Networker), be sure to update the server-root location in the configuration.
  - Replace the server-root location with the server-root binary location.
- Start the new server with the following command: /opt/sun/comms/messaging64/bin/start-msg
- If you need to back out the migration, use the -u (undo) flag: /opt/sun/comms/messaging64/bin/migrate-config -u *old-msg-svr-root* (where *old-msg-svr-root* is the old server-root) directory.
- To restart the old Messaging Server, use: *old-msg-svr-root*/sbin/start-msg
- Uninstall the old version Of Messaging Server when you are satisfied with the performance of the new one: commpkg uninstall

Backing Out of a Side-by-side Messaging Server Upgrade

Ideally you could just stop the new version and start the old version up and your back out recovery would be complete. However, because there is a mailbox database format change between pre-version 7 and version 7 Messaging Server, this does not work. To back out, you need to restore the message store either by reinstalling the volume snapshot of the file system, or by performing an imsrestore on the backed-up message store.

In either case, there is a potential of losing data as mail comes in during the recovery period. For the

most part, back out is considered a disaster recovery operation. Backouts are done immediately after major unacceptable problems are found in the upgrade. Thus volume snapshots are quite acceptable as a back out plan.

The basic procedure is as follows:

- Stop new version.
- Restore mailbox data
- Start old version.

Using the In-Place Upgrade on Messaging Server

In this method you simply replace the old server binaries with the new server binaries on the same machine by using the `commpkg upgrade` command. This command removes the old packages and installs the new ones. For details about this command, see commpkg upgrade Usage.

Advantages and Disadvantages of In-place Messaging Server Upgrade

- Simplest. One command installs the old packages and removes the new packages. This command migrates and upgrades configuration.
- Requires least amount of extra disk space.
- Messaging Server stays in the same disk location (no tweaking of custom scripts).
- Has the most downtime.
- Back out is complicated. Requires old product version be available. Note that if you do a mailbox data restore, then new messages that arrived since that backup might be lost.
- This method is probably best for evaluators/testers/developers.
- Useful for upgrading Messaging Servers configured without the message store. For example, front-end relays and webmail servers.

Specific Steps for Using In-Place Upgrade on Messaging Server

- Run `commpkg upgrade` and select Messaging Server.
  - Stops the servers.
  - Removes the old version.
  - Installs the new version.
  - Performs migration of configuration and mailbox data.

For information about using the `commpkg upgrade` command, see `commpkg upgrade` Usage. Here is a commpkg upgrade sample session.

Upgrading Messaging Server with Webmail Over IMAP Protocol

You must upgrade the back-end server before upgrading the front-end server. Both the Webmail-over-IMAP protocol and the back-end message stores must be the same product version.

Starting with Messaging Server 6.3, the webmail server (mshttpd) communicates with the message store by using IMAP. Thus, the HTTP service could be run on the front end and is no longer needed or enabled on the store. To support older MEM clients for coexistent migrations, enable `mshttpd` and configure it on the 7.x back-end message store systems by running the following command:

```
configutil service.http.enable
```

The number of `mshttpd` processes (`service.http.numprocesses`) should not change on the 6.2 front end. However, you must set the number of processes on the new back end to 1.

Finally, you need to copy the webmail files in the `<server-root>/config/html` directory over from

the 6.2 system to the 7.x back-end systems. Although the back-end `mshttpd` does not send JavaScript or HTML files to the front end, the contents and structure of that directory need to match the front end.

Upgrading Calendar Server 6.3 in an HA Environment

Upgrading to Calendar Server 6.3 in an HA (High Availability) Environment

Upgrading Calendar Server in an HA environment consists of upgrading the Calendar Server software followed by the Calendar Server Sun Cluster Agent.

Topics:

- To Upgrade Calendar Server 6.3 in an HA Environment
- To Upgrade the Calendar Server Cluster Agent (`CS_SCHA`) If Cluster Nodes include Non-Global Zones

To Upgrade Calendar Server 6.3 in an HA Environment

The following instructions describe how to upgrade Calendar Server in an HA environment.

> **Note**
> To upgrade a Solaris x86 deployment, make sure that you are running at least Calendar Server 6.3 patch -20. See Upgrading to Calendar Server 6.3 Patch 12165820 or Later on Solaris x86 Platforms for more information.

1. Disable Calendar server resource.
   `# scswitch -n -j` *`cal-server-resource`*
2. Run `commpkg upgrade` on all nodes of the cluster.
3. Update with logical host names for following properties in the `ics.conf` file
   `local.hostname = "`*`logical-host-name`*`"`
   `local.servername = "`*`logical-host-name`*`"`
4. For each resource group non-online or non-active node
   a. Mount the `config` directory by making the file system a global file system, or switch the resource group to non-online or non-active node.
   b. Run `csconfigurator.sh -nodisplay -noconsole -novalidate`
5. Enable Calendar server resource:
   `# scswitch -e -j` *`cal-server-resource`*

To Upgrade the Calendar Server Cluster Agent (`CS_SCHA`) If Cluster Nodes include Non-Global Zones

Sun Cluster recently introduced support for Solaris 10 Zones. If a machine that has non-global zones participates in a cluster, all zones on that machine must be in the cluster. Thus the Sun Cluster software and HA agents should be installed in all zones. Thus it follows that CS_SCHA should be installed in the global zone and automatically propagated into all non-global zones (i.e. don't use the -G switch to pkgadd). The CommsInstaller treats the HA agents like CS_SCHA as a product that should be propagated to all non-global zones when it is installed in the global zone. In the rare case where you have managed to install the older CS_SCHA agent in the non-global zones, then an upgrade consists of first uninstalling the older agent from all non-global zones, followed by installing the new agent in the global zone.

To verify that the older agent was installed in the global zone and automatically propagated to all non-global zones, check if `SUNWscics` is listed in `/var/sadm/install/gz-only-packages`. If `SUNWscics` is listed in `/var/sadm/install/gz-only-packages`, then simply run `commpkg`

`upgrade` in the global zone. If it isn't listed, then `SUNWscics` is either not installed, or installed so that it is propagated to non-global zones. If this is the case, then use the following procedure:

1. Run `commpkg uninstall` and uninstall the `CS_SCHA` in every non-global zone. Do not uninstall it in the global zone.
2. In the global zone, run `commpkg upgrade` and upgrade `CS_SCHA`.

Upgrading Communications Suite in Silent Mode

Upgrading Communications Suite in Silent Mode

When you run the installer to upgrade in *silent mode*, you are running a non-interactive session. The upgrade inputs are taken from the following sources:

- A silent installation file (also known as a state file)
- Command-line arguments
- Default settings

You can use silent mode to upgrade multiple instances of the same software component and configuration without having to manually run an interactive upgrade for each instance.

Topics:

- To Run a Communications Suite Silent Upgrade
- About Upgrading Shared Components

To Run a Communications Suite Silent Upgrade

1. Obtain the state file by one of the following two means.
   - Run an interactive upgrade session and use the state file that is created in the `/var/opt/CommsInstaller/logs/` directory. The state file name is similar to `silent_CommsInstaller_20070501135358`. A state file is automatically created for every run of the installation.
   - Create a silent state file without actually installing the software during the interactive session by using the `--dry-run` option, then modifying the state file. For example:

     ```
     # commpkg upgrade --dry-run
     ```

2. Copy the state file to each host machine and edit the file as needed. See Silent Mode File Format.
3. Run the silent installation on each host.
   For example:

   ```
   # commpkg upgrade --acceptLicense --silent <Input File>
   ```

   where *Input File* is the path and name of the silent state file, for example `/var/opt/CommsInstaller/logs/silent_CommsInstaller_20070501135358`.
   For details about the `--silent` option, see the silent installation usage in commpkg upgrade usage.

   > **Note**
   > Command-line arguments override the values and arguments in the state file. If you specify *None* for the silent file, then defaults are used for the property values.

About Upgrading Shared Components

By default, shared components are not upgraded when you run a silent upgrade. The option to upgrade shared components in the silent state file is automatically disabled. That is, the option is set to

`UPGRADESC=No`. This is true *even* if you explicitly asked to upgrade shared components when you ran the interactive upgrade that generated the silent state file. That is, you ran `commpkg upgrade --upgradeSC y`.

Disabling upgrading shared components in the silent state file is done because the other hosts on which you are propagating the upgrade might have different shared components installed, or different versions of the shared components. Therefore, it is safer to not upgrade the shared components by default.

You can upgrade shared components when you run a silent upgrade by performing either of the following actions:

- Use the `--upgradeSC y` option when you run the silent upgrade. (The command-line argument overrides the argument in the state file.)
- Edit the `UPGRADESC=No` option in the silent state file to: `UPGRADESC=Yes`.

Silent Mode File Format

The silent mode file (also known as a state file) is formatted like a property file: comment lines begin with a number sign (#) and properties are key/value pairs separated by an equals (=) sign. You can change the following parameters:

Silent Mode File Parameters

Parameter	Description	Example
`VERB`	Indicates which function to perform. You can add CLI arguments described in commpkg usage, however the `---dry-run` argument cannot be added to the `install` function in the state file.	`VERB=upgrade`
`ALTDISTROPATH`	Indicates an alternate distro path if `--distro` is not specified.	`ALTDISTROPATH=SunOS5.10_i86pc_DBG.OBJ/release`
`PKGOVERWRITE`	Force the overwriting of the existing installation packages even if patches are available to do the upgrade. See the `--pkgOverwrite` option to `commpkg upgrade`	`PKGOVERWRITE=YES`

INSTALLROOT	Specifies installation root. See the `--installroot` option to `commpkg upgrade`	`INSTALLROOT=/opt/sun/comms`
ALTROOT	Specifies an alternate root.	`ALTROOT=yes`
EXCLUDEOS	Specifies to not upgrade operating system patches. See the `--excludeOS` option to `commpkg upgrade`	`EXCLUDEOS=YES`
COMPONENTS	Lists the components you want to install. See the `--components` option to `commpkg upgrade`	`COMPONENTS=MS64` to specify 64-bit Messaging Server
ACCEPTLICENSE	Indicates whether or not to accept license. This property must be specified either in the silent file or as a command line argument. See the `--acceptLicense` option to `commpkg upgrade`	`ACCEPTLICENSE=yes`.
UPGRADESC	Indicates whether all shared components should or should not be upgraded without prompting. See the `--upgradeSC` option to `commpkg upgrade`	`UPGRADESC=no`

To display a complete list of the mnemonic product names (such as MS, MS64, CS) to use with the `COMPONENTS` property, run the `commpkg info --listPackages` command. This command displays the mnemonics for each product. A sample session is provided here.

Upgrading Convergence

Upgrading to Convergence Version 2

This information describes how to upgrade Convergence 1 Update 3 to Convergence 2. You can upgrade to Convergence 2 only by using the Communication Suite installer. To upgrade to Convergence 2 from a previous version, you use the `commpkg upgrade` command.

The following table provides the Communications Suite installer file names for the various supported operating systems and platforms:

Operating System and Platform	Filename
Solaris SPARC	`ci-7.1-0.06-SunOS_sparc.zip`
Solaris x86	`ci-7.1-0.06-SunOS_i386.zip`
Linux	`ci-7.1-0.06-Linux_x86.zip`

For operating system and supported platform details, see this list of operating system and platform requirements.

For details of the requirements for product version compatibility in upgrading to Convergence 2, see Product Version Compatibility Requirements.

When upgrading to Convergence 2, note the following customization limitations:

> **Note**
> Because of the changes between Convergence 1.x and Convergence 2, customizations from Convergence 1.x cannot be retained when you upgrade to Convergence 2. Instead, you must recreate your customization in Convergence 2. Upgrading from Convergence 2 will be straightforward as you will be able to retain the customization information in the `c11n` directory.

Upgrading Convergence

Before you begin, ensure that the following software is running:

- GlassFish Server domain to which Convergence is deployed.
- All services configured for Convergence must be running. This must include Directory Server and may include Messaging Server, Calendar Server, and Instant Messaging.

If this software is not running, the upgrade fails to complete the installation and deployment of the Convergence 2 package. The `commpkg upgrade` command upgrades Convergence 1.x to Convergence 2 with an in-place package replacement.

To Upgrade to Convergence 2

1. Log in to the machine on which you have installed Convergence.
2. Unzip the Communications Suite installer zip file.
3. Use the Communications Suite installer to upgrade Convergence.

```
./commpkg upgrade
```

The command-line prompt displays the welcome message followed by the copyright information and license.

4. Type `yes` to accept the license agreement.
   The Communications Suite installer detects the installed components on the server and lists all the components that can be upgraded.
5. Select the number corresponding to Convergence and press Return.

The Communications Suite installer upgrades Convergence 1.x to Convergence 2 by in-place package replacement. This is an irreversible process. After upgrading, you must restart the GlassFish Server.

> **Note**
> If you run the Convergence initial configuration program `init-config` when you installed Convergence, do not rerun the `init-config` again after you upgrade to Convergence 2.

To Retain Indexing and Search Service (ISS) Proxy Authentication during Convergence Upgrade

If ISS proxy authentication is operational in Convergence 1.x and you then upgrade to Convergence 2, set the proxy auth user name and password as Convergence 2 defaults in order to authenticate to ISS via proxy auth.

To enable ISS Proxy Authentication with Convergence, run `iwcadmin` with the following configuration parameters:

```
iwcadmin -u admin -o ISS.enable -v true
iwcadmin -u admin -o ISS.enablessl -v true  (if SSL is used)
iwcadmin -u admin -o ISS.host -v <FQDN of ISS host>
iwcadmin -u admin -o ISS.port -v <ISS port>
iwcadmin -u admin -o ISS.proxyadminid -v <uid of proxy user>
iwcadmin -u admin -o ISS.proxyadminpwd -v <plaintext password of proxy
user>
```

Upgrading Indexing and Search Service

Upgrading Indexing and Search Service for Oracle Communications Unified Communications Suite Version 1 Update 1

Topics:

- Running commpkg upgrade
- Upgrading to Indexing and Search Service 1 Update 1 Requires Running postpatch_restart.sh
- Rebootstrapping Accounts
- Reverting an Upgrade

Running commpkg upgrade

To upgrade to Indexing and Search Service 1 Update 1 from Indexing and Search Service 1, run the `commpkg upgrade` command on each host in your deployment. Upgrade your ISS back-end hosts first and then upgrade your front-end hosts. For more information, see commpkg upgrade Usage.

Upgrading to Indexing and Search Service 1 Update 1 Requires Running postpatch_restart.sh

A `commpkg upgrade` requires that you manually run the `postpatch_restart.sh` after completing the upgrade. Because the postpatch process might be interactive, you must manually run `postpatch_restart.sh` if you upgrade to this release by using the `commpkg upgrade` command.

Rebootstrapping Accounts

Although Indexing and Search Service 1 indexes are backward-compatible with Indexing and Search Service 1 Update 1, after the upgrade, you should rebootstrap all user accounts to Indexing and Search Service 1 Update 1 to index the new attachment types and other changes in this release.

Reverting an Upgrade

Indexing and Search Service 1 Update 1 indexes are not compatible with Indexing and Search Service 1. If you downgrade back to Indexing and Search Service 1, all user accounts must be rebootstrapped.

Upgrading to Instant Messaging in an HA Environment

Upgrading to Oracle Instant Messaging Server 8 Update 3 in an HA (High Availability) Environment

Upgrading Instant Messaging Server in an HA environment consists of upgrading the Instant Messaging Server software followed by the Instant Messaging Server Sun Cluster Agent.

Topics:

- To Upgrade to Instant Messaging Server 8 Update 3 in an HA Environment
- To Upgrade to Instant Messaging Server 8 Update 3 Sun Cluster Agent (`IM_SCHA`)

To Upgrade to Instant Messaging Server 8 Update 3 in an HA Environment

1. Disable the Instant Messaging server resource.
   `# scswitch -n -j` *`im-server-resource`*
2. Invoke the `commpkg upgrade` command on all nodes of the cluster.
3. Enable the Instant Messaging server resource.
   `# scswitch -e -j` *`im-server-resource`*

To Upgrade to Instant Messaging Server 8 Update 3 Sun Cluster Agent (`IM_SCHA`)

Invoke the `commpkg upgrade` command on all nodes on the cluster. If cluster node is a non-global zone, invoke `commpkg upgrade` in global zone as well as in non-global zones.

Upgrading to Messaging Server in an HA Environment

Upgrading to Oracle Communications Messaging Exchange Server 7 Update 4 in an HA (High Availability) Environment

Upgrading Messaging Server in an HA environment consists of upgrading the Messaging Server software then upgrading the Messaging Server Sun Cluster Agent.

Topics:

- Upgrading to Messaging Server 7 Update 4 in an HA Environment
  - To Do a Side-by-side Upgrade to Messaging Server 7 Update 4 in an HA Environment
  - To Do an In-place Upgrade to Messaging Server 7 Update 4 in an HA Environment
- Upgrading to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`)
  - To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`)
  - To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`) if Cluster Nodes Include Non-Global Zones
  - To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`) in a Two-node Symmetric Sun Cluster HA Environment

> **Note**
> After configuring Messaging Server 7 Update 4 for HA or upgrading to Messaging Server 7 Update 4 in HA, if you are using a compiled configuration, you must recompile the configuration by issuing the command:
> `# imsimta cnbuild`
> Otherwise, the Messaging Server will fail to start in the HA environment.

Upgrading to Messaging Server 7 Update 4 in an HA Environment

Upgrade strategies, each of which require different procedures, include the following:

- Coexistent upgrade: This is similar to a fresh HA installation. See Configuring Messaging Server for High Availability for more information
- Side-by-side upgrade
- In-place HA upgrade

To Do a Side-by-side Upgrade to Messaging Server 7 Update 4 in an HA Environment

1. Go to the resource group online node.
   a. Disable Messaging server resource,
      `# scswitch -n -j` *`msg_svr_resource`*
   b. Upgrade Messaging Server by using the side-by-side strategy (see this discussion). Perform this step only on the Messaging Server resource group online node. Do not start Messaging Server yet.
   c. Run the `ha_ip_config` command on the Messaging Server resource group online node.
      `#` *`msg_svr_base`*`/sbin/ha_ip_config`
      This command is needed only if the currently installed Messaging Server is prior to version 7.0.
2. Switch over to other node:
   `# scswitch -z -g` *`msg_svr_resource_group`* `-h` *`node-name`*
3. Run the `useconfig` command. This is needed if you are upgrading Messaging Server from 32-bit to 64-bit, to update the trusted library path for 64-bit applications to include Messaging Server
   `/bin/crle -s -64` *`new_msg_svr_base`*`/lib')`

```
# msg_svr_base/bin/useconfig msg_svr_base/config
```

4. Change `IMS_serverroot` path for Messaging Server resource if new Messaging Server base directory is different from old installation.
   ```
   #scrgadm -cj msg_svr_resource -x IMS_serverroot=new_msg_svr_base
   ```
5. If Messaging Server Sun Cluster agent (`MS_SCHA`) is old (not from Communications Suite 6 or later), then it will not work with upgraded Messaging Server. So perform `MS_SCHA` upgrade procedure.
6. Enable Messaging Server resource.
   ```
   # scswitch -e -j msg_svr_resource
   ```

To Do an In-place Upgrade to Messaging Server 7 Update 4 in an HA Environment

An in-place upgrade is done by using the `commpkg upgrade` command.

1. Disable Messaging Server resource:
   ```
   # scswitch -n -j msg_svr_resource
   ```
2. Run the `commpkg upgrade` command on all nodes of the cluster.
3. Run the `ha_ip_config` command on the Messaging Server resource group online node.
   ```
   # msg_svr_base/sbin/ha_ip_config
   ```
   This command is needed only if the currently installed Messaging Server is prior to version 7.0.
4. Enable Messaging Server resource:
   ```
   # scswitch -e -j msg_svr_resource
   ```

Upgrading to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`)

This section provides instructions for the Sun Cluster Agent upgrade. It consists of the following sections:

- To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`)
- To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`) if Cluster Nodes Include Non-Global Zones
- To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`) in a Two-node Symmetric Sun Cluster HA Environment

To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`)

1. Run `commpkg upgrade` on all nodes on the cluster. Messaging Server should be upgraded to 7 Update 4 before upgrading Messaging Server Sun Cluster Agent.
2. Enable Messaging Server resource:
   ```
   # scswitch -e -j ms-server-resource
   ```

To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`) if Cluster Nodes Include Non-Global Zones

If a machine that has non-global zones participates in a cluster, all zones on that machine must be in the cluster. The Sun Cluster software and HA agents should be installed in all zones, and MS_SCHA should be installed in the global zone and automatically propagated into all non-global zones (that is, don't use the `-G` switch to `pkgadd`). The Communications Suite Installer treats HA agents like `MS_SCHA` as a product that should be propagated to all non-global zones when it is installed in the global zone. In the rare case where you have managed to install the pre-version 7 `MS_SCHA` agent in the non-global zones, then an upgrade consists of first uninstalling the older agent from all non-global zones, followed by installing the new 7 `MS_SCHA` agent in the global zone.

To check if the older pre-version 7 agent was installed in the global zone and automatically propagated to all non-global zones, verify that `SUNWscims` is listed in `/var/sadm/install/gz-only-packages`. If it is, then run `commpkg upgrade` in the global zone. If it isn't listed, then `SUNWscims` is either not installed, or is installed so that it is propagated to non-global zones. If this is this case, use the following procedure:

1. Run `commpkg uninstall` and uninstall `MS_SCHA` in every non-global zone (don't uninstall it in the global zone)
2. In the global zone, run `commpkg upgrade` and upgrade `MS_SCHA`

To Upgrade to the Messaging Server 7 Sun Cluster Agent (`MS_SCHA`) in a Two-node Symmetric Sun Cluster HA Environment

1. Upgrade Messaging Server to Version 7 Update 4 before upgrading the Messaging Server Sun Cluster Agent.
2. Make sure that the Messaging Server installation location is accessible from both nodes.
   This is required because a resource type upgrade command validates accessibility. For the first instance in a Symmetric Cluster setup, Messaging Server installation will be done on first node only (on a shared storage mount point). For the second instance, Messaging Server installation will be done on second node only.
3. Follow the steps mentioned in section To Upgrade to the Messaging Server 7 Sun Cluster Agent (MS_SCHA).

> **Note**
> If user prefers to upgrade Sun Cluster Agent (MS_SCHA) for only one instance, then follow the prior steps and correct the resource type version using Sun Cluster commands.

Chapter 9. Installation Scenario - Access Manager

Installation Scenario - Sun Java System Access Manager Version 7.1

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install Sun Java System Access Manager on a separate host. It is based on the *Install/configure Access Manager* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Access Manager installation is one functional component of your multi-host deployment.
- You are installing Access Manager on a separate host or Solaris zone; you are not bundling Access Manager with Communication Suite products on the same host.
- If you are deploying multiple instances of Access Manager across several hosts or zones, you can follow these instructions for each host on which you install Access Manager.

Which Software Components and Downloads Do You Need?

- Java ES 5 Update 1 distro - for Access Manager 7.1 and Web Server 7.0 Update 1

Download this software from the Communications Suite download site. For details, see Get the Software.

> **Note**
> If you are installing Access Manager 7.1 on a Red Hat Linux system, verify that a compatible version of Java Development Kit (JDK) is installed. For details, see Verifying the Correct JDK Version to Support Access Manager.

Which Task Sequence Do You Follow?

1. Be sure that Directory Server Enterprise Edition is installed and configured on another machine or zone in your deployment.
2. Start Directory Server.
3. Launch the Java ES 5 Update 1 installer.
4. With the Java ES installer, install Access Manager 7.1 and Web Server 7.0 Update 1.
   To install these products, follow the instructions in the *Sun Java Enterprise System 5 Update 1 Installation Guide for UNIX*.
   For details, see this *Access Manager Configuration Guide*. You can also find installation instructions in this *Access Manager Deployment Example*.
5. Start Web Server.
6. Start Access Manager.

Chapter 10. Installation Scenario - Convergence

Installation Scenario - Convergence Version 2

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install an instance of the Convergence on a separate host or Solaris zone. It is based on the *Install Convergence* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Convergence is one functional component of your multi-host deployment.
- The Communications Suite servers (Messaging Server, Calendar Server, Instant Messaging) are installed on separate hosts.
- If you are distributing multiple instances of the Convergence across several hosts, you can follow these instructions for each host on which you install the Convergence.

> **Note**
> This scenario describes how to install the software that should run on the same host as Convergence.

Which Software Components and Downloads Do You Need?

For a list of all the products required for Convergence, including those installed on other hosts, see Product Version Requirements for Convergence 2.

To download the software, see Get the Software.

Convergence Support for SSO

Convergence supports the following methods for implementing Single Sign On.

- Access Manager
- Messaging Server (Trusted Circle) SSO
- Sun OpenSSO Enterprise 8.0.

> **Note**
> As of Communications Suite 7 Update 1, support for Sun OpenSSO Enterprise 8.0 has been deprecated. See: Deprecated Support of Access Manager and Sun OpenSSO.

If you have a third-party authentication or SSO service, you can also customize the Convergence Server to create an authentication and/or SSO plug-in for that service. For details, see

- Writing a Custom Authentication Module for Convergence
- Writing a Custom SSO Module for Convergence

About Messaging Server Webmail Server

The best deployment practice is to place the Messaging Server Webmail Server on the same host as Convergence to provide horizontal scalability and enable smooth growth of services.

From a functional perspective, Convergence provides complete mail service when the Webmail Server is located on a different host than Convergence. Therefore, in some deployments, the Webmail Server might be located on a different host.

Other components such as the message store and MTA, Calendar Server, and Instant Messaging Server can be located on other hosts.

Which Task Sequence Do You Follow?

Step 1. Install Sun GlassFish Enterprise Server 2.1.1 with High Availability Database (HADB) - Zip/File Based.

> **Note**
> Download the GlassFish Server software zip file from the GlassFish Server link from the Get the Software page.

Follow these guidelines:

- The high availability database (HADB) version provides shared components needed by GlassFish Server and Communications Suite. You can configure this version of GlassFish Server without using the HADB.
- The Communication Suite installer does not install GlassFish Server.
- To install GlassFish Server, follow the instructions in Installation Scenario - GlassFish Server.
- Install GlassFish Server before you install Access Manager and configure Convergence.
- To verify which version of GlassFish Server you have installed, see Verify GlassFish Server Version.

Step 2. Install Access Manager 7.1 SDK

Perform this task only if you intend to use Access Manager for authentication and/or SSO.

Prerequisite: This task assumes that Access Manager Server 7.1 is installed on a remote host.

If you already have Access Manager Server installed on *this* host, you do not need to install the Access Manager SDK.

1. Be sure that Directory Server Enterprise Edition is installed and configured on another host in your deployment.
2. Start Directory Server.
3. Verify that GlassFish Server 2.1.1 is installed and running on this host.
4. Verify that the full Access Manager 7.1 server is running and accessible, either on a remote host

(or on another instance on the same host where you plan to install the Access Manager SDK).

5. Log in as or become superuser (`root`).
6. Launch the Java ES 5 Update 1 installer.
7. When the Java ES installer displays the Choose Software Components Page, under Access Manager 7.1, select only the Access Manager SDK.
8. Choose the **Configure Later** option for installing the Access Manager 7.1 SDK.

> **About the Configure Later Option**
> If you install the Access Manager 7.1 SDK to GlassFish Server 2.1.1 without installing the full Access Manager Server on this host, you must choose **Configure Later.** If you do not, the AM SDK does not work.

> **Realm Mode and Legacy Mode**
> Convergence supports both Access Manager Realm mode (the default) and Legacy mode for providing authentication and SSO.

9. Follow the instructions in Deploying the Access Manager 7.1 SDK with Application Server 9.1.

For more information, see: Technical Note: Deploying Access Manager with Application Server 9.1.

> **Note**
> Though the supported web container for Convergence 2 is Sun GlassFish Server 2.1.1, the Application Server 9.1 documents listed in this installation scenario are still relevant.

For information about the Java ES installer, see Sun Java Enterprise System 5 Update 1 Installation Guide for UNIX.

For more details, see Access Manager Configuration Guide. You can also find installation instructions in this Access Manager Deployment Example.

Step 3. Before you install Messaging Server (Webmail Server component):

Optional: Perform this task if you are installing Webmail Server on this host.

- Make sure you do not configure conflicting port numbers on a machine when various components are running on a single machine. For a list of port numbers used by Messaging Server, see Default Port Numbers.

Step 4. Install Convergence and Webmail Server:

1. Run the Communications Suite installer.
2. When the Communications Suite Installer lists the components to install, choose the following components:
   - Convergence 2 (Integrated Web Client)
   - Messaging Server 7 Update 4 (64-bit version)
     Select Messaging Server only if you are installing Webmail Server on this host.
3. Make sure that the other components are not selected.

Step 5. Configure the Webmail Server:

(Optional) Follow these steps if you are installing Webmail Server on this host.

1. Use the following worksheet to gather configuration information for the Webmail Server: Configuration Worksheets - Messaging Server

2. Run the Messaging Server initial configuration program:
   INSTALLROOT`/messaging64/bin/configure`
   For detailed instructions, see Messaging Server Initial Configuration.
3. When the Messaging Server `configure` program lists the components to configure, select Webmail Server.
4. Make sure that the other components are not selected.
5. Set the following `configutil` parameters.
   The Webmail Server uses these `configutil` parameters to log in to the back-end IMAP servers:

`configutil` Parameter	Description
`local.service.proxy.admin`	Default backend store administrator login name. (Restart of HTTP service required; Restart of IMAP service required). Syntax: string Default: `admin`
`local.service.proxy.adminpass`	Default store administrator password. (Restart of HTTP service required; Restart of IMAP service required). Syntax: string Default: <*admin.password*>
`local.service.imapport`	Default IMAP port number for backend store servers. (Restart of HTTP service required; Restart of IMAP service required). Syntax: integer Default: 143

   The Webmail Server can communicate with multiple back-end IMAP servers. If the IMAP servers use different values for these parameters are different, you must set individual `configutil` parameters for each host, as follows:

`local.service.proxy.admin.`*hostname*
`local.service.proxy.adminpass.`*hostname*
`local.service.imapport.`*hostname*

   where *hostname* is the name of the host on which each back-end IMAP server is running.

Examples

For one back-end IMAP server:

```
configutil -o local.service.proxy.admin -v myadmin
configutil -o local.service.proxy.adminpass -v <password>
configutil -o local.service.proxy.imapport -v 143
```

For multiple back-end IMAP servers:

```
configutil -o local.service.proxy.admin.host1.siroe.com -v admin1
configutil -o local.service.proxy.adminpass.host1.siroe.com -v
<password>
configutil -o local.service.proxy.imapport.host1.siroe.com -v 143

configutil -o local.service.proxy.admin.host2.siroe.com -v admin2
configutil -o local.service.proxy.adminpass.host2.siroe.com -v
<password>
configutil -o local.service.proxy.imapport.host2.siroe.com -v 143
```

Step 6. Before you configure Convergence, take these steps:

1. Use the following worksheet to gather configuration information for the Convergence: Configuration Worksheets - Convergence
2. If your Convergence deployment supports Instant Messaging (the chat component), you must configure the Httpbind JID and Avatar JID on Instant Messaging Server. Perform this step before you run the Convergence configuration program.
   For details, see Configure IM Components to Enable Communication with the Instant Messaging Server.
3. Be sure that the back-end servers and web container are up and running:
   - Directory Server
   - Messaging Server
   - Calendar Server
   - GlassFish Server 2.1.1
4. Verify whether users are able to log in to the back-end servers correctly:
   - Messaging Server
   - Calendar Server

Step 7. Configure Convergence:

1. Run the Convergence initial configuration program:
   INSTALLROOT`/iwc/sbin/init-config`
2. When you run the initial configuration program, specify the configuration values to connect to the back-end servers supported in your Convergence deployment:
   - To support the Convergence mail component, configure values for the Webmail Server.
   - To support the Convergence calendar component, configure values for the Calendar Server.
   - To support the Convergence chat component, configure values for the Instant Messaging Server.

For detailed instructions, see Convergence Initial Configuration.

Chapter 11. Installation Scenario - Delegated Administrator

Installation Scenario - Delegated Administrator for Oracle Communications Unified Communications Suite Version 7

Assumptions

This scenario shows how to install Delegated Administrator for Oracle Communications Unified Communications Suite Version 7. It is based on the *Install/configure Delegated Admin* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- Delegated Administrator is one functional component of your multi-host deployment.
- You have decided to use Access Manager for the identity solution.

Delegated Administrator and Access Manager

Delegated Administrator 7 with direct LDAP access mode no longer requires Access Manager. However, if used together, Delegated Administrator must be deployed to the same web container as Access Manager.

Therefore, in this scenario you must install Delegated Administrator on the host or Solaris zone where you have installed Access Manager. For details about installing and configuring Access Manager, see Install Access Manager.

Which Software Components and Downloads Do You Need?

- Communications Suite: for Delegated Administrator

Download site: Get the Software.

Which Task Sequence Do You Follow?

1. Run the Communications Suite installer.
   You must install Delegated Administrator on the same host on which Access Manager and the web container (such as Web Server 7.x) are installed.
   For details about installing and configuring Access Manager, see Installation Scenario - Access Manager.
2. When the Comms Installer lists the components to install, choose the following component: Comms Delegated Administrator 7
3. Make sure that the other components are not selected.
4. Use the following worksheet to gather configuration information: Configuration Worksheets - Delegated Administrator
5. Run the Delegated Administrator initial configuration program:
   INSTALLROOT`/da/sbin/config-commda`
   Make sure you select Access Manager mode for the directory access. For detailed instructions, see Delegated Administrator Initial Configuration.

6. Restart the web container (such as Web Server 7.x) to which Delegated Administrator and Access Manager are deployed.

Chapter 12. Installation Scenario - Directory Server

Installation Scenario - Oracle Directory Server Enterprise Edition

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Installing Directory Server 7

Assumptions

This scenario shows how to install Directory Server on a separate host. It is based on the *Install/configure Directory Server. Install & run comm_dssetup* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Directory Server installation is one functional component of your multi-host deployment.
- You are installing Directory Server on a separate host or Solaris zone. You are not bundling Directory Server with Communication Suite products on the same host.
- If you are deploying multiple instances of Directory Server across several hosts or zones, you can follow these instructions for each host on which you install Directory Server.

Which Software Components and Downloads Do You Need?

- Oracle Directory Server Enterprise Edition 7
- Communications Suite--for the Directory Server setup script, `comm_dssetup.pl`

Download these components from the Communications Suite download site. For details, see Get the Software.

Installing Directory Server 7

1. Run the Communications Suite installer.
   When the Comms Installer lists the components to install, select the Directory Server setup script, `comm_dssetup.pl`. Do not select other components unless you also plan to install them on this host or zone.
2. Install Directory Server 7.
3. Use the following Solaris sample session as an example.
   This example assumes that you have downloaded the Directory Software and unzipped it into the `/tmp/DS` directory.

```
cd /tmp/DS/DSEE_ZIP_Distribution
unzip -qq sun-dsee7.zip -d /opt/SUNWdsee

The installation installs the Directory Server bits in the
specified location /opt/SUNWdsee.

Create your Directory Server instance.

mkdir /var/opt/SUNWdsee
cd /opt/SUNWdsee/dsee7/bin
./dsadm create -p 389 -P 636 /var/opt/SUNWdsee/dsins1
Choose the Directory Manager password: adminpass
Confirm the Directory Manager password: adminpass

Start your Directory Server instance.

./dsadm start /var/opt/SUNWdsee/dsins1

Create the Root Suffix o=isp using the dsconf command:
./dsconf create-suffix -h <hostname> -p 389 o=isp

Example:

./dsconf create-suffix -h wireless -p 389 o=isp
Certificate "CN=wireless, CN=636, CN=Directory Server, O=Sun
Microsystems" presented by the server is not trusted.

Accept the Certificate and enter adminpass as the cn=Directory
Manager password.

Type "Y" to accept, "y" to accept just once, "n" to refuse, "d" for
more : Y
Enter "cn=Directory Manager" password: adminpass

Start your Directory Server instance.

cd /opt/SUNWdsee/dsee7/bin
./dsadm stop /var/opt/SUNWdsee/dsins1
./dsadm start /var/opt/SUNWdsee/dsins1
```

4. If you need more information about installing Directory Server 7, see Installing Directory Server Enterprise Edition Using Zip Distribution.
5. Run the Directory Server setup script, `comm_dssetup.pl`.

A Note About Installing the Directory Server Setup Script

In the preceding task, you install `comm_dssetup.pl` with the Communications Suite installer before you install Directory Server. If you follow this sequence, you will have the up-to-date version of `comm_dssetup.pl`. The Directory Server installation process does not overwrite the latest version.

If you install or upgrade Directory Server *before* you run the Communications Suite installer, the Directory Server installation process places an outdated version of `comm_dssetup.pl` on your system. You must use the current version of `comm_dssetup.pl` provided by the Communications Suite installer. However, the Communications Suite installer cannot install a new version with the `commpkg install` command. Instead, run the `commpkg upgrade` command to upgrade to the latest version of `comm_dssetup.pl`.

Chapter 13. Installation Scenario - GlassFish Server

Installation Scenario - Sun Enterprise GlassFish Server Version 2.1.1

Sun Enterprise GlassFish Server 2.1.1 is the primary web container used by Communications Suite 7 Update 1 component products. For complete installation instructions, see Sun GlassFish Enterprise Server 2.1.1 Installation Guide. The following procedures summarize the process.

> **Tip**
> If you are installing GlassFish Server to be the web container for Indexing and Search Service, see Step 2, To Complete the GlassFish Server 2.1.1 Configuration, before starting.

To Install and Configure GlassFish Server 2.1.1

1. Before installing GlassFish Server 2.1.1, check that the Java version on the system is at least Version 1.6. To check the Java version, type the following command:

   ```
   # java -version
   ```

   The shell returns results that look similar to the following:

   ```
   java version "1.6.0_06"
   Java(TM) SE Runtime Environment (build 1.6.0_06-b02)
   Java HotSpot(TM) Server VM (build 10.0-b22, mixed mode)
   ```

2. If you need to update your Java software, see the Java SE downloads site.

   > **Note**
   > If you are using the Communications Suite installer and you do not have at least Java 1.6, Java is automatically installed for you.

3. Create a directory for the GlassFish software (for example, `/var/tmp`), copy the GlassFish software to this directory, then launch the installer.

   ```
   # cd /var/tmp
   # chmod +x <distribution-filename>
   # ./<distribution-filename> -console -javahome /usr/jdk/latest
   ```

4. When prompted, press Enter to continue.
5. Accept the License Agreement by typing `yes` when prompted.
   The following table shows the options that the installation script prompts you to answer, and the default values for the options.

   GlassFish Server 2.1.1 Settings

Option	Default Value
Installation Directory	`/opt/SUNWappserver`
Create Directory or Choose New	Create Directory
Install Node Agent	yes
Install High Availability Database Server	no
Install Load Balancing Plugin	no
Install Domain Administration Server	yes
Install Sample Applications	yes Type `no` if you do not want the sample applications.
Install or reuse Java 2 SDK	Install You can `reuse` if the Java SDK version is 1.6 or higher.
Path to Java 2 SDK 5.0 or greater	`/usr/jdk/instances/jdk1.6.0`
Admin User	admin
Admin User's Password	—
Master Password for SSL Certificate	—
Admin Port	`4848`
HTTP Port	`8080`
HTTPS Port	`8181`
Enable Updatecenter client	yes Type `no`
Upgrade from previous AS version	no

6. At the Ready to Install prompt, type `1` (to Install Now).
   The installation begins.
7. At the Installation Successful screen, press Enter to exit the installation program.
8. Verify the GlassFish Server version.
9. Start the GlassFish Server, for example:

```
# /opt/SUNWappserver/bin/asadmin start-domain domain1
Starting Domain domain1, please wait.
Log redirected to
/opt/SUNWappserver/domains/domain1/logs/server.log.
Please enter the admin user name>admin
Please enter the admin password><adminpass>
Please enter the master password><adminpass>
```

Continue with the next task.

To Complete the GlassFish Server 2.1.1 Configuration

You might need to make a few additional changes to the configuration settings in the GlassFish Server installation.

1. If you did not already set the location of JDK 6 during the installation, edit the `asenv.conf` file (by default, located in `/opt/SUNWappserver/config/asenv.conf`). Change the value for `AS_JAVA` to the location of JDK 6, for example:

```
AS_JAVA="/usr/jdk/instances/jdk1.6.0"
```

2. If you are using Oracle GlassFish Message Queue (which ships with Communications Suite 7 Update 1), for example, to use Indexing and Search Service, move the embedded JMQ server that comes with Glassfish Server to another port to avoid a conflict:
   a. Edit the `/opt/SUNWappserver/domains/domain1/config/domain.xml` file.
   b. Find the following line in the `/opt/SUNWappserver/domains/domain1/config/domain.xml` file:
   ```
   <jms-host admin-password="<adminpwd>" admin-user-name="<admin>"
   host="<hostname>" name="default_JMS_host" port="7676"/>
   ```
   c. Change `port="7676"` to a value such as `port="7677"`.

   Note
   You can avoid this situation by first running the Communications Suite installer, installing the Message Queue software that is provided with the installer, then starting Message Queue before installing GlassFish Server. Then, when you install GlassFish Server, the installation automatically selects a new port if it detects an already-started JMQ running on port 7676.

3. Restart GlassFish Server, for example:

```
# /opt/SUNWappserver/bin/asadmin stop-domain domain1
Domain domain1 stopped.
# /opt/SUNWappserver/bin/asadmin start-domain domain1
Starting Domain domain1, please wait.
Log redirected to
/opt/SUNWappserver/domains/domain1/logs/server.log.
Please enter the admin user name>admin
Please enter the admin password>adminpass
Please enter the master password>adminpass
```

Chapter 14. Installation Scenario - Indexing and Search Service

Installation Scenario - Indexing and Search Service for Oracle Communications Unified Communications Suite Version 1 Update 2

Topics:

- Overview of This Scenario
- Assumptions
- Which Software Components and Downloads Do You Need?
- Installing and Configuring an Indexing and Search Service Deployment
- Uninstalling ISS
- ISS Installation Command-Line Reference
- Troubleshooting Indexing and Search Service Installation Problems

Overview of This Scenario

The following installation information describes how to install and configure Indexing and Search Service for Oracle Communications Unified Communications Suite. Before proceeding, make sure that you have already made your architectural and design decisions. For example, you should already know the total number of servers in your deployment, the number of front-end and back-end servers, and similar details. If you are still in the planning or evaluating process, see the following documents:

- If you do not have an existing architecture or design, see Indexing and Search Service Deployment Planning and the Communications Suite Deployment Planning Guide.

Some of this information assumes that you are using Solaris Operating System (Solaris OS) 10. For Red Hat Linux, substitute the respective Red Hat Linux commands.

Assumptions

This scenario shows how to install Indexing and Search Service on a separate host. The scenario is based on the Indexing and Search Service diagram in the Communications Suite Installation Flowchart.

Which Software Components and Downloads Do You Need?

- Communications Suite: Messaging Server, Indexing and Search Service, and GlassFish Message Queue, bundled together as part of the Oracle Communications Unified Communications Suite download
- Communications Suite patches, created after the initial release of Communications Suite 7 Update 1
- Application server web container for Indexing and Search Service: Sun GlassFish Enterprise Server
- LDAP server: Directory Server
- (Optional): Apache HTTP Server version 2, for multi-host deployments (used as web container for ISS back ends)

Download sites: Get the Software

Installing and Configuring an Indexing and Search Service Deployment

Installing ISS involves the following high-level steps:

- 1. Before You Install and Configure ISS
- 2. Install, But Do Not Configure, ISS Software
- 3. Gather Information Required to Configure ISS
- 4. Prepare Messaging Server for ISS
- 5. Decide on ISS Installable Components
- 6. Configure GlassFish Message Queue 4.4u1 on the ISS Host
- 7. Complete the ISS Installation
- 8. Index (Bootstrap) Users
- 9. Verify the ISS Installation
- 10. (Optional) Configure Messaging Server to Use ISS for IMAP SEARCH
- 11. (Optional) Configure Convergence to Use ISS

1. Before You Install and Configure ISS

Complete the following prerequisites for installing and configuring ISS:

1. Review Requirements for Communications Suite 7 Update 1 for the operating system, patch, client software, and disk space needed, and any additional software requirements for this release of Indexing and Search Service.
2. Install and configure the following required software:
   - GlassFish Server 2.1.1 – See Installation Scenario - GlassFish Server for more information about installing the software.
   - (Optional) Apache HTTP Server version 2, for multi-host deployments – See About Apache HTTP Server Version 2 for more information about obtaining and installing the software.
3. Make sure that the Messaging Server host for your ISS deployment is running Messaging Server 7 Update 4 and GlassFish Message Queue 4.4 Update 1.
4. On Messaging Server and ISS hosts, define and set up additional product requirements. Make sure that the Network Time Protocol (NTP) service is running on both the Messaging Server and the ISS hosts.
   - Solaris OS:

     ```
     # svcadm enable ntp
     # svcs ntp
     STATE          STIME    FMRI
     online         16:35:43 svc:/network/ntp:default
     ```

     See the section about time-related services in System Administration Guide: Network Services for more information about NTP on Solaris.

   - Red Hat Linux:

     ```
     # cd /etc/rc3.d
     # ln -s ../init.d/ntpd S74ntpd
     # ../init.d/ntpd start
     Starting ntpd:                                            [
     OK  ]
     # ps -ef | grep ntp
     ntp       2347     1  0 20:56 ?        00:00:00 ntpd -u
     ntp:ntp -p /var/run/ntpd.pid -g
     ```

See the section about NTP in Red Hat Documentation for more information about NTP on Red Hat Linux.

2. Install, But Do Not Configure, ISS Software

1. To install the ISS software, run the Communications Suite installer, for example:

```
./commpkg install
```

2. Select option 6: Indexing Search Services 1u1.
3. For information about running the Communications Suite installer, see Installing Communications Suite.
4. For multi-host deployments, run the Communications Suite installer on each host in your multi-host deployment to install the ISS software.

> **Note**
> Deploying ISS involves installing then configuring the software. In this section, you only install the software. You configure the ISS software in a later step.

5. Install current ISS patch.
   See Indexing and Search Service Patches by Release for latest patch information.

3. Gather Information Required to Configure ISS

Complete the Configuration Worksheet to prepare for Messaging Server for Indexing and Search Service integration and to configure Indexing and Search Service.

4. Prepare Messaging Server for ISS

See Preparing Messaging Server for Indexing and Search Service Integration.

5. Decide on ISS Installable Components

You can install all the ISS components onto a single host or spread the installation across multiple hosts. The four ISS components include:

- `web`
- `jmq`
- `ldap`
- `index`

Web (web)

This component contains the front-end web server access to the index services. This component must be GlassFish Server and must support the `asadmin` command. The `setup` script installs and configures the following three JAR files on the GlassFish Server:

- `rest`. This component is the RESTful API. You access the RESTful service at the following URL:

```
http://<host>:<port>/rest
```

- `searchui`. This component is a sample search UI. You access the sample search UI at the following URL:

```
http://<host>:<port>/searchui
```

- `storeui`. This component controls access to the attachment store. You access it at the following URL:

```
http://<host>:<port>/storeui
```

Oracle GlassFish Message Queue (`jmq`)

This component is Oracle GlassFish Message Queue for the Indexing and Search Services. The GlassFish Server and index services use this message bus to communicate.

Directory Service (`ldap`)

ISS requires Directory Server for Java Naming and Directory Interface (JNDI) lookups.

Indexing (`index`)

This component contains the following core index and search services that are required for normal operation:

- Index Service (`indexSvc`) – Bootstraps new users and indexes incoming content.
- Search Service (`searchSvc`) – Searches index and returns results.
- JMQ Consumer (`jmqconsumer`) – Listens to the JMQ on the message store and notifies `indexSvc` if new content requires indexing.
- Util Service (`utilSvc`) – Provides utility services to Index Service.
- Apache (`httpd`) – Used only in multimachine deployments, provides access to the attachment store.

6. Configure GlassFish Message Queue 4.4u1 on the ISS Host

1. a. Ensure that the GlassFish Message Queue broker is running and is enabled to start at reboot. Edit the `imqbrokerd.conf` file (`/etc/imq/imqbrokerd.conf` on Solaris OS and `/etc/opt/sun/mq/imqbrokerd.conf` on Red Hat Linux) to contain the following information. Check the file permissions and change them to be writeable if they are set to read-only.

```
AUTOSTART=YES
ARGS=-vmargs -Xmx1024m
RESTART=YES
```

   b. If the `config.properties` file (`/var/imq/instances/imqbroker/props/config.properties` on Solaris OS and `/var/opt/sun/mq/instances/imqbroker/props/config.properties` on Red Hat Linux) does not yet exist, start the IMQ broker for the first time to generate it.

```
nohup /etc/init.d/imq start
```

   c. Tune the GlassFish Message Queue broker properties by editing the bottom of the `config.properties` file (`/var/imq/instances/imqbroker/props/config.properties` on Solaris OS and `/var/opt/sun/mq/instances/imqbroker/props/config.properties` on Red Hat Linux) to contain the following information.

You might need to check the file permissions and change them to be writeable if set to read-only. The defaults for these settings appear in the `default.properties` file (`/usr/share/lib/imq/props/broker/default.properties` on Solaris OS and `/opt/sun/mq/private/share/lib/props/broker/default.properties` on Red Hat Linux).

```
imq.portmapper.backlog=-1
imq.autocreate.destination.limitBehavior=REMOVE_OLDEST
imq.autocreate.destination.maxNumProducers=-1
imq.autocreate.reaptime=7200
imq.destination.DMQ.truncateBody=true
imq.jms.max_threads=2000
```

d. Ensure that the Message Queue broker is restarted to acquire the new settings:

```
/etc/init.d/imq stop
nohup /etc/init.d/imq start
```

7. Complete the ISS Installation

Use the tasks in this section to complete the ISS installation on either a single host or multiple hosts.

To Configure Indexing and Search Service on a Single Host

1. Change to the `jiss/bin` directory, for example:

```
cd /opt/sun/comms/jiss/bin
```

2. Run the initial configuration.

```
./setup
```

3. Answer the series of configuration prompts.
4. Restart GlassFish Server.

```
cd /opt/SUNWappserver/bin
./asadmin stop-domain domain1
./asadmin start-domain domain1
```

For more information, see Indexing and Search Service Initial Configuration.

To Configure Indexing and Search Service on Multiple Hosts

For multi-host deployments, see Using setup in a Multi-host Environment.

8. Index (Bootstrap) Users

Use the issadmin.sh --bootstrap command to index users.

For example, to index a single user:

```
# ./issadmin.sh --bootstrap --user <username> --host <hostname>
--runoptimizer true
```

To index a list of users, 16 users at time:

```
# ./issadmin.sh --bootstrap --accountlist /tmp/accountlist.txt --threads
16 --runoptimizer true --altoutput /tmp/parallelbootstrap.log
```

9. Verify the ISS Installation

1. You can search a user's content by accessing it in a browser at the following URL:

   ```
   http://<host>:<port>/rest
   ```

   Log in as the user or proxy auth as the read-only store admin user (`mail.imap.admin.username`, `mail.imap.admin.username`).

2. To view a demo web application utilizing the ISS API, try the SearchUI link or access the following URL in a browser:

   ```
   http://<host>:<port>/searchui
   ```

   Try a search such as `+body:java` to search for attachments from email with the word "java" in the body.

3. Finally, send a new email message to an indexed user and confirm that the new message appears in the search.

10. (Optional) Configure Messaging Server to Use ISS for IMAP SEARCH

1. Set `service.imap.indexer.enable` to 1, which redirects IMAP SEARCH queries to ISS for fulfillment:

   ```
   cd <msg-svr-base>/bin
   ./configutil -o service.imap.indexer.enable -v 1
   ```

2. Restart Messaging Server.

   ```
   ./stop-msg
   ./start-msg
   ```

11. (Optional) Configure Convergence to Use ISS

See Convergence Administrative Tasks#Enabling Indexing and Search Service.

1. Configure Convergence to provide the ISS attachment interface.

```
cd /opt/sun/comms/iwc/sbin
./iwcadmin -w <password> -o ISS.enable -v true
./iwcadmin -w <password> -o ISS.enablessl -v true (if SSL to be
used)
./iwcadmin -w <password> -o ISS.host -v <ISS-web-frontend-FQDN>
./iwcadmin -w <password> -o ISS.port -v <ISS-web-frontend-port>
./iwcadmin -w <password> -o ISS.proxyadminid -v <value of ISS's
mail.imap.admin.username>
./iwcadmin -w <password> -o ISS.proxyadminpwd -v <plaintext
password for mail.imap.admin.username>
```

ISS-web-frontend-port is the web component port number on which ISS is deployed (and should be the same as the port number for `appserver.web.port` in the `jiss.conf` file). Typically, the port number is 8080.

2. If you are deploying Convergence and ISS on the same host and on the same GlassFish Server web container, you must increase the number of GlassFish Server request processing threads to two times the number of CPUs on the system.
   a. Determine the number of CPUs on the system.
      - Red Hat Linux:

        ```
        cat /proc/cpuinfo | grep processor | wc -l
        ```

      - Solaris OS:

        ```
        mpstat | grep -v CPU | wc -l
        ```

   b. Set the number of request processing threads to two times the number of CPUs determined above. If the number of CPUs is 4 or less, set this number to 8.

      ```
      cd /opt/SUNWappserver/bin
      ./asadmin set
      server.http-service.request-processing.thread-count=<2 x
      number-of-cpus>
      ```

3. Restart GlassFish Server.

   ```
   cd /opt/SUNWappserver/bin
   ./asadmin stop-domain domain1
   ./asadmin start-domain domain1
   ```

Uninstalling ISS

1. To uninstall the Indexing and Search Service installed on the local machine, run the `setup -u` command, for example:

```
# cd <iss-base>/bin
# ./setup -b <iss-base> -u
Logfile is: /var/tmp/jiss.install.13067
No setup type found, defaulting to all
Removing single-sign on
Undeploying JISS wars to Appserver
Stopping JISS services
Removing Apache if required
Removing up mq entries
Removing up ldap entries
-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
All configurations have been run successfully
-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
```

2. If necessary, uninstall the Communications Suite packages.
   See Uninstalling Communications Suite for more information.

ISS Installation Command-Line Reference

- check_conf.sh Usage
- configure_etc.pl Usage
- setup Usage
- verify_conf.pl Usage
- configure_web_node Usage

Troubleshooting Indexing and Search Service Installation Problems

- Initial ISS Troubleshooting
- Troubleshooting ISS Configuration Problems

Initial ISS Troubleshooting

If you encounter problems during the initial ISS configuration, it might be helpful to run the setup uninstall, adjust the initial configuration, and re-attempt the setup. See setup Usage for more information.

Troubleshooting ISS Configuration Problems

This section describes how to troubleshoot installation problems without using the `setup` utility.

1. Change to the *iss-base*`/bin` directory.
2. Copy the example configuration file.

```
cp ../etc/jiss.conf.example myfile.conf
```

3. Edit the `myfile.conf` with your configuration details.
4. Move the existing configuration files.

```
mv ../etc/jiss.conf ../etc/jiss.conf.backup
mv ../etc/jiss_passwd.conf ../etc/jiss_passwd.conf.backup
```

5. Run the `configure_etc.pl` script to create new `jiss.conf` and `jiss.password` files.

```
./configure_etc.pl -c myfile.conf -A
```

6. Run the `verify_data.pl` script to check the *iss-base*`/etc/jiss.conf` and *iss-base* `/etc/jiss_passwd.conf` files for all required parameters and formating.

```
./verify_data.pl
```

7. Run the `verify_conf.pl` script to check if needed services are running and can be authenticated with provided credentials.

```
./verify_conf.pl
```

8. If all these steps passed, run `setup` to configure the system.

```
./setup -b <iss-base>
```

See Indexing and Search Service Troubleshooting for more information.

About Apache HTTP Server Version 2

About Apache HTTP Server Version 2

When installing Indexing and Search Service for Oracle Communications Unified Communications Suite 1 Update 1 in a multi-host deployment, you need to install and configure Apache HTTP Server version 2 on the host(s) functioning as the ISS back end(s). That is, you need Apache on the host(s) that offer the Indexing Tier services (`searchSvc` for searching; `indexSvc` for adding new users and processing mail server events; and `jmqconsumer` for listening to the Messaging Server JMQ for events to process and send to `indexSvc`).

- **Solaris 10 OS:** Make sure that you have installed the package metacluster `SUNWCapache` from your Solaris OS media. For more information, refer to the Solaris OS product documentation.
- **Red Hat Linux:** You need to install the RPM `httpd` from the Red Hat Linux media. For instructions, refer to the Red Hat product documentation.

check_conf.sh Usage

check_conf.sh Usage

The `check_conf.sh` utility verifies that the needed Indexing and Search Service services are running and that the password provided is able to authenticate to the service. The utility reads the *iss_base* `/etc/jiss.conf` file and the *iss_base*`/etc/jiss_passwd.conf` file for configurations.

Location: *iss-base*`/bin/check_conf.sh`

Syntax

```
check_conf.sh [ -v ] [ -h ] [ -t TYPE ]
```

Options

These are the options for this command:

Option	Description
`-t` *TYPE*	Optional. Defaults to `all`. The type of service to check: `all`: All components `web`: Checks GlassFish configurations `jmq`: Checks Oracle Glassfish Message Queue configurations `ldap`: Checks Directory Server configurations `index`: Checks Index and starts Indexing services `ms`: Checks message store configurations
`-v`	Optional. Enable shell debugging.
`-h`	Optional. Prints help text.

Exit code 0 indicates a success.
Exit code 1 indicates a failure.

Arguments can appear in any order.

Example

Single machine install:

```
# /opt/sun/comms/jiss/bin/check_conf.sh
```

configure_etc.pl Usage

configure_etc.pl Usage

The `configure_etc.pl` utility is used to generate the Indexing and Search Service *iss_base* `/etc/jiss.conf` and *iss_base*`/etc/jiss_passwd.conf` files. This script reads in *iss_base* `/etc/jiss.conf.template` for default values. If no configuration file is provided at run time, you are prompted to enter all information. If a configuration file is provided at run time and required parameters are missing, you are prompted for a value.

Requirements: Must be root user.

Location: *iss-base*`/bin/configure_etc.pl`

Syntax

```
configure_etc.pl [ -b <BASEDIR> ] [ -f <CONF_FILE> ] [ -l ] [ -i <FQDN>
] [ -O ] [ -A ] [ -t <TYPE> ] [ -s ]
```

Options

These are the options for this command:

Option	Description
`-b` *BASEDIR*	Required. Specifies the base directory of the installation.
`-f` *CONF_FILE*	Optional. Specifies a file from which to read configuration information for the `jiss.conf` file.
`-l`	Optional. Use local host for `jmq` and `ldap` host names. `/bin/hostname` must return a fully qualified domain name.
`-i` *FQDN*	Optional. Fully qualified domain name to use for host name.
`-O`	Optional. Overwrites the current `jiss.conf` and `jiss_passwd.conf` files.
`-A`	Optional. Prompts for all configurations.
`-t` *TYPE*	Optional. Defaults to `all`. The type of install or uninstall to perform: `all`: All components `web`: Configures GlassFish `jmq`: Configures Oracle GlassFish Message Queue `ldap`: Configures Directory Server `index`: Configures index and starts indexing services `ms`: Configures Message Store Directory Server
`-s`	Optional. Skips validation steps.
`-u`	Optional. Specifies to run in UNINSTALL mode.

Arguments can appear in any order.

Examples

Generate configuration:

```
# /opt/sun/comms/jiss/bin/configure_etc.pl
```

Generate configuration by overwriting current configuration:

```
/opt/sun/comms/jiss/bin/configure_etc.pl -O
```

Read values from a configuration file:

```
# /opt/sun/comms/jiss/bin/configure_etc.pl -f my.conf
```

Generate new configuration file and prompt for all values:

```
# /opt/sun/comms/jiss/bin/configure_etc.pl -A -O
```

configure_web_node Usage

configure_web_node Usage

This utility updates the `httpd.conf` file running under the `iss.user` and `iss.group` context to allow or deny access to the Indexing and Search Service attachment store. Use this utility only in multi-machine deployments where the attachment store is not on the same host as GlassFish Server.

Location: *iss-base*`/bin/configure_web_node`

Syntax

```
configure_web_node [ -a | -d ] [ IP | IP | IP ... ]
```

Options

These are the options for this command:

Option	Description
`-a`	Optional. Allows access for listed IP addresses.
`-d`	Optional. Removes access for listed IP addresses.

Examples

Add an IP address:

```
# <iss-base>/configure_web_node -a 10.10.10.10
```

Remove an IP address:

```
# <iss-base>/configure_web_node -d 10.10.10.10
```

Add multiple IP addresses:

```
# <iss-base>/configure_web_node -a 10.10.10.10 10.10.10.11 10.10.10.12
```

Preparing Messaging Server for Indexing and Search Service Integration

< Back to Installation Scenario - Indexing and Search Service

Preparing Messaging Server for Indexing and Search Service Integration

The following instructions describe how to prepare and configure Messaging Server for integration with Indexing and Search Service.

1. Assign read-only store administrator privileges to the ISS proxy auth user (by default named `indexeradmin`).

```
cd <msg-svr-base>/bin
./configutil -o store.indexeradmins -v indexeradmin
```

2. Configure the GlassFish Message Queue broker on Messaging Server.
   a. Ensure that the GlassFish Message Queue broker is running and enabled to start at reboot. Edit the `imqbrokerd.conf` file (`/etc/imq/imqbrokerd.conf` on Solaris Operating System (Solaris OS) and `/etc/opt/sun/mq/imqbrokerd.conf` on Red Hat Linux) to contain the following information. You might need to check the file permissions and change them to be writeable if set to read-only.

```
AUTOSTART=YES
ARGS=-vmargs -Xmx1024m
RESTART=YES
```

   b. If the `config.properties` file (`/var/imq/instances/imqbroker/props/config.properties` on Solaris OS and `/var/opt/sun/mq/instances/imqbroker/props/config.properties` on Red Hat Linux) does not yet exist, start the IMQ broker for the first time to generate it.

```
/etc/init.d/imq start
```

   c. Tune the GlassFish Message Queue broker properties by editing the bottom of the `config.properties` file (`/var/imq/instances/imqbroker/props/config.properties` on Solaris OS and `/var/opt/sun/mq/instances/imqbroker/props/config.properties` on Red Hat Linux) to contain the following information. You might need to check the file permissions and change them to be writeable if set to read-only. The defaults for these settings appear in the `default.properties` file (`/usr/share/lib/imq/props/broker/default.properties` on Solaris OS and `/opt/sun/mq/private/share/lib/props/broker/default.properties` on Red Hat Linux).

```
imq.portmapper.backlog=-1
imq.autocreate.destination.limitBehavior=REMOVE_OLDEST
imq.autocreate.destination.maxNumProducers=-1
imq.autocreate.reaptime=7200
imq.destination.DMQ.truncateBody=true
```

d. Ensure that the Message Queue broker is restarted to acquire the new settings:

```
/etc/init.d/imq stop
/etc/init.d/imq start
```

e. Use the `imqusermgr` command to create a Message Queue user, referred to later in `local.store.notifyplugin.index.jmquser` on Messaging Server and `mail.imq.user` in ISS.
Solaris OS:

```
# /usr/bin/imqusermgr add -u <jmquser> -p <jmquserpassword> -g
user
```

Red Hat Linux:

```
# /opt/sun/mq/bin/imqusermgr add -u <jmquser> -p
<jmquserpassword> -g user
```

f. Reset the default account passwords, if not already reset:
Solaris OS:

```
# /usr/bin/imqusermgr update -u admin -p <adminpassword>
# /usr/bin/imqusermgr update -u guest -p <guestpassword>
```

Red Hat Linux:

```
# /opt/sun/mq/bin/imqusermgr update -u admin -p
<adminpassword>
# /opt/sun/mq/bin/imqusermgr update -u guest -p
<guestpassword>
```

3. Configure Java Messaging Queue (JMQ) notifications on Messaging Server to produce event notifications of real-time changes to the Messaging Server store for ISS to consume.

> **Note**
> ISS requires JMQ software. If you are currently running ENS for IMAP IDLE, you need to run both ENS and JMQ. In other words, ENS and JMQ are independent. You can use ENS for IMAP IDLE and JMQ for ISS. Prior to Messaging Server 7 Update 4, you can use JMQ for both IMAP IDLE and ISS. Starting with Messaging Server 7 Update 4, IMAP IDLE only supports ENS.

a. Set the `local.store.notifyplugin configutil` parameter to include a JMQ notification plugin named `index`.
If you have already enabled `local.store.notifyplugin`, add the following entry for

ISS to what is already specified so that you do not overwrite the existing setting. For example, if `local.store.notifyplugin` is already set, run the following commands:

```
# cd <msg-svr-base>/bin
# ./configutil -o local.store.notifyplugin
lib/libibiff$ms-internal$
# ./configutil -o local.store.notifyplugin -v
'lib/libibiff$ms-internal$lib/libjmqnotify$index'
```

If `local.store.notifyplugin` is not already set, set it as follows:

```
# cd <msg-svr-base>/bin
# ./configutil -o local.store.notifyplugin
# ./configutil -o local.store.notifyplugin -v
'lib/libjmqnotify$index'
```

For more information about the syntax of `local.store.notifyplugin` consult the Messaging Server configutil Parameters Reference or run
`cd <msg-svr-base>/bin`
`./configutil -o local.store.notifyplugin -H`

b. Configure the following settings for the `index` JMQ notification plugin, replacing `<jmquser>` with the JMQ user and `<jmquserpassword>` with the JMQ user password. Note that time values are in milliseconds.

```
# cd <msg-svr-base>/bin
./configutil -o
local.store.notifyplugin.index.annotatemsg.enable -v 0
./configutil -o
local.store.notifyplugin.index.changeflag.enable -v 1
./configutil -o local.store.notifyplugin.index.copymsg.enable
-v 1
./configutil -o local.store.notifyplugin.index.debuglevel -v 0
./configutil -o
local.store.notifyplugin.index.deletemsg.enable -v 0
./configutil -o local.store.notifyplugin.index.destinationtype
-v queue
./configutil -o
local.store.notifyplugin.index.expungemsg.enable -v 1
./configutil -o local.store.notifyplugin.index.jmqhost -v
127.0.0.1
./configutil -o local.store.notifyplugin.index.jmqport -v 7676
./configutil -o local.store.notifyplugin.index.jmqpwd -v
<jmquserpassword>
./configutil -o local.store.notifyplugin.index.jmqtopic -v
INDEXMS
./configutil -o local.store.notifyplugin.index.jmquser -v
<jmquser>
./configutil -o local.store.notifyplugin.index.loguser.enable
-v 0
./configutil -o local.store.notifyplugin.index.maxbodysize -v
262144
./configutil -o local.store.notifyplugin.index.maxheadersize
-v 16384
./configutil -o local.store.notifyplugin.index.msgflags.enable
-v 0
./configutil -o local.store.notifyplugin.index.msgtypes.enable
-v 0
./configutil -o local.store.notifyplugin.index.newmsg.enable
-v 1
./configutil -o
local.store.notifyplugin.index.noneinbox.enable -v 1
./configutil -o local.store.notifyplugin.index.persistent -v 0
./configutil -o local.store.notifyplugin.index.priority -v 4
./configutil -o local.store.notifyplugin.index.purgemsg.enable
-v 0
./configutil -o local.store.notifyplugin.index.readmsg.enable
-v 0
./configutil -o
local.store.notifyplugin.index.updatemsg.enable -v 1
./configutil -o local.store.notifyplugin.index.ttl -v 3600000
./configutil -o local.store.notifyplugin.msgflags -v 1
```

Note
If you are deploying ISS on multiple back ends, set the `local.store.notifyplugin.index.destinationtype` parameter to **`topic`** rather than queue.

> **Caution**
> If you are using ISS and IMAP IDLE together and if you are using ENS rather than JMQ for IMAP IDLE, verify that the following ENS parameters are still set correctly. The `local.store.notifyplugin` parameter should include `libibiff` and `service.imap.ensidle` should be set to `1`.

c. Important: For Messaging Server 7 Update 3 or earlier versions, if you have changed the guest password for the IMQ broker from its default value and you do not have ENS enabled for IDLE, you might also need to either disable IDLE and `imkill` over JMQ, or provide a valid JMQ user name and password for their configuration.

- To disable IDLE and KILL over JMQ, run the following:

```
# cd <msg-svr-base>/bin
# ./configutil -o service.imap.ensidle -v 1
```

  This setting does not enable ENS. Instead, it merely disables IDLE and `imkill` over JMQ.

- To provide a valid JMQ user name and password for IDLE and JMQ, run the following:

```
# cd <msg-svr-base>/bin
# ./configutil -o service.imap.idle.jmquserid -v
<jmquser>
# ./configutil -o service.imap.idle.jmqpassword -v
<jmquserpassword>
# ./configutil -o local.store.notifyplugin.idle.jmquser
-v <jmquser>
# ./configutil -o local.store.notifyplugin.idle.jmqpwd -v
<jmquserpassword>
```

  > **Note**
  > In Messaging Server 7 Update 4, the parameters `service.imap.idle.jmquserid` and `service.imap.idle.jmqpassword` might be obsolete and might send a warning message if you attempt to set them. For Messaging Server 7 Update 4, run these commands instead:
  > ```
  > # cd <msg-svr-base>/bin
  > # ./configutil -o
  > local.store.notifyplugin.idle.jmquser -v <jmquser>
  > # ./configutil -o
  > local.store.notifyplugin.idle.jmqpwd -v
  > <jmquserpassword>
  > ```

- If you skip this step, but the following messages appear in the IMAP log after you restart Messaging Server, you must perform one of the previous two options.

```
[09/Apr/2009:22:59:05 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:16 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:26 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:37 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:47 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:58 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker connection is closed
```

d. To make the changes effective, restart Messaging Server. For example:

```
# cd <msg-svr-base>/bin
# ./stop-msg
# ./start-msg
```

e. Verify that the JMQ index plugin is working by checking for an entry such as the following in the *msg-srv-base*/`log/imap` log:

```
[16/Apr/2009:13:27:03 -0700] mailhost imapd[16589]: General
Notice: jmqNotify plugin loaded: index
[16/Apr/2009:13:27:04 -0700] mailhost imapd[16589]: General
Warning: Sun Java(tm) System Messaging Server IMAP4 7u2-7.02
64bit (built Apr 16 2009) starting up
```

f. Verify that no login errors have occurred on the IMQ broker by checking the `/var/imq/instances/imqbroker/log/log.txt` file. For example:

```
[06/Apr/2009:19:51:32 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65220->jms:63268. Count: service=1 broker=1
[06/Apr/2009:19:51:33 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65223->jms:63268. Count: service=2 broker=2
[06/Apr/2009:19:51:34 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65226->jms:63268. Count: service=3 broker=3
[06/Apr/2009:19:51:34 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65228->jms:63268. Count: service=4 broker=4
[06/Apr/2009:19:51:35 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65232->jms:63268. Count: service=5 broker=5
```

g. Verify that Messaging Server has producers connected to the INDEXMS destination:

```
# imqcmd list dst
Username: admin
Password:
Listing all the destinations on the broker specified by:

-------------------------
Host         Primary Port
-------------------------
localhost    7676

-----------------------------------------------------------------
Name      Type    State      Producers        Consumers
Msgs
                             Total  Wildcard  Total  Wildcard
Count  Remote  UnAck  Avg Size
-----------------------------------------------------------------
Queue  RUNNING  24     -         0      -         0      0
0      0.0
mq.sys.dmq   Queue  RUNNING  0      -         0      -
0      0       0      0.0

Successfully listed destinations.
```

h. For more information, see JMQ Notification.

4. Prepare, but do not enable, Messaging Server to forward IMAP SEARCH queries to ISS.

ISS IMAP SEARCH configutil Parameters

Parameter	Description	Default Value
`service.imap.indexer.hostname`	Name of host providing ISS RESTful search service	`NULL` (must be configured if `service.imap.indexer.enable` is set)
`service.imap.indexer.port`	Port number of ISS RESTful search service	`8080`
`service.imap.indexer.enable`	Whether Messaging Server should be activated, diverting IMAP SEARCH requests to ISS	0

> **Note**
> After ISS has been enabled, and users have been indexed and searching has been verified, this step is revisited to set `service.imap.indexer.enable` to `1` so that the setting then redirects IMAP SEARCH queries to ISS for fulfillment.

a. Before ISS is enabled, apply the following settings:

```
# cd <msg-svr-base>/bin
# ./configutil -o service.imap.indexer.hostname -v
<iss-web-frontend-host-name>
# ./configutil -o service.imap.indexer.port -v
<iss-web-frontend-port-number>
# ./configutil -o service.imap.indexer.enable -v 0
```

b. To make the changes effective, restart Messaging Server. For example:

```
# cd <msg-svr-base>/bin
# ./stop-msg
# ./start-msg
```

5. Return to Installation Scenario - Indexing and Search Service#4. Prepare Messaging Server for Indexing and Search Service Integration.

setup Usage

setup Usage

> This utility was renamed to simply `setup` in **Indexing and Search Service 1 Update 2**. In previous releases, the utility was called `setup.sh`.

The `setup` utility configures and starts all services for Indexing and Search Service. This script expects all supporting services to be running, including:

- GlassFish Server
- GlassFish Message Queue
- Directory Server (for ISS and Messaging Server message store)

Requirements: Must be root.

Location: *iss-base*`/bin/setup`

Syntax

```
setup [ -u ] [ -v ] [ -O ] [ -b basedir ] [ -c | -f save_state ]
    [ -l logfile ] [ -t web,index,jmq,ldap,cluster,all ]
    [ -i isshost ] [ -L ] [ -S save_state ] [ -C clusterfile ]
    [ -s ]
```

> The `-s` and `-C clusterfile` options were introduced in **Indexing and Search Service 1 Update 2**.

Options

These are the options for this command:

Option	Description
`-u`	Optional. Specifies to run in UNINSTALL mode.
`-b` *BASEDIR*	Required. Specifies the base directory of the installation.
`-S` *STATEFILE*	Optional. Generates state file based on install. A sample file can be found at *iss-base*`/lib/saveState.example`.
`-l` *LOGFILE*	Optional. Defaults to `/var/tmp/jiss-install.`*pid*.
`-i` *ISSHOST*	Optional. Fully qualified domain name to use for host name.
`-c` *STATEFILE*	Optional. Specifies a file from which to read configuration information for a non-interactive install.
`-f` *STATEFILE*	Optional. Specifies a file from which to read configuration information for a non-interactive install.
`-L`	Optional. Use `/bin/hostname` for the ISS machine name, `/bin/hostname` must return a FQDN.
`-C` *CLUSTER_FILE*	Optional. Generate a cluster configuration file based on current `jiss.conf` file.
`-t` *TYPE*	Optional. Defaults to `all`. The type of install or uninstall to perform, can be a comma separated list: `all`: All components `web`: Configure GlassFish Server `jmq`: Configure GlassFish Message Queue `ldap`: Configure Directory Server `cluster`: Configure Cluster Services `index`: Configure Index and start indexing services
`-O`	Optional. Overwrites the `jiss.conf` and `jiss_passwd.conf` if present.
`-s`	Optional. Install but do not start index services.
`-v`	Optional. Enables shell debugging.
`-h`	Optional. Prints help text.

Arguments can appear in any order.

Examples

Install and configure all services:

```
# /opt/sun/comms/jiss/bin/setup -t all
```

Uninstall:

```
# /opt/sun/comms/jiss/bin/setup -u
```

Install and configure all services and save a corresponding state file:

```
# /opt/sun/comms/jiss/bin/setup -S saveState
```

Install and take options from a state file for a non-interactive install:

```
# /opt/sun/comms/jiss/bin/setup -c saveState
```

Install and overwrite existing configuration:

```
# /opt/sun/comms/jiss/bin/setup -O
```

Install and use host to answer ISS questions:

```
#  /opt/sun/comms/jiss/bin/setup -i isshost.example.com
```

Generate a cluster configuration file:

```
# /opt/sun/comms/jiss/bin/setup -C iss1-cluster.conf
```

Set up only `ldap` and `jmq` configurations:

```
# /opt/sun/comms/jiss/bin/setup -t ldap,jmq
```

verify_conf.pl Usage

verify_conf.pl

The `verify_conf.pl` utility is used to verify the *iss_base*`/etc/jiss.conf` and *iss_base* `/etc/jiss_passwd.conf` files for Indexing and Search Service. The utility checks for required parameters and formatting.

Location: *iss-base*`/bin/verify_conf.pl`

Syntax

```
verify_conf.pl [ -f <JISS_CONF> ] [ -p <PASSWD_CONF> ][ -v ] [ -h ]
```

Options

These are the options for this command:

Option	Description
`-f` *JISS_CONF*	Optional. Location of `jiss.conf` file, assumes `../etc/jiss.conf` if not provided.
`-p` *PASSWD_CONF*	Optional Location of `jiss_passwd.conf` file, assumes `../etc/jiss_passwd.conf` if not provided.
`-v`	Optional. Enables shell debugging.
`-h`	Optional. Prints help text.

Exit code 0 indicates a success.
Exit code 1 indicates a failure.

Arguments can appear in any order.

Example

```
# cd <iss-base>/bin
# ./verify_data.pl
# ./verify_data.pl -f /var/tmp/jiss-test.conf -p
/var/tmp/jiss-passwd-test.conf
```

Chapter 15. Installation Scenario - Instant Messaging Server

Installation Scenario - Oracle Communications Instant Messaging Server Version 8 Update 3

Topics:

- Assumptions
- Deploying an Instant Messaging Multiplexor and Server on One Host
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install an instance of Oracle Communications Instant Messaging Server on a separate host. It is based on the *Install Instant Messaging Server* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Instant Messaging server is one functional component of your multi-host deployment.
- You are installing the Instant Messaging server on a separate host or Solaris zone; you are not bundling Instant Messaging with Communication Suite products on the same host.
- If you are distributing multiple instances of the Instant Messaging server across several hosts or zones, you can follow these instructions for each host on which you install the Instant Messaging server.

Deploying an Instant Messaging Multiplexor and Server on One Host

What if you intend to deploy a single-server instance of Instant Messaging (that is, an Instant Messaging deployment with both a multiplexor and IM server running on this host)?

Use the following procedure. However, when you run the Instant Messaging configuration program, do not select the Disable Server option.

Which Software Components and Downloads Do You Need?

- Communications Suite: for Instant Messaging

Download sites: Get the Software.

Which Task Sequence Do You Follow?

To install and configure the Instant Messaging Server:

1. Run the Communications Suite installer.
   When the Communications Suite Installer lists the components to install, choose the following

component: Instant Messaging 8 Update 3

2. Make sure that the other components are not selected.
3. Use the following worksheet to gather configuration information for the Instant Messaging server: Configuration Worksheets - Instant Messaging
4. Run the Instant Messaging initial configuration program:
   INSTALLROOT`/sbin/configure`
   For detailed instructions, see Instant Messaging Initial Configuration.
5. When the Instant Messaging `configure` program runs, the default port numbers are displayed.
6. Do not select the Disable Server option.

Chapter 16. Installation Scenario - Instant Messaging Server Multiplexor

Installation Scenario - Oracle Communications Instant Messaging Server Multiplexor Version 8 Update 3

Topics:

- Assumptions
- Deploying a Single-Server Instance of Instant Messaging Server
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install an instance of the Oracle Communications Instant Messaging Server multiplexor on a separate host. It is based on the *Install Instant Messaging Multiplexor* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Instant Messaging multiplexor is one functional component of your multi-host deployment.
- You are installing the Instant Messaging multiplexor on a separate host or Solaris zone. You are not bundling Instant Messaging with Communication Suite products on the same host.
- If you are distributing multiple instances of the Instant Messaging multiplexor across several hosts or zones, you can follow these instructions for each host on which you install the Instant Messaging multiplexor.

Deploying a Single-Server Instance of Instant Messaging Server

What if you intend to deploy a single-server instance of Instant Messaging (that is, an Instant Messaging deployment with both a multiplexor and IM server running on this host)?

Use the following procedure. However, when you run the Instant Messaging configuration program, do not select the **Disable Server** option.

Which Software Components and Downloads Do You Need?

- Communications Suite: for Instant Messaging

Download sites: Get the Software.

Which Task Sequence Do You Follow?

To install and configure the Instant Messaging multiplexor:

1. Run the Communications Suite installer.
   When the Communications Suite Installer lists the components to install, choose the following

component: Instant Messaging 8 Update 3

2. Make sure that the other components are not selected.
3. Use the following worksheet to gather configuration information for the Instant Messaging multiplexor: Configuration Worksheets - Instant Messaging
4. Run the Instant Messaging initial configuration program:
   INSTALLROOT`/im/configure`
   For detailed instructions, see Instant Messaging Initial Configuration.
5. When the Instant Messaging `configure` program runs, type the Multiplexor Port Number.
   This is the port number on which Instant Messaging Server listens for incoming requests from Instant Messenger clients. The default port is 5222.
6. Select the Disable Server option.
   Select this option if the instance you are installing acts as a multiplexor and not a server. If you select this option, you must provide a value for Remote Instant Messaging Server Host Name.
7. When the Remote Instant Messaging Server Host Name option appears, type the host name of the Instant Messaging server for which this multiplexor routes messages.
   (If the multiplexor and server are installed on the same host, use `localhost`. (Solaris Only) If you will be configuring High Availability service for Instant Messaging, use the logical host's name.)
   Dependencies: This option is not available unless the Disable Server parameter has been be selected. That is, server functionality must be disabled on this host.

Chapter 17. Installation Scenario - Message Store

Installation Scenario - Message Store

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install the Messaging Server back-end message store on a separate host. It is based on the *Install back-end message store* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Messaging Server back-end message store is one functional component of your multi-host deployment.
- You are installing the message store on a separate host or Solaris zone; you are not bundling the message store with Communication Suite products on the same host.
- If you are distributing multiple partitions of the message store across several hosts or zones, you can follow these instructions for each host on which you install store partitions.

Which Software Components and Downloads Do You Need?

- Communications Suite: for the Messaging Server message store

Download sites: Get the Software.

Which Task Sequence Do You Follow?

Before you install the message store, take these steps:

1. Ensure tht DNS is running and configured properly.
   For details, see DNS configuration.
2. Recommended file systems for the message store are listed here.
3. Make sure you do not configure conflicting port numbers on a machine when various components are running on a single machine. For a list of port numbers used by Messaging Server, see Default Port Numbers.

Install and configure the message store:

1. Run the Communications Suite installer.
   When the Communications Suite Installer lists the components to install, choose Messaging Server 7 Update 4.
2. Use the following worksheet to gather configuration information for the message store:
   Configuration Worksheets - Messaging Server
3. Run the Messaging Server initial configuration program:
   INSTALLROOT`/messaging64/bin/configure`
   For detailed instructions, see Messaging Server Initial Configuration.

4. If you are not also using the Webmail server on this message store, disable it with by running the following command:
   `configutil -o local.http.enable -v 0`
5. If you are configuring LMTP, see To Configure LMTP Deliver.

Chapter 18. Installation Scenario - Message Transfer Agent

Installation Scenario - Message Transfer Agent (MTA)

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install the Message Transfer Agent (MTA) on a separate host. It is based on the *Install MTA Relay In* and *Install MTA Relay Out* leaves in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This MTA relay in and MTA relay out is one functional component of your multi-host deployment.
- You are installing the MTA on a separate host or Solaris zone; you are not bundling the MTA with other Communications Suite products on the same host.
- If you are distributing multiple instances of the MTA across several hosts or zones, you can follow these instructions for each host on which you install the MTA.

Which Software Components and Downloads Do You Need?

- Communications Suite: for the Messaging Server MTA

Download sites: Get the Software.

Which Task Sequence Do You Follow?

Before you install the MTA, take these steps:

1. Ensure that DNS is running and configured properly. For details, see DNS configuration.
2. Make sure you do not configure conflicting port numbers on a machine when various components are running on a single machine. For a list of port numbers used by Messaging Server, see Default Port Numbers.

Install and configure the MTA:

1. Run the Communications Suite installer.
   When the Communications Suite Installer lists the components to install, choose Messaging Server 7 Update 4.
2. Use the following worksheet to gather configuration information for the MTA: Configuration Worksheets - Messaging Server
3. Run the Messaging Server initial configuration program:
4. *INSTALLROOT*`/messaging64/bin/configure`
   For detailed instructions, see Messaging Server Initial Configuration.
5. Disable the Message Store and Webmail Server by running the following commands.

```
configutil -o local.store.enable -v 0
configutil -o service.http.enable -v 0
```

6. Configure the relay for the kind of traffic you are dealing with and the kind of traffic shaping you need.
   For example, if your inbound relay needs to use LMTP, configure your deployment accordingly.

Chapter 19. Installation Scenario - Messaging Multiplexor

Installation Scenario - Messaging Multiplexor (MMP) Front End

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install the Messaging Multiplexor (MMP) front-end on a separate host. It is based on the *Install MMP front end* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This MMP front end is one functional component of your multi-host deployment.
- You are installing the MMP on a separate host or Solaris zone; you are not bundling the MMP with other Communication Suite products on the same host.
- If you are distributing multiple instances of the MMP partitions across several hosts or zones, you can follow these instructions for each host on which you install the MMP.
- You are installing only the MMP front end; you are not installing message store or SMTP functions.

Which Software Components and Downloads Do You Need?

- Communications Suite: for the Messaging Server MMP front end

Download sites: Get the Software.

Which Task Sequence Do You Follow?

Before you install the MMP, take these steps:

1. Ensure that DNS is running and configured properly. For details, see DNS configuration.
2. Make sure you do not configure conflicting port numbers on a machine when various components are running on a single machine. For a list of port numbers used by Messaging Server, see Default Port Numbers.

Install and configure the MMP:

1. Run the Communications Suite installer.
   When the Communications Suite Installer lists the components to install, choose Messaging Server (64-bit) 7 Update 4.
2. Make sure that the other components are not selected.
3. Use the following worksheet to gather configuration information for the MMP: Configuration Worksheets - Messaging Server
4. Run the Messaging Server initial configuration program:

INSTALLROOT`/messaging64/bin/configure`

For detailed instructions, see Messaging Server Initial Configuration.

5. Enable the MMP and disable other product components by running the following commands:

```
configutil -o local.mmp.enable -v 1
configutil -o local.store.enable -v 0
configutil -o local.imta.enable -v 0
configutil -o service.http.enable -v 0
```

Chapter 20. Installation Scenario - Messaging Server Webmail Server

Installation Scenario - Messaging Server Webmail Server Version 7 Update 4

Assumptions

This scenario shows how to install the Messaging Server Webmail Server (`mshttpd`) on a separate host. The Webmail Server acts as a front end that handles the HTTP protocol retrieval of messages from the message store. This component is used by Convergence and Communication Express to provide web-based access to end users.

This scenario is based on the *Install Webmail Server* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Webmail Server is one functional component of your multi-host deployment.
- You are installing the Webmail Server on a separate host; you are not bundling the Webmail Server with other Communication Suite products on the same host.
- If you are distributing multiple Webmail Servers across several hosts, you can follow these instructions for each host on which you install the Webmail Server.
- You are installing only the Webmail Server front end; you are not installing message store or SMTP functions.

Which Software Components and Downloads Do You Need?

- Communications Suite: for the Webmail Server

Download sites: Get the Software.

Which Task Sequence Do You Follow?

Before you install the Webmail Server:

- Make sure you do not configure conflicting port numbers on a machine when various components are running on a single machine. For a list of port numbers used by Messaging Server, see Default Port Numbers.

Install and configure the Webmail Server:

1. Run the Communications Suite installer.
   When the Comms Installer lists the components to install, choose Messaging Server 7 Update 4. Make sure that the other components are not selected.
2. Use the following worksheet to gather configuration information for the Webmail Server: Messaging Server 7 Update 3 - Configuration Worksheet.
3. Run the Messaging Server initial configuration program:
   - For 32-bit (that is, Red Hat Linux only): `# INSTALLROOT/messaging/bin/configure`
   - For 64-bit (that is, Solaris OS only): `# INSTALLROOT/messaging64/bin/configure`

For detailed instructions, see Messaging Server Initial Configuration.

4. Disable the Message Store and MTA
```
configutil -o local.store.enable -v 0
configutil -o local.imta.enable -v 0
```
5. (Optional) Set the following `configutil` parameters.
   If you want to use a different store administrator or a non-standard IMAP port, use the following `configutil` parameters for the back-end IMAP server(s):

`configutil` Parameter	Description
`local.service.proxy.admin`	Default backend store administrator login name. (Restart of HTTP service required; Restart of IMAP service required). Syntax: string Default: `admin`
`local.service.proxy.adminpass`	Default store administrator password. (Restart of HTTP service required; Restart of IMAP service required). Syntax: string Default: *<admin.password>*
`local.service.imapport`	Default IMAP port number for backend store servers. (Restart of HTTP service required; Restart of IMAP service required). Syntax: integer Default: 143

Note
The Webmail Server can communicate with multiple back-end IMAP servers. If the IMAP servers use different values for these parameters are different, you must set individual `configutil` parameters for each host, as follows:

- `local.service.proxy.admin.`*hostname*
- `local.service.proxy.adminpass.`*hostname*
- `local.service.imapport.`*hostname*

where *hostname* is the name of the host on which each back-end IMAP server is running.

Examples

For one back-end IMAP server:

```
configutil -o local.service.proxy.admin -v myadmin
configutil -o local.service.proxy.adminpass -v <password>
configutil -o local.service.proxy.imapport -v 143
```

For multiple back-end IMAP servers:

```
configutil -o local.service.proxy.admin.host1.siroe.com -v admin1
configutil -o local.service.proxy.adminpass.host1.siroe.com -v
<password>
configutil -o local.service.proxy.imapport.host1.siroe.com -v 143

configutil -o local.service.proxy.admin.host2.siroe.com -v admin2
configutil -o local.service.proxy.adminpass.host2.siroe.com -v
<password>
configutil -o local.service.proxy.imapport.host2.siroe.com -v 143
```

Chapter 21. Installation Scenario - Oracle Communications Calendar Server Back End

Installation Scenario - Oracle Communications Calendar Server Back End
Version 6.3 (Formerly known as Sun Java System Calendar Server)

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install an instance of Calendar Server as a back end on a separate host. It is based on the *Install Calendar Server Back End* leaf in the Communications Suite Installation Flowchart. A Calendar Server back end stores the calendar databases.

The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Calendar Server back end is one functional component of your multi-host deployment.
- You are installing Calendar Server on a separate host or Solaris zone; you are not bundling Calendar Server with Communication Suite products on the same host.
- If you are distributing multiple instances of the Calendar Server back end across several hosts or zones, you can follow these instructions for each host on which you install the Calendar Server back end.

> **Deploying a Front End and Back End on One Host**
> What if you intend to deploy a single-server instance of Calendar Server (that is, a Calendar Server deployment with both a front end and back end running on this host)?
>
> To deploy a Calendar Server front end *and* back end together: Follow the procedure shown below. However, when you run the Calendar Server configuration program, when the **Set Up a Front End-Back End Deployment** screen is displayed, do not select the check box on this screen.

Which Software Components and Downloads Do You Need?

- Communications Suite: for Calendar Server

Download sites: Get the Software.

Which Task Sequence Do You Follow?

Before you install the Calendar Server back end:

Be sure you have planned for the following:

- Calendar Server Administrators
- Hosted Domains

For information about these topics, see Calendar Server Pre-Installation Planning.

Install and configure the Calendar Server back end:

1. Run the Communications Suite installer.
   When the Comms Installer lists the components to install, choose the following component:
   Calendar Server 6.3
   Make sure that the other components are not selected.
2. Use the following worksheet to gather configuration information for the Calendar Server back end:
   Calendar Server 6.3 - Configuration Worksheet
3. Run the Calendar Server initial configuration program:
   - Oracle Solaris: *INSTALLROOT* `/calendar/SUNWics5/cal/sbin/csconfigurator.sh`
   - Red Hat Linux: *INSTALLROOT*`/calendar/calendar/sbin/csconfigurator.sh`
     For detailed instructions, see Calendar Server 6.3: Initial Configuration.
4. When the Calendar Server `csconfigurator.sh` program displays the **Set Up a Front End-Back End Deployment** screen, select the check box.
   A Front End-Back End Deployment screen appears.
5. To configure this instance of Calendar Server as a back-end server, specify the **Service Port**. (Do not check the **Add a Host** box; that box is for configuring a front-end server.)
6. The **Service Port** box is pre-filled with the port named in the `ics.conf` parameters `service.dwp.server.hostname.port` and `service.dwp.port`.
   If you want to change the port number, enter the new port number in the **Service Port** box.
   For detailed instructions on configuring the **Set Up a Front End-Back End Deployment** screen in the `csconfigurator.sh` program, see Configuring a Front-End or Back-End Calendar Server.

Chapter 22. Installation Scenario - Oracle Communications Calendar Server for CALDAV Clients

Installation Scenario - Oracle Communications Calendar Server for CALDAV Clients Version 7 Update 1

Topics:

- Overview of This Scenario
- Assumptions
- Which Software Components and Downloads Do You Need?
- Installing and Configuring a Calendar Server 7 Update 1 Deployment
- Configuring Calendar Server 7 Update 1
- Configuring Calendar Server With Multiple Hosts
- Verifying the Calendar Server Configuration
- Configuring the Calendar Server Document Store
- Running Calendar Server 7 Update 1 Post-Installation Tasks
- (Optional) Enabling Telemetry Logging in Calendar Server 7 Update 1
- Troubleshooting

Overview of This Scenario

The following installation information describes how to install and configure Oracle Communications Calendar Server (CalDAV Server) version 7 Update 1. It assumes you have already made your architectural and design decisions. For example, it assumes that you know the total number of servers in your deployment, the number of front-end and back-end servers, and so on. If you are still in the planning or evaluating process, see the following documents:

- If you do not have an existing architecture or design, see Calendar Server 7 Deployment Planning .
- For general Communications Suite information, see also Communications Suite Deployment Planning Guide.

Assumptions

This scenario shows how to install Calendar Server 7 Update 1 on a separate host. It is based on the Install Calendar Server 7 Update 1 leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on a single host or Solaris zone, or multiple hosts or Solaris zones.
- A Directory Server host is already installed.

Which Software Components and Downloads Do You Need?

- Communications Suite: Calendar Server, MySQL Server (installed as a dependent product for

Calendar Server when you run the Communications Suite Installer)
- Application server web container for Calendar Server: GlassFish
- LDAP server: Directory Server

Installing and Configuring a Calendar Server 7 Update 1 Deployment

The tasks to install a Calendar Server 7 Update 1 deployment are as follows:

- To Check Requirements for Calendar Server 7 Update 1
- To Get the Software
- To Install Directory Server
- To Install and Configure Sun GlassFish Enterprise Server 2.1.1
- To Install the Calendar Server and MySQL Server Software
- To Initialize and Configure MySQL Server

> **Note**
> If you are installing a Calendar Server 7 Update 1 front end on one host and a Calendar Server 7 Update 1 back end on a separate host, note the following installation differences:
>
> - If you don't have an existing MySQL server, install one by prefixing the Calendar Server 7 Update 1 option with a tilde ({~}) to indicate that you only want to install the shared component dependencies of that product.
> - Uncheck the dependency of MySQL when installing the Calendar Server 7 Update 1 software.
> - Configure MySQL Server.
> - Configure Calendar Server 7 Update 1.

To Check Requirements for Calendar Server 7 Update 1

See Requirements for Calendar Server 7 Update 1.

To Get the Software

1. Go to Get the Software.
   From this site, download Communications Suite 7 Update 1. Also download Sun GlassFish Enterprise Server 2.1.1 and Directory Server (6.3.1 or 7), which are required for Calendar Server 7 Update 1.
   Solaris SPARC: sges_ee-2_1_1-solaris-sparc-ml.bin
   Solaris x86: sges_ee-2_1_1-solaris-i586-ml.bin
   Red Hat Linux: ges_ee-2_1_1-linux-ml.bin
2. Continue with the next task.

To Install Directory Server

See Installation Scenario - Directory Server.

To Install and Configure Sun GlassFish Enterprise Server 2.1.1

See Installation Scenario - GlassFish Server.

To Install the Calendar Server and MySQL Server Software

1. Make sure you have met the pre-installation requirements.
2. To install Calendar Server, run the Communications Suite installer.
   The installer is a single unified utility called `commpkg`. It installs (but does not configure) the

Communications Suite products. `commpkg` does all the necessary preparation work before installing the product software on the system. Run the following command:

```
./commpkg install
```

For more information, see commpkg install Usage.

3. Select Calendar Server 7 Update 1 and proceed with the installation.
   MySQL Server is automatically selected as a dependent product. If you need to install just MySQL Server (for a multi-host deployment with a MySQL Server back-end host), type ***~option number***.
   The default installation directory for Calendar Server 7 Update 1 is `/opt/sun/comms/davserver`.
4. If the installer detects older versions of LDAP tools, you are prompted to change them.
   You must answer **y**, otherwise, during the initial configuration (running `init-config`), the `ldapmodify` command does not run.

```
Shared component LDAPCSDK6 has a different pkg version installed
Description: ldap c sdk 6
  Current pkg Version (SUNWldapcsdk-libs):
6.00,REV=2005.11.29.16.11
  To be installed pkg version (SUNWldapcsdk-libs):
6.00,REV=2006.12.11.00.35
  Product Version: 6.0
Note that changing pkg versions is irreversible
On the other hand, if you do not change it,
some products may not work properly
An alternative is to start over and do a multi-install using
--altroot

Do you wish to change pkg versions for LDAPCSDK6 [n] : y

Shared component LDAPCSDK6 Tools has a different pkg version
installed
Description: ldap c sdk 6 Tools
  Current pkg Version (SUNWldapcsdk-tools):
6.00,REV=2005.11.29.16.11
  To be installed pkg version (SUNWldapcsdk-tools):
6.00,REV=2006.12.11.00.35
  Product Version: 6.0
Note that changing pkg versions is irreversible
On the other hand, if you do not change it,
some products may not work properly
An alternative is to start over and do a multi-install using
--altroot

Do you wish to change pkg versions for LDAPCSDK6 Tools [n] : y
```

5. If you want to install only the Calendar Server front end, to connect to remote Calendar Server back end(s), then you can remove the MySQL packages, which aren't needed on the Calendar Server front end.
   - For example, on Solaris OS:

```
pkgrm mysql
pkgrm SUNWcomms-mysql-marker
```

- For example, on Red Hat Linux:

```
rpm -e MySQL-client-advanced
rpm -e MySQL-server-advanced
```

6. Continue with the next section.

To Initialize and Configure MySQL Server

You can either run the following steps in this section or run the `config-mysql` script to prepare a new MySQL installation for use with the Calendar Server 7 Update 1. For more information on running the `config-mysql` script, see Running the Oracle Communications Calendar Server config-mysql Script.

> **Caution**
> You must use the MySQL connector version packaged with Calendar Server. Do not use a different version.

The Communications Suite installer has already created a `mysql` group and a `mysql` user, and installed the MySQL Server software. The Solaris OS default base directory (basedir) is `/opt/mysql/mysql`. The Red Hat Linux default base directory (basedir) is `/usr` and the data directory (datadir) is `/var/lib/mysql`.

> **Note**
> When necessary, the following instructions show where commands differ between Solaris OS and Red Hat Linux.

1. Initialize the database.
   a. Remove the pre-created data, for example:

```
# rm -rf /opt/mysql/mysql/data
# rm -rf /var/lib/mysql
```

   b. Create an initial database, for example:
      - On Solaris OS:

```
# /opt/mysql/mysql/scripts/mysql_install_db --user=mysql
--ldata=/var/mysql
```

      - On Red Hat Linux:

```
# /usr/bin/mysql_install_db --user=mysql
--ldata=/var/lib/mysql
```

      Substitute a different directory for `/var/mysql` if desired.

2. If the MySQL configuration file, `/etc/my.cnf`, is absent, create it with the following content: Change `basedir` and `datadir` if needed. Make sure there are no extra spaces if you cut and paste the path.
   - For Solaris OS:

```
[mysqld]
basedir = /opt/mysql/mysql
datadir = /var/mysql
default-storage-engine = InnoDB
character-set-server = utf8
```

- For Red Hat Linux:

```
[mysqld]
basedir = /usr
datadir = /var/mysql
default-storage-engine = InnoDB
character-set-server = utf8
```

3. Install startup script.
   - For Solaris OS:

```
# cp /opt/mysql/mysql/support-files/mysql.server
/etc/init.d/mysql
```

   - For Red Hat Linux:

```
# cp /usr/share/mysql/mysql.server /etc/init.d/mysql
```

4. Start MySQL Server.

```
# /etc/init.d/mysql start
Starting MySQL
. SUCCESS!
```

5. Change the MySQL `root` password.
   - On Solaris OS:

```
# /opt/mysql/mysql/bin/mysqladmin -u root password
'<password>'
```

   - On Red Hat Linux:

```
/usr/bin/mysqladmin  -u root password '<password>'
```

   Replace `'password'` with the appropriate password to use for the `root` user.

6. Run the secure MySQL installation (disables remote root access, removes anonymous users, removes test databases, and so on).
   - On Solaris OS:

```
# /opt/mysql/mysql/bin/mysql_secure_installation
```

   - On Red Hat Linux:

```
/usr/bin/mysql_secure_installation
```

7. Create the MySQL user and caldav database based on the sample session that follows.
   The following examples use `'caldav'` as the MySQL user name and `'caldav'` as the database name. You can use different names.
   Replace `'localhost'` with the calendar server host name if the MySQL server is on a remote host (or use `'%'` for any host). Also replace `'password'` with the appropriate password to use for the `caldav` user.
   See MySQL CREATE USER syntax.

```
# /opt/mysql/mysql/bin/mysql -u root -p
Enter password:
mysql> CREATE DATABASE caldav CHARACTER SET = UTF8;
mysql> CREATE USER 'caldav'@'localhost' IDENTIFIED BY 'caldav';
mysql> SET PASSWORD FOR 'caldav'@'localhost' = PASSWORD('caldav');
mysql> GRANT ALL ON caldav.* TO 'caldav'@'localhost';
mysql> exit
```

8. Configure MySQL to start automatically upon system reboot.
   a. Option 1:

```
# ln /etc/init.d/mysql /etc/rc3.d/S99mysql
```

   If you need to add the stop scripts, use the following command:

```
# ln /etc/init.d/mysql /etc/rc0.d/K48mysql
```

   b. Option 2:
   Configure MySQL to run with Solaris Management Facility (SMF).
   See the following links for information on how to configure MySQL to run with Solaris Management Facility (SMF):
      - http://blogs.sun.com/ritu/entry/how_to_configure_mysql_to
      - http://www.sun.com/bigadmin/content/submitted/mysql_smf_tip.html
      - http://blogs.sun.com/smenon/entry/how_to_configure_mysql_to
9. Continue with the next section.

Configuring Calendar Server 7 Update 1

See Oracle Communications Calendar Server for CALDAV Clients Initial Configuration.

Configuring Calendar Server With Multiple Hosts

See Configuring Multiple Calendar Server Back-end Hosts.

Verifying the Calendar Server Configuration

See Configuring CalDAV Clients for Calendar Server 7.

Configuring the Calendar Server Document Store

See Configuring the Oracle Communications Calendar Server for CALDAV Clients Document Store.

Running Calendar Server 7 Update 1 Post-Installation Tasks

After installing and configuring configuring Calendar Server 7 Update 1, you might need to perform post-installation tasks, such as the following:

- Configuring Calendar Server for a Secure Deployment
- Changing User uuid
- Enabling the Apple iCal Autocomplete Feature

See Oracle Communications Calendar Server for CALDAV Clients Post Configuration for more information.

(Optional) Enabling Telemetry Logging in Calendar Server 7 Update 1

To log all protocol interactions, you can force all telemetry logs by setting the `service.dav.telemetry.forcetelemetry` parameter to **`true`**. Do not use this setting unless required as it generates lots of data.

To enable telemetry logging at a reduced level, set the `service.dav.telemetry.filter` parameter. This parameter takes a comma separated list of request URIs that should be logged. For example:

- `/wcap/` logs all WCAP access.
- `/dav/home/caluser1/` logs all Calendar Server access to `caluser1`'s account.

Troubleshooting

See Calendar Server 7 Troubleshooting.

For More Information
See Calendar Server 7 Configuration Parameters for configuration parameters and values. See Administering Calendar Server 7 Logging for how to enable logging. See `davadmin config` for how to set configuration parameters by using the `davadmin` command.

Configuring the Oracle Communications Calendar Server for CALDAV Clients Document Store

Configuring the Oracle Communications Calendar Server for CALDAV Clients Document Store
Version 7 Update 1

This information explains how to configure either a local or remote document store for Calendar Server for CALDAV Clients. For conceptual information, see Document Store.

Topics:

- To Configure a Local Document Store
- To Configure a Remote Document Store
- To Migrate the Document Store
- To Troubleshoot the Document Store

To Configure a Local Document Store

1. Create a data directory for the document store.
   The default location is `/var/opt/sun/comms/davserver/db/`. Make sure that the directory has sufficient storage space, and is readable and writable by the attachment store user only.

   ```
   mkdir </path/to/docstore>
   chmod 700 </path/to/docstore>
   ```

2. Configure the Calendar Server to use the document store directory.

   ```
   davadmin config -u admin -W ~/.davadminpass -o
   store.dav.defaultbackend.dbdir -v </path/to/docstore>
   ```

To Configure a Remote Document Store

Prerequisite: Install the Oracle Communications Calendar Server for CALDAV Clients software. See Installation Scenario - Oracle Communications Calendar Server for CALDAV Clients.

1. Create a data directory for the document store.
   The default location is `/var/opt/sun/comms/davserver/db/`. Make sure that the directory is readable and writable by the attachment store user only.
2. Run the `configure-as` command, which is located in the document store `sbin` directory.

   ```
   <doc-svr-base>/sbin/configure-as
   ```

3. Start the document store server.

   ```
   <doc-svr-base>/sbin/start-as
   ```

   To stop the document store, run the following command.

```
<doc-svr-base>/sbin/stop-as
```

4. Change the `store.dav.`*defaultbackend*`.attachstorehost` and `store.dav.`*defaultbackend*`.attachstoreport` parameters on each Calendar Server front-end host to specify the host name and port number of the document store host.
   For example:

   ```
   davadmin config -u admin -W ~/.davadminpass -o
   store.dav.defaultbackend.attachstorehost -v ahost.example.com
   ```

   See `davadmin` command for more information on how to change these parameters.

5. Restart Calendar Server for CALDAV Clients by restarting the GlassFish Server instance, for example:

   ```
   /opt/SUNWappserver/bin/asadmin start-domain domain1
   ```

To Migrate the Document Store

If you need to migrate your `store.datadir` to another location, reconfigure the store location in the `ashttpd.properties` file, then manually move your existing documents in the `astore` directory. Also, manually move the files in the `config` and `logs` directories to the new location before restarting the document store server and the front-end Calendar Server. For more information on the `ashttpd.properties` file, see Document Store Server Configuration File.

1. Stop Calendar Server for CALDAV Clients by stopping the GlassFish Server instance, for example:

   ```
   /opt/SUNWappserver/bin/asadmin stop-domain domain1
   ```

2. If the document store is remote, stop it as well.

   ```
   <doc-svr-base>/sbin/stop-as
   ```

3. Manually move the existing documents from the old path to the newly configured location.
4. If the document store server is remote, reconfigure the `store.datadir` parameter in the `ashttpd.properties` file.
5. If the document store is remote, restart it.

   ```
   <doc-svr-base>/sbin/start-as
   ```

6. Restart Calendar Server for CALDAV Clients by restarting the GlassFish Server instance, for example:

   ```
   # /opt/SUNWappserver/bin/asadmin start-domain domain1
   ```

To Troubleshoot the Document Store

- If the Java Runtime Environment is not the minimum version required by the start script, you might need to set your `JAVA_HOME` variable before starting the document server.

- When running the `start-as` script, you might encounter the following error:

```
Error occurred during initialization of VM
Could not reserve enough space for object heap
```

  The server does not have enough memory. Install more memory to the document store server. The attachment store requires 2 Gbytes of memory.

Oracle Communications Calendar Server for CALDAV Clients init-config Syntax

Oracle Communications Calendar Server for CALDAV Clients init-config Syntax
Version 7 Update 1

The `init-config` script enables you to perform an initial configuration of your Oracle Communications Calendar Server for CALDAV Clients deployment.

The `init-config` command takes the following options.

init-config Syntax

Option	Description
`-nodisplay`	Runs configurator in text-only (non-graphical) mode.
`-noconsole`	Does not display non-graphical text. Used with `nodisplay` option for silent configuration.
`-novalidate`	Does not perform text field validation.
`-saveState` *statefile*	Saves state of configurator input.
`-state` *statefile*	Uses the *statefile* for setting input values.
`-debug`	Gathers general debugging information from the configurator.
`-debugMessage`	Outputs debugging information, including errors and warnings.
`-debugWarning`	Outputs warning messages, including errors.
`-debugError`	Outputs error messages, on by default.

Oracle Communications Calendar Server for CALDAV Clients Post Configuration

Oracle Communications Calendar Server for CALDAV Clients Post Configuration
Version 7 Update 1

This information contains procedures that you might need to run after installing and configuring Oracle Communications Calendar Server for CALDAV Clients 7 Update 1.

Topics:

- Configuring Calendar Server for a Secure Deployment
- Other Post Configuration Steps

Configuring Calendar Server for a Secure Deployment

The high-level steps to configuring Calendar Server for a secure deployment include:

1. Making sure that HTTPS is configured correctly:
    a. Making use of a CA signed certificate
    b. Setting SSL port to default port of 443 to ease client configurations
    c. Changing `fulluriprefix` configuration option
    d. Disabling Elliptic Curve Encryption to workaround a Java 6 issue
2. Disabling HTTP
3. Enabling LDAP SSL

Topics in this section:

- Configuring HTTPS for a Secure Deployment
- Disabling HTTP
- Enabling LDAP SSL in Calendar Server

Configuring HTTPS for a Secure Deployment

This section contains the following subtopics:

- Installing an Official Certificate
- Setting SSL Default Port to 443
- Changing `fulluriprefix`
- Disabling Elliptic Curve Encryption

Installing an Official Certificate

The default installation comes with a self-signed certificate, which is incompatible with production usage. To install an official certificate, see To Configure GlassFish Enterprise Server to Use a CA Signed Certificate for SSL.

Setting SSL Default Port to 443

By default, most clients assume that the server is running on the default SSL port number (443). Thus, you need to set the server port number accordingly, if you did not do so during installation.

To set the default SSL port to 443:

1. List all the http listeners and note the SSL listener (`security-enabled=true`).
   For example, use the `asadmin` command as follows:

```
# ./asadmin get
server.http-service.http-listener.*.security-enabled
server.http-service.http-listener.admin-listener.security-enabled =
true
server.http-service.http-listener.http-listener-1.security-enabled
= false
server.http-service.http-listener.http-listener-2.security-enabled
= true
# ./asadmin get
server.http-service.http-listener.http-listener-2.port
server.http-service.http-listener.http-listener-2.port = 8181
```

2. Set the port number to the correct value.
   For example:

```
# ./asadmin set
server.http-service.http-listener.http-listener-2.port=443
server.http-service.http-listener.http-listener-2.port = 443
```

   This change does not require a server restart.

Changing `fulluriprefix`

The default installation of GlassFish Server enables both both HTTP and HTTPS (using a self-signed cert) on the server instance. During the Calendar Server for CALDAV Clients configuration, you can only choose to specify the HTTP port, which sets the `davcore.uriinfo.fulluriprefix` parameter to `http://`*host*`:`*HTTP-port*. This results in all URLs constructed by Calendar Server, for example those pointing to attachments, to have the `http://` URL. If you are using SSL, the host name part of this prefix should match the host name associated with the certificate.

To change the `fulluriprefix` parameter:

- Run the `davadmin config` command to set the `davcore.uriinfo.fulluriprefix` parameter to the desire HTTPS port, for example:

```
/opt/sun/comms/davserver/sbin/davadmin config -u admin -W
<passwordfile> -o davcore.uriinfo.fulluriprefix -v https://<host>
```

Disabling Elliptic Curve Encryption

- To workaround a Java 6 issue, disable Ellipitic Curve Encryption by setting the `com.sun.net.ssl.enableECC` jvm option to `false`. For example:

```
# ./asadmin create-jvm-options -Dcom.sun.net.ssl.enableECC=false
Command create-jvm-options executed successfully.
#
```

Disabling HTTP

Disable non-SSL HTTP access to prevent any unsecured communications with Calendar Server.

1. List all the http listeners and note the ones that don't have security enabled.
   For example, using the `asadmin` command:

```
# ./asadmin get
server.http-service.http-listener.*.security-enabled
server.http-service.http-listener.admin-listener.security-enabled =
true
server.http-service.http-listener.http-listener-1.security-enabled
= false
server.http-service.http-listener.http-listener-2.security-enabled
= true
```

2. Disable those http listeners.
   For example:

```
# ./asadmin set
server.http-service.http-listener.http-listener-1.enabled=false
server.http-service.http-listener.http-listener-1.enabled = false
```

   This change does not require a server restart.

Enabling LDAP SSL in Calendar Server

To configure Calendar Server 7 Update 1 for SSL communication with Directory Server, you use the `davadmin config` command to specify the necessary `ldap` parameters, then stop and start the GlassFish Server.

Prerequisite: You must have already enabled the back-end Directory Server for SSL, either with a CA certificate or self-signed certificate.

To configure Calendar Server for CALDAV Clients to communicate with Directory Server over SSL, use the following steps.

1. Create a text file, for example, `usessl.txt`, with the following content:

```
base.ldapinfo.authldap.ldapport=636
base.ldapinfo.authldap.ldapusessl=true
base.ldapinfo.ugldap.ldapport=636
base.ldapinfo.ugldap.ldapusessl=true
```

   Change the `ldapport` values to the LDAP SSL port value in your deployment.

2. Run the `davadmin config` command to make the configuration change, for example:

```
/opt/sun/comms/davserver/sbin/davadmin config -u admin -f
usessl.txt
```

   Warning messages appear to restart the server, that is, to restart GlassFish Server.

3. Restart GlassFish Server, for example:

```
/opt/SUNWappserver/bin/asadmin stop-domain
/opt/SUNWappserver/bin/asadmin start-domain
```

Other Post Configuration Steps

Use the following procedures if they apply to your Calendar Server deployment.

- Changing User uuid
- Enabling the Apple iCal Autocomplete Feature

Changing User uuid

By default, Calendar Server uses the LDAP attribute `nsUniqueId` as the unique identifier for each principal (user, group, resource, and so on). This attribute is auto-generated by the Directory Server and is guaranteed to be unique. One problem with using this attribute is that if the LDAP entry is moved or deleted and recreated, the `nsUniqueid` value changes and the mapping between the Directory Server entry and its related contents in the database are lost. There is no way to assign the `nsUniqueid` value to the old one. You can choose to define and use another LDAP attribute as the unique identifier to prevent this issue.

To change the unique identifier:

- Run the `davadmin config` command to modify the `davcore.uriinfo.permanentuniqueid` option.

> **Caution**
> Changing this option after any user data is created in the database leads to data loss.

Enabling the Apple iCal Autocomplete Feature

The Apple iCal client makes use of a WebDAV private extension to enable autocomplete on the invitee and location fields when creating a meeting invitation. By default, Calendar Server does not advertise this option. You enable the option by changing the `service.dav.propfinddavheadervalue` configuration parameter.

To enable the autocomplete feature:

1. Find the existing value of the `service.dav.propfinddavheadervalue` parameter.

   ```
   # ./davadmin config -o service.dav.propfinddavheadervalue
   service.dav.propfinddavheadervalue: calendar-auto-schedule
   ```

2. Add `calendarserver-principal-property-search` to the end of the value.

   ```
   # ./davadmin config -o service.dav.propfinddavheadervalue -v
   "calendar-auto-schedule calendarserver-principal-property-search"
   ```

3. Verify that the feature has been enabled by creating a meeting invitation from Apple iCal (starting with version 4).
   When typing a few letters in the `invitee` or `location` field, the server should give you a list of possible choices.
   As you type, the server performs an LDAP query corresponding to the entered string. The filter

used is built from the `davcore.uriinfo.subjectsearchfilter` configuration parameter where any instance of `%s` is replaced with the entered string. The same filter is used by the WCAP `search_calprops.wcap` command. The default value of the filter is:

```
"(|(uid=%s*)(cn=%s)(mail=%s))")
```

Note
Enabling this feature generates extra load on both Calender Server and Directory Server and might affect performance.

Running the Oracle Communications Calendar Server for CALDAV Clients config-mysql Script

< Back to Calendar Server Installation Scenario

Running the Oracle Communications Calendar Server for CALDAV Clients config-mysql Script

The `config-mysql` Perl script prepares a new MySQL installation for use with Oracle Communications Calendar Server for CALDAV Clients 7 Update 1. You can use this script instead of manually preparing a new MySQL installation.

> **Caution**
> If you already have a running instance of MySQL server, read the following information carefully before using this script.

To Run the config-mysql Script

> Beginning with **Oracle Communications Calendar Server for CALDAV Clients 7 Update 1,** the `config-mysql` and `Util.pm` scripts are bundled in the product distribution in the *dav-base-dir*`/tools/unsupported/bin` directory.

1. As root, launch the `config-mysql` script.
   The script creates a log file in the `/tmp` directory with a name such as `config-mysql_`*YYYYMMDDHHMMSS*`.log`.
2. The script creates a minimal instance configuration in the `/etc/my.cnf` file for use with the Calendar Server database.
   If you receive a message that the script has found existing instance configuration in the `/etc/my.cnf` file, type **yes** to overwrite the existing instance configuration, or **no** to exit.
3. The script stops the running MySQL instance.
   This step is run regardless of whether there is a running instance. You might see the message "ERROR! MySQL manager or server PID file could not be found!." You can safely ignore this message.
4. Type the instance data directory.
   If you choose a directory that already exists, the script assumes that it belongs to an existing MySQL instance and that it might contain useful data. If that's not the case and you want to use that directory, remove the directory first.
5. Type the MySQL root user password.
6. Type the calendar db name, db user, and password.
7. The script performs the following steps:
   - Runs `mysql_install_db` to create the instance data directory specified in Step 4.
   - Creates a minimal `/etc/my.cnf` file for the instance.
   - Copies the `mysql.server` script to the system startup and shutdown directory.
   - Starts the MySQL server by using the configuration in the `/etc/my.cnf` file.
   - Uses the `mysqladmin` script to change the root password specified in Step 5.
   - Runs `mysql_secure_installation` to secure the newly created MySQL instance.
8. When the script asks for the existing root password, use the one from Step 5 and answer "no" to the question "Change the root password? [Y/n]."
   One of the tasks in the `mysql_secure_installation` script is to change the root password (since a fresh instance has a blank root password).
9. The last step is for the script to create the calendar db and db user using the mysql tool.

To Configure Oracle Communications Calendar Server for CALDAV Clients to Use LDAP Schema 1

To Configure Oracle Communications Calendar Server for CALDAV Clients to Use LDAP Schema 1 Version 7 Update 1

1. Install a Directory Server instance.
2. Run the `comms_dssetup` script against this Directory Server and choose Schema 1.
3. Configure Calendar Server for CALDAV Clients 7 Update 1 based on the Directory Server's Schema 1 by using the `davadmin` command to change the following two parameters:

```
./davadmin config -u <ADMIN> -W <passwordfile> -o
base.ldapinfo.dcroot -v <DC_ROOT>
./davadmin config -u <ADMIN> -W <passwordfile> -o
base.ldapinfo.schemalevel -v 1
```

4. Restart the GlassFish Server, for example:

```
/opt/SUNWappserver/bin/asadmin stop-domain domain1
/opt/SUNWappserver/bin/asadmin start-domain domain1
```

5. For Calendar Server for CALDAV Clients to fully support LDAP Schema 1 (CR 6846562), you need to add some ACIs at the domain level, at least the anonymous access. The following example shows what to add for the default domain `example.com`:

```
dn: dc=example,dc=com,o=internet
changetype: modify
add: aci
aci: (targetattr != "userPassword") (version 3.0;acl "Anonymous
access"; allow
 (read,compare,search)(userdn = "ldap:///anyone");)

dn: dc=example,dc=com,o=internet
changetype: modify
add: aci
aci: (targetattr=*)(version 3.0; acl "Domain Admin Domain access -
product=ics
 ,class=nda,num=18,version=1"; allow (all)
groupdn="ldap:///cn=Domain
Administrators,ou=Groups,o=example.com,o=dav";)

dn: dc=example,dc=com,o=internet
changetype: modify
add: aci
aci:
(targetattr!="userPassword")(targetfilter=(|(objectClass=inetOrgPerso
bjectclass=nsManagedDomain)))(version 3.0; acl "User access to all
users in
 domain - product=ics,class=nda,num=19,version=1"; allow
(read,search) userdn
 ="ldap:///o=example.com,o=dav??sub?(objectclass=inetOrgPerson)";)
```

Chapter 23. Installation Scenario - Oracle Communications Calendar Server Front End

Installation Scenario - Oracle Communications Calendar Server Front End
Version 6.3 (Formerly known as Sun Java System Calendar Server)

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to install an instance of Calendar Server as a front end on a separate host. It is based on the *Install Calendar Server Front End* leaf in the Communications Suite Installation Flowchart. The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Calendar Server front end is one functional component of your multi-host deployment.
- You are installing Calendar Server on a separate host or Solaris zone. You are not bundling Calendar Server with Communication Suite products on the same host.
- If you are distributing multiple instances of the Calendar Server front end across several hosts or zones, you can follow these instructions for each host on which you install the Calendar Server front end.

Deploying a Front End and Back End on One Host
What if you intend to deploy a single-server instance of Calendar Server (that is, a Calendar Server deployment with both a front end and back end running on this host)?

To deploy a Calendar Server front end *and* back end together: Use the following procedure. However, when you run the Calendar Server configuration program, when the **Set Up a Front End-Back End Deployment** screen is displayed, do not select the check box on this screen.

Which Software Components and Downloads Do You Need?

- Communications Suite: for Calendar Server

Download sites: Get the Software.

Which Task Sequence Do You Follow?

Before you install the Calendar Server front end:

Be sure you have planned for the following:

- Calendar Server Administrators
- Hosted Domains

For information about these topics, see Oracle Communications Calendar Server Pre-Installation Planning.

Install and configure the Calendar Server front end:

1. Run the Communications Suite installer.
   When the Communications Installer lists the components to install, choose Calendar Server 6.3. Make sure that the other components are not selected.
2. Use the following worksheet to gather configuration information for the Calendar Server front end: Configuration Worksheets - Oracle Communications Calendar Server
3. Run the Calendar Server initial configuration program:
   INSTALLROOT`/calendar/bin/csconfigurator.sh`
   For detailed instructions, see Oracle Communications Calendar Server Initial Configuration.
4. When the Calendar Server `csconfigurator.sh` program displays the Set Up a Front End-Back End Deployment screen, select the check box.
   A Front End-Back End Deployment screen appears.
5. To configure this instance of Calendar Server as a front-end server, click Add a Host.
6. Enter the host names and IP addresses of the back-end Calendar Server instances with which this front end will communicate.
   For each back-end Calendar Server, click Add a Host and enter its host name and IP address.
7. If this server is the default front-end server, select the Default check box.
   For detailed instructions on configuring the Set Up a Front End-Back End Deployment screen in the `csconfigurator.sh` program, see Configuring Oracle Communications Calendar Server Front End and Back End.

Chapter 24. Release Notes

Oracle Communications Unified Communications Suite Release Notes
Version 7 Update 1

This book contains release information, feature descriptions, known limitations and issues, requirements, and other information about the following products for Oracle Communications Unified Communications Suite:

- Communications Suite Component Products Release Notes
- Convergence Release Notes
- Oracle Communications Calendar Server for CALDAV Clients Release Notes
- Oracle Communications Calendar Server Release Notes
- Messaging Server Release Notes
- Indexing and Search Service Release Notes
- Instant Messaging Release Notes
- Delegated Administrator Release Notes
- Connector for Microsoft Outlook Release Notes

Communications Suite Compatibility Issues

Oracle Communications Unified Communications Suite Compatibility Issues
Version 7 Update 1

This information describes compatibility issues affecting Communications Suite products and the products and shared components used by Communications Suite.

Instant Messaging and Access Manager

Certain Instant Messaging features require Access Manager 7.1 to operate in legacy mode. Access Manager 7.1 is only available in the Java ES 5 Update 1 Installer. No other Communications Suite products require Access Manager to operate in legacy mode, so the following incompatibility only applies when using Instant Messaging, and only if an Instant Messaging feature requires Access Manager to operate in legacy mode.

The latest Common Agent Container (cacao) patch is not compatible with the Java ES 5 Update1 Installer. (6782178)

Incompatibility	Solution	Comments
Issue: If you install the latest cacao patch (123893-05 or 123896-05), the Java ES 5 Update 1 installer reports that the installation is completed. However, the log files indicate that the installer did not start cacao (bad lib path). **Cause:** Patch 123893-05 or 123896-05 installs release 2.2.0.1 of cacao. The Java ES 5 Update 1 installer tries to downgrade to cacao release 2.1.0. But the release downgrade is not supported by cacao. The result is that cacao never starts.	Install the latest cacao patch after installing Access Manager 7.1 from the Java ES Installer, and start it manually.	This issue can affect the use of Communications Suite products if they are monitored with the Java Enterprise System Monitoring Framework (JESMF). This is not a compatibility issue with Communications Suite products. It is an incompatibility between the cacao patches and the Java ES installer.

On Red Hat Linux systems, upgrading to Java 6 may affect dependent products that use earlier versions of Java. (6743356)

Incompatibility	Solution	Comments
Issue 1: On Red Hat Linux systems, when installing or upgrading Communications Suite, the Communications Suite installer checks if there is an existing version of Java on the machine and upgrades it to Java 6. Some Sun Java products used by Communications Suite products, such as Access Manager, Web Server, Directory Server, and Application Server, may not be compatible with Java 6u20. On Red Hat Linux, the Communications Suite installer replaces any previous Java version with Java 6. This is not an issue on Solaris OS; on Solaris OS, major Java versions can co-exist. This issue only affects dependent Sun Java products running on the same machine as the Communications Suite products. **Issue 2:** Under some conditions, there is the potential for Sun Java products used by Communications Suite products to be unable to access the Java shared component. When the Java ES installer installs the Java shared component, it creates a Sun Java Enterprise System (JES) `entsys symlink` to the Java files. The symlink is in the following location: `/usr/jdk/entsys-j2se`. On Red Hat Linux, when the Comms Installer replaces the previous Java version with Java 6, the symlink to the old files is temporarily broken. However, the Comms Installer prompts you to fix this problem. See the **Solution for Issue 2**. In silent mode, the Comms Installer cannot prompt you to fix the broken symlink. Instead, you must use the `--fixEntsys y` option in the command line when you run the `commpkg` command.	**Solution for Issue 1:** Install or upgrade to a later version of the affected Sun Java product, which is compatible with Java 6. **Note:** You could choose not to upgrade to Java 6 when you run `commpkg upgrade`, but in general we do not recommend this approach. Java 6 is required for some Communications Suite products such as Convergence, Instant Messaging Server and Indexing and Search Services. **Note:** If Convergence is configured to use S/MIME, Java 6 is required on end users' client machines. **Note for Access Manager 7.1:** The Java Enterprise 5 Update 1 (JES5u1) installer cannot successfully deploy Access Manager 7.1 if Java Development Kit (JDK) 6 or above is installed. Therefore, on a Red Hat Linux machine where you are installing Access Manager 7.1, you need to downgrade to JDK 1.5 just for the duration of using the JavaES Installer. For instructions, see Verifying the Correct JDK Version to Support Access Manager. **Solution for Issue 2:** During interactive installations or upgrades, if the Comms Installer detects a broken symlink, it asks if you want to fix the broken link. Choose `y` to fix the link. The Comms Installer then changes the link to point to the upgraded Java 6 files. Alternatively, use the `--fixEntsys y` option with the `commpkg install` or `commpkg upgrade` command. If you run `commpkg` in silent mode, you must enter this option in the command line with the `commpkg` command.	On Red Hat Linux, during an interactive install or upgrade, if the Communications Suite installer detects any existing Java version on the machine, it prompts you to choose whether to upgrade the Java component or not. Choose `y` to perform the upgrade. If you are performing a silent installation or upgrade, the default behavior is *not* to upgrade shared components, including Java. However, you can override the default setting, even in a silent installation or upgrade. For more information, see *About Upgrading Shared Components*.

Communications Suite Component Products Release Notes

Common Release Information for Oracle Communications Unified Communications Suite Component Products Version 7 Update 1

These release notes contain important release information that is common for all component products of Oracle Communications Unified Communications Suite 7 Update 1.

Topics:

- About Oracle Communications Unified Communications Suite 7 Update 1
- What's New in This Release of Communications Suite
- Deprecated and Removed Features for Communications Suite
- Requirements for Communications Suite 7 Update 1
- Locating Patches for Communications Suite Products
- Communications Suite Installation and Upgrade Notes
- Communications Suite Compatibility Issues
- Problems Fixed in This Release of Communications Suite
- Known Issues in Communications Suite

Third-party URLs are referenced in this document and provide additional, related information.

> **Note**
> This software and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

About Oracle Communications Unified Communications Suite 7 Update 1

The Oracle Communications Unified Communications Suite integrates a number of server and client products to support distributed communication and collaboration applications.

The Oracle Communications Unified Communications Suite 7 Update 1 release includes the following components:

Oracle Communications Unified Communications Suite Products and Components Version 7 Update 1

Product	Version
Oracle Communications Messaging Exchange Server	7 Update 4
Oracle Communications Instant Messaging Server	8 Update 3
Convergence	2
Oracle Communications Calendar Server for CALDAV Clients	7 Update 1
Delegated Administrator for Oracle Communications Unified Communications Suite	7 (latest patch)
Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite	7.3 Update 1 (latest patch)
Oracle Communications Calendar Server	6.3 (latest patch)
Indexing and Search Service for Oracle Communications Unified Communications Suite	1 Update 1
Sun Java System Communications Sync	Removed
Messaging Server HA Agent (MS_SCHA)	7
Calendar Server HA Agent (CS_SCHA)	6.3
Instant Messaging HA Agent (IM_SCHA)	7.3
Dssetup for Oracle Communications Unified Communications Suite (`comm_dssetup`)	6.4 (latest patch)

For release notes on individual component products, see the following links:

- Convergence Release Notes
- Oracle Communications Calendar Server for CALDAV Clients Release Notes
- Oracle Communications Calendar Server Release Notes
- Messaging Server Release Notes
- Indexing and Search Service Release Notes
- Instant Messaging Release Notes
- Delegated Administrator Release Notes
- Connector for Microsoft Outlook Release Notes

What's New in This Release of Communications Suite

See the What's New document.

Deprecated and Removed Features for Communications Suite

Support for the following features may have been removed in this or a previous release, or may be eliminated in a future release:

- Calendar Server 6.3
- Communications Express 6.3
- Delegated Administrator 6.4
- Connector for Microsoft Outlook 7.1 , 7.2, and 7.2 Update 1
- Communications Sync
- Support for Access Manager and Sun OpenSSO

Calendar Server 6.3

The Premier Support for Calendar Server 6.3 ends on April 2012.

Communications Express 6.3

Communications Express has been removed from the installation bundle. For an Ajax-based user interface with integrated email, calendar, address book, and instant messaging, use Convergence.

No patches will be issued for Communications Express versions prior to 6.3.

If you need to install Communications Express 6.3, use the Communications Suite 6 Update 2 media to get the software.

Delegated Administrator 6.4

Going forward, no new features will be added to Delegated Administrator 6.4. It has been deprecated in favor of Delegated Administrator 7.

Connector for Microsoft Outlook 7.1 , 7.2, and 7.2 Update 1

Going forward, no new features will be added to the Connector for Microsoft Outlook 7.1, 7.2, and 7.2 Update 1. They have been deprecated in favor of Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite 7 Update 3.

Communications Sync

Going forward, no new features will be added to Communications Sync. All versions of Communications Sync have been deprecated. If you are using Communications Sync, consider moving to Oracle Communications Mobile Synchronization Server (formerly known as Sun Java Mobile Communications).

Support for Access Manager and Sun OpenSSO

Support for Access Manager 7.x and Sun OpenSSO 8.x has been deprecated. Convergence, Instant Messaging, and Delegated Administrator optionally utilize Access Manager and/or Sun OpenSSO for single sign-on, authentication, and policy options.

The following table describes available options for impacted products:

Communications Suite Product	Access Manager and OpenSSO Features Used by Communications Suite Product	Impact of Access Manager and OpenSSO Deprecation of Support	Current Alternatives and Solutions to Mitigate Impact
Convergence	Authentication, SSO (legacy and realm modes)	For new customers: no supported identity product for authentication and SSO	See: Create a Custom Convergence SSO Authentication Plug-in and Create a Custom Authentication Convergence Module
Instant Messaging	Authentication, SSO (legacy mode), Policy (legacy mode)	No out-of-the-box OpenSSO solution	• Authentication: use LDAP or Create an Instant Messaging Custom SSO Module • SSO: Create an Instant Messaging Custom SSO module • Policy: use file-based policy
Delegated Administrator	Authentication, LDAP Access (legacy mode)	Access Manager Mode of LDAP access is no longer available	Switch to Direct LDAP mode

Support for OpenSSO will continue for existing customers while they migrate to other SSO and authentication solutions.

Requirements for Communications Suite 7 Update 1

This section describes the operating system, patch, client software, and any additional software requirements for this release of Communications Suite. This section contains the following topics:

- Product Version Compatibility Requirements
- Convergence 2: Product Version Compatibility Requirements
- Memory and Disk Space Requirements
- Operating System Requirements
- High Availability Support
- Browser Requirements for Communications Suite Clients
- Additional Software Requirements for Individual Communications Suite Components

Product Version Compatibility Requirements

This section answers the following questions:

- Which products are required to support the Communications Suite products? The Product Version Compatibility Requirements for Communications Suite 7 Update 1 table lists the products and versions that are compatible with the Communications Suite 7 Update 1 products.

- To install a particular Communications Suite product, which other components do I need? The Communications Suite 7 Update 1 Component Dependencies table lists the individual Communications Suite products and shows the components on which they depend, including other Communications Suite components.

The following table shows the other products required by Communications Suite 7 Update 1. For information about requirements for these products, refer to the individual product's release notes.

Product Version Compatibility Requirements for Communications Suite 7 Update 1

Product	Version	Required or Optional?
Oracle Directory Server Enterprise Edition (formerly Sun Java System Directory Server)	5.x, 6.x, 7, 11gR1	Required. Use 6.3 or later. If doing a fresh installation, 11gR1 is recommended.
Oracle GlassFish Message Queue	4.4 Update 1	Optional. Communications Suite installer automatically installs Message Queue as a shared component.
Sun Java System Access Manager See: Deprecated Support for Access Manager and Sun OpenSSO	7.1	Optional.
Sun GlassFish Enterprise Server	2.1.1	Required as the web container for Communications Suite 7 Update 1 components.

The following table shows the web container support by component product in this release.

Web Containers Supported in Oracle Communications Unified Communications Suite Version 7 Update 1

Component Product	GlassFish Server 2.1.1	Application Server 9.1 Update 2	Application Server 8	Application Server 7	Oracle iPlanet Web Server 7.0 Update 2	Web Server 6.1
Calendar Server for CALDAV Clients 7 Update 1	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
Communications Express 6.3	Not supported	Supported	Supported	Not supported	Supported	Not supported
Convergence 2	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
Delegated Administrator 7	Supported	Supported	Supported	Supported	Supported	Supported
Indexing and Search Service 1 Update 1	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
Instant Messaging Server 8 Update 3	Supported	Not supported	Not supported	Not supported	Not supported	Not supported

Notes:

The default installation paths for GlassFish Server 2.1.1. and Application Server 9 are the following:

Base installation directory: `/opt/SUNWappserver`

Domain directory: `/opt/SUNWappserver/domains/domain1`
Document root directory: `/opt/SUNWappserver/domains/domain1/docroot`

The default installation paths for Application Server 8 are the following:

Base installation directory: `/opt/SUNWappserver/appserver`
Domain directory: `/var/opt/SUNWappserver/domains/domain1`
Document root directory: `/var/opt/SUNWappserver/domains/domain1/docroot`

The following table lists the individual Communications Suite products and shows the components on which they depend.

Communications Suite 7 Update 1 Component Dependencies

Product Component	Dependencies	Required or Optional?	Must Be on Local Host?
Calendar Server 7 Update 1	Directory Server 5.*x*, 6.*x*, 7, 11gR1 Recommended: 11gR1	Required. To store user/group and domain information for authentication, authorization, and email delivery.	Not required.
	Directory Server Setup Script (`comm_dssetup.pl`) You must use the version that is bundled with the Communications Suite 7 Update 1 installer.	Required. To prepare the LDAP directory for Messaging Server.	Not required. Must be on the same host as Directory Server.
	MySQL Server 5.1	Required. To store Calendar Server database information.	Not required.
	GlassFish Enterprise Server 2.1.1	Required. To act as the web container.	Same host on which you install Calendar Server 7 Update 1 front end.
	Messaging Server	Optional but an SMTP server is required.	Not required.
	Delegated Administrator 7	Optional. To provision users of calendar services; to manage the directory schema.	Not required.
Indexing and Search Service 1	Directory Server 5.*x*, 6.*x*, 7, 11gR1 Recommended: 11gR1	Required. To store user/group and domain information for authentication, authorization, and email delivery.	Not required.
	Messaging Server 7 Update 4	Required.	Not required.
	GlassFish Enterprise Server 2.1.1	To act as the web container.	Same host on which you install front-end ISS components.
	GlassFish Message Queue 4.4 Update 1	To generate notifications.	Not required.

Messaging Server 7 Update 4	Directory Server 5.*x*, 6.*x*, 7, 11gR1 Recommended: 11gR1	Required. To store user/group and domain information for authentication, authorization, and email delivery.	Not required.
	Directory Server Setup Script (`comm_dssetup.pl`) You must use the version that is bundled with the Communications Suite 7 Update 1 installer.	Required. To prepare the LDAP directory for Messaging Server.	Not required. Must be on the same host as Directory Server.
	Delegated Administrator 7	Optional. To manage user and group data; to manage the directory schema.	Not required.
Calendar Server 6.3	Directory Server 5.*x*, 6.*x*, 7, 11gR1 Recommended: 11gR1	Required. To store user/group and domain information for authentication, authorization, and calendar account provisioning.	Not required.
	Directory Server Setup Script (`comm_dssetup.pl`) You must use the version that is bundled with the Communications Suite 7 Update 1 installer.	Required. To prepare the LDAP directory for Calendar Server.	Not required. Must be on the same host as Directory Server.
	Messaging Server 6 through 6.3, 7, 7 Update 1, 7 Update 2, 7 Update 3, 7 Update 4 Recommended: 7 Update 4	Optional. To provide email notifications.	Not required.
	Access Manager 7.1 (for SSO). See: Deprecated Support for Access Manager and Sun OpenSSO.	Optional. To provide single sign-on (SSO) authentication and authorization service. You can also use the Messaging Server Trusted Circle SSO (if you have installed Messaging Server).	Not required.
	Delegated Administrator 7	Optional. To provision users of calendar services; to manage the directory schema.	Not required.
Instant Messaging 8 Update 3	Directory Server 5.*x*, 6.*x*, 7, 11gR1 Recommended: 11gR1	Required. To store user, conference room, and news channel data.	Not required.

	Directory Server Setup Script (`comm_dssetup.pl`) You must use the version that is bundled with the Communications Suite 7 Update 1 installer.	Required. To prepare the LDAP directory for Instant Messaging.	Not required. Must be on the same host as Directory Server.
	Messaging Server 6 through 6.3, 7.0, 7 Update 1, 7 Update 2, 7 Update 3, 7 Update 4 Recommended: 7 Update 4	Optional. To support offline delivery of instant messaging alerts and chat archives as email messages.	Not required.
	Calendar Server 6.3 or Calendar Server 7 Update 1 Recommended: Calendar Server 7 Update 1, unless you need Instant Messaging to use notifications and pop-up reminders, in which case you should use Calendar Server 6.3.	Optional. To support Calendar Server event reminder notifications.	Not required.
	Access Manager 7.1 (for SSO) See: Deprecated Support for Access Manager and Sun OpenSSO.	Optional. To provide authentication, authorization single sign-on (SSO), and policy services. You can use a local Access Manager client SDK, which provides access to a remote Access Manager Server. If you deploy the SDK, a remote Access Manager Server must be deployed to support it.	Not required. However, if you want Instant Messaging to use a remote Access Manager, the Access Manager SDK must be installed on the host where the Instant Messaging server is installed.
	GlassFish Enterprise Server 2.1.1 web container	Optional. To support distribution and downloading of the Instant Messenger Java client and to provide IMPS Gateway and HTTP Gateway functionality.	Must be on local host. If you want the Instant Messaging client to use SSO, it must be deployed to the same web container as Access Manager. See: Deprecated Support for Access Manager and Sun OpenSSO.

Directory Server Setup Script (`comm_dssetup.pl`) (Version bundled with Communications Suite 7 Update 1 installer)	Directory Server 5.*x*, 6.*x*, 7, 11gR1 Recommended: 11gR1	Required. To set up the LDAP directory, which the `comm_dssetup.pl` script updates with Communications Suite components' schema.	Must be on local host.
Delegated Administrator 7	Directory Server 5.*x*, 6.*x*, 7, 11gR1 Recommended: 11gR1 To enforce unique values for mail attributes, you must install one of these releases: Oracle Directory Server Enterprise Edition 11gR1 Oracle Directory Server Enterprise Edition 7 Directory Server 6.*x* Directory Server 5.2.5 or later Directory Server 5.2.4, and you must apply patch 5.2_Patch_4_6313027	Required. To store user, group, and domain data that Delegated Administrator provisions for the Communications Suite components.	Not required.
	Directory Server Setup Script (`comm_dssetup.pl`) You must use the version that is bundled with the Communications Suite 7 Update 1 installer.	Required. To prepare the LDAP directory for Delegated Administrator.	Not required. Must be on the same host as Directory Server.
	Access Manager 7.1 See: Deprecated Support for Access Manager and Sun OpenSSO.	Optional. To provide authentication and authorization services when Delegated Administrator accesses the LDAP directory data.	Must be on local host.
	Web container, one of: Oracle iPlanet Web Server (at least Versions 6.1 or 7) Application Server (at least Versions 7, 8, or 9) Sun GlassFish Enterprise Server 2.1.1	Required. Delegated Administrator must be deployed to one of these web containers. The Delegated Administrator server must be deployed to the web container used by Access Manager.	Must be on local host.

	Messaging Server 6 through 6.3, 7.0, 7 Update 1, 7 Update 2, 7 Update 3, 7 Update 4 Recommended: 7 Update 4	Required to provide mail service for users and groups provisioned by Delegated Administrator. Not required if you do not provision mail users.	Not required.
	Calendar Server 7 Update 1 (If you are deciding between Calendar Server 7 Update 1 and Calendar Server 6, Calendar Server 7 Update 1 is recommended.)	Required to provide calendar service for users and groups provisioned by Delegated Administrator 7. Not required if you do not provision calendar users.	Not required.
	Calendar Server 6.*x*	Required to provide calendar service for users and groups provisioned by Delegated Administrator 6.4 or greater. Not required if you do not provision calendar users.	Not required.
Convergence 2		For details about Convergence dependencies, see Convergence 2: Product Version Compatibility Requirements.	
Connector for Microsoft Outlook 7.3 Update 1	Messaging Server 6.3, 7	Required to provide mail service.	
	Calendar Server 6.3, 6.3.1	Required to provide calendar service.	
	Convergence 1.0	Optional (recommended). Either Communications Express or Convergence can be used to provide address book service, mail filters, and out-of-office message features.	
	Communications Express 6.3	Optional.	
	Directory Server 5.2, 6.0 or higher	Required for Global Address List (GAL), a corporate address book service.	

Java Requirements

The following products require that you have Java 1.6 installed: GlassFish Enterprise Server 2.1.1, Calendar Server 7 Update 1, Indexing and Search Service 1 Update 1, and Instant Messaging 8 Update 3. The Communications Suite Installer installs Java 1.6 as a shared component.

Network Security Services Requirements

Communications Suite 7 Update 1 requires the use of the shared security component. While the minimum version of Network Security Services (NSS) is 3.12.3 (patch rev -08), you should install the

latest NSS patch 3.12.6 (patch rev -11), which improves security.

If you are using Directory Server 5, and you upgrade to NSS 3.11.7 on the Directory Server host, you need at least Directory Server 5.2 patch 6 due to an NSS incompatibility. See the IMPORTANT NOTE in the NSS patch.

For more details about product version dependencies, see Shared Components Bundled With the Communications Suite Installer.

Time Synchronization Requirements

Configure Network Time Protocol (NTP) to ensure that time is synchronized across your deployment.

Convergence 2: Product Version Compatibility Requirements

The information in this section provides you with all the product requirements and minimum product versions to install Convergence in these deployments:

- A new Communications Suite 7 Update 1 deployment (fresh installations)
- An existing Communications Suite deployment (a combination of upgrades and fresh installations)

In general, the requirements for operating system, memory and disk space, browsers, and most other software products are the same for Convergence as for other Communications Suite products.

However, Convergence has a few specific product and version dependencies. The Convergence client also depends on other Communications Suite products to provide services such as mail and calendar.

The following tables list the product requirements, dependencies, and compatibilities specific to Convergence:

- Additional Product Requirements for Convergence 2
- Communications Suite Component Requirements
- Convergence 2 Compatibility with Communications Express, Connector for Microsoft Outlook, Address Book Store, and LDAP Schema

Note that some of this information repeats the information shown in the Product Version Compatibility Requirements for Communications Suite 7 Update 1 table.

Additional Product Requirements for Convergence 2

Product	Version	Required or Optional?	Must Be on Local Host?
Oracle Directory Server Enterprise Edition	Release 5.x, Release 6.x, Release 7.0, 11g Release 1 (11.1.1) or later **Note** VLV indexing causes crashes in Oracle Directory Server Enterprise Edition 7.0. This issue does not occur in Oracle Directory Server Enterprise Edition 11g Release 1 (11.1.1) or Oracle Directory Server Enterprise Edition 5.x or 6.x.	Required. For fresh installations, use Directory Server 11g Release 1 (11.1.1). For the recommended version to download, see Get the Software.	Not required
Web Container	Sun GlassFish Enterprise Server 2.1.1	Required. For the recommended version to download, see Get the Software.	Required
Sun Java System Access Manager See: Deprecated Support for Access Manager and Sun OpenSSO	7.1	Optional. Required only if you want to use Access Manager for authentication, SSO, or both. Convergence supports both Access Manager Realm mode (the default) and Legacy mode for providing authentication and SSO.	Not required
Sun OpenSSO Enterprise See: Deprecated Support for Access Manager and Sun OpenSSO	8.0	Optional. Required only if you want to use Sun OpenSSO Enterprise for authentication, SSO, or both.	Not required
Indexing and Search Service	1 Update 1	Required to provide Attachment search in Convergence.	Not required

For information about requirements for Directory Server, Application Server, and Access Manager, see the current release notes for these products.

Communications Suite Component Requirements for Convergence 2

Product	Version	Communications Suite Release	Required or Optional?	Must B Local H
Messaging Server – Webmail Server	7 Update 4	7 Update 1 (for MS 7 Update 4)	Required to provide mail service in Convergence.	Not req but you should deploy Webma Server the sam host as Conver for scal and perform

Messaging Server – all other messaging components	6.3, 7, 7 Update 1, 7 Update 2, 7 Update 3, 7 Update 4 **Note** If you enable flagged message sort in Convergence, ensure that `wmap_version` is equal to or greater than 9. This is available after the Messaging Server 7 Update 3 release in patch 137203-11 (Red Hat Linux), 137204-11 (SPARC 64-bit), and 137205-11 (Solaris x86 64-bit) or greater. In addition, the `imapd` version (Messaging Server back-end host) must have the same patch or greater. Otherwise, flag sorting does not work.	5 (for MS 6.3) 6 (for MS 7.0) 6 Update 1 (for MS 7 Update 1) 6 Update 2 (for MS 7 Update 2) 7 (for MS 7 Update 3) 7 Update 1 (for MS 7 Update 4)	Required to provide mail service in Convergence.	Not req
Calendar Server 6 (Oracle Communications Calendar Server, formerly Sun Java System Calendar Server)	6.3, patch level -44 or higher	5 + apply patch level -35 6 + apply patch level -35 6 Update 1 + apply patch level -35 6 Update 2 7 7 Update 1	Required to provide calendar service in Convergence.	Not req

Calendar Server 7 (Oracle Communications Calendar Server for CALDAV Clients)	7 Update 1	7 Update 1 (for Calendar Server 7 Update 1)	Required to provide calendar service in Convergence.	Not req
Instant Messaging	8 Update 3	7 Update 1 (for Instant Messaging 8 Update 3)	Required to provide Instant Messaging service in Convergence.	No.
Directory Server Setup script, `comm_dssetup.pl`	You must use the version that is bundled with the Communications Suite 7 Update 1 installer.	7 Update 1	Required. You must run `comm_dssetup.pl` on the hosts where Directory Server is installed.	No.
Delegated Administrator	6.4, 7.0-0.00 You must use Delegated Administrator 7 with Calendar Server 7.	5, 6, or 6 Update 1, or 6 Update 2, 7, 7 Update 1	Optional.	Not req

Convergence 2 Compatibility with Communications Express, Connector for Microsoft Outlook, Address Book Store, and LDAP Schema

> **Note**
> Messaging Server, Calendar Server, and Instant Messaging are required for Convergence *only* if you want to configure Convergence with the services they provide. For example, if you do not want Instant Messaging service, you do not need Instant Messaging.

Product	Version	Communications Suite Release	Required or Optional?
Communications Express	6.3	5, 6, 6 Update 1, 6 Update 2	Optional. You can deploy Communications Express with the same Messaging Server, Calendar Server, and Directory Server as Convergence 2. You can configure end users to access Communications Suite services through either client.
Connector for Microsoft Outlook	7.3, 7.3 Update 1	6 (for 7.3) 7 Update 1 (for 7.3 Update 1)	Optional. You can deploy Connector for Microsoft Outlook with the same Communications Suite products and Directory Server as Convergence 2. End users of Outlook (configured using the Connector for Microsoft Outlook) can access the same Communications Suite services as those accessed through Convergence and Communications Express.

Personal Address Book store	Can be configured by either Convergence 2 or Communications Express 6.3	Not applicable. The Address Book store resides in an LDAP directory.	You can configure Convergence 2, Communications Express 6.3, and Connector for Microsoft Outlook 7.3 to use the same Address Book store. Convergence end users can access and update an existing Address Book store configured on an existing Directory Server by using Communications Express. Conversely, you can configure Communications Express end users to access and update an Address Book store originally configured Convergence 2. Updates to the Address Book made in one client are visible and accessible on the other client. New Address Book features provided by Convergence do not invalidate Address Book LDAP entries originally configured by using Communications Express. From the perspective of the Communications Express client, the Address Book functions as it did before Convergence was installed. **Corporate Address Books:** Convergence can be configured to support one Corporate Address Book for each hosted domain. Users of Communications Express who use a single Corporate Address Book can also access and update that Address Book through Convergence. Communications Express users who access multiple Corporate Address Books (in their domain) can only use the first Corporate Address Book through Convergence. The others are not accessible through Convergence.
LDAP Schema	Schema 1 or 2 Schema 2 only if Access Manager is deployed with Convergence.	Not applicable.	If you use Access Manager (Realm Mode or Legacy Mode) to provide SSO for Convergence, you must use Schema 2. If you use Delegated Administrator (DA) to provisions users, you must use Schema 2, because DA depends on Access Manager (Legacy Mode), which requires Schema 2. See: Deprecated Support for Access Manager and Sun OpenSSO.

Memory and Disk Space Requirements

The following table shows the memory and disk space requirements for Communications Suite 7 Update 1 component products.

Memory and Disk Space Requirements for Communications Suite 7 Update 1

Product	Disk Space	RAM	Other
Indexing and Search Service1 Update 1	Approximately 20 Mbytes must be free in `/opt` for `/opt/sun/comms/jiss`. Roughly 20 percent of the Messaging Server store size will be required for the `/var/opt/sun/comms/jiss` directory. [1]	4 Gbytes	
Calendar Server 7 Update 1	Approximately 20 Mbytes.		
Calendar Server 6.3	Approximately 500 Mbytes of disk space for typical installation. For production systems, at least 1 Gbyte.	128 Mbytes of RAM. For production systems, 256 Mbytes to 1 Gbyte for best performance.	RAID storage for fast access (recommended for large databases).
Convergence	Approximately 100 Mbytes of disk space for initial installation.	1 Gbyte minimum.	
Messaging Server	1 Gbyte for production deployment or 500 Mbytes for evaluation installation. You also need adequate space for message store, database configuration directory, and log files, depending upon your site size.	1 Gbyte minimum.	
Instant Messaging	Approximately 300 Mbytes of free disk space for the software. Approximately 5 Kbytes of disk space for each user.	At least 256 Mbytes of RAM. The amount of RAM needed depends on the number of concurrent client connections, and whether the server and multiplexor are deployed on the same host.	
Delegated Administrator	The disk requirements for Delegated Administrator are the same as those of the Web container to which Delegated Administrator is deployed. For information about the Web container's hardware requirements, see the current release notes for this Java Enterprise System component.	The memory requirements for Delegated Administrator are the same as those of the Web container to which Delegated Administrator is deployed. For information about the Web container's hardware requirements, see the current release notes for this Java Enterprise System component.	
MySQL Server	Approximately 650 Mbytes.		
JDK	Approximately 450 Mbytes.		

[1] In Indexing and Search Service, the `/var/opt/sun/comms/jiss` directory is divided into three subdirectories:

- `/var/opt/sun/comms/jiss/attach` - Stores generated thumbnail images from attachments, which tends to consume 2 to 3 percent of the size of the mail store. Turning off the attachment store is a configurable option. Compared to the index store, this directory could probably reside on

a slower disk.
- `/var/opt/sun/comms/jiss/logs` - Stores log files.
- `/var/opt/sun/comms/jiss/index` - Stores index files. This tends to take up about 15 percent of the size of the mail store and needs to be on a fast disk because it is frequently accessed.

Operating System Requirements

The following table shows the recommended platforms for Communications Suite 7 Update 1:

Operating System and Platform Support (Recommended for Communications Suite 7 Update 1)

Operating System	CPU	Comments
Solaris OS 10	SPARC, x64	Minimum recommended version: Solaris OS 10 5/08 (Update 5) See Solaris 10 5/08 documentation for more information.
Red Hat Enterprise Linux 5 64-bit Update 3	x64	See Red Hat Enterprise Linux documentation for more information.

The following table shows all the supported platforms for Communications Suite products.

Operating System and Platform Support (by Communications Suite Component)

Component	Solaris OS 10 SPARC	Solaris OS 10 x86 32-bit	Solaris OS 10 x86 64-bit	Red Hat Linux 4 32-bit	Red Hat Linux 4 64-bit	Red Hat Linux 5 Server Update 3 32-bit	Red Hat Linux 5 Server Update 3 64-bit
Messaging Server 7 Update 4 32-bit	Not supported	Not supported	Not supported	Supported	Supported	Not supported	Supported
Messaging Server 7 Update 4 64-bit	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Supported
Messaging Server HA	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Not supported
Calendar Server 6.3	Supported	Supported	Supported	Supported	Supported	Not supported	Supported
Calendar Server 7 Update 1	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Supported
Calendar Server 6.3 HA	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Not supported
Instant Messaging 8 Update 3	Supported	Not supported	Supported	Not supported	Supported	Not supported	Supported

Instant Messaging HA	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Not supported
Convergence 2	Supported	Supported	Supported	Supported	Supported	Supported	Supported
Delegated Administrator 7	Supported	Supported	Supported	Supported	Supported	Not supported	Supported
Connector for Outlook 7.3 Update 1	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Indexing and Search Service 1 Update 1	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Supported
Communications Suite Installer 7 Update 1 (only for products on that platform)	Supported	Not supported	Supported	Supported	Supported	Not supported	Supported
Dssetup 6.4	Supported	Supported	Supported	Supported	Supported	Not supported	Supported

Notes:

- Recommended platforms are Solaris OS 10 and Red Hat 5 Update 3 64-bit.
- No upgrade from previous major version forces a simultaneous upgrade of both the operating system and component.
- An upgrade of a component does not force an upgrade of the operating system. An upgrade of the operating system forces an upgrade of the component.
- Messaging Server, Calendar Server, Instant Messaging, Communications Express, and Delegated Administrator are no longer supported on HP-UX or Windows platforms.
- Instant Messaging is not supported on Solaris OS 32-bit and Red Hat Linux 32-bit OS platforms.
- The Communications Suite installer checks for required platform patches.
- The performance of your Communications Suite deployment depends on many factors, including CPU power, available memory, disk space, file system performance, usage patterns, network bandwidth, and so on. For example, throughput is directly related to file system performance. If you have questions about sizing and performance, contact your Communications Suite representative.

Notes for Calendar Server 6.3:

- Supports Solaris OS 9 SPARC and x86.
- Supports Red Hat Linux 3 and 4 AS/ES 32- and 64-bit Labels parameters.

Minimal Solaris OS Install Requirements for Indexing and Search Service

The following Solaris OS packages are required for Indexing and Search Service: `SUNWgcmn`, `SUNWgtar`, `SUNWxcu4`, `SUNWj5rt`. If remote installs are needed, `SUNWwgetr` and `SUNWwgetu` are also required. Confirm that they are installed by using `pkginfo`. Multi-machine deployments require `SUNWapch2d`, `SUNWapch2r`, and `SUNWapch2u` to be installed on indexing nodes. If they are not installed, install them from Solaris OS media before installing Indexing and Search Service.

The following Solaris JumpStart profile represents the minimal set of packages required for Indexing and Search Service.

```
##
## Minimum Required Software for Reduced Networking Support
## http://blogs.sun.com/gbrunett/entry/foundation_for_minimal_solaris_10
##
cluster SUNWCrnet

##
## Additional basic system services
##
# SSH Daemon, Tools and Dependencies
package SUNWgss add
package SUNWgssc add
package SUNWsshcu add
package SUNWsshdr add
package SUNWsshdu add
package SUNWsshr add
package SUNWsshu add
# NTP
package SUNWntpr add
package SUNWntpu add
# System Admin Tools (showrev)
package SUNWadmfw add
package SUNWadmfr add

##
## Indexing and Search Service Requirements
##
# GNU tar and Dependencies
package SUNWgcmn add
package SUNWgtar add
# XCU4 Utilities - ISS requires for awk and id
package SUNWxcu4 add
# Java 5 Run Time
package SUNWj5rt add
# wget - required only for remote ISS installs
package SUNWwgetr add
package SUNWwgetu add
```

Minimal Red Hat Linux Installation Requirements for Indexing and Search Service

The Red Hat Linux installation can run on top of the install group `@Base` in your `kickstart.cfg` file. The following RPMs must be installed on Red Hat Enterprise Linux 5:

- `rpm-build`
- `elfutils`
- `elfutils-libs`
- `compat-libstdc++-33`
- `ntp`
- `sharutils`
- `compat-libstdc++-296`
- `libxml2`
- `xinetd`

Multi-machine deployments require that the `httpd` RPM be installed on indexing nodes for Red Hat Enterprise Linux 5.

High Availability Support

Supported High-Availability Products

Product	Supported Versions

Calendar Server 6.3	• Sun Cluster
	  • SPARC: 3.0, 3.1 Update 4, 3.2, 3.3
	  • x86: 3.1 Update 4, 3.2, 3.3
	  • Red Hat Linux: Not supported
	• Veritas
	  • SPARC: Not Supported
	  • x86: Not Supported
	  • Red Hat Linux: Not supported

Instant Messaging 8 Update 3	• Sun Cluster
	  • SPARC: 3.1 Update 4, 3.2, 3.3
	  • x86: 3.1 Update 4, 3.2, 3.3
	  • Red Hat Linux: Not supported
	• Veritas
	  • SPARC: Not supported
	  • x86: Not supported
	  • Red Hat Linux: Not supported

Messaging Server 7 Update 4	• Sun Cluster
	  • SPARC: 3.0, 3.1 Update 4, 3.2, 3.3
	  • x86: 3.1 Update 4, 3.2 U1, 3.3
	  • Red Hat Linux: Not supported
	• Veritas
	  • SPARC: 3.5, 4.0, 4.1, 5.0
	  • x86: 3.5, 4.0. 4.1, 5.0
	  • Red Hat Linux: 4.1, 5.0

Compatibility Between Messaging Server and the MS High-Availability Agent Versions

MS High-Availability Agent Version	Compatible Messaging Server Versions
MS_SCHA 7.0	Messaging Server 64-bit version 6.3 or later. Messaging Server 64-bit does not work with MS_SCHA 6.*x*.
MS_SCHA 7.0	Messaging Server 32-bit version 6.3-1.02 or later.
MS_SCHA 6.*x*	Messaging Server 32-bit version 6.3.

Browser Requirements for Communications Suite Clients

The following table shows which browsers are supported for Communications Suite clients.

Supported Browser Versions for Convergence 2 Clients

Browser	Windows XP	Windows 2000	Windows Vista	Windows 7	Solaris	Red Hat Linux	Mac OS 10.x
Microsoft Internet Explorer	7.x and 8.0	Not applicable	7.x and 8.0	8.x	Not applicable	Not applicable	Not applicable
Firefox	3.6.x	3.6.x	3.6.x	3.6.x	3.6.x	3.6.x	3.6.x
Safari	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	4.x

Supported Browser Versions for Delegated Administrator Clients

Browser	Windows XP	Windows 2000	Solaris
Microsoft Internet Explorer	6.0 SP1 and 7.0	6.0 SP1 and 7.0	Not applicable
Firefox	2.0	2.0	2.0
Mozilla	1.4 or later	1.4 or later	1.4 or later
Netscape Navigator	7.2	7.2	7.2

Additional Software Requirements for Individual Communications Suite Components

- Calendar Server 7 Update 1
- Messaging Server
- Delegated Administrator
- Instant Messaging
- Connector for Outlook

Calendar Server 7 Update 1

Supported Clients for Calendar Server 7 Update 1

Client	Version	Notes
Apple iCal	At least version 3	iCal 3 comes bundled with Mac OS 10.5.
Apple iPhone OS calendar client	3.x and 4.x	Support for scheduling in iOS 4.x on iPhone, iPod touch, and iPad.
Lightning	0.8, 0.9, and 1	Lightning 0.8 supports basic CalDAV but does not support invitations so cannot be used for scheduling. Lightning 0.9, which does support CalDAV scheduling, is also supported by Calendar Server. Note that Thunderbird version 3 is the latest version.
Convergence	2	
eM		Desktop client for Windows (.NET) that supports CalDAV access. [1]
Symbian		Symbian OS (mobile devices) support for CalDAV access. [1]
Enterprise Tasks		eTask is a business application for the iPhone and iPod touch that uses the CalDAV protocol to view, edit, create, delete, and sync your tasks on the CalDAV server. [1]

[1] These clients have not officially been tested by Oracle. In general, any CalDAV compliant client should work.
Note: Neither Connector for Microsoft Outlook nor Communications Express are supported clients in the Calendar Server 7 Update 1 release.

Messaging Server

Recommended File Systems for Message Stores

The following file systems are recommended for message stores:

- LUFS (Logging UFS).
- VxFS (Veritas File System). Veritas File System provides good system performance if configured properly. If you use VxVM, the Veritas Volume Manager, you need to watch carefully that the volumes and the log file for the volumes are set to be regularly striped.
- HAStoragePlus File System for Sun Cluster installations. The HAStoragePlus File System provides better performance than the default Sun Cluster Global File System.
- NFS (Network File System). You can use NFS on MTA relay machines, for LMTP, for autoreply histories, and for message defragmentation. See the Messaging Server Administration Guide for more information. In addition, NFS can be supported on BSD-style mailboxes (`/var/mail/`) as well as for message stores.
- ZFS. Starting with Messaging Server 6.3, Messaging Server supports the ZFS file system. See Messaging Server ZFS Support for more information.

DNS Server and Messaging Server

A high-quality caching DNS server on the local network is a requirement for a production deployment of Messaging Server. Messaging Server depends heavily on the responsiveness and scalability of the DNS server.

Additionally, your DNS configuration needs to be clearly specified as to how to route to hosts that are not on the local subnet by ensuring the following:

- The `/etc/defaultrouter` file should contain the IP address of the gateway system. This address must be on a local subnet.
- The `/etc/resolv.conf` file exists and contains the proper entries for reachable DNS servers and domain suffixes.
- In the `/etc/nsswitch.conf` file, the `hosts:` line has the `files`, `dns`, and `nis` keywords added. The keyword `files` must precede `dns` and `nis`. For example, the lines should not look like this:

```
hosts:  nis dns files
ipnodes:  nis dns files
```

Instead, the lines should be changed to this:

```
hosts:  files nis dns
ipnodes:  files nis dns
```

- In the `/etc/hosts file`, the FQDN is the first host name.

For example, if your Internet host table in your `/etc/hosts` file should not look like this:

```
123.45.67.89 budgie.west.sesta.com
123.45.67.89 budgie loghost mailhost
```

Change the host table so that only one line is shown for the IP address of the host. Be sure that the first host name is a fully qualified domain name. For example:

```
123.45.67.89 budgie.west.sesta.com budgie loghost mailhost
```

Note
For releases up to Solaris OS 10 U3, you must add the fully qualified domain name (FQDN) not only to the `/etc/hosts` file, but also to the `/etc/inet/ipnodes` file. Otherwise, you receive an error indicating that your host name is not a fully qualified domain name. For Solaris OS 10 U4 and later releases, the contents of the `/etc/inet/ipnodes` and `/etc/hosts` files have been merged together into the `/etc/hosts` file. Applying kernel patch 120011-14 on any Solaris 10 system also performs this merge and removes the `/etc/inet/ipnodes` file.

Delegated Administrator

The following components, tools, and LDAP schema version are required for this release of Delegated Administrator:

- Directory Server 5.x, 6.x, 7, or 11gR1. To enforce unique values for mail attributes, you must install one of these releases:
  - Oracle Directory Server Enterprise Edition 11gR1
  - Oracle Directory Server Enterprise Edition 7
  - Directory Server 6.x
  - Directory Server 5.2.5 or later
  - Directory Server 5.2.4, and you must apply patch 5.2_Patch_4_6313027
- Either Messaging Server 6 or Calendar Server 6, or both

- Java Enterprise System Web container. You must deploy Delegated Administrator to one of the following Web containers:
  - Oracle iPlanet Web Server (at least Versions 6.1 or 7)
  - Application Server (at least Versions 7, 8, or 9)
  - Sun GlassFish Enterprise Server 2.1.1
- Directory Server Setup script, `comm_dssetup.pl`. Use the version that is bundled with the current version of the Communications Suite installer.
- LDAP Schema 2. This release of Communications Suite Delegated Administrator is designed for provisioning users in an LDAP Schema 2 directory.

Instant Messaging

Instant Messaging Client Hardware Requirements

Instant Messenger uses between 50 and 70 Mbytes of memory on most platforms. You should estimate the memory requirement by including the requirements of other applications (including operating systems) used on the client machine. In most cases, allow at least 256 Mbytes RAM to run Instant Messenger and other applications comfortably. This number becomes higher with memory-intensive operating systems.

Instant Messaging Client Operating System Requirements

The following table lists the supported client platforms:

Operating System	Supported Platforms
Solaris	Solaris OS 10 64-bit
Microsoft Windows	Microsoft Windows 98, ME, NT (SP 6a), 2000, XP
Mac	MacOS X 10.1 or later
Red Hat Linux	Red Hat Linux 4 and 5, 64-bit

The following table lists the supported server platforms:

Operating System	Supported Platforms
Solaris	Solaris OS 10 64-bit
Red Hat Linux	Red Hat Linux 4 64-bit, Red Hat Linux 5, 64-bit

Note:
Instant Messaging 8 Update 3 requires Java version 1.6 or later.

On Windows, you can run Instant Messenger by using the browser's Java Plugin from the following browsers:

- Netscape version 7.2 or later
- Mozilla version 1.7 or later
- Mozilla Firefox version 1.0 or later
- Internet Explorer version 6.0 SP 2 or later

If the client machine has at least Java 1.6 installed, there are no additional requirements to use either Java Plugin or Java Web Start. Netscape Navigator 7 and the recent versions of the Mozilla browser include at least Java 1.6. Internet Explorer does not include the latest version of Java.

If the client machine does not have Java 1.6 or later installed, you need to install Java Web Start. You can download and install Java 1.6 from the Java SE website (http://java.sun.com/j2se). You can also download and install Java Web Start (http://java.sun.com/products/javawebstart).

You can exchange HTML links over Instant Messenger and activate them from the messenger by clicking them. When you activate a link, the messenger invokes a browser. The following table lists supported operating system and browser combinations.

Supported Client OS and Browsers for Instant Messaging

Operating System	Browser Release
Solaris OS 10	JDS Desktop Netscape Communicator 8.0 or later, Mozilla 1.7.12 or later, Mozilla Firefox 1.5.0 or later
Red Hat Linux Desktop 7.0 or later	Netscape Communicator 8.0 or later, Mozilla 1.7.12 or later, Mozilla Firefox 1.5.0 or later
Red Hat Linux Desktop 9.0 or later	Netscape Communicator 8.0 or later, Mozilla 1.7.12 or later, Mozilla Firefox 1.5.0 or later
Windows 98/ME/NT/2000/XP	No restrictions
Mac OS X	No restrictions

Connector for Outlook

This section describes the requirements and recommendations for Connector for Microsoft Outlook.

The following operating systems are supported:

- Microsoft Windows 2000 (Service Pack 3 or later)
- Microsoft Windows XP
- Microsoft Windows 2003 Terminal Server
- Microsoft Vista

The following versions of Microsoft Outlook are supported:

- Outlook 2007
- Outlook 2003

> **Note**
> Calendar Server customers who have deployed previous versions of Sun Java System Calendar Server need to engage with Oracle Consulting. A migration offering is available that enables data to be converted and migrated to the new format. This migration is required for Outlook because of changes in the storage and management of recurring events. No migration service is required for new customers of Calendar Server 6 2004Q2 and later.

Locating Patches for Communications Suite Products

Communications Suite Patches

For the most current list of required patches for Oracle Communications Unified Communications Suite,

go to SunSolve Online (http://sunsolve.sun.com). When operating system patch requirements change and patches to Communications Suite and other Oracle components become available, you can find updates in the SunSolve database, initially as recommended patch clusters.

To deploy Calendar Server 6.3 with Convergence, Calendar Server must be at the -28 patch level or later.

To locate patches for Communications Suite products in the SunSolve database, use the keywords listed in the following table.

Patch Keywords for Communications Suite Products

Product	Keyword
Calendar Server	"Calendar Server"
Communications Express	"communications express"
Convergence	"convergence"
Delegated Administrator	commcli
Dssetup	comm_dssetup
Indexing and Search Service	"Indexing Search Service"
Instant Messaging	"Instant Messaging"
Messaging Server	"Messaging Server"
Connector for Microsoft Outlook	"Outlook Connector"

Note
Enclose text strings in double quotes as shown above.

Communications Suite Installation and Upgrade Notes

Default Installation Directories and Ports

The Communications Suite installer installs product components under a single umbrella installation directory (INSTALLROOT). The default value for INSTALLROOT is /opt/sun/comms. Individual product components are installed in subdirectories under INSTALLROOT. For example, Calendar Server 7 is installed in a subdirectory called "davserver". There is no option to change the subdirectory, you can only change the INSTALLROOT. The subdirectory for each product can be found by running the "commpkg info --listPackages" command. A sample session for the "commpkg info --listPackages" command by platform can be found here.

- The following table lists the default installation directories for other product components not installed by the Communications Suite installer.

Default Installation Directories

Product	Default Directory	Comment
Access Manager	Solaris OS: `/opt/SUNWam` Red Hat Linux: `/opt/sun/identity`	

Application Server	Solaris OS and Red Hat Linux: `/opt/SUNWappserver`	Contains Application Server utilities, executables, and libraries.
Application Server Domains	Solaris OS and Red Hat Linux: `/opt/SUNWappserver/domains`	Default area under which administrative domains are created.
Directory Server Core	Solaris OS: `/opt/SUNWdsee/ds6` Red Hat Linux: `/opt/sun/ds6`	Separately located subcomponents of Directory Server EE include Directory Server Core, Directory Service Control Center, and Directory Proxy Server.
Directory Service Control Center	Solaris OS: `/opt/SUNWdsee/dscc` Red Hat Linux: `/opt/sun/dscc`	
Directory Proxy Server	Solaris OS: `/opt/SUNWdsee/dps` Red Hat Linux and HP-UX: `/opt/sun/dps`	
Directory Server Instance Directory	Solaris OS: `/var/opt/SUNWdsee/dsins1` Red Hat Linux: `/var/opt/sun/dsins1`	
HADB	Solaris OS: `/opt/SUNWhadb` Red Hat Linux: `/opt/SUNWhadb`	HADB install locations are not relocatable in Communications Suite installation.
	Solaris OS: `/var/opt/SUNWhadb` Red Hat Linux: `/var/opt/SUNWhadb`	HADB Repository Data and Log location.
	Solaris OS: `/etc/opt/SUNWhadb` Red Hat Linux: `/etc/opt/SUNWhadb`	HADB Management Agent config file.
	Solaris OS: `/etc/init.d/ma-initd` Red Hat Linux: `/etc/init.d/ma-initd`	HADB Management Agent startup script.
Message Queue You cannot change the installation directories, so no field is in the installer or parameter in the state file.	Not applicable	Solaris OS: `/usr/bin` `/usr/share/lib` `/usr/share/lib/imq` `/etc/imq` `/var/imq` `/usr/share/javadoc/imq` `/usr/demo/imq` `/opt/SUNWimq` Red Hat Linux: `/opt/sun/mq` `/etc/opt/sun/mq` `/var/opt/sun/mq`
Messaging Server	Solaris OS 64-bit: `/opt/sun/comms/messaging64` Red Hat Linux, 32 bit: `/opt/sun/comms/messaging`	Messaging Server also uses `/var/opt/sun/comms/messaging` and `/var/opt/sun/comms/messaging64` as the read-write area for configuration, queue, log, store, and other miscellaneous data.

Monitoring Console	Solaris OS: `/opt/SUNWjesmc` Red Hat Linux: `/opt/sun/jesmc`	
Sun Cluster You cannot change the installation directories, so no is field in the installer or parameter in the state file.	Not applicable	Sun Cluster software is installed in the following locations on Solaris OS: `/ /usr/opt /usr/cluster`
Web Server	Solaris OS: `/opt/SUNWwbsvr7` Red Hat Linux: `/opt/sun/webserver7`	

Web Server Instance Directory	Solaris OS:
	`/var/opt/SUNWwbsvr7`
	Red Hat Linux:
	`/var/opt/sun/webserver7`	

Default Port Numbers

When the Communications Suite installer requests that you enter a port number, the installer performs a runtime check on the ports in use and displays an appropriate default value. If the default port number is being used by another component or by another instance of the same product component, the installer presents an alternative value.

The following table lists the default Communications Suite product component port numbers and the purpose of each port.

> **Note**
> Convergence, Access Manager, Communications Express, and Delegated Administrator are not listed in this table because they use the port numbers of the web container into which they are deployed.

Product Component Default Port Numbers

Product Component	Port	Purpose
Access Manager	58946	UNIX authentication helper
	58943	Secure ID authentication helper (Solaris SPARC only)
Application Server	8080	Standard HTTP port
	3700	Standard IIOP port
	4848	Administration Server port
	7676	Standard Message Queue port
	8686	JMX port
	8181	HTTPS port
Calendar Server 6	80	Standard HTTP port
	389	LDAP port
	57997	ENS

	59779	DWP
Calendar Server 7	Uses the GlassFish Server ports	
MySQL Server 5.1	3306	Calendar Server 7 port
Common agent container	11162	JMX port (TCP)
	11161	SNMP Adaptor port (UDP)
	11162	SNMP Adaptor port for traps (UDP)
	11163	Commandstream Adaptor port (TCP)
	11164	RMI Connector port (TCP)
Common agent container for Sun Cluster and Sun Geographic Edition	10162	JMX port (TCP)
	10161	SNMP Adaptor port (UDP)
	10162	SNMP Adaptor port for traps (UDP)
	10163	Commandstream Adaptor port (TCP)
	10164	RMI Connector port (TCP)
Directory Server	389	Standard LDAP listener
	636	LDAPS over SSL
GlassFish Server	80	HTTP
	443	HTTPS
HADB	1862	Management Agent Port (JMX)
	15200	Default Portbase
Indexing and Search Service	52222	Util Service port (used over localhost only) for product internal communication
Instant Messaging	5222	Multiplexer port
	5269	Instant Messaging server-to-server port
	45222	Server port used for multiplexer communication
Message Queue	80	Standard HTTP port
	7676	Port Mapper
	7674	HTTPS Tunneling Servlet Port
	7675	HTTP Tunneling Servlet Port
Messaging Server	25	Standard SMTP port or MMP SMTP Proxy Note 1
	110	Standard POP3 port or MMP POP3 Proxy Note 1

	143	Standard IMAP4 port or MMP IMAP Proxy Note 1
	225	Default port for communications to back-end store through LMTP
	465	SMTP/SUBMIT over SSL or MMP SMTP Proxy over SSL Note 1
	587	Standard Message Submission (SMTP SUBMIT) port
	993	IMAP over SSL or MMP IMAP Proxy over SSL Note 1
	995	POP3 over SSL or MMP POP Proxy over SSL Note 1
	7997	Event Notification Service port
	8990	`mshttpd` daemon port
	8991	`mshttpd` over SSL daemon port
	27442	Used by Job Controller for product internal communication
	49994	Used by the Watcher for internal product communication
Monitoring Console	6789	Accessed through Sun Java Web Console
	8765	Job Factories port for Master Agent Web Services Adaptor
	11161	SNMP port for Monitoring Framework
	11164	RMI port for Monitoring Framework
	63837	Used by MeterMaid for internal product communication
	54320	Multicast port for Monitoring Framework discovery protocol
Web Server	8800	Admin HTTP port
	8989	Admin SSL port (for Admin Server, SSL port is required and HTTP port is optional)
	80	Instance HTTP port

Note 1 - Port Number Conflicts. If these servers (such as the IMAP4 server and MMP IMAP Proxy) are installed on the same machine, you will encounter port number conflicts. If possible, install products with conflicting port numbers on separate hosts.

If you have installed two servers that are attempting to access the same port number, you need to change the port number of one of the conflicting products. To change port numbers for Messaging Server components, use the `configutil` utility. See the Messaging Server Administration Reference for instructions.

The following example uses the `service.http.port` `configutil` parameter to change the standard HTTP port number to `8080`:

```
configutil -o service.http.port -v 8080
```

Communications Suite Compatibility Issues

For compatibility issues affecting Communications Suite products and dependent products and shared components, Communications Suite Compatibility Issues.

Problems Fixed in This Release of Communications Suite

This section lists problems fixed in this release of Communications Suite.

Uninstall prior Calendar Server localization packages before installing Communications Suite 6

(For CI 6.0-0.02 and later. This issue does not exist on CI 6.0-0.01.) You must uninstall the prior Calendar Server localization packages before installing Communications Suite 6. Otherwise (at least on Red Hat Linux), the Calendar Server installation fails.

Known Issues in Communications Suite

This section describes the known issues that exist in this release of Communications Suite. Specifically, this section describes installation and upgrade issues.

6986140

MySQL cannot be installed in a sparse zone
By default, the Communications Suite Installer does not install shared components in a sparse zone. Shared components should be installed in the global zone so that they are propagated to the sparse zones. However, when you install the MySQL shared component in the global zone is not propagated to the sparse zone. The Oracle Communications Calendar Server for CALDAV Clients uses MySQL as its back end, thus it cannot be used in a sparse zone.

MySQL has a request script in its packaging, and if you attempt to install it in the global zone, it is only installed in the global zone (unlike other shared components). The workaround is to not install the Calendar Server back end in a sparse zone, and instead to use a whole root zone.

6986214

MYSQL-MARKER package when installed in the global zone, installs into all non-global zones

When using zones, you should install Communications Suite components into whole root zones. However, it is stated that sparse zones are supported, and in that scenario, shared components should be installed into the global zone. In another scenario, it is also stated that you can manage shared components for all zones from the global zone. In the case where shared components are installed in the global zone, Oracle Communications Calendar Server for CALDAV Clients' shared components have issues. The first is CR 6986140. The second is this CR. After installing Calendar Server shared components in the global zone, if you install Calendar Server in a zone, an error appears, stating that the MYSQL-MARKER package is already installed. The workaround is to use the `--pkgOverwrite` switch to the `commpkg install` command in the zone. The preferred solution is to not install the Calendar Server shared components in the global zone. Instead, use a whole root zone.

6933975

Access Manager 7.1 install fails if `sun-ldapcsdk-libs` 6.0.8 rpm is already installed on Red Hat 5

Access Manager 7.1 requires LDAPCSDK version 6.0.6, but the Comms 7 Update 1 installer installs version 6.0.8, causing the Access Manager installation to fail. First, manually remove LDAPCSDK 6.0.8 rpm, then install Access Manager 7.1.

JDK Upgrade Can Affect Other Products' Upgrade

The JDK upgrade can affect the upgrade of other products. For details, see Compatibility Issues.

6785668 (Fixed in Communications Suite 6 Update 2)

When you install `comm_dssetup` only, the Communications Suite installer does not install the `SASL`, `NSS`, and `ICU` shared components.
The `comm_dssetup` script requires `SASL` because `ldapsearch` needs it.

This issue occurs only if you run the Communications Suite installer and select `comm_dssetup` without selecting any other Communications Suite products. This scenario may occur in a multi-host deployment, where `comm_dssetup` is installed with Directory Server on separate machines, and no other Communications Suite products are installed on those machines.

The shared components *are* installed when you install Communications Suite products such as Messaging Server with `comm_dssetup` on the same machine.

Note: `comm_dssetup` is installed and runs on machines where Directory Server is located. This issue occurs when you install Directory Server with the Directory Server zip file version, which does not install the `SASL`, `NSS`, and `ICU` shared components in the standard location. This installation method is recommended on the Communications Suite software download site.

If you install Directory Server with the Java ES installer, these shared components are installed. However, this approach is not recommended because it installs an older version of DSEE.

Workaround: When you run `commpkg install`, you are prompted to select components to install. Enter `~1, 3`.

This choice directs the Communications Suite installer to install `comm_dssetup` (selection 3) and the shared components associated with Messaging Server (selection ~1). It does not install the Messaging Server software.

The tilde (~) prefixed to a product selection directs the Communications Suite installer to install the shared components associated with a product, but not the product itself.

6766549 (Fixed in comm_dssetup 6.4p4 Communications Suite 6 Update 2)

`comm_dssetup.pl` is unable to locate ldapsearch. `comm_dssetup.pl` may not be able to locate ldapsearch if you install it in an altroot location.

Workaround: Install `comm_dssetup.pl` in the default root location.

pkgadd will fail on systems with greater than 2 TB of space (fixed in R6u2)

Currently this issue occurs only on ZFS file systems that are available only on Solaris 10. This is due to Solaris bug 6514450, which is fixed in patch 119254-61(sparc)/119255-61(sol x86) or later.

Workaround: Download and apply the patch.

6659438

The Communications Installer fails when a directory contains a space.

The `commpkg` utility fails when the current directory includes a space in its name.

Workaround: Do not use `commpkg` in a path that contains a space in its name.

6653773

Access Manager 7.1 fails to start if it is deployed to a non-enterprise (EE) version of Application Server 9.1.
For details, see Communications Suite 7 Compatibility Issues.

6990483

MySQL installation fails in an altroot if already installed in default root
If you install MySQL Server in the default root (typically by installing Calendar Server 7), then you install MySQL Server (again, for example, by installing Calendar Server 7) in an alternate root, the installation task to install MySQL "fails."

No Localization Files for Communications Express (Release 7 No Longer Delivers Communications Express)

No localization files are available for Communications Express.
You see only English in the Communications Express interface, even if you try to change the preferred language to another choice.

`comm_dssetup` Utility

If you installed Directory Server Java ES (for example, Java ES 5 U1), the `comm_dssetup` utility is also installed. The Communications Installer comes with a newer version of `comm_dssetup` that you need to use.

Workaround: To upgrade to the current version of `comm_dssetup`, run `commpkg upgrade` and enter 3. If you are upgrading `comm_dssetup` only, see issue 6785668 above.

You must upgrade and run `comm_dssetup.pl` before upgrading the other component products that require it. Otherwise the `commpkg upgrade` of component products might fail (for example, Delegated Administrator and Messaging Server).

Directory Server 5.2 Issues with NSS 3.12

With the NSS 3.12 patch, you must run Directory Server 5.2 Patch 6 or later. See http://sunsolve.sun.com/search/document.do?assetkey=1-21-125359-09-1 and http://docs.sun.com/source/820-3003/index.html.

Communications Suite Supported Web Containers

Web Containers Supported in Oracle Communications Unified Communications Suite Version 7 Update 1

Component Product	GlassFish Server 2.1.1	Application Server 9.1 Update 2	Application Server 8	Application Server 7	Oracle iPlanet Web Server 7.0 Update 2	Web Server 6.1
Calendar Server for CALDAV Clients 7 Update 1	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
Communications Express 6.3	Not supported	Supported	Supported	Not supported	Supported	Not supported
Convergence 2	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
Delegated Administrator 7	Supported	Supported	Supported	Supported	Supported	Supported
Indexing and Search Service 1 Update 1	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
Instant Messaging Server 8 Update 3	Supported	Not supported	Not supported	Not supported	Not supported	Not supported

Notes:

The default installation paths for GlassFish Server 2.1.1. and Application Server 9 are the following:

Base installation directory: `/opt/SUNWappserver`
Domain directory: `/opt/SUNWappserver/domains/domain1`
Document root directory: `/opt/SUNWappserver/domains/domain1/docroot`

The default installation paths for Application Server 8 are the following:

Base installation directory: `/opt/SUNWappserver/appserver`
Domain directory: `/var/opt/SUNWappserver/domains/domain1`
Document root directory: `/var/opt/SUNWappserver/domains/domain1/docroot`

Connector for Microsoft Outlook Release Notes

Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Release Notes
Version 7.3 Update 1

These Release Notes contain important information available at the time of the general release of Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite.

Topics:

- About Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite
- What's New in This Release of Connector for Microsoft Outlook
- Deprecated and Removed Features for Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite
- Requirements for Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite
- Connector for Microsoft Outlook Installation Notes
- Connector for Microsoft Outlook Compatibility Issues
- Problems Fixed in This Release of Connector for Microsoft Outlook
- Known Limitations and Issues in Connector for Microsoft Outlook
- Redistributable Files for Connector for Microsoft Outlook

Third-party URLs are referenced in this document and provide additional, related information.

> **Note**
> This software and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

About Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite

Connector for Microsoft Outlook enables Outlook to be used as a desktop client with Oracle Communications Unified Communications Suite.

Connector for Microsoft Outlook is an Outlook plug-in that must be installed on the end-user's desktop. Connector for Microsoft Outlook queries Messaging Server for folder hierarchies and email messages. It converts the information into Messaging API (MAPI) properties that Outlook can display. Similarly, it uses WCAP to query Calendar Server for events and tasks which are then converted into MAPI properties. With this model, Connector for Microsoft Outlook builds an end-user Outlook view from three separate information sources: mail from Messaging Server, calendar information from Calendar Server, and contacts from the address book server.

When users create and modify items through Outlook, Connector for Microsoft Outlook passes the new message along to the appropriate server depending on its message type. It sends new outgoing email to an SMTP mail server for delivery, and sends modified email messages back to the user's IMAP folder for storage. New calendar events and tasks are converted into a standard format to be stored in the Calendar Server database.

The address book service makes use of WABP and allows a user to have their personal address book accessible from Outlook, Convergence, and Communications Express.

> **Note**
> The package that is Connector for Microsoft Outlook does not include any migration tools. You need those tools if you have users that are currently on Microsoft Exchange and would like to use Outlook with Oracle Communications Unified Communications Suite. Oracle provides a migration service to help move data and users from an existing Exchange deployment to Oracle Communications Unified Communications Suite.

What's New in This Release of Connector for Microsoft Outlook

See the What's New document.

Deprecated and Removed Features for Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite

The following features have been deprecated in Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite:

- Support for Microsoft Outlook 2000.
- Support for Microsoft Outlook 2002/XP.

The following versions have been deprecated in Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite:

- Connector for Microsoft Outlook 7.1
- Connector for Microsoft Outlook 7.2
  Going forward, no new features will be added to Connector for Microsoft Outlook versions 7.1 and 7.2. These versions have been deprecated in favor of Connector for Microsoft Outlook 7.3.

Requirements for Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite

See Requirements for Communications Suite 7 Update 1 and Requirements for Connector for Outlook.

Connector for Microsoft Outlook Installation Notes

Connector for Microsoft Outlook is an Outlook plug-in that requires installation on the end users' desktop. A deployment and configuration program is provided to aid the organization in deploying Connector for Microsoft Outlook.

> **Note**
> Before you install Connector for Microsoft Outlook, please check the Get the Software page for the latest information about any required patches.

The installation and deployment is a three-step process.

Installing Connector for Microsoft Outlook

1. Install the administrator package.
2. Create an installation package for the end user.
3. Deploy the installation package.

The Connector for Microsoft Outlook packages ships an installer for the administrator package. The system administrator should prepare a special installation package called the Setup Wizard for the end user. The Setup Wizard installs and configures the Connector for Microsoft Outlook software on the end user's desktop. This installation package is designed to simplify and automate the installation process.

For installation, configuration, and deployment instructions please see the following:

- Installing the Desktop Deployment Toolkit describes how to install the administrator package. The steps to install Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite is same as installing Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite 7.3.
- Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Administration Guide describes how to create an installation package for the end user using the Deployment configuration Program.
- Deploying Connector for Microsoft Outlook describes the deployment of the Connector for Microsoft Outlook.

Converting Data

One of the optional steps that can be performed during setup and configuration of Connector for Microsoft Outlook is the conversion of data that resides on the desktop. This conversion process is invoked only if the administrator checks the Convert existing profile option during the creation of the end user installation package. Please note, this conversion process is not intended to, nor does it replace the need for server-based migration. Oracle provides a migration service to help move data and users from an existing Exchange deployment to Oracle Communications Unified Communications Suite.

LDAP Attributes

In order for Connector for Microsoft Outlook to function correctly, the following LDAP attributes in the Directory Server should be indexed for at least presence and equality to improve the overall performance:

- `icsCalendar`
- `mail`
- `mailalternateaddress`

For more information on these attributes, see the Calendar Server Administration Information and the Messaging Server Administration Guide.

Connector for Microsoft Outlook Compatibility Issues

Refer to the following Technical Notes for information about compatibility issues with Connector for Microsoft Outlook and other products or applications:

- Configuring Calendar Server for Connector for Microsoft Outlook: describes specific configuration tasks and other considerations for Calendar Server to work with Connector for Microsoft Outlook.
- Tuning Communications Express to Work With Connector for Microsoft Outlook: describes interoperability issues and tuning tips when using Communications Express with Connector for Microsoft Outlook.
- Tuning LDAP to Improve Searches in Communications Services Clients: provides tips for improving searches in Communications Express and Connector for Microsoft Outlook.

> **Note**
> Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite does not support Oracle Communications Calendar Server for CALDAV Clients.

Problems Fixed in This Release of Connector for Microsoft Outlook

From the README:

Fixed in most recent release:

```
6959758 OC installation gives error when using localized Outlook/Windows
6960369 Crash on sync of AB with Contact with Multiple certificates
6968222 DL created in OC display as Group instead of their name
6968225 Upgrading OC using rebranding build displays warning message for
WPW location
6968235 Empty/resync for contact folder loses users full name
6968475 Rebrand product from Sun to Oracle

(from 139162-08)

6946771 Problem with wrong meeting organizer
6950034 when upgrading  from (French) oc73u1p05 to p07 error "An
unsupported operation was attempted" occurs
6952429 Tasks from subscribed calendar incorrectly displayed in OL 2K7
in non English locale

(from 139162-07)

6826690 Add Windows 7 as supported Outlook Connector OS
6849783 OC should support coexistence with iTunes (used to sync iPhones)
6909596 Even with large PST file format OC displays 'reaching size
limit'
6910225 Horrible blinking of interface for encrypted messages
6911116 Addressbook/GAL look up does not reset the connection after a
socketException
6912157 Default values not populated correctly in the Deployment
Configuration Program.
6912169 Help not working in the Deployment Configuration Program in
Windows Vista(Japanese Locale)
6919644 Application crashes when sending mail through OC profile
6922155 Wrong icon is displayed for some messages in the list view
6922648 crashes on confirming a recurring event
6928851 wcap error -5010 when moving an instance of a recurring event in
a subscribed calendar
6931063 Switching from offline to online crashes OC, when non-empty AB
is deleted from another client
6932549 OC installer fails on profile creation w/ VISTA
6933843 crashes when using "Out of Office" in OL 2007
6934291 Allow users to create profile names during profile creation
6937101 UsrPrefAttribList is not recognizing attributes in newly created
.ini profile
6937750 Problem with initial sync hanging
6938054 OC installer ignores some command line options

(from 139162-06)

6756226 Never ending recurring meeting gets created in Outlook, when an
event is created from thunderbird
6777586 Monthly reccuring appointment created in IWC for the last day of
```

the month does not appear in OL
6884967 Undismissable outlook reminder for recurring never ending yearly event
6886101 Tasks from subscribed calendar incorrectly displayed in Outlook 2007
6888641 When an event with an attendee gets copied and pasted in OC's calendar, it appears double
6893332 Repeated quota warning popup when accessing folders
6895301 OC does LSUB for all the subscribed folders even those with /hasNochildren
6896873 Ability to uncheck "allow comma as address separator" in Outlook options
6904349 Unable to view subscribed IMAP folders
6905678 Switching from offline to online crashes OC, when Contact folder is deleted from another client

(from 139162-05)

6855254 Unable to delete calendar invitation mail from Inbox
6855257 Misleading warning message while copy mail from one folder to other
6856093 Unable to decline a meeting request when folder quota is full.
6867020 Non-default calendar gets displayed in list of subscribed calendars

(from 139162-04)

6328696 provide an option to get the _accurate_ size of the folders
6446668 make quota information available in folder-properties
6817367 OC crashes when Citrix user logs off without closing OC first
6818724 ACE's appear in properties with odd parsing of "who"
6819403 signed mail becomes displayed wrong in outlook connector
6827187 Provide option in deployment program to disallow save profile user password
6827550 Synchronizing folders in favorite folders is slow
6841083 Outlook Connector 7.3 - Cryptic error after user tries to save contact after reaching quota
6847674 OC crashes when user deletes or modifies a recurring event
6855648 OC crashes for the first time while importing customer ics file
6860752 Opening attachments in forwarded mail display as "message part not downloaded yet'

(from 139162-03)

6815998 Outlook Connector 7.3 is losing subscriptions - prob w/ WCAP response for get_userprefs.wcap
6836303 Outlook 2007 Service Pack 2 (SP2) - cannot read IMAP mail

```
6841590 Attachment details get lost when message is forwarded with OC
7.3.107.0
```

Fixed -02

```
6551080 SERVER: Not able to add members of default contact folder into
DL of shared non def contact folder
6777256 Outlook/Connector displays HTML enclosures as file type based on
"Content-description:"
6780464 Yearly recurring events created thru  thunderbird, doesn't
appear in Outlook
6785155 OC7.2.409: Buildup of backslashes in the CN(with special
chars)of meeting attendees with each update
6785111 Unable to install OC 7.2.409 with Outlook 2007 after upgrading
from Outlook 2003
6795339 Cannot add members from a shared addressbook into local DL
6815370 Incorrect behavior of radio buttons in Address Book tab in
deployment program
6815407 Need to remove the ability to upload attachments in events
```

Fixed in -01

```
6189748 Multiple Junk Email folders created...
6430419 Default calendar's description not synced both ways.
6513268 product name should be in English
6535251 OL2k7:Events disappear on modifying one occurence of recurring
appointment with attachments
6542799 Time zone mapping fails without explanation
6633416 Modification of appointment with attachment in OL is not
synchronizing with SJCS
6635311 OL2K7:Modifying an appointment is not allowing to dismiss
reminder when performing context switch
6646790 Outlook connector to use Sieve for Mail filters support, using
IWC protocol
6646791 Outlook connector to implement its own UI for Out-of-Office
functionality.
6647748 OC should sync all contacts folders
6649958 Pop ups unlocalized wrong message when try to create a Daily
Recurrence Appointment in Outlook
6651684 For meeting,timings changed from uwc is reverted to orig time on
opening orig OL invtn in attn inbox
6660487 Outlook Connector does not display imap quota warnings
6664699 IP: Bi-Weekly recurring appointment created in thunderbird is
not showing in outlook
6675233 Meeting created for user with no invite perms when large number
of attendees included in invitation
6675448 Service tag utility should be bundled with SJOC installer.
6676493 Popup reminders cannot be dismissed in Outlook 2003 SP3 for a
recurrence appointment with attachment
6687213 OL2k7: Inconsistency during never ending recurring meeting.
6690282 Outlook Connector:  Adding Ownership of Shared Calendars
6692691 OL2K7:LDAP Group attendee cannot able to accept/decline meeting
```

```
from inbox
6695468 l10n-de-Garbeled characters in Configurator and OL OLH's menu
6696126 OC7.3 - Incorrect link to next/previous in OLH page (French)
6698018 UI message not localised when selecting mail host server
manually
6698672 OC: When accepting invitation, outlook sent an irritating
response
6701410 param to configure "Expunge On Delete" via package.ini
6707394 Default Address books's description does not sync both ways
6708898 Outlook connector should display contact's photograph
6713167 Untranslated strings in Outlook Connector
6722312 Syntax error in line 30 of package.bat of OC Deployment
Configuration Program
6725851 Changed time duration for "All Day Event" is getting reset after
a context switch.
6730445 Subscribed default mail folder is not viewable.
6730989 Outlook crashes on uuencoded message with fix for bug 6575029
6731090 Vista: Performing empty/resync always displays wrong message
6732658 OutlookConnector: Resource is not present in Outlook
6733107 OL2k3:In attendee's calendar non ending recurring meeting will b
created instead of reccurren bound
6738017 Default ABS settings URL should be changed to IWC
6744364 OC/able to send an invitation to user for whom you do not have
permission to
6745139 wrongly sharing mail folders in a hosted domain setup
6750670 SERVER: Not able to delete Non default contact folder with
contacts in it when using Convergence ABS
6750758 Problem with deletion of multiple emails from Outlook virtual
folders
6751883 Timed event gets converted to an ALL day event on context switch
6759169 Recurring meeting request disappears from organizers calendar
when attendee modifies each occurrance
6767202 IP:Unable to delete the non default calendar created in UWC from
OL.
6768215 Doc: Release notes URL should be updated with the correct
version in README .
6768555 Incorrect error message when trying to install OC on a machine
that does not have Outlook installed
6773476 in attende's calendar , reply Time for an event is lost on doing
empty -resync
6775539 After accepting meeting, info bar displays the meeting is
accepted by organizer and not by attendee
```

```
6776138 IP: Monthly recurring event created in Thunderbird does not
appear in OL
```

Known Limitations and Issues in Connector for Microsoft Outlook

This section describes the limitations and known issues that exist in this release of Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite.

Limitations in Connector for Microsoft Outlook

Some limitations exist in this release of Connector for Microsoft Outlook. The key limitations are:

- Every distinct identity in the Directory Server (for example, users, resources, conference rooms) must have an email address.
- Rich text in the appointment and meeting description field is lost once the same calendar event is modified in the Communications Express client.
- Message recall functionality is not available.
- Description of events is not available when checking availability.
- Free/Busy lookup does not display TENTATIVE or OUT-OF-OFFICE color coding.
- The properties for Connector for Microsoft Outlook cannot be modified using the ToolsServices option from the Outlook menu. To modify the properties:
    1. Exit Outlook.
    2. Right click the Outlook icon and select Properties.
       The Properties dialog appears.
    3. Select Folders - < *your user name*>from the list of services.
    4. Click Properties.
- Free/busy lookup using SSL is not supported.
- Installing Connector for Microsoft Outlook on Exchange servers is not supported.
- Recurring tasks are not supported.
- Offline limitations:
    - During an offline session, if any item in a Calendar, Task, mail, or Contact folder is modified using Outlook, and then another client on the server is used to modify the same item, the changes made offline are lost when the user returns to online mode in Outlook. The changes made by the other client on the server remain.
    - When creating a new event in offline mode, the invitation is saved to the user's Outbox. If, while still in offline mode, the user opens the invitation, the invitation disappears from the Outbox once it is closed.
- Junk Mail Filter does not work for Outlook 2003 and Outlook 2007.
  The Junk Email feature available in Outlook 2003 and Outlook 2007 (select ToolsOption) does not function with Connector for Microsoft Outlook. Senders that are set to be filtered using this tool are not filtered.
  Because Outlook's Junk Email feature relies on the client to filter unwanted messages, Oracle recommends using a server-side solution. In client filters, like the one Outlook utilizes, the messages arrive in the user's Inbox, which is then moved to the Junk folder. This could potentially create unnecessary network traffic and slower response time.
  Users may use the ToolsMail Filter option, which utilizes the server-side filtering function. A more efficient solution would be to use a server-side virus or junk mail filter that is compatible with Messaging Server. Unsolicited email may be rejected at the MTA (message transfer agent) level and never arrive in the user's Inbox, saving resources and disk space. For a list of third-party partners, see Partner Lists.

Known Issues in Connector for Microsoft Outlook

This section describes the known issues at the time of this release of Connector for Microsoft Outlook. If known, IDs are included in parentheses.
The categories of issues discussed in this section are:

- General Issues in Connector for Microsoft Outlook
- Installation and Upgrade Issues in Connector for Microsoft Outlook
- Calendar Issues in Connector for Microsoft Outlook
- Mail Issues in Connector for Microsoft Outlook
- Address Book Issues in Connector for Microsoft Outlook
- Localization Issues for Connector for Microsoft Outlook
- Communications Express Interoperability Issues for Connector for Microsoft Outlook
- Microsoft Exchange Interoperability Issues
- Microsoft Outlook Issues

General Issues in Connector for Microsoft Outlook

No ID

Mail Quota and Folder Size dialog and documentation are not localized.

6550994 and 6766033

Non Default Contacts Folder Not Getting Deleted in Communications Express and Convergence
Workaround: Delete the contacts folder from the Deleted Items list in addition to deleting it from Outlook.

6689448

Close button on Mail Filters Page Does Not Work in Mozilla Firefox
Workaround: If the Close button on Mail Filters page or on the Out of Office Message page does not work in Mozilla Firefox browser, go to the `Program Files\Mozilla Firefox\greprefs` folder. Edit the `all.js` file by setting the value of the `dom.allow_scripts_to_close_windows` preference to true.

6570441

Vista: Not able to create user profile using silent installation
Workaround: Able to proceed with silent installation after enabling hidden administrator. With Administrator account, this issue is not reproducible. This is Windows Vista specific. This behavior is not seen in other flavors of Windows.

Steps to enable default administrator account in Vista:

1. Run the command `compmgmt.msc`.
2. Select Local Users and Groups from Left side Tree View.
3. Select Users. This will show all the users present on the machine.
4. Right click on "Administrator".
5. Click properties. Administrator Properties dialog box will be displayed.
6. Clear the option "Account is Disabled".(By default, this option is selected so the administrator account is disabled).

6604704

Outlook 2007: Not able to create profile using installation package
When you run the installation package to create a new profile, you get the following error and the profile is not created.

"Outlook is not installed on this machine. Please install Outlook 2000 with the Office 2000 Service Pack 3 or Outlook 2002 with the Office XP Service Pack 2, and then run this program again."
Issue is because of the missing registry sub-key.
HKEY_CLASSES_ROOT\Outlook.Application

You may experience this issue if you install a Microsoft Office 2003 program after the 2007 Microsoft

Office system is installed. For example, you experience this issue in the following scenario:

1. You install the 2007 Office system.
2. You modify the 2007 Office system installation to remove Microsoft Office Word 2007.
3. You install Microsoft Office Word 2003.

Workaround:

1. Exit all 2007 Office programs.
2. Click Start, click Run, enter `appwiz.cpl` in the Open box, and then click OK.
3. In the Add or Remove Programs dialog box, click Microsoft Office Version 2007, and then click Change.
4. In the Microsoft Office Version 2007 dialog box, click Repair, and then click Continue.

For other details see:
http://support.microsoft.com/kb/930010

> **Note**
> Outlook 2000 and Outlook XP/2002 are not supported.

Installation and Upgrade Issues in Connector for Microsoft Outlook

4930092

Unauthenticated Shared Drive Path Displays Warning.
For fields requiring a shared drive path, or UNC (Universal Naming Convention) be entered (for example, the shared path to the location for Microsoft Web Publishing Wizard on the Processes Tab of the Deployment Configuration Program), a validation warning is displayed that states the path does not exist if the user is not authenticated for the specified shared drive.
Workaround: The specified shared drive should be accessible by anonymous authentication, allowing anybody to access the shared drive.

No ID

Upgrade defaults to previous servers and ports.
When upgrading from the Connector for Microsoft Outlook 6 2004Q2 version to the Connector for Microsoft Outlook 7.2 version, if the server names and port numbers have changed, the upgrade only takes into consideration the old server names and port numbers.
Workaround: None.

Calendar Issues in Connector for Microsoft Outlook

The following issues relate the calendar portion of Connector for Microsoft Outlook:

6589461

Outlook 2007 Cannot Open the Internet Calendar (.ics) File When a Nondefault Calendar Is Shared Through Email.
When you open an Internet Calendar email attachment in Outlook 2007, for example, `Sample.ics`, the following error message is displayed:

```
The file "Sample" is not a valid Internet Calendar file. You cannot
create a new folder here.
```

Workaround: Perform the following steps:

1. Save the `Sample.ics` file from your email on your desktop.
2. From Outlook Connector File menu, select Import and Export.
3. Select the Import an iCalendar (`.ics`) or vCalendar file (`.vcs`) option from the actions list and click Next.
4. Click the Sample.ics file that you have saved on your desktop.
   The Do you want to open this calendar as a new calendar or import its items into your calendar dialog box appears.
5. Click Import.
   The contents of the Internet Calendar file are imported to the default calendar folder.

6595737

When a Resource is Double Booked, Outlook Incorrectly Shows The Second Event as Created.
When a resource is booked for two recurring events in the same time slot, and the first instance of the recurring event is deleted, the event is not created in the Calendar Server. However, Outlook 2003 displays the event in the calendar.
The following error message is displayed:

```
Operation failed. Double Booking is not allowed.
```

Workaround: None.

6835766

Need to Specify Minimum Version of `mapi32.dll`.
When you try to install Outlook Connector on a machine that has Groupwise installed, the following error message is displayed:

```
Error 5351 -- unable to install Mapi service directories
```

Workaround: If you have Groupwise installed in your system prior to installing Outlook Connector, you must replace the existing `mapi32.dll` with the latest one from another machine that has the same Outlook version.

6823613

Attachment Icon is Not Displayed in Outlook 2003
When a calendar event with attachment is created in Outlook 2003, the attachment icon is not displayed.
Workaround: None.

5104189

Creating a new calendar profile brings up the old calendar reminders.
When logging in for the first time to a newly created calendar profile in Outlook that is set to your default Calendar Server, Outlook alarms pop up for old events as well as for future events. This applies only for recurring events where the entire series does not take place in the past.
Workaround: None.

6190293

Names of subscribed calendars not visible in Calendar view.
When you first subscribe to a calendar, the calendar name is labeled as "Calendar", not the name of the subscribed calendar.

Workaround:
To see the name of the subscribed calendar, log off Outlook and then log back into Outlook. The subscribed calendar's name should be displayed.

6292026

Opening a shared calendar link does not hook into subscription (Outlook 2003).
In Outlook 2003, clicking the calendar icon at the bottom of the left pane, displays the calendar view. Within that calendar view, clicking "Open a Shared Calendar" displays a dialog that allows the user to enter the user name of a shared calendar. When the user name of a known shared calendar is entered, the error "Unable to display the folder. Your profile is not configured to support this operation for this user." is displayed. This occurs also with contacts and tasks.
Workaround:
To view a shared calendar, select the shared calendar folder in the folders list.

6409671

Unable to remove attachment from an instance of a recurring event.
If a user creates a recurring event that includes an attachment, then attempts to remove the attachment from a single instance of the recurring event, the attachment is not deleted because an attachment usually gets created for a series and not for a single occurrence.
Workaround: None.

No ID

The following are additional issues related to the calendar portion of Connector for Microsoft Outlook that do not have IDs:

If delegate accepts or declines an invitation from the organizer's Shared Inbox, the calendar event is added to delegate's calendar, but not to the organizer's calendar.

- Microsoft TNEF messages are sent when sending calendar attachments. iTIP and iMIP calendar attachments are not supported.
- All Day events may become a non-All Day events (one event scheduled from 12:00am until 12:00pm) if the desktop time zone is different from the Calendar Server calendar time zone.
- Changing permissions of a calendar requires restarting Outlook for the new permission setting to take effect for the Calendar folder in the Shared Calendar.
- Tasks displayed in Shared Calendars are the login user's tasks, not the subscribed user's tasks. The calendar view always shows the login user's tasks.
- If you create a recurring invitation in Outlook, but delete a single instance of that event, the recipients (attendees) will not see the deleted invitation if Calendar Server has not processed the initial recurring invitation before the deletion.

Mail Issues in Connector for Microsoft Outlook

The following issues relate the mail portion of Connector for Microsoft Outlook only:

2142968 and 6482360

Message recall does not work.
When a sender attempts to recall a message that was sent, the recall attempt fails. The recalled message is not deleted from the receiver's mailbox.
Workaround: None

Address Book Issues in Connector for Microsoft Outlook

The following issues relate to the Address Book portion of the Connector for Microsoft Outlook.

6225049

Deleting a contact from Communications Express does not delete it from Outlook.
The Communications Express configuration parameter `delete_perm` in the `db_config.properties` file needs to be set to false in order for Outlook to capture contact entries which have been deleted from Communications Express. The entry should be:
`delete_perm=false`
The default is true. The entry can be found at
`/var/opt/SUNWuwc/WEB-INF/config/ldapstore/db_config.properties` .
Workaround: Manually fix the entry.

6752539

Cannot Delete a Contact Photo from Outlook Connector
When you right-click the contact photo and select Remove Picture, the photo is not deleted from the contact.
Workaround: None.

6228253

Login to Address Book Server Through Outlook Fails When Address Book is in SSL Mode.
Workaround:
Open Communications Express or Convergence (depending on which address book server you have configured your profile) in Internet Explorer and permanently accept the self-signed certificate.

6267180

Shared contact does not get removed from Address Book after you have unsubscribed.
After you have unsubscribed to a shared contact, it is not removed from the "Show Names from the" list of the Address Book.
Workaround: There are two workarounds:

- If the subscribed contact has been added to the "Show Names from the" list of the Address Book," you should clear the "Show this folder as an email Address Book" option from the "Outlook Address Book" property page before you unsubscribe from the contact.
- Remove the contact directly from the address book properties.
  In Outlook 2003:
  Select Tools > Email accounts.
  Choose "View or Change Existing Directories or Address Books" and select "Outlook Address Book" to change.
  Select the item to remove from your address book.
  In Outlook 2007:
  Select Select Tools > Account Settings.
  Click on Address Books.
  Select "Outlook Address Book" from the list of services set up in your profile.
  The Microsoft Outlook Address Book properties window is displayed.
  Select the item to remove from your address book and click Close.
  Note that user must logout and login again for the change to reflect.

Localization Issues for Connector for Microsoft Outlook

The following issues affect the localized versions of Connector for Microsoft Outlook:

6970479

Chinese - localized online help for deployment tool doesn't work.

6767897

Cancel Button in the Edit Filter Window Does Not Work in the French Locale
In the French locale, when you click Cancel in the Edit Filter window, the Cancel button does not work.
Workaround: Click the Close button to cancel the Edit operation.

6648138

English Names Are Displayed For IMAP Folders in French Locale
In the French locale, when you create a profile with Communications Express or Microsoft Outlook style folder mappings, folders such as Deleted Items, Sent Items, and Drafts are displayed in English. Only the Inbox folder name is displayed correctly.
Workaround: None.

6777127

Help Button Does Not Work in Korean Locale
In Korean locale, when you click the Help button from Out of Office Message or Mail Filters window, the Help page is not displayed.

Workaround: To view the Help, go to the following location and click the required topic from the contents:

```
Help -> Connector for Microsoft Outlook Help
```

6306873

Cannot Enter Non-ASCII Characters In The Full Name Field In The Install Wizard in Korean Locale
In the Korean Install wizard, when you enter non-ASCII characters in the Full Name field, the characters are displayed incorrectly.
Workaround: None.

6767893

Deplacer vers le haut (Move Up) Button in the Mail Filters Page is Not Displayed Correctly in French Locale
Workaround: None.

6672540

Multibyte Shared Calendar Name is Displayed as Question Marks
When you subscribe and query the multibyte shared calendar of another user, the calendar name is displayed as question marks.
Workaround: None.

6313321

Cannot convert IMAP profile name in Japanese.
If an IMAP profile already exists, and this profile has never been used by Outlook, the conversion fails.
Workaround: None.

6541324

After Deploying Outlook Connector in Traditional Chinese, Folder Names in Outlook 2007 Do Not Display Correctly
When you install Outlook Connector on a machine running Windows 2003 with Outlook 2007, the folder names are garbled.
Workaround: None.

6742345

Message Received in Simplified Chinese With HZ Encoding Is Garbled
When you send a message in Simplified Chinese with HZ encoding, the message is garbled on receipt.
Workaround: Choose from the following outgoing message encoding options:

- Plain Text format – GB2312 or GB18030 combination
- HTML or RTF format – any combination

Communications Express Interoperability Issues for Connector for Microsoft Outlook

The following issues relate to the interoperability between Connector for Microsoft Outlook and Communications Express:

6752413

Contact Folder Named "Calendar" Created in Communications Express Replaces the Default Calendar in Outlook Connector
When you create a contact folder named "Calendar" (case-sensitive) in Communications Express, it replaces the default calendar folder in Outlook Connector. Thus, all data in the calendar folder is lost.
Workaround: None.

4949659

Address Change in From: header
The name in the From: header changes if an attendee replies to an event invitation and attaches the `winmail.dat` calendar invitation. For example, Joe (using Outlook) sends an invitation to an event to Bob. Bob replies to Joe, using an email client that automatically sends the original `winmail.dat` calendar attachment back to Joe. When Joe opens the reply, the From: header is changed to Joe.
Workaround: None.

4969029

Email ID is a must for Outlook.
If a person with a calendar ID but no email ID is invited to an event in Communications Express, this person is not displayed as an attendee in Outlook. An email ID is required for Outlook.
Workaround: None.

5032872

When you unsubscribe, the calendar does not get removed from the folder list.
If you subscribe to or unsubscribe from a calendar in Communications Express, the information is updated in Outlook only after Outlook has been restarted. Additionally, if the LDAP configured for lookup is a replica, the subscription list is not updated until the replica is updated.
Workaround: None.

6175103

Error generated when Outlook synchronizes with server.
If a task is created (either in Outlook or Communications Express) while Outlook is synced with the server, then the task is deleted and the user attempts to switch to the Tasks folder in Outlook, an "Unable to display all cells due to low memory" error is generated.
Workaround: Switch to another folder and then back again to the Tasks folder.

6229276

Configuration parameter needs to be set in order for address book server contacts to be properly synchronized.

Workaround: The Communications Express configuration parameter `delete_perm` in the `db_config.properties` file needs to be set to false in order for Outlook to capture contact entries which have been deleted from Communications Express. The entry should be:
`delete_perm=false`
The default is true. The entry can be found at
`/var/opt/SUNWuwc/WEB-INF/config/ldapstore/db_config.properties` .

6351914

Limitations in calendar alarms.
Because of the difference in how Outlook and Communications Express handle alarms and reminders, changes in one interface are not reflected in the other. Outlook utilizes pop-up windows as alarms, while Communications Express (Calendar Server) sends email reminders. In order to not replicate alarms when both interfaces are used (having both a pop-up and email reminder sent), Connector for Microsoft Outlook allows alarm synchronization upon creation of events in a single direction only. For example, when a new event is created using Communications Express, the alarm is copied to the Outlook event (as a pop-up). But when creating an Outlook event, the alarm is not set on the server.
Workaround: To allow the synchronization to work from Outlook to Communications Express, a registry value can be set in outlook: `HKEY_CURRENT_USER\Software\Sun Microsystems\Outlook Connector\Sync Cal` To turn this on, set the value to 1, and to turn it off, set the value to 0 (or remove the key. Note that setting the registry value will only have effect when creating new events. Modifying existing events only affects the alarm type associated with the client performing the modification.

No ID

The following are additional issues related to Communications Express interoperability that do not have IDs:

- **RTF formatting in Outlook is not preserved if the description text is edited using Communications Express.**
- **Differences exist in privacy classes between Outlook and Communications Express.**
  Outlook has two privacy classes (Private and Public), while Communications Express has three classes (private, Date and Time only, and Public). In Outlook, a private event is created as a "Date and Time only" event in Communications Express. A public event in Outlook maps to the public event in Communications Express. Similarly, a Communications Express "Date and Time Only" event maps as a private event in Outlook, and a public event maps as a public event in Outlook. A Communications Express private event also maps to Outlook as a private event. To create a private event in Outlook so it appears as a private event in Communications Express, select "Free" from the "Show time as:" field. The Communications Express private event cannot be seen in a shared Calendar folder by another user.
- **There are differences in the way free/busy is implemented in Outlook and Communications Express.**
  The default private event is free in Communications Express. If the event is to be included for free/busy lookup, then it should manually be set to busy. In Outlook the default events are busy for both private and public events.
- **If you export an event from Communications Express to a file in Outlook format, you cannot import the event from the same file into Outlook.**
- **Incompatibilities exist in how recurring tasks are implemented in Outlook and Communications Express.**
  Recurring tasks in Outlook do not conform to RFC 2445 while Communications Express is specifically designed to work with RFC 2445-compliant information. This causes problems when recurring task information is passed between Outlook and Calendar Server.
  Information stored locally by Outlook does not always match information which is stored on the Calendar Server. Connector for Microsoft Outlook, for example, does not transfer any information dealing with the recurrence of a task to the Calendar Server. Any tasks created in Outlook (recurring or non-recurring) appears in Communications Express as single tasks. A task that is created in Communications Express only uses the recurring information from the Calendar Server when that task is written for the first time in the Outlook client and not during any modification of any existing task on Outlook.

For these reasons, recurring tasks viewed in Outlook and tasks viewed in Communications Express appear different in many cases. We recommend that users who work with recurring tasks choose either Outlook or Communications Express and not attempt to work with recurring tasks in both clients interchangeably.

- **If a message is sent from Outlook in Rich Text format, the message contains a plain text body with no formatting and a `WINMAIL.DAT` attachment.**
  The `WINMAIL.DAT` attachment contains the Rich Text message along with any other attachments that may have been added. Because the format is Microsoft proprietary, only Outlook can read the `WINMAIL.DAT` attachment. Communications Express (and any other client) sees only the unformatted text message and a `WINMAIL.DAT` attachment. It is recommended that HTML format be used instead of Rich Text format to send messages.
- **If contacts groups in Outlook contain external SMTP mail recipients or other contacts groups, they are not seen by Communications Express.**
  Communications Express and Convergence cannot send mail to these recipients.
- **Communications Express and Convergence cannot decode and display Microsoft TNEF format.**
  Outlook saves calendar events and tasks (any calendar folder not under the Calendar folder tree), contacts (any contacts folder not under the Contacts folder tree), notes, and journals in the Messaging Server. Because the data is saved as Microsoft TNEF format, Communications Express and Convergence cannot decode and correctly display them.

Microsoft Exchange Interoperability Issues

The following issues relate to the interoperability between Connector for Microsoft Outlook and Microsoft Exchange:

6174201

Free Busy Proxy for Exchange does not return complete Free/Busy information.

Workaround: None.

6255190

Cannot recover deleted items.

After selecting "Empty Deleted Items Folder," Connector for Microsoft Outlook does not allow for recovery of deleted items.

Workaround: None.

No ID

Receipt of a message with embedded OLE objects and HTML in RTF from Exchange (versions 5.5, 2000, and 2003) to Connector for Microsoft Outlook does not work.

Workaround: None.

Microsoft Outlook Issues

The following are issues with Microsoft Outlook:

> **Note**
> These issues are general issues with Microsoft Outlook, and are not specific issues with Connector for Microsoft Outlook.

6365369

Limitations for non-default calendars.

Limitations exist when attempting to perform operations on a non-default calendar with Outlook:

- Free/Busy information is not displayed.
- Reminders cannot be set on an event.
- Attendee responses to invitations from non-default calendars are not tallied.

Workaround: None.

6953237

Conflicts with Windows Search Service (WSS)

Outlook Connector might not work as expected if WSS is enabled.

Workaround:

Turnoff WSS for Outlook.

1. From Outlook 2007:
   Tools->Instant Search -> Search Options
2. From Control Panel:
   Remove Outlook from Indexing services
3. Using group policy:
   http://technet.microsoft.com/en-us/library/cc178983%28office.12%29.aspx

Redistributable Files for Connector for Microsoft Outlook

Connector for Microsoft Outlook does not use any redistributable files.

Convergence Release Notes

Convergence Release Notes Version 2

These Release Notes contain important information available at the time of the general release of Convergence 2, including:

- About Convergence 2
- What's New in This Release of Convergence
- Requirements for Convergence 2
- Convergence Installation Notes
- Problems Fixed in This Release of Convergence
- Known Issues and Limitations in Convergence
- Redistributable Files for Convergence

About Convergence 2

See Introduction to Convergence.

What's New in This Release of Convergence

See the What's New document.

> **Note**
> **Be sure to install Convergence 2 Patch 1 which (as of Mar 3, 2011) is now available.**

With the patch you are able to customize:

- the UI
- Widgets
- Themes

To customize your Convergence UI, refer to Convergence Customization Guide.

> **Note**
> While you were able to customize themes in Convergence 2, the method for theme customization has been modified in Convergence 2 Patch 1. If you have either already customized themes in Convergence 2, or you have yet to customize your themes, refer to the instructions in CommSuite:Customizing Themes and Banner in Convergence 2.

Requirements for Convergence 2

For Communications Suite requirements, see the Requirements for Communications Suite 7 Update 1.

For requirements specific to Convergence, see the Requirements for Convergence 2.

Convergence Installation Notes

See the Communications Suite Installation Guide for information on installing Convergence.

Running the Convergence Initial Configuration Program in Secure Mode

In some configurations, the Convergence `init-config` program fails when Convergence uses the `secure=true` option to run the Application Server `asadmin` commands. Specifically, the `asadmin` commands invoked by `init-config` fail in this situation.

Situation: This issue occurs when the Application Server is configured to run in non-secure mode, and the Convergence `init-config` program is configured to run the Application Server `asadmin` commands in secure mode. In the Convergence `init-config` program, the **Secure Administration Server** check box is checked by default.

Solution: If you are running Application Server in non-secure mode, when you run the `init-config` program, uncheck the **Secure Administration Server** check box in the Application Server: Administration Instance Details panel.

If you are running Application Server `asadmin` in secure mode, you can accept the defaults when you run `init-config`.

Problems Fixed in This Release of Convergence

12289741

SUNBT6932840 Modifying one instance of a recurring event to an all day event causes an error.

You can no longer change one instance of a recurring event to an all day event.

12237858

SUNBT6701571 If a user logs into Convergence while the mail service is down, the mail is inaccessible after `msshttpd` is enabled.

12236066

SUNBT6694006 Mail filter creation fails if you select a folder whose name contains an ampersand (&)

12233754

SUNBT6686058 Presence alert does not close completely (or right away) when clicking Close button

12259664

SUNBT6794669 When composing a mail, the To, Cc, and Bcc labels appear as hyperlinks but do not have any actions associated with them

Workaround These fields were provided to add contacts from the address book. Click the + symbol adjacent to the fields to add contacts from your address book.

12266559

SUNBT6824767 Filter does not work if folder selected is a subscribed folder

If a mail filter is created in such a way that emails are filtered into a subscribed folder, the filter does not filter messages correctly even if appropriate permissions are granted.

12278743

SUNBT6880611 Unable to connect to Convergence address book server through Sun Java System Connector for Microsoft Outlook

This issue is seen with Sun Java System Connector for Microsoft Outlook (Outlook Connector) configured with Convergence. When Outlook Connector users try to access address book by clicking on the Address Book tab, the connection to Convergence address book server cannot be established. The following error message is displayed:

```
unable to establish a session with Address Book Server
```

12236066

SUNBT6694006 When you create a mail sieve filter, if you want to include special characters in the mail filter name, you must use Character Predeclared Entities.

For example, a & or < characters are special characters in XML, and if you enter them in the mail filter name without using a Character Predeclared Entity, an "invalid formatting" error will be returned.

Known Issues and Limitations in Convergence

The Convergence known issues are grouped in the following categories

- Known Issues: General and Authentication
- Known Issues: Configuration
- Known Issues: Mail
- Known Issues: Calendar
- Known Issues: Address Book
- Known Issues: Instant Messaging
- Known Issues: Options
- Known Issues: Customization
- Known Issues: S/MIME

Known Issues: General and Authentication

12308270

Beginning with Sun GlassFish Enterprise Server 2.1.1 Patch 7, OpenSSO does not work

12307354

SUNBT7015637 When high security options are set in browsers, thus disabling JavaScript, the Convergence Login page partially renders the user name and password text boxes. Furthermore, there isn't a way to submit the login form.

Workaround: Run JavaScript (known as Active Scripting in Internet Explorer).

12295290

SUNBT6955552 Configurator does not allow for ISS Proxy Authentication.

To enable ISS Proxy Authentication with Convergence, run `iwcadmin` with the following configuration parameters:

```
iwcadmin -u admin -o ISS.enable -v true
iwcadmin -u admin -o ISS.enablessl -v true  (if SSL is used)
iwcadmin -u admin -o ISS.host -v <FQDN of ISS host>
iwcadmin -u admin -o ISS.port -v <ISS port>
iwcadmin -u admin -o ISS.proxyadminid -v <uid of proxy user>
iwcadmin -u admin -o ISS.proxyadminpwd -v <plaintext password of proxy
user>
```

If ISS Proxy Authentication is enabled in Convergence 1.x and you upgrade to Convergence 2, attachment search will not work until you set the Proxy Authentication user name and password when enabling ISS Proxy Authentication in Convergence 2 as shown in the above table.

12293332

SUNBT6947126 Convergence cannot be used with Oracle Directory Server Enterprise Edition 7.0 if VLV indexing is enabled

VLV indexing causes crashes in Oracle Directory Server Enterprise Edition 7.0.

> **Note**
> With Convergence 2, use Oracle Directory Server Enterprise Edition 11g Release 1 (11.1.1), Oracle Directory Server Enterprise Edition 6.x, or 5.x.
> Refer to Additional Product Requirements for Convergence 2.

12276702

SUNBT6870440 Single Host with Indexing and Search Server: Switching between attachments and Inbox makes the Application Server unresponsive

If Convergence and ISS are deployed on the same instance of application server, the application server becomes unresponsive when users switch between the Attachments folder and Inbox.

To fix this, perform the following steps:

1. Set number of request processing threads to double the number of CPUs in the system. This can be done by setting the `server.http-service.request-processing.thread-count` parameter in application server using the `asadmin` command.
   Here is an example:

   ```
   # asadmin set
   server.http-service.request-processing.thread-count=8
   ```

2. Restart the application server.

12260178

SUNBT6796627 Firefox 3 browsers on Windows Vista platforms: users cannot delete with the Delete key if there is not a scroll bar in the mail grid

Workarounds:

1. Use the toolbar Delete button.
2. Resize the middle pane in order to create a scrollbar. You will now be able to delete with the keyboard Delete button.

12237777

SUNBT6701184 The Note field in the Create or Edit Contact screen does not highlight a misspelled word in Internet Explorer 6 and 7

12237920

SUNBT6702002 Creating a group saves the help text if the user does not enter any values

12237334

SUNBT6699051 If pop-up windows are blocked in the user's browser, functions such as printing dialog, IM, timeout warning, and navigate away warnings do not work.
From the user's perspective, it appears that these functions do not work. Convergence does not display a dialog telling users to enable pop-ups.

12235184

SUNBT6691137 Timeouts are reported in dialogs as formatting errors
If you take an action such as creating a mail folder and wait until the action times out, the error dialog tells you there was a formatting error in the folder label. It does not say that your action timed out.

12235075

SUNBT6690719 Pressing the Tab repeatedly gives usability issues in Create Contact
When creating an Address Book contact, click the work email field then keep pressing the Tab key. After the Notes field, if you press the Tab key, focus shifts to the Buddy List.

12233759

SUNBT6686064 The Show Contact in presence alert should highlight the contact in the roster

12213298

SUNBT6610071 Reloading the page causes the Mail tab to be displayed, no matter which tab was displayed originally.
For example, if you are viewing the Address Book and reload the page, the Mail view is displayed.

Known Issues: Configuration

12640234

Patching resets the `iwcadmin` port in `iwcadmin.properties` and GlassFish domain

The `iwcadmin.properties` file in /var/opt/sun/comms/iwc/config contains the following information:

```
userid=admin
port=50005
secure=false
truststorepath=
truststorepasswd=
versionfile=/var/opt/sun/comms/iwc/config/version.properties
```

If the you have customized the port number to something other than `50005`, you must also modify the `web.xml` in the web container. For GlassFish Server, the path is:
`/opt/SUNWappserver/domains/domain1/applications/j2ee-modules/Convergence/WEB-I`

.

In `web.xml`, you need to change the following port number to match the port in `iwcadmin.properties`:

```
<context-param>

     <description>Rmi Registry port for JMX RMI Connector
Server</description>

     <param-name>RMI_REGISTRY_PORT</param-name>

     <param-value>50005</param-value>

    </context-param>
```

After modifying `web.xml`, restart the Application Server.

12262410

SUNBT6806196 Cannot configure or upgrade Convergence if Application Server is configured with CA signed certificate

When Convergence is configured or upgraded on application server configured with CA signed certificate or SSL, the configuration step where application server deploys the Convergence web archive stalls and does not complete. This is because application server waits on the administrator input to accept the certificate.

Workaround:
Perform the following steps to deploy and configure or upgrade Convergence on Application Server configured with a CA certificate:

1. Execute any of the Application Server's `asadmin` command:
   Here is an example:

   ```
   # /opt/sun/appserver/bin/asadmin get --port <AppServer Domain
   Administration Port> *
   ```

2. Accept the CA certificate when prompted.
3. If you are configuring Convergence for the first time, remove the `/var/opt/sun/comms/iwc` folder and reconfigure Convergence using the `init-config` command.
   If you are upgrading Convergence, re-apply the patch.

Known Issues: Mail

12351452

While saving a `.csv` attachment from a Mail message when using Internet Explorer 8, the attachment is automatically saved as an `.xls` attachment

This scenario only occurs when the mail recipient is reading the message on a PC on which Microsoft Excel is installed and the message has been sent from a PC on which Microsoft Excel is installed. The `.csv` attachment is marked as `Content-type: application/vnd.ms-excel` in the message source.

12297417

SUNBT6965282 Email subject search does not work when search string contains space
How search is enabled for Convergence may yield different results. The results returned by an IMAP SEARCH will differ depending on whether or not Messaging Server is configured with `service.imap.indexer.enable` to use the Indexing and Search Service. The IMAP specification states that a SEARCH operation should ignore white space. However, the search operation by the Indexing and Search Service is done as whole-word searches.

12306903

SUNBT7013716 Convergence 2 Mail defaults message search to Subject only instead of Subject or Sender

12276629

SUNBT6870057 Convergence mangles rich text pasted in from Microsoft Word
This issue is seen with emails that have body content copy-pasted from a Microsoft Word document. Users might see garbled text in XML format displaying Microsoft Word specific tags. This happens when users log in to Convergence using Internet Explorer.

12275399

SUNBT6863476 Attachment Search does not work properly with CCJ character set file names

This issue occurs only when there are 2 or more complete characters of the file name in the search.

No Issue ID

In Internet Explorer, if you open a compose window and try to paste a list of addresses into the To: or CC: field that exceeds 4000 characters, the field is populated with blank spaces. If you highlight the field, you can see the addresses

This is a known IE issue. It does not occur with other browsers.

Workaround: You can fix this problem with a registry modification. For details, see http://support.microsoft.com/kb/240121

12236181

SUNBT6694440 When you perform a mail function that takes time to complete, the dialog buttons that handle the function are not disabled, and the cursor does not change to a wait symbol

For example, if you select all messages in a folder, the related dialog button should be disabled and the cursor should become a wait symbol until all messages are selected.

12235940

SUNBT6693443 An error message inadequate for end users is displayed when the Messaging Server goes down during a mail session in Convergence

If you are using mail in Convergence and the Messaging Server goes down, a pop-up error message states "Mail Service: connection refused" rather than displaying a user-friendly message such as "A temporary problem has occurred. We'll be back soon," or "Working on your request..."

12235573

SUNBT6692441 In Internet Explorer 7, when you compose a message, the cursor does not focus properly in the compose text window

For example, if you open compose message, enter information in the To: line, click the Tab key, enter information in the Subject: line, then click the Tab key, the cursor does not focus in the message text area.

12235562

SUNBT6692400 A message being composed is not auto-saved if the only change was in message priority or receipt status

If you compose a message and make any change since the message was created or since the last save, the message will be saved automatically at the end of the auto-save period (by default, every five minutes). However, auto-save does not occur if the only change is in message priority or receipt status.

12225825

SUNBT6657490 An email message containing more than 170 KB of text is received as an attachment

This issue occurs on Solaris SPARC and x86 platforms. It does not occur on Linux. This maximum value is specified with the `maxtext` parameter in the client configuration.

12220255

SUNBT6637480 In certain cases, users can read mail and contact details after they have logged out of Convergence

For example, if a user starts Convergence, then opens the Convergence url in a new tab, then logs out of Convergence in the new tab, the user can still read mail and see contact information in the first tab.

Known Issues: Calendar

No Issue ID, Related: 12285898

SUNBT6913955 A user is no longer able to send an invitation to a non-default calendar

This functionality was removed. Users can invite people and resources, but not calendars or non-default calendars to meetings.

No Issue ID

Calendar print functionality in daily and weekly views has changed between Convergence 1.x and Convergence 2

If you print daily or weekly calendars, they print as an agenda-style format instead of a grid-style format. The agenda-style calendar is better at showing the details of an event, particularly when there are multiple events or overlapping events in a single day.

If you choose to print a month view calendar, it prints in a grid-style format.

> **Note**
> You are still able to view daily and weekly calendars in Convergence in both grid-style as well as agenda-style formats.

12307415

SUNBT7016012 Anonymous Calendar Access in Calendar Server 7 Requires a minimum of Read Access for Calendar Sharing

A minimum of Read access for anyone is required when allowing anonymous calendar access on shared calendars in Calendar Server 7. If you do not enable Read access to anyone, you might see the following error when trying to access the calendar URL anonymously: `Error 0020: Your account details could not be loaded.`

12299522

SUNBT6975537 Connection issues when reconnecting/relogging into CalDAV/Calendar 7 back-end server

When a Convergence user session is active and the CalDAV/Calendar 7 back-end session expires, Convergence will attempt to relogin to CalDAV/Calendar 7 server. Instead of reusing a connection (as is done with Messaging Server, Calendar Server 6 and ISS), Convergence creates a new connection. Consequently, Convergence leaks the connection.

Workaround:

To prevent this connection issue, follow these steps:

1. Increase calDAV/Calendar 7 config parameter `service.wcap.sessiontimeout` to a large value, so that the calendar session remains active for an longer period of time.

   In the following example, `service.wcap.sessiontimeout` is increased on the calDAV/Calendar 7 host:
   ```
   /opt/siroe/comms/davserver/sbin/davadmin config -o
   service.wcap.sessiontimeout -v <timeout_value_in_seconds>
   ```

2. Encourage end users to log out from the Convergence UI at least once during the calDAV/Calendar7 expanded session timeout value.

12298871

SUNBT6972063 Creating calendar which ends in a backslash ('\') makes Convergence unusable along with other issues

Workaround: Do not create calendar ending with a backslash ('\').

12298402

SUNBT6969741 <, >, &, and " are shown as HTML entities in calendar name tooltips

If you create a calendar with a name containing special characters (&, ", <, >), the tooltip will display HTML entities when you hover over it.

12298718

SUNBT6971242 Cannot save an attachment in a recurring task

12298201

SUNBT6968766 Unable to save Annual Events when setting recurrence with Advanced checkbox

12298131

SUNBT6968391 Cannot Convert Recurring Event to Non-recurring Event

This issue is found in Calendar Server 7 (Oracle Communications Calendar Server for CALDAV Clients), not in Calendar Server 6 (Oracle Communications Sun Calendar Server).

12292410

SUNBT6943472 Logging in as calmaster might result in DavException "Recipient is on another internal server"

In Calendar Server 6/Calendar Server 7 co-existence setup, the Calendar Server 7 Administrator LDAP entry must have the `davcore.scheduling.localuserattr` attribute set appropriately prior to running Convergence Configurator. Otherwise, Configurator will not verify credentials. See 6943472 in the *Oracle Communications Calendar Server Release Notes*.

12287958

SUNBT6925057 CalDAV redirect URL for availability info should always include a port number

In Calendar Server 6 configuration, the Convergence UI is unable to handle a redirect URL without a port number (default:80).

Workaround: The value for `service.wcap.freebusy.redirecturl` in `ics.conf` should always include the port number.

12280886

SUNBT6890898 Convergence Calendar freebusy lookup does not work for users on Calendar Server 7

Convergence cannot display the availability (freebusy status) of users configured on Calendar Server 7.

12270149

SUNBT6840464 Quick Add Functionality Does Not Work Correctly in non-English languages

The Convergence calendar module enables you to quickly add and event by using the quick add event functionality. This functionality enables users to create an event based on the description provided in the quick add callout. For example, if the user provides the description 1pm lunch at the Counter in the quick add callout, the event attributes that are assigned to the time, location, and title are 1pm, the Counter, and lunch respectively. However, for non-English locales, the order in which the description is typed might change as the semantics of the language might differ from English. Users are forced to provide the event description in the English language order for the quick add function to work correctly in non-English locales.

12256018

SUNBT6780373 If you select a subscribed calendar on which you have limited permissions, you cannot create events or edit your own user-owned calendar

This issue occurs when you select a calendar to which you have subscribed, when your permissions on the subscribed calendar are limited. When you then try to modify your own calendar by, for example, adding an event or editing event details, you are unable to do so.

12245896

SUNBT6737224 In calendar, in the Next 7 Days view, the Refresh button does not work

If you open the Next 7 Days view in calendar, and an action modifies your calendar, clicking the Refresh button does not display the modification. For example, if another user invites you to an event or an event is deleted from the Convergence Server, these changes do not appear after you click Refresh.

12235453

SUNBT6691971 The More link in a calendar continues to be displayed after the calendar is deleted

If you add events to a calendar until the **More** link appears, and then delete the calendar, the **More** link remains displayed until you refresh the browser.

12235430

SUNBT6691933 In Agenda view, if you add an event and change the calendar you are viewing, the new event continues to show up in the second calendar until you refresh the browser

In Agenda view, the same event is shown twice, once in the original calendar and once in the second calendar.

12222250

SUNBT6645274 A recurring event specified to end "never" actually ends after 60 recurrences

If you specify that a recurring event end "never," Convergence uses the default value for the number of recurring events, which is 60. You can only find out about this limit by scrolling through your calendar, as Convergence does not indicate the limit.

12221257

SUNBT6641358 When you add a new event in month view, using natural language to specify its duration does not yield the correct event duration

For example, if you add a new event in the Calendar, specify event details such as "Lunch at 1:15 tomorrow for 45 minutes," the event is created as one hour long (1:15 - 2:15) instead of 45 minutes. Note that if you enter event details using a different format, such as "Lunch tomorrow 1:15 P.M. - 2:00 P.M.," the correct duration is created.
Workaround: Change the length of the event in day or week view, or edit the event.

Known Issues: Address Book

12298104

SUNBT6968252 When piDefaultAB is not set, Convergence assigns it to pbook, causing Convergence to hang at 85%

When piDefaultAB LDAP attribute is not set, Convergence selects a pbook entry instead of an abook entry, causing Convergence loading to hang at 85%.

12296971

SUNBT6963032 Error in iwc/iwc_admin Log after Configuring Multiple Corporate Directories

After correctly configuring two corporate directories in an organization, log files show errors after restarting Application Server.

12236938

SUNBT6697453 No option to set default photo or delete photo
There is no option to set default photo or delete photo from the Address Book. Address Book should have the same kind of option as in Instant Messaging for setting default photo.

12234537

SUNBT6688678 Restoring the default photo from the Avatar properties widget does not ask for confirmation before saving

12238408

SUNBT6704130 In Address Book, the Manage Group option does not have a rename option

Workaround: Right-click on the list of contact groups in the left panel of the UI. This displays the context menu, which includes a rename option.

12235598

SUNBT6692504 In IE7, apostrophes are not accepted in the Group Name text box

In IE7, when you create an address-book group and try to use an apostrophe in the group name, the text box does not accept or display the apostrophe. This is not an issue in Firefox.

12231221

SUNBT6676645 The print option does not take all the contents in a contact

When you print an address book contact, some fields, such as the country, nickname, and notes, are not printed.

12225061

SUNBT6654530 In the address book, no contact is displayed when the wildcard search value is set to greater than 0

By default, the value of the `ab.pstore.wildcardsearch` property is set to 0. This enables the wildcard search function to begin returning results as soon as the end user enters the first character.

The feature does not operate as expected if you set `ab.pstore.wildcardsearch` to greater than 0. For example, if you set the property to 2, the user must enter two characters before the wildcard search returns results. That is, a value of 2 functions as follows: `2 - entry/displayname=aa*`
Workaround: Reset the value of `ab.pstore.wildcardsearch` to 0.

12223550

SUNBT6649025 The Address Book Properties window displays incorrect information

12222669

SUNBT6646169 In the Address Book, the Sr/Jr option is not displayed in view mode

When you create or edit a contact, you can select the Sr or Jr option to add to the contact's name, but the Sr or Jr does not appear when you view the contact.

12220601

SUNBT6638802 When you create or edit a contact in the Address Book, the contact fields such as email address and phone number are not validated

You can enter any text in these fields, such as alpha characters in the phone number field.

12220347

SUNBT6637775 Advanced Search in the Address Book is not working

When you select the Advanced Search option in the Address Book, enter search criteria, and press Search, no results are returned.

12213279

SUNBT6609983 Incorrectly formatted address/bad address still shows "map" in address book

If you incorrectly specify an address book address entry (home or business), the resultant "map" entry points to an invalid place. The fields are not marked and bogus entries still get mapped.

12230235

SUNBT6673188 User is not able to copy contacts from one address book to another group using drag and drop

12234348

SUNBT6688097 Cannot make default address book as corporate address book

12235072

SUNBT6690711 In the corporate address book, details of a contact are displayed in the right pane, though no contact is selected in the search pane

12235604

SUNBT6692518 Pressing the Enter Key opens the Compose Mail screen

When selecting an Address Book contact and pressing the Enter key, the Compose Mail screen is opened. Because an Edit screen is associated with the contact, the Edit screen should be opened when pressing the Enter key.

12237962

SUNBT6702142 Though the corporate address book search does not display any contact, the following message is displayed: "Only 100 entries is displayed"

Known Issues: Instant Messaging

12298392

SUNBT6969715 If Instant Messaging is configured with `iim.userprops.store = file`, Avatar upload fails

If Instant Messaging server is configured with a user properties file, end users are unable to upload Avatars. When using Instant Messaging in Convergence, the `iim.userprops.store` parameter should always be set to `ldap` not `file` in `iim.conf`.

12278826

SUNBT6881061 Performance Issues seen with concurrent users on Convergence with Instant Messaging enabled

Convergence experiences performance issues when a number of concurrent login and logout operations are performed. The issue is seen when Instant Messaging is enabled in Convergence deployed on Sun Glassfish Enterprise 2.1 patch 02.

12268036

SUNBT6830940 Provide avatar support for Instant Messenger in Server to Server deployment

Convergence does not provide avatar support in a server to server deployment. When two Instant Messaging servers are configured with Convergence and server to server communication is enabled between the two Instant Messaging Servers, the avatars are not uploaded when users chat from Convergence Instant Messaging client.

12236828

SUNBT6696906 The avatar properties widget should indicate the file-size limit or image dimension limit that can be uploaded

By default, a text message should indicate these limits, as in the following example: "You can only upload a file size up to 100KB & image dimension up to 2000 x 2000." Without this warning, users are more likely to try to upload oversized pictures for their avatars that will fail to upload properly.

12236667

SUNBT6696027 In Instant Messaging, adding from the Address Book always adds the buddy to Friends group

Workaround: Manage the group then add the contact.

12234762

SUNBT6689431 Buddies in the Instant Messaging roster can be duplicated in the same group

You cannot delete the duplicate entry; if you delete one entry, all the entries for that buddy are deleted.

12233202

SUNBT6684054 Instant Messaging chat window: Click a URL link in chat, opens up new tab in chat window not main browser window

12228977

SUNBT6668868 Users in a buddy list who are in Do Not Disturb or Away status are not sorted

If you sort users (for example, in alphabetical order), the users in the following modes are not sorted: Do not disturb; Away; BRB; On the phone; Out to lunch; Gone home.

12228241

Offline messages do not show up or are not emailed.
If a user opens a chat session with another user and one user refreshes the browser, messages are not received if messages were sent before the user's browser has been refreshed.

12228237

SUNBT6665897 When you create a new chat session and refresh or reload the browser, the old chat session remains

The old chat session should be closed after a browser reload or refresh.

12227758

SUNBT6664158 You cannot add the first contact to any group other than Friends

When a user adds the first contact to the buddy list, that first contact must be in the Friends group.

12227392

SUNBT6662902 An IM user cannot receive chat messages if the user started the session with "block pop-up windows" configured

Known Issues: Options

12298636

SUNBT6970844 Empty trash and expunge message user options are available at the same time

These options should be mutually exclusive.

12231221

SUNBT6676645 The Print option does not take all the contents in a contact
If you create a contact with all the details then choose Print > Print Group, not all details are displayed.

12225088

SUNBT6654595 The Mail Forwarding options page displays a warning message that the page contains unsaved changes when no changes were made

12223408

SUNBT6648561 There is no option that allows you to save a custom (or personalized) message

Known Issues: Customization

12310073

SUNBT7031521 The `helloConvergence` example does not work on Internet Explorer browsers

The `helloConvergence` example described in Integrating Third-Party Applications does not work on Internet Explorer browsers.

Workaround:

Add `dojoAttachPoint="containerNode"` to the Navigator and ViewerContainer templates in `/iwc_static/c11n/allDomain/js/widget/helloConvergence/templates`.

For example, in `Navigator.html`

```
<div class="HelloConvergenceNavigator" dojoAttachPoint="containerNode">

        Hello Navigator
</div>
```

12247522

SUNBT6745772 When adding a new right-to-left language such as Arabic or Hebrew to Convergence, the UI text is not right-to-left

This issue occurs if you enable customization and perform the steps to add a custom language to Convergence, then log in as a user created in LDAP with a language preference set to the custom language (for example, Arabic). The UI displays text and aligns widgets left-to-right instead of right-to-left.

12247514

SUNBT6745757 When adding a new language to Convergence, Convergence hangs if no `resources.js` file is directly under the `allDomain` directory

This issue occurs if you enable customization and perform the steps to add a custom language to Convergence, creating a directory structure as shown in this example:

```
/iwc_static/c11n/allDomain/nls/
/iwc_static/c11n/allDomain/nls/<_new language_>/
/iwc_static/c11n/allDomain/nls/<_new language_>/resources.js
```

In this situation, Convergence does not load the files; it does not bring up the UI.

Workaround: Add an empty `resources.js` file directly under the `/iwc_static/c11n/allDomain/nls/` directory. Note that you still must create the `resources.js` file under the `/iwc_static/c11n/allDomain/nls/<new language>/` directory. For example:

```
/iwc_static/c11n/allDomain/nls/
/iwc_static/c11n/allDomain/nls/resources.js
/iwc_static/c11n/allDomain/nls/<_new language_>/
/iwc_static/c11n/allDomain/nls/<_new language_>/resources.js
```

Known Issues: S/MIME

12279141

SUNBT6882555 Cannot send signed or encrypted messages if a multiple user certificate is installed on web browser

12256501

SUNBT6781802 When using S/MIME on Windows Vista with JDK6u1.1, the browser hangs for smart card users if the first message in the user's inbox is encrypted

After the user logs in, as soon as the inbox loads, it tries to decrypt the first message and tries to access the Private key of the user from the smart card. The browser hangs and the user cannot perform any further operations.

Redistributable Files for Convergence

Convergence 2 does not contain any files that you can redistribute.

Delegated Administrator Release Notes

Delegated Administrator for Oracle Communications Unified Communications Suite Release Notes Version 7

These Release Notes contain important information available at the time of the general release of Delegated Administrator for Oracle Communications Unified Communications Suite including:

- About Delegated Administrator for Oracle Communications Unified Communications Suite
- What's New in This Release of Delegated Administrator
- Deprecated and Removed Features for Delegated Administrator for Oracle Communications Unified Communications Suite
- Delegated Administrator Installation Notes
- Delegated Administrator Documentation Updates
- Delegated Administrator Compatibility Issues
- Problems Fixed in This Release of Delegated Administrator (since Communications Suite 5)
- Known Issues and Limitations in Delegated Administrator
- Requirements for Delegated Administrator

About Delegated Administrator for Oracle Communications Unified Communications Suite

Delegated Administrator for Oracle Communications Unified Communications Suite enables you to provision organizations (domains), users, groups, and resources in an LDAP directory used by Communications Suite applications such as Messaging Server, Calendar Server, and Instant Messaging.

The Delegated Administrator has two user interfaces:

- A utility (a set of command-line tools) invoked with the `commadmin` command.
- A console (a graphical user interface) accessible through a Web browser.

Online help in the Delegated Administrator console describes how administrators can use the GUI to provision users in an LDAP directory.

With Delegated Administrator for Oracle Communications Unified Communications Suite, you can provision users in an LDAP Schema 1 and Schema 2 directories.

For information about configuring and managing Delegated Administrator, see the Delegated Administrator Administration Guide. For a description of the Delegated Administrator `commadmin` command-line tools, see Delegated Administrator Utility (commadmin) Reference.

What's New in This Release of Delegated Administrator

See the What's New document.

Deprecated and Removed Features for Delegated Administrator for Oracle Communications Unified Communications Suite

Delegated Administrator 6.4

Going forward, no new features will be added to Delegated Administrator 6.4. It has been deprecated in favor of Delegated Administrator for Oracle Communications Unified Communications Suite.

Deprecated Platforms: Version 3 of Red Hat Linux (effective in Communications Suite 6)

Support for Communications Suite (including Delegated Administrator) on the following versions of Red Hat Linux has been deprecated and may be removed in a future release:

- Red Hat Enterprise Linux Advanced Server (32-- and 64--bit versions), version 3 (all updates)
- Red Hat Enterprise Linux Enterprise Server (32-- and 64--bit versions), version 3 (all updates)

For information on currently supported versions of Red Hat Linux, see Operating System Requirements.

iPlanet Delegated Administrator (effective in Communications Suite 5)

iPlanet Delegated Administrator has been deprecated in favor of the Communications Suite Delegated Administrator console and utility. Oracle, Inc. will announce an end-of-life time line for iPlanet Delegated Administrator at a future date.

> **Note**
> Although iPlanet Delegated Administrator has been deprecated, the iPlanet Delegated Administrator `imadmin user purge` command has been updated to be compatible with Messaging Server 6.3. For more information about the updated command, see Purging Users with iPlanet Delegated Administrator and Messaging Server 6.3.

Delegated Administrator Installation Notes

For a detailed steps required to install and configure Delegated Administrator, see "Chapter 2: Planning for Installation and Configuration" in the Delegated Administrator Administration Guide.

ACI Consolidation

For large-scale installations with Access Manager, Messaging Server, and an LDAP Schema 2 directory, you might want to consolidate the Access Control Instructions (ACIs) in your directory.

When you install Access Manager with Messaging Server, a large number of ACIs initially are installed in the directory. Many default ACIs are not needed or used by Messaging Server. You can improve the performance of Directory Server and, consequently, of Messaging Server look-ups, by consolidating and reducing the number of default ACIs in the directory.

For information about how to consolidate and discard unused ACIs, see Consolidating ACIs for Directory Server Performance.

Delegated Administrator Documentation Updates

In this release of Delegated Administrator, *Sun Java System Delegated Administrator Administration Guide* describes how to enforce unique values for mail attributes when running Directory Server 5.*x*. This task appears as a "Post-Configuration Task" after you run the Delegated Administrator configuration program.

If you are running Directory Server 6.*x*, you must follow the procedure described here to enforce unique mail attribute values:

6579843 To enforce the uniqueness of mail attributes when running Directory Server 6.*x*

Messaging Server uses the following mail attributes to identify a user's email address and alternate email addresses:

- `mail`
- `mailAlternateAddress`
- `mailEquivalentAddress`

Each user's mail attributes should be unique across the directory.

1. Install the following Directory Server plug-in: 6.1_PR_6573440.

   To install the plug-in, follow the instructions in the plug-in `README` file.

   The plug-in is available with Directory Server 6.*x* patches on SunSolve.

   This plug-in provides a hotfix patch to Directory Server to enforce mail attribute uniqueness. Although the plug-in is labeled "6.1", it applies to other Directory Server 6.*x* releases such as Directory Server 6.0.
2. Create the plug-in for Delegated Administrator by using the Directory Server configuration utility, `dsconf`.

   For example:

   ```
   dsconf create-plugin -h host -p port
   -H /opt/SUNWdsee/ds6/lib/uid-plugin.so -F NSUniqueAttrSet_Init
   -Y preoperation -G
   attributeset=mail,mailalternateaddress,mailequivalentaddress
   -G "ugldapbasedn" "Uniqueness in Attrbute Set"
   ```

   where

   host and *port* are the host name and port number of the machine where Directory Server is installed

   `/opt/SUNWdsee/ds6/lib/uid-plugin.so` is an example of the library path where `uid-plugin.so` is located on Solaris. (For Linux platforms, use the appropriate Linux library path.)

   ugldapbasedn is your root suffix. Uniqueness checking is performed on all entries underneath this suffix.

3. Enable the plug-in for Delegated Administrator.

   For example:

   ```
   dsconf enable-plugin -h host -p port "Uniqueness
   in Attribute Set"
   ```

   For more information about using the `dsconf` utility to enforce attribute value uniqueness, see the following chapter in the *Sun Java System Directory Server Enterprise Edition 6.3 Administration Guide*: **Directory Server Attribute Value Uniqueness**.

4. Restart Directory Server.

Delegated Administrator Compatibility Issues

The following table lists the known incompatibilities between Delegated Administrator for Oracle Communications Unified Communications Suite and earlier versions.

Incompatibility	Impact	Comments
Access Manager in Realm Mode (version 7.x style) Note: Access Manager has two install types: Realm Mode (version 7.x style) and Legacy Mode (version 6.x style). Legacy Mode is the default.	At installation, you must choose Legacy Mode as the install type on the following panel: `Access Manager: Administration (1 of 6)`	If the Realm Mode install type of Access Manager is installed, you will not be able to run Delegated Administrator.
Directory Server releases 5.2.4 and earlier	The Directory Server feature that enforces unique values for mail attributes is not available with versions earlier than 5.2.4.	Solution: Upgrade to Directory Server 5.2.5 or later. You also can install Directory Server 5.2.4, but you must apply patch 5.2_Patch_4_6313027. For detailed instructions, see Enforce Unique Values for Mail Attributes.

Problems Fixed in This Release of Delegated Administrator (since Communications Suite 5)

This list describes the issues fixed in Delegated Administrator:

6683171

First login attempt throws "session timeout" error message on Application Server.

6950570

`commadmin domain purge` purges calendar resources with no `icsstatus` such as created by `csresource`.

6940023

`commadmin domain delete -S im` throws a `FAIL (java.lang.NullPointerException)`.

6947080

`wildusersearchmaxresults` setting ignored in Direct LDAP mode.

6934306

Domain's {{ preferredmailmessagestore}} is not used for new mail user's `mailmessagestore`.

6913864

Setting `inetMailGroupStatus` to `inactive` causes *Mail Service Details* section to disappear.

6913411

Pre-existing groups, which do not contain `ipgroup` objectclass, fail to be searched or displayed using Delegated Administrator Command Line or GUI.

6912216

Incorrect loginid attribute used in search.

6905468

Japanese translation failure on Delegated Administrator for e-mail status "inactive" and "disabled."

6884225

Mail Status is `active` for users with no mail service (-S mail) or service packages.

6884544

Add support for `mailUserStatus: disabled` in the User List's *Mailbox Status* column.

6876376

`commadmin group (create | modify) -m` should check `mailAlternateAddress` and `mailEquivalentAddress`.

6869143

In the `./config-commda` configurator, when there is not organization `dn` specified, a pop up error window appears with wrong text.

6878727

Unable to create groups in example DEF domain.

6874659

If the users configure Messaging Server before Delegated Administrator, when running `commadmin domain modify -S mail` after configuration, it returns `netscape.ldap.LDAPException: error result (20)`, and is not able to allocate mail service package to the default domain.

6824794

The `enabled` and `disabled` values are not translated when you run an Advanced Search.

6825313

The text "App Server 8.x and up" is not translated for all locales.

6693227

Typo in prompt message displayed when you create an Organization by TLA without selecting a service package.

6540281

Missing space in the Organization Online Help page.

6825305

The configurator in French locale contains some doubled apostrophes.

6316832

Small typo in `config-commda`.

6862081

Default value for `mailAutoReplyMode` is "echo" instead of "reply" when using DL mode.

6868096

No post-upgrade notification regarding use of `damerge` command to keep customizations.

6837249

Update post-install instruction to enable IM service.

6825301

Delegated Administrator for Oracle Communications Unified Communications Suite Online Help is displayed in English even on French environment.

6784367

Cannot add OUA in Organization Properties when logged in as OUA in all locales.

6861629

Setting mail quota values as non-editable in Assign Service Package causes mail step to loop.

6862999

`icsCalendar` attribute isn't provisioned for new accounts.

6825320

The Help link from the Advanced Search page displays the main Online Help page.

6844640

DA Organization Admin Role ACI has unnecessary single quotes.

6851916

Organization administrator cannot apply user changes after fixing the ACI.

6862983

Missing `da.sample.data-dl.ldif` file causes `config-commda` deployment using DL to fail.

6824813

In Delegated Administrator for Oracle Communications Unified Communications Suite, some labels are displayed vertically and truncatedly.

6866244

In Delegated Administrator for Oracle Communications Unified Communications Suite, both the 'Service Available' and 'Mail Quota' columns show services when SP for new users is

selected.

6868225

NullPointerException error message is displayed when you try to view or edit large groups.

6607925

Return failure occurs when `config-commda` fails.

6847020

The `rpm --verify sun-commda` fails.

6679372

Getting inconsistent results of organization searches for adding `icsExtendedDomainPreds` in DA console.

6587572

Delegated Administrator creates new mail groups with `mgrpBroadcasterPolicy=NO_REQUIREMENTS`

6587520

Delegated Administrator creates new users with `mailAutoReplyMode=echo`

6553328

There is no longer a Manager Field available in the Delegated Administrator tool like the one in iPlanet Delegated Administrator 1.2.

6525830

The Delegated Administrator online help for the Editing Group Properties page incorrectly documents the following UI fields: Add Header Field and Remove Header Field.

6525829

The Delegated Administrator online help incorrectly describes the Message Prefix Text field in the Create New Group wizard and Group Properties page.

6512161

The Delegated Administrator online help incorrectly defines the Attachment Quota value in the Create New Organization wizard and Organization Properties page.

6507859

Delegated Administrator online help erroneously states that you can use ">" and "<" signs when searching for organizations.

6483254

Delegated Administrator online help does not explain that the Login ID must be in ASCII characters.

6454001

Can not display `icsExtendedDomainPrefs` entry properly on Delegated Administrator console.

6431459

Although IMAPS is enabled for a service package, it shows "IMAP: disabled"

6317850

Attributes passed with the --A option of the commadmin command are ignored if the command also calls an input file containing attributes passed with --A.

6314711

An Organization Administrator (OA) can remove himself as an OA by modifying the organization Properties page.

6218713

Values in the resource.properties files are overwritten when Delegated Administrator is reconfigured with the config-commda program.

Known Issues and Limitations in Delegated Administrator

This section describes known issues in Communications Suite Delegated Administrator. The section includes the following topics:

- Delegated Administrator Installation, Upgrade, and Configuration Issues
- Delegated Administrator Console and Command-Line Utilities
- Delegated Administrator Localization and Globalization Issues
- Delegated Administrator Documentation

Delegated Administrator Installation, Upgrade, and Configuration Issues

6434047

You cannot upgrade Delegated Administrator from version 2004Q2 to version 7 (the current release) when Access Manager is deployed to an Application Server node agent.

This issue occurs when Delegated Administrator is deployed to Application Server and you upgrade Application Server from version 7 to version 8.x. The `asupgrade` utility migrates the Application Server 7 `server1` instance into the Application Server 8.x `server1` target running under a nodeagent. However, `asupgrade` changes the value of the virtual server from `server1` in Application Server 7 to `server` in Application Server 8.x.

Workaround:

When you run the Delegated Administrator configuration program, `config-commda` , in the Application Server Preferences panel, specify these values for the target and virtual server:

- Target: `server1`
- Virtual Server: `server`

6376896, 6294603

Upgrading to Access Manager 7.0 without upgrading Delegated Administrator to version 7 (the current release) will cause user creation to fail.

> **Note**
> This issue occurs only if you are currently running Delegated Administrator 6 2005Q1 (Java ES Release 3) or earlier. If you have installed Delegated Administrator version 6 2005Q4 (Java ES Release 4) or have already upgraded Delegated Administrator to version 7, this issue does not occur.

When you upgrade to Java Enterprise System Release 5, if you upgrade Access Manager from version 6.x to 7.0 but do not upgrade Delegated Administrator to version 7, user creation with mail or calendar service will fail.

The recommended way to solve this issue is to upgrade Delegated Administrator to version 7. If you have a compelling reason not to upgrade Delegated Administrator, take the steps described in the following workaround.

Workaround:

1. Update the `UserCalendarService.xml` file, located by default in the following directory:

   ```
   /opt/SUNWcomm/lib/services/UserCalendarService.xml
   ```

   In the `UserCalendarService.xml` file, mark the `mail`, `icssubscribed`, and `icsfirstday` attributes as optional instead of required.

2. In Access Manager, remove the existing xml file by running the `amadmin` command, as in the following example:

   ```
   amadmin -u amadmin -w netscape -r UserCalendarService
   ```

3. In Access Manager, add the updated xml file, as in the following example:

   ```
   amadmin -u amadmin -w netscape
   -s /opt/SUNWcomm/lib/services/UserCalendarService.xml
   ```

4. Restart the Web container.

6310711

The Delegated Administrator configuration program allows you to enter invalid values in the Domain Separator field.

In the configuration program, `config-commda`, you can enter invalid characters such as ^ in the Domain Separator field. You cannot log into the Delegated Administrator console using a login ID with the invalid domain-separator character.

Workaround: Edit the value of the `commadminserver.domainseparator` property in the `daconfig.properties` file, located in the following default path:

```
/var/opt/SUNWcomm/da/WEB-INF/classes/
com/sun/comm/da/resources/daconfig.properties
```

Use a valid value such as `@`, `-`, or `_`.

Redeploy the edited `daconfig.properties` file to the Web container used by the Delegated Administrator console.

Before the change can take effect, you must run the script that deploys the customized `daconfig.properties` file to your Web container.

For instructions on how to deploy a customized properties file to a particular Web container, see To Deploy a Customized Configuration File in Sun Java System Delegated Administrator Administration Guide.

Delegated Administrator Console and Command-Line Utilities

6760564

In the Delegated Administrator console, the Calendar service Advanced Rights interface is missing the calendar group double-booking option.

When the group calendar account functionality was added in Calendar Server 6.3, a new bit was added to the `icsAllowRights` LDAP attribute:

```
bit 15 : allowGroupDoubleBook : "Double booking of group calendars"
```

The Delegated Administrator console is missing a field to "Allow double booking for new group calendars" by setting bit 15 of the `icsAllowedRights` attribute. (The Advanced Rights fields are in the Calendar Service section of the Organization Properties page in the Delegated Administrator console.)

Workaround:

Use the `commadmin domain create -R` or `commadmin domain modify -R` command to set the advanced rights properties (bits) in the `icsAllowRights` attribute.

6677194

Local Organization Administrators and Service Provider Administrators can change the disk space quota attribute of their domains when the service package assigned to the domains restricts the disk space quota.

An Organization Administrator can use the Delegated Administrator console to change the value of the **Disk Space Quota** option for the domain, overriding the service package restrictions.

Workaround: Edit the `Security.properties` file, as follows:

1. To prohibit an organization administrator from editing the disk space quota field, add the following line to the `Security.properties` file:

```
OrganizationAdminRole.UserProperties.MailQuotaValue=NONEDITABLE
```

For a Service Provider Administrator, add the following line:

```
ProviderAdminRole.UserProperties.MailQuotaValue=NONEDITABLE
```

Be sure to update the `Security.properties` file in the Delegated Administrator configuration directory. For example:

```
/var/opt/sun/com/da/WEB-INF/classes/com/sun/comm/da/resources/Security.propert
```

Note: If you are running Communications Suite 5 version of Delegated Administrator ?7, the default path on Solaris would be:

```
/var/opt/SUNWcomm/da/WEB-INF/classes/com/sun/comm/da/resources/Security.proper
```

2. You also must deploy the updated `Security.properties` file to the web container's configuration directory. For example, if you have deployed Delegated Administrator to Web Server 7.x, the default path would be:

```
/var/opt/SUNWwbsvr7/<https-Host_name>/web-app/<Host_name> \
/da/WEB-INF/classes/com/sun/comm/da/resources/Security.properties
```

3. Restart the web container.

6430018

If service packages are displayed across multiple pages in the Delegated Administrator console, only changes to the last page are saved.

This issue affects three functions:

- Allocating service packages to an organization.
- Changing the quantities of service packages allocated to an organization.
- Removing service packages from the list of service packages allocated to an organization.
  Workaround:

  If the services packages are displayed on multiple pages, click the icon that displays multiple pages pointing to a single page.

  This icon appears above *and* below the list of service packages. If you place your cursor over the icon, a message says: *Show Data in a Single Page*.

  You must display all service packages on a single page to save your all of your changes. If the service packages are displayed on multiple pages, only the changes made to service packages on the last page are saved.

6300923

When you add Dynamic members to a group In the Delegated Administrator console, you cannot test a manually constructed LDAP URL.

When you create a new group and add dynamic members to the group, you can either manually construct an LDAP URL or use the fields available in the drop-down menus to construct the LDAP URL. If you use the drop-down menus, you can click the **Test LDAP URL** button. If you manually construct the LDAP URL, this feature is disabled.

6292610

Using the browser or system controls in the Delegated Administrator console can generate unexpected results.

Workaround: Navigate only by using the built-in Delegated Administrator controls, such as the tabs, buttons, and navigation links provided on the page itself. Do not use browser or system controls, such as your browser's Back button or the Close icon on dialog windows.

5094680

The advanced search feature does not return correct results for organizations.

This issue occurs if you perform the following steps:

1. Select the Advanced Search feature.
2. Select "Organizations" from the drop-down list.
3. Click the Match All or Match Any radio button.
4. Select an organization name from the drop-down list.
5. Enter valid values in the text field.
6. Click Search.

Instead of returning only the organizations that match the search criteria, Delegated Administrator displays all organizations.

Workaround: None.

Delegated Administrator Localization and Globalization Issues

This section describes Delegated Administrator localization problems. No localization issue exist for this release.

Delegated Administrator Documentation

This section describes errors or incomplete information in the Delegated Administrator books and online help.

6760559

In the Delegated Administrator console, the Calendar service advanced rights (icsAllowRights) GUI interface can easily be misinterpreted.
This issue is described in the following page: Setting Calendar Server Advanced Rights with Delegated Administrator.

6693218

The Delegated Administrator online help displays the current version as Communications Suite 5 Delegated Administrator instead of Delegated Administrator 7 or Communications Suite 6 Delegated Administrator.

6607494

The Delegated Administrator online help describes nested groups, although nested groups are not supported in Delegated Administrator.

For example, the online help describes how to add a nested group (add a group as a member of an existing group) by choosing from a drop-down menu and searching/selecting a group. These options do not exist in the UI. You cannot added nested groups.

651216

The Delegated Administrator online help incorrectly defines the Attachment Quota value in the Create New Organization wizard and Organization Properties page.

The online help describing the Mail Service Details panel in the Create New Organization wizard and the Mail Service section of the Organization Properties page states that the Attachment Quota field displays the "attachment size per message." The online help tells the user to enter a maximum attachment quota size in kilobytes. This is incorrect.

The Attachment Quota sets the maximum number of attachments for each email message. For example, setting a value of 2 would allow users to attach no more than two files to a message. The size of each attachment is not affected by this attribute.

Requirements for Delegated Administrator

See Requirements for Communications Suite 7 Update 1 and Requirements for Delegated Administrator.

This section describes the following platform, client product, and additional software requirements for this release of Delegated Administrator:

- Delegated Administrator Operating System Requirements
- Sun Java System Software
- Delegated Administrator Hardware Requirements
- Supported Browsers for Delegated Administrator

Delegated Administrator Operating System Requirements

This release of the Communications Suite products, including Delegated Administrator, is supported on the following platforms:

- Solaris 10 Operating System (SPARC™ and x86 Platform Editions) including Zones Support
- Red Hat Enterprise Linux Advanced Server (32-- and 64--bit versions), version 4 (all updates) and 5 (all updates)
- Red Hat Enterprise Linux Enterprise Server (32-- and 64--bit versions), version 4 (all updates) and 5 (all updates)

> **Note**
> Delegated Administrator is no longer supported on HP-UX or Windows platforms.

For detailed information about Solaris and Linux requirements, including required upgrade patches and kernel versions, see the *Sun Java Communications Suite Installation Guide* and *Sun Java Communications Suite Release Notes* .

Sun Java System Software

The following Sun Java System Software, tools, and LDAP schema version are required for this release of Delegated Administrator:

- Directory Server 5.*x* or 6
  To enforce unique values for mail attributes, you must install one of these releases:
  - Directory Server 6
  - Directory Server 5.2.5 or later
  - Directory Server 5.2.4, and you must apply patch 5.2_Patch_4_6313027
- Either Messaging Server 6 or Calendar Server 6, or both

- Java System Web container. You must deploy Delegated Administrator to one of the following Web containers:
  - Oracle iPlanet Web Server (at least Versions 6.1 or 7)
  - Application Server (at least Versions 7, 8, or 9)
  - Sun GlassFish Enterprise Server 2.1.1

- Directory Server Preparation Tool (Setup script): `comm_dssetup.pl` version 6.4--4.01
  `comm-dssetup.pl` version `6.4--4.01` is provided in Communications Suite 6 Update 2.
- LDAP Schema 1 and 2
  This release of Communications Suite Delegated Administrator is designed for provisioning users in an LDAP Schema 2 directory.

For information about requirements for Directory Server, Access Manager, Web Server, and Application Server, see the current release notes for these products.
For installation instructions for the Java Enterprise System components listed in this section, see the *Sun Java Enterprise System Installation Guide*.

Delegated Administrator Hardware Requirements

The memory and disk space requirements for Delegated Administrator are the same as those of the Web container to which Delegated Administrator is deployed.

For information about the Web container's hardware requirements, see the current release notes for this Java Enterprise System component.

Supported Browsers for Delegated Administrator

See Client Requirements for more information.

Indexing and Search Service Release Notes

Indexing and Search Service for Oracle Communications Unified Communications Suite Release Notes Version 1 Update 1 and Version 1 Update 2

Topics:

- About Indexing and Search Service
- What's New in This Release of Indexing and Search Service
- Deprecated and Removed Features
- Requirements for Indexing and Search Service
- Product Version Compatibility Requirements
- Known Issues and Limitations in Indexing and Search Service 1 Update 1
- Known Issues and Limitations in Indexing and Search Service 1 Update 2
- Redistributable Files for Indexing and Search Service

About Indexing and Search Service

Indexing and Search Service for Oracle Communications Unified Communications Suite is a general-purpose indexing and searching server. As email inboxes become increasingly larger, the importance of a fast, efficient indexing and search service cannot be underestimated. Consequently, Indexing and Search Service (ISS) initially supports email data in the message store, including embedded data in a variety of formats. However, ISS will offer an open-ended index and search web service capable of indexing and searching other types of data in other data stores such as calendar data, address book data, and more. This web service provides a RESTful web services interface for search, thus any client capable of interacting with such a service is supported. Oracle Communications Messaging Server consumes ISS services to bring search services to any IMAP-based mail client. Message body searches done from your mail client can use the ISS engine to perform fast, comprehensive searches of message bodies and attachments.

Initially, ISS supports Oracle Communications Unified Communications Suite data such as the Messaging Server message store. This includes embedded data in text, HTML, XML, OpenOffice, Microsoft Office, and PDF formats. Also, metadata is indexed for JPEG files.

What's New in This Release of Indexing and Search Service

See the What's New document.

The following features are available in the ISS 1 Update 2 patch:

- Refreshing the Configuration
- New and Extended Command Options
- Cluster Search Service and High Availablity
- Recovery After Service Outage
- Reduction in IndexSvc Memory Footprint and Other Scalability Improvements
- Support for Oracle Linux
- New Tools
- setup.sh Name Change
- Tools Moved to the examples Directory

Refreshing the Configuration

You can now "refresh" the ISS configuration without having to restart services. The new `--refresh`

command option to `issadmin.sh` causes ISS to read the configuration file and apply configuration changes that have been made since ISS was started (or a previous `--refresh` command was run). ISS makes the configuration changes without restarting any of its services, as long as the particular parameter is allowed to be refreshed.

Run `issadmin.sh --help --refresh` to view the list of refreshable configuration options.

New and Extended Command Options

The following table shows the new options for the `issadmin.sh` command.

New Options for issadmin.sh Command

Option	Description
`--altoutput` *FILE*	Used with `--accountlist` option to provide an alternate output file for the results. Normally results appear on stdout and stderr only after the entire `issadmin.sh` command finishes. Directing the output by using the `--altoutput` option causes incremental results to appear while the command completes.
`--backup`	Creates a backup of the dIndex directory.
`--bootstrap`	Creates index for accounts. Replaces `indexSvcBootstrap.sh` and `indexSvcFork.sh` commands.
`--checkconfig`	Checks for changes to the configuration file that have not yet been applied. It is useful to run `--checkconfig` when you are making multiple changes.
`--checkstore`	Checks the status of the store after an outage or when problems with index corruption are suspected.
`--loglevel` *LEVEL*	Specifies level of logging information for commands. You must first stop the ISS services to use this option.
`--refresh`	Enables some configuration parameters to be updated without having to restart the services. Use the `issadmin.sh --help --refresh` command to display a list of parameters that apply.
`--runoptimizer` [`true` | `false`]	Used with `--bootstrap` to specify whether to optimize the index after indexing. This option is equivalent to the option of the same name from the now obsolete `indexSvcBootstrap.sh` command.
`--skipfolder` *FOLDER*	Used with `--bootstrap` to specify a folder to be skipped during indexing. This can be useful if you are having problems with a particular folder during bootstrap. This option is equivalent to the option of the same name from the now obsolete `indexSvcBootstrap.sh` command.

The following options have been extended to new uses:

- `--help`: Additional command options can be specified with this option to get more detail. Examples are `--bootstrap` and `--refresh`, which provide more detailed information specific to these options.
- `--detail`: Additional values for this option are used with the `--checkstore` command to provide more extensive checking. New values include `dIndex` and `store`.

The `configure_etc.pl` command has been enhanced to include the `-C` option, to generate a copy of the `jiss.conf` file for cluster configurations. See configure_etc.pl Usage.

Cluster Search Service and High Availablity

New in Indexing and Search Service 1 Update 2 is the highly available Cluster Search Service. The Cluster Search Service requires that you configure the deployment to make the index available to the ISS web hosts over NFS. See Configuring Indexing and Search Service for High Availability for more information.

Recovery After Service Outage

Indexing and Search Service 1 Update 2 addresses the following service outages:

- Index service process failure, which might cause dIndex corruption
- Interruption of JMQ and index services, which might cause the account index data to become out of sync

ISS 1 Update 2 attempts automatic recovery from these situations by:

- Utilizing automated backups of the dIndex
- Synchronizing recently modified accounts after a service outage

Additionally, ISS 1 Update 2 reduces the severity of failure by shutting down processing if the disk containing the store becomes too full. See the new configuration option, `iss.store.diskfullpercent.limit`, for more information.

In cases where a service outage has corrupted index data, which the automated recovery procedures could not correct, you can use tools to identify the index parts, user accounts, and main dIndex that need repair. See the new `issadmin.sh` commands `--backup` and `--checkstore` for more information.

> **Note**
> The recovery improvements in ISS 1 Update 2 focus primarily on analyzing and fixing the dIndex, since it can become a single point of failure.

About the dIndex

The dIndex is the global "directory index" that controls the ISS store. It is a single, unique Lucene index directory that contains the following information:

- Each account's location in the group index directories
- Account state information
- Various details about accounts such as folders and counts
- All information needed to manage the system

In contrast, the account group index directories contain all the indexing information for searching emails organized by account, with the various fields that can be used to search, such as subject, to, from, body, attachments, and so on.

ISS contains a single dIndex (with periodic backup copies) but many group index directories. Thus a failure in the dIndex might prevent ISS from working, while a failure in one (or even a group of) the group index directories only affects a limited number of accounts on the system.

Reduction in IndexSvc Memory Footprint and Other Scalability Improvements

Indexing and Search Service 1 Update 2 reduces its in-memory footprint and its use of Java heap and direct memory, resulting in improvements in overall scalability. For example, these improvements should enable you to bootstrap a larger amount of data in parallel by using less memory than previous releases.

Support for Oracle Linux

Indexing and Search Service 1 Update 2 supports Oracle Linux 64-bit version 5.5 and greater.

New Tools

Indexing and Search Service 1 Update 2 provides the following two new utilities:

- `factorymgr.sh`: Used to manage JNDI lookup attributes in LDAP or a file-based store. See factorymgr.sh for more information.
- `csearchmgr.sh`: Adds and removes Cluster Search Services for one or many indexing nodes. See csearchmgr.sh for more information.

setup.sh Name Change

The `setup.sh` initial configuration script has been rewritten and renamed to `setup` to better support deploying the ISS HA configuration.

Tools Moved to the examples Directory

ISS tools have been moved from the `unsupported` directory to the `examples` directory. The ISS 1 Update 2 release contains the following tools:

- `createuserlist`: Converts a list a users one per line to an ISS account list.
- `initializeindex`: Runs `issadmin.sh --createaccount` on a user list to initialize the index.
- `issbootstrapstats`: Displays statistics of ongoing bootstrapping progress.
- `parallelbootstrap`: Runs bootstrap in parallel.
- `removeindex`: Stops ISS, removes all indexes, attachment, and log files, and restarts ISS with a fresh index.
- `isscollect`: Collects log files for support purposes.
- `issrehostprep.sh`, `issrehostfini.sh`, and `issrehost.template`: Rehosts a single user.

Refer to the *iss-base*`/examples/README` file for more information on these commands.

Deprecated and Removed Features

Support for the following features might be eliminated in a future release, have already been removed in this release, or were removed in a previous release:

- Attachment Files No Longer Stored in the Attachment Store
- `indexSvcFork.pl` Removed
- `jiss.conf` Parameters Removed
- Deprecated Scripts in Indexing and Search Service 1 Update 2

Attachment Files No Longer Stored in the Attachment Store

Attachment files are no longer saved to the attachment store. Instead, search results include body part information for pointing back to the attachment file residing on the Messaging Server store.

The attachment store now only contains thumbnail images.

`indexSvcFork.pl` Removed

`indexSvcFork.pl` has been removed and replaced with the new `indexSvcFork.sh` utility.

`jiss.conf` Parameters Removed

The following `jiss.conf` parameters have been removed.

Parameter	Reason Removed
`java.util.logging.FileHandler.limit`	Replaced by the new parameters `iss.*.logfile.limit`, where * is `indexsvc`, `jmqconsumer`, `searchsvc`, or `utilsvc`.
`java.util.logging.FileHandler.count`	Replaced by the new parameters `iss.*.logfile.count`, where * is `indexsvc`, `jmqconsumer`, `searchsvc`, or `utilsvc`.
`java.util.logging.FileHandler.formatter`	Replaced by the new parameters `iss.*.logfile.formatter`, where * is `indexsvc`, `jmqconsumer`, `searchsvc`, or `utilsvc`.
`iss.indexsvc.niofsdirectory.enabled`	Starting with this release, `NIOFSDirectory` is always used (there is no alternative).

Deprecated Scripts in Indexing and Search Service 1 Update 2

Beginning with the Indexing and Search Service 1 Update 2 patch, the `indexSvcBootstrap.sh` and `indexSvcFork.sh` scripts are deprecated. The functionality of these scripts is now available under the `issadmin.sh --bootstrap` command option in ISS 1 Update 2. Though these scripts are still installed, if you try to run them, the system responds that you should use the corresponding `issadmin.sh --bootstrap` command.

This change simplifies the ISS administration interface and improves overall performance.

Requirements for Indexing and Search Service

See Communications Suite Component Products Release Notes.

Product Version Compatibility Requirements

See Communications Suite 7 Update 1 Product Version Compatibility Requirements.

Known Issues and Limitations in Indexing and Search Service 1 Update 1

No issue ID

No search capability yet for calendar, address book, and instant messaging content.
This feature might be supported in a future release.

6652023

Unable to match strings with underscore, /, . etc characters.
Punctuation characters are generally treated as spaces. Try searching for substrings delimited by them. This issue might be addressed in a future release.

6694980

Some of the PDF thumbnails do not show the content in first page of the PDF file.
Some PDF thumbnails are cropped from the center of the first page of the file. The thumbnail might not not show the content in the first page if the content is not in the cropped area.

6713676

SearchUI should provide a way to proceed to next 100 items.
SearchUI only displays the top 100 results. Until this is fixed, to see all matches, use the RESTful web search directly, or narrow the search query by using more terms to limit the total results to fewer than 100.

6719204

Content-MD5, Content-ID, Message-ID are indexed, but can't be searched.
The values for each of these fields almost always contain punctuation, so no search query will match correctly because each punctuation mark is treated like a space. This problem might be addressed in a future release.

6741064

Failed to index PDF attachment: Error parsing the input stream: expected hex character and not :32.
Some PDF files cannot be parsed, so they generate errors similar to this one. This issue might be addressed in a future release.

6744853

`issadmin.sh --storepath` option fails silently when index service is running.
The `--storepath` option to `issadmin.sh` requires that the index service not be enabled at the time that the command is run. If the index service is running, it will execute the command by using the configured store path, not the non-standard path provided by the `--storepath` option.

6747455

Searches coming through Messaging Server are not compliant with IMAP RFC.
Several IMAP features are not currently implemented by ISS. These features should be handled by the Messaging Server when a satisfactorily compliant search result cannot be returned. This issue might be addressed in a future release.

6756525

Failed to index: MSVisioConverter: Found a chunk with a negative length, which isn't allowed.
Some Microsoft Visio files cannot be parsed, so they generate errors similar to this one.

6776999

An OpenOffice document with a `.doc` extension may not be detected as an OpenOffice document.
An OpenOffice document with a `.doc` extension might fail indexing and might be categorized as a compressed document. First, the document might fail to be converted by the Microsoft Word converter, then it might be detected as a zip (compressed) file rather than specifically as an OpenOffice document.

6786334

When running as root, running `issadmin.sh` with folder names like `jeff's email` will not work.
If the folder name contains a single quote or other characters that need to be escaped on the command line, then commands can not be run as root on the folder name. Instead, run the command as the ISS user, for example:

```
su - jiss
/opt/sun/comms/jiss/store/scripts/issadmin.sh --user jeff --checkfolder
--folder jeff\'s\ email
```

6787743

Concurrent `--checkaccount` runs produce wrong results.
Running concurrent `--checkaccount` runs against the same user returns wrong results. You can run `--checkaccount` against different users at the same time, but avoid concurrent runs against the same user.

6800930

Search query using wildcard can fail with `org.apache.lucene.search.BooleanQuery$TooManyClauses.`
To support wildcarding, you might expand a query to match many possible patterns. Sometimes this expansion exceeds a predetermined limit, which causes the search to abort. Avoid this problem by reducing the scope of the wildcard in the query. Try to make the match as restricted as possible, such as matching "+to:harry*" instead of "+to:h*". This problem might be addressed in a future release.

6804279

MSVisio Attachment: Unable to extract content `java.lang.ArrayIndexOutOfBoundsException.`
Some Microsoft Visio files cannot be parsed, so they generate errors similar to this one.

6805757

Transitory `--checkaccount` mismatches might be reported due to latency between Messaging Server message store & ISS store.
While the `--checkaccount` command is running, real time events might arrive, causing the Messaging Server message store and ISS store to appear to be out of sync. Typically this triggers a message that indicates "mismatched message count" and "last UID mismatch." If this happens, before running `--sync` , run `--checkfolder` on the folder for which such a message occurs. If the message disappears, you have fixed this transitory problem. If the message recurs, then run `--sync` to fix the folder. This problem might be addressed in a future release.

6828600

Count of emails containing attachments is not maintained correctly.
`issadmin.sh` returns a count of emails containing attachments. This count is correct after an account is bootstrapped, but it is not maintained properly as changes are made to the account.

6839144

`issadmin.sh --checkaccount` can miss out-of-sync state.
`isssadmin.sh --checkaccount` compares the first and last valid UIDs and the message count to determine whether a folder is in sync. Even when these values match, other differences might be present.

6846496

`INVALID_CHARACTER_ERR` seen in HTML converter.
Some HTML files cannot be parsed, so they generate errors similar to this one.

6855529

Searches for stop words generate the wrong results.
Searches for words like "the" and "this" will yield no matches because "stop" words like these are not indexed.

6857221

`/var/iss/logs` is left over after uninstall.
Uninstalling ISS will not remove the `/var/iss/logs` directory. If you want to delete this directory, you should do so manually after uninstallation.

6867806

Internet Explorer: Attachments with multi-byte names may have garbled names in the "Save As" dialog when downloaded.
ISS transfers an attachment's file name in the Content-Disposition field, but some non-ASCII characters are not interpreted correctly by Internet Explorer. A garbled name might appear if an attachment like this is saved to the client system within Convergence's Attachment Search interface.

6876869

Japanese characters in PDF thumbnail images may not be displayed correctly.
Some PDF thumbnails might contain fonts that did not render properly.

6902620

Appserver exception during `setup.sh`.
The App Server will log a `java.lang.ClassNotFoundException: com.sun.comms.iss.auth.JISSRealm` exception during the running of the `setup.sh` install script. Restart the App Server after the `setup.sh` script finishes.

6955552

Configurator does not allow for ISS Proxy Authentication.

To enable ISS Proxy Authenication with Convergence, run `iwcadmin` with the following configuration parameters:

```
iwcadmin -u admin -o ISS.enable -v true
iwcadmin -u admin -o ISS.enablessl -v true  (if SSL is used)
iwcadmin -u admin -o ISS.host -v <FQDN of ISS host>
iwcadmin -u admin -o ISS.port -v <ISS port>
iwcadmin -u admin -o ISS.proxyadminid -v <uid of proxy user>
iwcadmin -u admin -o ISS.proxyadminpwd -v <plaintext password of proxy
user>
```

If Attachment Search is enabled in Convergence 1.x and you upgrade to Convergence 2.0, Attachment Search will not work. To enable it in Convergence 2.0, you must set the Proxy Authentication user name and password when setting up ISS Proxy Authentication as shown in the above table.

Known Issues and Limitations in Indexing and Search Service 1 Update 2

No issue ID

No search capability yet for calendar, address book, and instant messaging content.
This feature might be supported in a future release.

12224418 (6652023)

Unable to match strings with underscore, */*, . etc characters.
Punctuation characters are generally treated as spaces. Try searching for substrings delimited by them.

This issue might be addressed in a future release.

12247355 (6744853)

`issadmin.sh --storepath` option fails silently when index service is running.
The `--storepath` option to `issadmin.sh` requires that the index service not be enabled at the time that the command is run. If the index service is running, it will execute the command by using the configured store path, not the non-standard path provided by the `--storepath` option.

12254217 (6775267)

Search with To: field in brackets not working.
A search such as `+to:"Foo Bar <foo.bar@example.com>"` might not find matches expected due to the search being executed as a phrase query. As a workaround use of slop value of 8 or more, for example `+to:"Foo Bar <foo.bar@example.com>"~8`

12254693 (6776999)

An OpenOffice document with a `.doc` extension might not be detected as an OpenOffice document.
An OpenOffice document with a `.doc` extension might fail indexing and might be categorized as a compressed document. First, the document might fail to be converted by the Microsoft Word converter, then it might be detected as a zip (compressed) file rather than specifically as an OpenOffice document.

12257671 (6786334)

When running as root, running `issadmin.sh` with folder names like `jeff's email` will not work.
If the folder name contains a single quote or other characters that need to be escaped on the command line, then commands can not be run as root on the folder name. Instead, run the command as the ISS user, for example:

```
su - jiss
/opt/sun/comms/jiss/store/scripts/issadmin.sh --user jeff --checkfolder
--folder jeff\'s\ email
```

12257946 (6787743)

Concurrent `--checkaccount` runs produce wrong results.
Running concurrent `--checkaccount` runs against the same user returns wrong results. You can run `--checkaccount` against different users at the same time, but avoid concurrent runs against the same user.

12267562 (6828600)

Count of emails containing attachments is not maintained correctly.
`issadmin.sh` returns a count of emails containing attachments. This count is correct after an account is bootstrapped, but it is not maintained properly as changes are made to the account.

12269853 (6839144)

`issadmin.sh --checkaccount` can miss out-of-sync state.
`isssadmin.sh --checkaccount` compares the first and last valid UIDs and the message count to determine whether a folder is in sync. Even when these values match, other differences might be present.

12271383 (6846496)

`INVALID_CHARACTER_ERR` seen in HTML converter.
Some HTML files cannot be parsed, so they generate errors similar to this one.

12285934 (6914286)

JMQConsumer save queued events to disk sometimes has EOFException.
It might be possible that if a very large number of events are queued in the JMQConsumer, that when it is shut down, the flush to disk might result in an EOFException. If this occurs, then the saving of events to disk was not successful, and `issadmin.sh --checkaccount --sync` should be run to bring accounts in sync.

12288231 (6926072)

Real-time updates and issadmin.sh --sync command might conflict.
It is possible for real-time updates and `issadmin.sh --sync` to conflict. The chance of this happening might be reduced by changing the account state to "I" (inactive) before running `issadmin.sh --sync`.

12290899 (6937880)

After bootstrap exits from "corrupt mailbox" account is created (wrongly).
If an account with a corrupt mailbox is bootstrapped, it will remain in the "B" state after bootstrapping finishes. The account must be repaired on Messaging Server before it can be properly indexed on ISS.

12290906 (6937912)

Search output when IMAP via SSL alone is enabled should indicate SSL and/or port number
If communication to Messaging Server is configured to be over SSL only, the IMAP URLs returned from a mail search will not indicate this. That is, they will continue to be in the format `imap://user1@mail1.example.com/INBOX;UIDVALIDITY=1111/;UID=1/;section=1`.

12307720 (7017424)

Terminating issadmin.sh command does not stop server side command processing.
If an `issadmin.sh` command is interrupted, it continues to execute, which might not be what was intended. When the client is interrupted, the task ID that was sent to the server with the request is displayed, and you can use the `--stopservice` command with this ID to interrupt the server task manually.

12307730 (7017503)

issadmin.sh --listbrief (1M users) causes JMS Exception - exceeds message size limit.
By default, output from `issadmin.sh` is limited to 70MB by the JMQ broker. Some commands might exceed this limit. To work around this limit, there are two options. One option is to use the `--altoutput` command. The other option is to raise the limit in the JMQ broker. To change the limit to 150MB, run `imqcmd update bkr -u admin -o "imq.message.max_size=150m"`.

12564122

Multi-machine deployment: upgrading from 1u1 TO 1u2 fails in postpatch_restart.
The ISS instance name needs to be the same across a non-clustered multi-host deployment, either before or after postpatch_restart is called.

Redistributable Files for Indexing and Search Service

None.

Instant Messaging Release Notes

Oracle Communications Instant Messaging Server Release Notes Version 8 Update 3

These release notes contain important release information about Oracle Communications Instant Messaging Server.

Topics:

- About Instant Messaging
- What's New in This Release of Instant Messaging
- Deprecated and Removed Features for Oracle Communications Instant Messaging Server
- Requirements for Oracle Communications Instant Messaging Server
- Instant Messaging Installation and Uninstallation Notes
- Instant Messaging Compatibility Issues
- Problems Fixed in Oracle Communications Instant Messaging Server
- Known Issues and Limitations in Instant Messaging 8 Update 3
- Redistributable Files for Instant Messaging

About Instant Messaging

Instant Messaging software delivers secure presence and extended real-time messaging, enabling user communities to communicate and collaborate instantly and securely. It combines the instant messaging capabilities with conferences, alerts, news, polling, and file transfer, to create a rich collaborative environment. It leverages an existing community that can be managed by using LDAP and Sun Java System Access Manager.

What's New in This Release of Instant Messaging

See the What's New in Instant Messaging 8 Update 3 document.

Deprecated and Removed Features for Oracle Communications Instant Messaging Server

Support for the following features may be eliminated in a future release, have already been removed in this release, or were removed in a previous release:

- Support for Access Manager Deprecated

Support for Access Manager Deprecated

Access Manager support is deprecated in this release and may be removed in a future release.

Requirements for Oracle Communications Instant Messaging Server

See Requirements for Communications Suite 7 Update 1 and Requirements for Instant Messaging.

Instant Messaging Installation and Uninstallation Notes

This section contains important information about installing and uninstalling Oracle Communications Instant Messaging Server software. If you are using Sun Java System Access Manager with Instant

Messaging, install the Legacy (version 6 style) Access Manager by using the Sun Java Enterprise System installer. This version of Instant Messaging is not compatible with the Realm (version 7 style) Access Manager.
If you use Access Manager to store policies when configuring Instant Messaging, the following policies are created:

- Ability to administer Instant Messaging and Presence Services
- Ability to change your own Instant Messaging settings
- Ability to manage Instant Messaging Conference Rooms
- Ability to manage Instant Messaging news channels
- Ability to send Instant Messaging alerts
- Ability to watch changes on other Instant Messaging users
- Default Instant Messaging and presence access

Instant Messaging Compatibility Issues

The following table lists the compatibilities issues in Oracle Communications Instant Messaging Server.

Oracle Communications Instant Messaging Server Compatibility Issues

Incompatibility	Impact	Comments
Versions of Instant Messenger prior to Sun Java System Instant Messaging 7 2006Q1 do not support XMPP redirection.		If you use a third-party client, ensure that the client supports XMPP redirection before deploying the Instant Messaging redirect server.
The Instant Messaging SDK Java packages are renamed in Sun Java System Instant Messaging software 7 2005Q4 to match the open source community naming conventions. For example, `org.netbeans.lib.collab`.	Instant Messaging will use the new naming scheme exclusively and deprecate the old scheme.	
Sun Java System Instant Messaging 8 is incompatible with Sun Java System Access Manager version 7 2005Q4.	The supported version of Sun Java System Access Manager is version 7.1.	
Sun Java System Instant Messaging 8 is incompatible with the 2004Q2 versions of Portal Server and Messaging Server.	The supported version of Sun Java System Portal Server are versions 7.1 and 7.1 update 1. The supported version of Sun Java System Messaging Server is version 7.0 Update 1.	
Due to a protocol change the Instant Messaging 8 Update 2 server cannot communicate with a server of a version older than 7.3 in federated deployments.	Instant Messaging federated deployment sites should upgrade all the servers. The existing deployments who do not wish to upgrade the server should explicitly set the property of collaboration session factory object to use the legacy protocol implementation.	Perform the upgrade to limit the length of time during which the servers cannot communicate with each other.

Client-Server Communication	Due to a protocol change the older versions of the client and server (2004Q2 and earlier) cannot communicate with the new versions of client and server.	Upgrade both the client and server at the same time.
Sun Java System Instant Messaging 7 2005Q4 and 2006Q1 are incompatible with the shared components that ship with Sun Java System Instant Messaging 8.	Instant Messaging depends on the Instant Messaging SDK. The Instant Messaging SDK is installed with the shared components.	Upgrade the shared components and then upgrade Instant Messaging. The Communication suite installer upgrades Instant Messaging SDK before installing Instant Messaging 8 Update 2.
The Instant Messaging SDK implementation of the legacy Instant Messaging Presence protocol is now co-packaged.	By default, the Instant Messaging SDK APIs use the implementation based on the XMPP protocol. Applications should explicitly set the property of the collaboration session factory object to use the legacy Instant Messaging Presence protocol implementation.	
The SDK component includes additional JAR files. The Instant Messaging SDK uses the JSO (JABBER Stream Objects) libraries.	To use the XMPP protocol effectively, modify the `classpath` parameter for older applications that use the Instant Messaging SDK.	
Sun Java System Instant Messaging 6 2004Q2 server is incompatible with the default behavior of the latest version of the SDK.	To use the Instant Messaging 6 2004Q2 server with the current Instant Messaging SDK, set the property of the collaboration session factory object to use the legacy protocol implementation.	
Instant Messaging 8 Multiplexor might not work correctly with the older versions of the server.		Use Instant Messaging 8 for both the Multiplexor and server. Upgrade or patch systems on which the server is installed and then upgrade systems on which only the Multiplexor is enabled.
Instant Messaging 8 server might not work correctly with the previous versions of the Instant Messaging SDK.		Use the 8 version of the server and the SDK.
URL to the default codebase URL for Sun Java System Instant Messaging 8.	The default URL for the codebase is http://server:port/im.	
Default port numbers for Sun Java System Instant Messaging 8	The default server port number is 45222 and the default Multiplexor port number is 5222.	

Instant Messaging 8 server might not work correctly with Multiplexor version 7.3.		Upgrade the Multiplexor to 8 Update 1.
Although the 7.3 client is supported on 8 server, all functionalities might not work.		Upgrade the client to version 8.

Problems Fixed in Oracle Communications Instant Messaging Server

This section contains a list of problems fixed in the Oracle Communications Instant Messaging Server release.

Problems Fixed in Instant Messaging 8 Update 3

The following is a list of bugs fixed in Instant Messaging 8 Update 3 :

6908325

Cal-agent parameters are missing after upgrading from Instant Messaging 7.3 (patch7) to Instant Messaging 8.3.

6890000

Server should support requesting a Unique Room Name as per XEP0045.

6877353

Cannot change conference room configuration from persistent to non-persistent using Pidgin.

6900005

Watchdog process doesn't cleanly close network connections.

6903319

IM server should support Simple Communications Blocking (XEP-0191).

6908698

Server should have the option to use Shoal for distributing conference messages across peer servers.

6911326

Unable to kick a user in a conference room.

6920854

Issues with managing conference or discussion history.

6885638

Server does not validate passwords in case of password-protected rooms.

6885686

Using Pidgin, conference room does not get deleted when history is present.

6856808

IM Configuration fails because it failed to start services.

Problems Fixed in Patch 5

The following is a list of bugs fixed in Instant Messaging 8 Patch 5 :

13428241

In s2s, only one-way communication occurs when the Remote Server is restarted.

13428225

Server restarts when Remote Server Is restarted in a federation.

13428207

Server hangs on restarting Remote Server in federation.

13377767

Deadlock in IM Server when closing an s2s connection over TIS.

13377737

Deadlock in IM Server when disconnecting an s2s connection over TIS.

13377664

Too many threads blocked on single s2s connection.

13113030

IM Server does not release lock when it receives a malformed blocking request.

13080295

Sunbt6973034 Perform Group Expansion on the Server side, and avoid sending the E.

13038813

Multiplexer process should set Java Max Heap size.

13038380

Httpbind does not handle 'From' part of the outgoing packets properly.

13023970

Provide configuration option to customize to server classpath.

13023832

Implement statistics from Server.

13023675

Conference server's name to be configured to other than.

13006291

P-12284157 Sunbt6905860 Configurator doesn't recognize the parameter when T.

12967340

IM presence error not being sent back to client.

12912452

Fails to connect to IM Server if the resource name is not Ascii 7-Bit.

12799485

Avoid thread leak with conference messages in server pool when one peer is down.

12770268

Ichat causes very lare log files.

12618951

Unable to delete 2 or more buddies with IM.

12367296

Intermittent presence in Federation.

12367258

Conference room not working with federation across jabber and Oracle IM.

12367182

RFE to allow conference server's name to be configured to other than "Muc.Domain".

12307319

Sunbt7015505 IM 8, Watchdog process not closing unused S_Ififo Descriptors.

12307241

Sunbt7015120 IM 8, Watchdog process should set Java Max Heap Size.

12305097

Sunbt7006014 IM8p4 Patch Readme needs to be updated with correct bug synopsis.

12303864

Sunbt6999941 IM 8, Authentication fails after restarting LDAP Server.

12299051

Sunbt6973034 Perform Group Expansion on the Server Side, and avoid sending the E.

Problems Fixed in Patch 6

The following is a list of bugs fixed in Instant Messaging 8 Patch 6 :

13732317

RID in collab API should be positive.

13732307

Responses should be processed in order of their RID.

13732295

API keeps sending simultaneous requests without limit.

13732309

Retry in case the response is delayed to handle packet loss.

13639553

Install instructions must be updated in patch Readme.

13686187

Thread hanging issue during group chat init call.

13087798

ER - enable support for offline messages in instant messaging.

137322653

HTTPBIND should be able to support stream restarts.

13686264

Thread hanging issue during JSO's stream. Send call.

13732286

Session closed when an unprocessed request's connection is closed.

13686227

Threads handling queues are not named properly.

13732274

Session closed when a request is retransmitted.

13732275

HTTPBIND: time to wait calculation is wrong.

13788553

Enable support for offline messages in instant messaging.

13732269

Race condition in HTTPBIND when a request is queued.

13686205

Deadlock seen in JSTACK dump of IM server.

13732270

HTTPBIND: packets in queue not notified.

13844631

Offline messages are received out of order in s2s(federated) deployments.

Known Issues and Limitations in Instant Messaging 8 Update 3

Instant Messaging Installation, Upgrade, and Uninstallation Issues

6905860

Configurator doesn't recognize the parameter when the jvm.options has parameters with = sign.
Workaround: Edit the `imadmin` file and specify the parameter in the appropriate line where the server or mux is started.

6947092

If cal-agent is enabled and you are upgrading Instant Messaging from version 7 Update 3 to version 8 Update 3, cal-agent will not start up.
Workaround: This occurs because the `agent-calendar.imadmin.enable` parameter is set to blank. In the `iim.cnf` file, set `agent-calendar.imadmin.enable=true`.

6903856

Configurator displays an "unknown container" error message when GlassFish patch 6 or 7 is used to deploy `httpbind,imps`.
Workaround: Provide a pause of a few seconds while entering values.

6927610

When you upgrade from Instant Messaging 8 Update 3 to Oracle Communications Instant Messaging Server, and redeploy the client, the Copyright year is still displayed as 2009 instead of 2010.
Workaround: Perform the following steps:

- Run the configurator and choose to configure the client.
- Replace index.html with index.html.template and then run the `iwadmin` command to redeploy.

6900058

Configuring an alternate (altroot) installation of Instant Messaging server fails.

6963750

zh_CN, over translated "Yes" in configurator.

When running the IM configurator, there are some translated messages "yes," which should be kept in English, the message IDs:

```
ConsoleInteraction-yesAnswer
MessengerResources-ConsoleInteraction-NeedDeploy-true
HTTPBind-ConsoleInteraction-NeedDeploy-true
IMPS-ConsoleInteraction-NeedDeploy-true
```

6963848

In the configurator, "Do you want to go back to previous panel" is displayed in English.

6963855

[French] - in the configurator, the whole IMPS gateway section is displayed in English.

6869109

The following parameters have to be modified if upgrading from versions earlier than IM 8.0.

```
agent-calendar.imadmin.enable="true"
agent-calendar.iim_server.host=
iim_server.port = "5269".
```

Workaround: Modify the values to:

```
agent-calendar.imadmin.enable="true"
agent-calendar.iim_server.host=IM_SERVER_HOSTNAME
iim_server.port = "5269"
```

6818830

When you upgrade from Instant Messaging version 8 to Instant Messaging 8 Update 1, redeployment of client resources fails.
Workaround: Before you redeploy the client resources, edit the `imwebapp.properties` file, and set the `im_WAR_GENERATE_COMMAND` parameter to a valid Java path.

6758197

If the server is reconfigured, the `iim.conf` file does not retain the previous configuration details.

6768193

The `propstore_migraton.conf` file does not exist when Instant Messaging is upgraded from version 7.2 to 8 Update 1.

6643628

The Configurator tool does not connect to the Sun Java System Directory Server SSL port number 636.
Workaround: Manually add the SSL port number as 636 in the `iim.conf` file.

6672605

The Instant Messaging server takes the property store migration source from the `iim.conf` file even though the migration options are specified by using the command line.

6677138

The Configurator tool should be able to handle a scenario where Instant Messaging server and web server run as different users.
The Instant Messaging server defaults to running as `inetuser` and `inetgroup`. Web server defaults to running as `webserverd`. In this case, all the Instant Messaging configuration files that are generated by Configurator are readable only by `inetuser`. The Configurator tool must change the ownership of these files to the web server runtime user, so that they can be read by web applications.

6689151

The `init-config` utility should provide an option to perform Calendar Agent integration with `JMQ`, `ENS`, and `None`.
The Instant Messaging `init-config` utility provides the option to configure the Calendar Agent configuration settings. The Instant Messaging `configure` utility currently assumes that the integration with the Calendar Server uses the ENS (Event Notification Service) mechanism. As JMQ is also an option for notifications, it would be advantageous to provide the ability to configure JMQ during initial configuration.

Hence, the three options `JMQ` (preferred), `ENS` (legacy), and `None` with the defaults values for each mechanism should be provided during configuration.
Workaround: Do not integrate the calendar agent during initial configuration. After the initial configuration process, manually configure the preferred mechanism, that is, `ENS`, `JMQ`, or `None` in the `iim.conf` file.

6709951

Deploying client resources fails if there are multiple http listeners.

6498428

The Configurator tool fails if you specify a user ID and a group ID other than `root`.
If you use any user ID or group ID other than `root` to install Instant Messaging, the user does not have permission to modify the `iim.conf` file. In this situation, when you invoke the Configurator tool after installing the Instant Messaging components, the tool fails.
Workaround: After installing and before starting the Instant Messaging components, manually set permissions for `imuser` and `imgroup`. To do this, type the following command:

```
chown -R imuser:imgroup /var/opt/sun/comms/im/default
chown -R imuser:imgroup /etc/opt/sun/comms/im/default
```

`imuser` and `imgroup` are the user and group that you use to install Instant Messaging.

6444431

The Configurator tool accepts values for Use Assess Manager for Policy and Use Assess Manager for SSO options and succeeds in configuration even when Sun Java System Access

Manager is not installed.

6900058

Configuring an alternate (altroot) installation of Instant Messaging server fails.

Instant Messenger Issues

This section contains a list of known issues at the time of release of Instant Messenger 8 Update 3.

Instant Messenger General and Usability Issues

6910032

Unable to browse/create/delete conference room through the IM client when MSN gateway enabled.

Workaround: Disable the MSN gateway if the Oracle Communications Instant Messaging Server client needs to be used. Or, use any third-party client while the MSN gateway is enabled.

6960513

IM index.html page is not rendered properly in IE browser.

6964210

In the "Help - About" window of the UI, the copyright is displayed in English.

6963803

QRG: "This guide provides a quick reference to the user interface of the [...]." left in English.

6964173

Explanatory texts are displayed in English - overgview.gif in IM OLH.

6910454

In a conference room, the participants are re-added with a different nick name when the server is restarted.

6905892

When a user uses a third party client, like Pidgin, and blocks a contact, and then logs in to SUN IM client, the status of the contact is displayed as "Status Unknown."

6739173

If the Alert if user status changes option is set for a MSN user, three alert messages are sent to other users when the status of the MSN user changes.

6815865

Status is not getting updated for Yahoo gateway users in the IM client.

6824201

If nick is not set, conference history displays messages from different domains as messages from local domain in a server-to-server setup in the IM client.

6831470

In MSN and Yahoo clients, chat functionality does not work properly with `httpbind`.

6770412

Status of the AIM users is not updated in the Sun Java System Instant Messaging client.

6766505

Conference history is not displayed in the Instant Messaging client if a user joins the conference before the owner of the conference.

6824299

Conference history does not display all the messages but only those messages from users who have currently joined the conference. This issue is with Sun IM Client only.

6751392

Transport name is not consistent.

6750943

MSN, AIM, and Yahoo Transport users are not shown in roster on a Red Hat Linux platform.

6750250

Entering a conference room with a multibyte nickname sometimes fails.

6649550

A Status Unknown message is displayed when offline users re-login in a server-to-server setup.

6626931

Users with self-JID (Jabber ID) encounter authorization issues in the Instant Messaging client.

6626943

Subscribe news channel displays an `org.jabberstudio.jso.JIDFormatException` error in a `Schema2` hosted domain setup.

6486498

If you send an alert containing an image of a URL and a text message, the recipient receives only the text message.

6576575

The Authorize Contact message is not sent when a user is added from the Alert and Chat windows.

6727849

In a server-to-server installation, the File->Import Contacts option does not work.

Instant Messaging Server Issues

6906270

Using Privacy Profiles (XEP-0016) and Simple Communications Blocking (XEP -0191) together results in an unpredictable behavior.

6917994

Policy-violation messages in Shoal setup due to timing issues.

In the server pool setup with Shoal, initially before the peers are discovered the following exception might been seen. This exception arises due to timing issues in peer discovery and it can be ignored.

```
OutDialbackConnection received an unexpected packet:
<error xml:lang='en-US'><policy-violation
xmlns='urn:ietf:params:xml:ns:xmpp-streams'/>
<text xmlns='urn:ietf:params:xml:ns:xmpp-streams'>Open federation not
allowed : india.sun.com</text></error>
```

6873349

IM services fail to start after upgrading from Solaris OS 9 to Solaris OS 10 SPARC.
Workaround: Perform the following steps to start the services:

1. Check the status by typing the following command:

   ```
   svcs -a | grep sunim
   ```

2. If the SMF status is displayed as "maintenance", then execute the following command:

   ```
   - svcadm clear sunim
   ```

6777818

The following message is displayed when you register a duplicate user to blocked domains:

```
User already registered
```

6869048

Cannot mandate TLS for specific servers when shoal peer discovery is enabled.

6869510

The `agent-calendar.iim_server.port` parameter gets replaced with `iim_server.port` after upgrading to IM 8 Update 3.

6821779

File transfer does not work in a public conference if the user rejoins the conference.

6805154

IM client settings window is not displayed in a profile with non-default privacy setting and `jid.encoding.compat` value set to 'false'.

6794173

Cannot create conferences with restricted characters.

6744631

Subscription does not work in a server pool when identity is enabled.

6817064

Re-subscription does not happen as Yahoo users are not getting deleted from the gateway.
Workaround: Delete the users from the Yahoo gateway and then re-subscribe.

6742973

Only users who are recently added to the IM client are synchronized with the Sun Java System Instant Messaging client. Users who are removed from the AIM client are not synchronized.
Workaround: If a user is deleted in the AIM client, manually delete the user in the Sun Java System Instant Messaging client.

6742857

SMS messages are not delivered if the SMS gateway is enabled on a single peer in a server pool.
Workaround: Enable the SMS gateway on all peers. For more details about the SMS gateway, see SMS Gateway for Instant Messaging.

6740782

Private conference communication does not work between users who have the same user names but are on different domains.
Workaround: Users should log in with a different resource and start a chat session.

6739134

Restarting the Instant Messaging services removes the MSN Transport from the Instant Messaging client compelling the user to register again.

6646034

The `imadmin assign_services` command fails if Instant Messaging interacts with the LDAP server in the SSL mode.
Workaround: Ensure that the Instant Messaging interacts with the LDAP server in the non-SSL mode. Invoke the `assign-services` command and change the interaction back to the SSL mode.

6632080

In a server-to-server setup, users are unable to join the conference rooms on a server that has the TLS (Transport Layer Security) enabled.

6620273

Data migration fails for user IDs that contain uppercase characters.

6724468

Propstore migration does not migrate the `vcard-temp.xml` file.

6752716

Null pointer exception is seen in the `xmppd.log` file when a MSN user is deleted from the Sun Java System Instant Messaging roster.

6599164

The Configurator tool should create the `im.war` and `httpbind.war` files if the web container used for Instant Messaging is not a supported web container.

Instant Messaging Agent Issues

6933220

With YAHOO Gateway installed, if you run the* `./imadming start yim-gateway*` *command, a warning message is displayed.*

6865601

MSN gateway fails to come up on Red Hat AS platform.

6886522

Login through Yahoo transport may not work since Yahoo transport is outdated.

6724472

Offline SMS messages are sent to user even after you block messages from a particular user.

6745138

Text formatting changes made in the AIM client do not appear in the Sun Instant Messaging client.

6646700

Sending an alert from the Instant Messaging client to a user in AIM, MSN, or Yahoo client results in an alert being delivered as a chat conversation. The delivery status of the alert is also not updated correctly.

6646702

The subject of the alert sent from the Instant Messaging client to an AIM, MSN, or Yahoo client is not displayed.

6646704

The Offline Alert functionality does not work when alerts are sent from the Sun Java System Instant Messaging client to users in the MSN, Yahoo, and AIM clients.

6646712

In the Instant Messenger client, the MSN, AIM, or Yahoo transport credentials that a user provides

to log in are not displayed.

Instant Messaging Voice Issues

6678951

Voice chat fails if users do a side chat in a conference.

6768190

If VoIP is enabled, the participant list option in the View menu of the Chat window does not work.

6730494

Voice call will not work if third user joins a voice conference of two users.

6727794

Inconsistent issues with voice chat.

6714770

If you use the Instant Messaging VoIP client to communicate with a remote peer that blocks the UDP (User Datagram Protocol) traffic due to a firewall, the VoIP connection is not established.

6689918

Voice chat does not work correctly on a Sun Ray machine.

6665839

Voice chat status displays as `Connected` even after the server has shut down.

6723424

User with `admin` privileges should be able to specify a default port range in the `jnlp` file.

6705989

In one-to-one conversation, the Voice Chat icon should be enabled by default.

Instant Messaging Administration Issues

6763462

The `imadmin assign_services` and `migratepropstore` commands do not work if the primary LDAP server is down.
Workaround: Restart the primary LDAP server and rerun the `imadmin assign_services` and `migratepropstore` commands.

6719455

The `./iwadmin redeploy all` command does not redeploy IMPS.
Workaround: To redeploy IMPS, type the following command:
`/opt/SUNWiim/sbin/iwadmin -v redeploy imps`

6740272

ACL file behavior is different for identity and file-based policy management.
If the policy is `identity`, the Manage Conferences and Manage News Channel options are not enabled by default. However, these options are enables by default in file-based ACLs (Access Control List).

Instant Messaging Archive Issues

6738078

The Disabling Archive option does not work during a chat session.

Instant Messaging Interoperability Issues

6621474

Cannot kick the participants from a conference room.

Instant Messaging Performance Issues

6957311

Performance Issues with JDK 1.6 Update 20.

6837866

Embryonic session closures are seen at a high load in the following circumstances:

- When the following load is generated every ten seconds, and when the number of concurrent users is 60,000 or more:
    - 50 users log into server
    - 50 users logout
    - 1450 presence updates
    - 350 messages sent to offline destinations
    - 2400 messages sent to online destinations
    - 850 messages sent to random destinations
    - 50 roster additions
    - 50 roster rename
    - 50 roster removal
- When there are more than ten chat messages per second across conference rooms
- When there are too many messages sent to fewer conference rooms

6812313

Messages that are added to group chats or conferences are not deleted upon refreshing the setup.

6837307

Need to configure a separate thread pool for multiplexor to reduce the disk backup of files.
To reduce the number of files written to disk under high load, the following parameters must be added in the `iim.conf` file:

```
iim_server.port.45222.worker-out="muxout"
iim_server.port.45222.worker-in="muxin"
iim_server.threadpool="muxout,muxin"
iim_server.threadpool.muxout.maxthreads=5
iim_server.threadpool.muxin.maxthreads=5
```

where
Maxthreads value is the number of multiplexers expected to connect to the server in a particular deployment.

Other Known Issues

6915591

Access Manager support will be deprecated from this release.

6881141

(Inconsistent Issue) Manage Conference window is not displayed when connected through MSN gateway.

6866196

Configuration fails when 64-bit JVM is used.
Workaround: Set the JVM value to 32-bit.

6742967

The status of AIM (AOL Instant Messaging) user is always shown as Offline in the Sun Java System Instant Messaging client.

6740263

In IMPS, response to a sent message is displayed as 'successfully completed' even when there is an error in the `xmpp` side.

6746794

In IMPS, a user in the virtual domain is not able to send messages to the user in the primary domain.

6738075

The Instant Messaging client does not display nicknames that have special characters.

6726738

In IMPS, an incorrect message is displayed when a user joins a conference with the duplicate nickname.

6673225

The `imadmin start` and `imadmin stop` commands do not invoke the SMF (Service Management Facility) command to start and stop the server or Multiplexor.

If you require the SMF, disable the SMF by typing the following command:

```
svccfg delete application/sunim
```

6671297

SMF does not support multiple Instant Messaging instances.

6641777

Selecting the Stop Moderating option in a conference room does not remove the moderate conference pane.

6635262

Configure parameters are not updated properly when `httpbind` option is enabled in the Configurator tool.

6726335

In IMPS, a null pointer exception is displayed when a user with a nickname that has a special character leaves a group.

6726347

In IMPS, a mobile phone user is listed twice in the member list when the user leaves and joins the group with different nicknames.

Redistributable Files for Instant Messaging

Instant Messaging software does not contain any files that you can redistribute.

Messaging Server Release Notes

Oracle Communications Messaging Exchange Server Release Notes Version 7 Update 4

These Release Notes contain important information available at the time of the general release of Oracle Communications Messaging Exchange Server 7 Update 4.

Topics:

- About Messaging Server 7 Update 4
- What's New in This Release of Messaging Server
- Deprecated and Removed Features for Messaging Server
- Requirements for Messaging Server 7 Update 4
- Messaging Server Installation Notes
- Messaging Server Documentation Updates
- Messaging Server Compatibility Issues
- Problems Fixed in This Release of Messaging Server
- Known Issues and Limitations in Messaging Server
- Redistributable Files for Messaging Server

About Messaging Server 7 Update 4

Messaging Server is a high-performance, highly secure messaging platform that can scale from thousands to millions of users. It provides extensive security features that help ensure the integrity of communications through user authentication, session encryption, and the appropriate content filtering to reduce spam and viruses. With Messaging Server, enterprises and service providers can provide secure, reliable messaging services for entire communities of employees, partners, and customers.

Messaging Server provides a powerful and flexible solution to the email needs of enterprises and messaging hosts of all sizes by using open Internet standards.

What's New in This Release of Messaging Server

See the What's New.

Deprecated and Removed Features for Messaging Server

Support for the following features may be eliminated in a future release, may be already removed in this release, or removed in a previous release:

- Deprecation of `MoveUser`, `msgcert`, and `msgssh` (formerly `msgadm`)
- Red Hat Linux 32-bit Version and Red Hat Linux 4
- Sun Java System Message Queue (JMQ)

Deprecation of `MoveUser`, `msgcert`, and `msgssh` (formerly `msgadm`)

These three ancillary utilities are now considered deprecated. There are no plans to enhance these utilities and they may be removed in a future release.

The `MoveUser` command is inferior to the `rehostuser` command for moving users within a deployment, and is inferior to `imsbackup` and `imsrestore` for moving users from old to new product installations. Third-party `imapcopy` utilities are available for moving users between IMAP servers from

different vendors.

The `msgcert` command's key generation and certificate request capabilities are obsolete due to recent weakness in MD5 and the NIST 2010 guidelines for SSL security strength. Customers should use `certutil` with appropriate options (`-Z SHA1 -g 2048`) or other third-party certificate generation tools to create certificates and certificate requests with up-to-date security strength.

A regular `ssh` session with appropriately configured `RBAC` (Solaris OS) or `sudo` (Red Hat Linux) provides enhanced security when compared to the `msgssh` command. In addition, an `ssh` session provides a more flexible framework for remote administration, because it supports administration of co-located products in addition to just Messaging Server.

Red Hat Linux 32-bit Version and Red Hat Linux 4

Support for the 32-bit Red Hat Linux version of Messaging Server and support for the Red Hat Linux 4 platform is deprecated and might be removed in a future release.

Sun Java System Message Queue (JMQ)

Because the 64-bit version of the JMQ C software development kit (SDK) is not presently available on 64-bit Red Hat Linux, no support for this version is available. As a result, ISS cannot be used with Messaging Server 64-bit on Red Hat Linux. Users should not be using the JMQ C SDK for notification support. Instead, Event Notification Service (ENS) is fully supported on all platforms and is recommended for IMAP IDLE.

Requirements for Messaging Server 7 Update 4

See Requirements for Communications Suite 7 Update 1.

> **Note**
> For information about upgrading to Messaging Server 7 Update 4 from a previous version of Messaging Server, see Messaging Server Installation Notes.

Messaging Server Installation Notes

These installation notes pertain to the Messaging Server 7 Update 4 release. This section contains the following subsections:

- Installation Overview for Messaging Server
- comm_dssetup.pl Changes for This Release
- Upgrade Instructions for Messaging Server

Installation Overview for Messaging Server

Use the Communications Suite installer to install Messaging Server.

For installation instructions, see the Communications Suite Installation Guide.

After installation is complete, you must configure Messaging Server by:

1. Running the Directory Server Preparation Tool, `comm_dssetup.pl`
2. Running the Messaging Server configuration program

For configuration instructions, see the Communications Suite Initial Configuration information.

comm_dssetup.pl Changes for This Release

The following changes were implemented in the latest version of `comm_dssetup.pl`, the program that prepares Directory Server for Messaging Server use:

1. Messaging Server 7 Update 4 requires that the 6.4p5 version of `comm_dssetup.pl` be applied to the Directory Server.
2. See Messaging Server Compatibility Issues for more changes to the `comm_dssetup.pl` program.

Upgrade Instructions for Messaging Server

If you are upgrading to Messaging Server 7 Update 4 from an earlier release, follow the upgrade instructions in the *Communications Suite Upgrade Guide*.

Messaging Server Documentation Updates

Beginning with **Messaging Server 7 Update 4 Patch 22**, support is available for third-party authentication servers by supporting a protocol designed to integrate third-party authentication services. See: Third-Party Authentication Server Support.

Messaging Server Compatibility Issues

To purge users with iPlanet Delegated Administrator when you are running Messaging Server 6.3, see Purging Users with iPlanet Delegated Administrator and Messaging Server 6.3.

The following table describes compatibility issues with Messaging Server:

Incompatibility	Workaround	Comments
SMTP AUTH is enabled by default. Thus, to send mail by Webmail (`mshttpd`), you must set `local.service.http.smtpauthuser`. So if you are running Convergence or Communications Express and upgrading to Messaging Server 7u4, sending email may inexplicably fail if Messaging Server was not previously configured to use SMTP AUTH for Webmail.	Make sure that `configutil` variables `local.service.http.smtpauthuser` and `local.service.http.smptauthpassword` are set, and their values are correct. You should not attempt to disable SMTP AUTH by unsetting `local.service.http.smtpauthpassword`.	6958415: V `local.se` is not set. 12243675: Webmail (m by default. This is also -17 of Mess
Messaging Server 7u4 requires at least NSS 3.12.6.	NSS 3.12.6 is included in the Comms Installer 7 Update 1, so be sure to upgrade to NSS 3.12.6.	NSS 3.12.x Server 7u4 NSS 3.12.6 NSS share 12247471: NSS share
In Messaging Server 5, an administrator could use the IMAP `list` command to display all folders in the message store. In a typical message store, this caused the server to display an unusually long list.	Beginning with Messaging Server 6, when an administrator runs the IMAP `list` command, it displays only the explicitly shared folders. | To list all folders in the message store, use the `mboxutil` utility.	For more in
The procedure changed for upgrading Messaging Server with Webmail over IMAP protocol (12156608 (SUNBT6397425), (SUNBT6397451), 12162502 (SUNBT2137362)).	You must upgrade the back-end server before upgrading the front-end server. Both the Webmail-over-IMAP protocol and the back-end message stores must be the same product version. See the Communications Suite Upgrade Guide for details.	
If you use Messaging Server with Access Manager Single Sign-on, it does not support Java Enterprise System 2004Q2 Access Manager Server. However, Access Manager 6.3 and later is supported.	The specific versions of Messaging Server that do not support Java Enterprise System 2004Q2 Access Manager Server are: • Messaging Server 6.2-6.01 and later • Messaging Server 6.3	Upgrade A before upgr
SNMP MADMAN mib support in Messaging Server 6.3 and later.	Running on Solaris 9 or earlier, Messaging Server SNMP support requires the Sun SEA SNMP master agent which comes with Solaris. There are issues with the SEA master agent. The preferred solution is to upgrade to Solaris 10 or later and use the Net-SNMP which comes with the OS. Running on Solaris 10 or later, Messaging Server SNMP support requires the Net-SNMP which comes with the OS.	

Problems Fixed in This Release of Messaging Server

Fixed in Messaging Server 7 Update 4 Patch 22

12308199

SUNBT7019866 MMP third-party authentication server failure in `hula_sasllist`

12308483

SUNBT7021386 MMP randomly fails on IPv6 connections

12308876

SUNBT7024029 `NOTARY MAIL` FROM `RET` parameter not being honored by all channels

12309838

SUNBT7029891 Added IMAP detailed status codes from RFC 5530

12309910

SUNBT7030297 Failures in `new_search_priv` under heavy load

12308061

SUNBT7019178 Added JMQ notification message option

12308937

SUNBT7024509 delivery failure notification gets corrupted in localized versions

12308531

SUNBT7021730 Pre-patch script should not run `stored -r` on stand-by node of the cluster

12313740

`TCP_SMTP_SERVER` failure in `HULA_LOGUSER` with `LOG_CONNECT` bit value 128

Fixed in Messaging Server 7 Update 4

12004753

SUNBT4760767 No control over log file permissions

Added new `logfile.*.filemode` configuration setting:
This file mode creates log files in octal. The log files will be masked with octal `0666`, so use the process `umask` to set actual log file permissions. If you want a process with a different `userid`, but in the same group as the Messaging Server user, to have read access to log files, use `0640`.

Updated `store.umask` help:
This is the file mode creation mask for message store processes (in octal). By default, access to the message store by other users or users in the same group is forbidden. Setting `umask` to `027` allows users in the same primary group as `local.serveruid` to read newly created message store files.

Incompatible change:
If a customer has set `store.umask` to a non-default value to allow log files to be read by other UNIX users on the system, the permissions on those log files will become less permissive (`0600` or owner read/write only, which is the default for `logfile.x.filemode`). The customer must set `logfile.x.filemode` (for appropriate values of `x`) to `0666` to restore the permissions.

Red Hat Enterprise Linux 5 SNMP

Red Hat Enterprise Linux 5 only supports use of Simple Network Management Protocol (SNMP) by 64-bit products. If you want to use the 32-bit version of Messaging Server, SNMP support is only available on Red Hat Enterprise Linux 4. The 64-bit version of Messaging Server does include SNMP support on Red Hat Enterprise Linux 5.

Known Issues and Limitations in Messaging Server

This section describes known issues in the Messaging Server product.

12305793

SUNBT7008884 `mboxutil` shows an error when `service.listenaddr` is set.

Workaround:
Set `local.store.notifyplugin.ms-internal.enshost` to the same value as `service.listenaddr`. This workaround works for the `ms-internal` instance of `ibiff`.

> **Note**
> If you set any value for `local.store.notifyplugin`, you have that instance in addition to the `ms-internal` instance. If you don't specify an instance name in `local.store.notifyplugin`, the defaults of `ibiff` or `jmqnotify` are used.

12290888

SUNBT6937817 Upgrade of MS from R6(MS7.0) to R7u1 (MS7u4) has 1 diff3 error

If you are upgrading from Messaging Server 7 Update 2 or earlier to Messaging Server Version 7 Update 4, and you specified a host name other than the physical host name during Messaging Server configuration, then the Messaging Server upgrade will report a conflict in the mapping file when you run `patch-config`. Typically, this happens on high availability (HA) deployments, where you would specify the logical host name to Messaging Server `configure`, not the physical host name.

The conflict occurs in the `INTERNAL_IP` section of the mappings file for the rule allowing access to local IP addresses. Resolve the conflict manually by using the IP address that corresponds to the `local.hostname` `configutil` variable.

An excerpt from `/opt/sun/comms/messaging64/install/upgrade/7.0-0.04/save/config/mappings.new` is shown below:

```
INTERNAL_IP

<<<<<<<
/opt/sun/comms/messaging/install/upgrade/7.0-0.04/save/config/mappings.new
$(10.12.152.176/24)  $Y
=======
  $(10.12.152.246/24)  $Y
  ${::1}  $Y
>>>>>>>
/opt/sun/comms/messaging/install/upgrade/7.0-0.04/backout/lib/config-templa
127.0.0.1  $Y
  *  $N
```

Resolve the conflict by selecting the second choice, so the excerpt should look like:

```
INTERNAL_IP

 $(10.12.152.246/24)  $Y
 ${::1}  $Y
 127.0.0.1  $Y
 * $N
```

Elimination of `setuid` Binaries Starting With Messaging Server 7 Update 3 Has Potential Behavior Impact

The code works by having the job controller ask the watcher to start `pipe_master` and `l_master`. This has some potential impact:

- If you have a large number of environment variables (approximately 16K), an upgrade to Messaging Server 7 Update 3 or later will cause `l_master` and `pipe_master` to stop working until the environment is reduced to a reasonable size. The `job_controller` log should include the phrase `watch_newproc: buffer overflow` if this happens.
- The `imsimta run pipe` or `imsimta run native` commands now require root privilege (or a Solaris RBAC configuration granting `pipe_master` and `l_master` root privilege) to use.

32-Bit Plugins for 64-Bit Messaging Server Do Not Work

32-bit plugins from third-party vendors such as Brightmail or Cloudmark generally will not work with the 64-bit Messaging Server. Very limited support is available for a single 32-bit Brightmail-interface compatible plugin through the use of a 64-to-32-bit shim. This implementation may result in reduced performance and limited functionality. For best results, contact your vendor for a 64-bit compatible plugin.

12274671

SUNBT6860614 Advice for MMP `default:NumThreads` setting no longer correct, replace with `default:MaxThreads` setting

The recommended setting for the MMP's `default:NumThreads` was equal to the number of CPUs and default setting of 1. As of Messaging Server 7 Update 2, this is no longer correct due to architecture changes necessary for IPv6 support.

To fix this, the MMP now ignores the `default:NumThreads` setting. It will instead look at a `default:MaxThreads` setting with semantics the same as the IMAP server's `service.imap.maxthreads` setting that defaults to 250.

12272694

SUNBT6852929 Mail advance search does not work correctly if Messaging Server is configured with `service.imap.indexer.enable`

The results returned by an IMAP SEARCH differ if the Messaging Server is configured with `service.imap.indexer.enable` to use the Indexing and Search Service. The IMAP specification states that a SEARCH operation should ignore white space. However, the search operation by the Indexing and Search Service is done as whole-word searches.

12019325

SUNBT4660850 MTA separates return job from roll over of logs job.

Often sites want to use `return_units=1` to send out warning notifications on the hour. As a side effect, the `mail.log_*` files get rolled over. In addition, some sites need to roll the logs over hourly because of their large amount of data (over 2 GB); they might not want to run the return job just to accomplish the

rollover.

Workaround: use the extension mechanism provided by the return_job.sh shell script. For instance, if the goal is to run the return job every hour at 30 minutes past the hour BUT to only roll over the log files at 00:30, then do the following.

1. Schedule the return job to run at `00:30, 01:30, 02:30, 03:30`.
2. Create the shell script

   ```
   $SERVERROOT/data/site-programs/bin/pre_return
   ```

   and have it return `IMTA_RETURN_SPLIT_PERIOD=1` at the hour `0:00`. At all other hours, have it return a very large number. This way, the test to determine if it is time to split the log files will only succeed at `0:30` and fail at all other times:

   ```
   #!/bin/sh
   HOUR=`/usr/bin/date +%H`
   if [ $HOUR -eq 0 ]; then
      echo "IMTA_RETURN_SPLIT_PERIOD=1"
   else
      echo "IMTA_RETURN_SPLIT_PERIOD=4294967296"
   fi
   ```

No Issue ID

Due to an upgrade to the Berkeley Database in Messaging Server 7 Update 1, after an upgrade from an earlier version of Messaging Server 7 Update 1, when you restart the server, the Berkeley Database issues the following message: 'Skipping log file...historic log version.'

Redistributable Files for Messaging Server

The following redistributable files are provided with Messaging Server:

- You can copy and use (but not modify) the following header files solely to create and distribute programs to interface with Messaging Server APIs, to compile customer written code using the documented API to interoperate or integrate with Messaging Server, and only as expressly provided in the Messaging Server documentation:
  - *msg-svr-base*`/examples/tpauthsdk/authserv.h`
  - All files in the *msg-svr-base*`/include` directory (default location)

- The following files are provided solely as reference for writing programs that use the documented API to integrate with Messaging Server:
  - *msg-svr-base*`/examples/tpauthsdk/`
  - *msg-svr-base*`/examples/mtasdk/`

Oracle Communications Calendar Server for CALDAV Clients Release Notes

Oracle Communications Calendar Server for CALDAV Clients Version 7 Update 1

These Release Notes contain important information available at the time of the general release of Oracle Communications Calendar Server for CALDAV Clients, including:

- About Calendar Server 7 Update 1
- What's New in This Release of Calendar Server for CALDAV Clients 7 Update 1
- Requirements for Calendar Server for CALDAV Clients 7 Update 1
- Calendar Server for CALDAV Clients 7 Update 1 Installation Notes
- Calendar Server for CALDAV Clients 7 Update 1 Upgrade Notes
- Calendar Server for CALDAV Clients 7 Update 1 Compatibility Issues
- Problems Fixed in This Release of Calendar Server for CALDAV Clients 7 Update 1
- Problems Fixed in Patch 3
- Known Issues and Limitations in Calendar Server for CALDAV Clients 7 Update 1
- Redistributable Files for Calendar Server for CALDAV Clients 7 Update 1

About Calendar Server 7 Update 1

See Introduction to Calendar Server 7.

What's New in This Release of Calendar Server for CALDAV Clients 7 Update 1

See the What's New document.

Requirements for Calendar Server for CALDAV Clients 7 Update 1

- Requirements for Communications Suite 7 Update 1
- Requirements for Calendar Server for CALDAV Clients 7 Update 1

Calendar Server for CALDAV Clients 7 Update 1 Installation Notes

See the Communications Suite Installation Guide for information on installing Calendar Server for CALDAV Clients 7 Update 1.

Calendar Server for CALDAV Clients 7 Update 1 Upgrade Notes

The database schema is not compatible between Calendar Server 7 and Calendar Server 7 Update 1. As no upgrade tool exists, you must use the following steps to upgrade:

1. Export all data into `ics` files.
2. Create a database backup.
   For example:

   ```
   mysqldump -u <mysql_user> -p <password> caldav > file
   ```

   where `caldav` is the database name.
   If you need to read the data in this backup file, restore it to a Calendar Server 7 host by running

the following command:

```
mysql -u <mysql_user> -p <password> caldav < backup_file
```

Then export the required data.

3. Shut down Calendar Server services.
4. Reinitialize the database.
   Use the initDB.sh script.
   Usage:

   ```
   initDB.sh [host] [database]
   ```

   If *host* or *database* are not specified, the script uses `localhost` and `caldav`.
   The `initDB.sh` script initializes the MySQL Server database by dropping tables, thus destroying all Calendar Server data. In the script, make these changes:

   - All `-umysql` should be changed to `-u`*mysql-username*.
   - All `-pmysql` should be changed to `-p`*mysql-usermysqlpassword*.
5. Run the `commpkg upgrade` command to upgrade to the Calendar Server 7 Update 1 software.
6. Restart Calendar Server.
7. Import the data.

Calendar Server for CALDAV Clients 7 Update 1 Compatibility Issues

Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite is not supported with this release of Calendar Server for CALDAV Clients.

Problems Fixed in This Release of Calendar Server for CALDAV Clients 7 Update 1

6846562

Schema 1 support for CalDAV Server.

6740679

[Appleical]Task creation with Due Date creates 403 error mismatch: DTSTART floating = false.

6791801

[AppleiCal]get http 403 when modifying an instance to add an attendee.

6879002

`davadmin calresource import` fails for events with ORGANIZER.

6879006

`davadmin calresource import` fails for events with ATTENDEES.

6811845

MKCOL with weird body should fail; extended MKCOL support not complete.

6930872

"davadmin calcomponent list" fails if summary field is null.

6953853

Add davadmin command-line parameter for enabling tracing instead of logging level.

6904301

Cannot modify a recurrence event.

6907331

Changing responses throws exception in log.

6926791

Create calendar with description containing like break make calendar unavailable.

6952381

DavException in calendar log when searching for calendar to subscribe to.

6931683

Event notification are received even when user option is not enabled.

6929248

Exception is seen in calendar.log file when privacy settings is set on user.

6928504

LDAPDN.equals is not handling case sensitivity correctly.

6926195

Manage permissions are granting owner permissions to all user's calendars.

6920766

Need to be able to set Calendar Attendant flags through davadmin.

6839625

Need to implement davadmin account delete.

6933905

Notification settings to default calendar should apply to inbox too.

6909847

Problem with rights to other calendars.

6907322

Recurrence data are lost if you open in edit mode.

6951272

SearchCalPropsHandler LDAP or home collection search failed. The minimum search string length is 3.

6953468

Switch davadmin version to use build version.

6888870

Update DavServiceImpl to log the readable user id instead of the internal unique id.

6946099

By default resource calendar is inaccessible to another user.

6891177

davadmin account delete fails due to new default collections.

6920682

davadmin calendar create does not set acl.

6953467

davadmin calendar list should display only the default calendar and secondary calendars.

6866014

davadmin calendar/calresource cannot handle user account under non-default domain.

6965242

davadmin: path to truststore (secure connection) is required when using -F option but not on command line.

6920768

Need to be able to set owner for resource calendar using davadmin.

6716693

Should have option to use ldap proxy auth when querying principals namespace.

6933908

Some davadmin command for users in non-default domain fails.

Problems Fixed in Patch 3

The following table lists the bugIDs that are fixed in Patch 3.

BugIDs Fixed in Calendar Server 7 Update 1 Patch 3

BugID	Former Sun CR	Description
	7022418	CalDAV reminder email subject line garbled (locale french)
12307308	7015367	The list_subscribed.wcap command returns a failure when one of the subscribed users is removed from LDAP
	6891672	Automatic purge of inbox, outbox entries
12307646	7016986	Problem migrating resource calendar where one of the owner is no longer in LDAP
12307674	7017181	The davadmin migration should use calid to migrate events
12307676	7017183	Localization bundles are taken from the wrong place
12300889	6983229	Email notifications should be disabled for resources by default
	6909419	Multiuser support for get_schedperms.wcap
	6916344	The set_schedperms.wcap command accepts self as part of acl and returns as part of get_schedperms.wcap
12309293	7026561	Build timestamp from davadmin -V displays in 12 hr clock
	6945985	Extract Content-ID and store as X-S1CS-CLIENT-ID when attachments are uploaded to an event
12309650	7028778	Changing reoccurring event single instance start-time to later time causes error
12348602		Inviting an LDAP group through Convergence fails and the event is never sent out from Calendar Server
12305730	7003292-2204190	Fine level migration logs should go to Migration log file
12302913	6975726-2201531	Move MessageException logger from EmailHandler to consumer class and lower log level
12309452	7019553-2207675	The storeevents.wcap returns error 60 when an instance of meeting moved to a different time
12309108	7015109-2207382	The storetodos.wcap ignores status parameter
12309107	7011405-2207381	Updating attendee part-stat status information fails from the organizer
12309106	7011352-2207380	The get_accountprops.wcap returns errno:94 for users with no schedule permissions
12306265	7005022-2204777	Migration needs to handle CS6 in non-virtualdomain mode too
12302765	6989792-2201331	Timerange based query on the scheduling inbox does not return anything
12301641	6891672-2200228	Automatic purge of inbox, outbox entries
12309653	6945985-2207829	Extract Content-ID and store as X-S1CS-CLIENT-ID when attachments are uploaded to an event
12309927	7020806-2208008	Attendee/organizer mail addresses must be canonicalized during migration
12305732	7006773-2204192	Migration fails if calmaster password contains a semicolon
12309572	7028137-2207756	Patch install breaks the configuration, if configuration was changed after installation

12308874	6916494-2207131	Multibyte subject/mailbody in calendar email notifications is garbled
12309538	7028096	Migration fail with - Validation exception: multiple components with same uid but different date type
12309520	7028057	Migration fail with - PERCENT-COMPLETE with invalid value: -1
12306355	7011191-2204904	The davadmin command strip fails update ACE when used with -f option
12309853	7029972	Internal server error while exporting data using wcap
12367256	7014697	Need to define specifc invalid sync token error for fetchcomponents_by_lastmod.wcap

Known Issues and Limitations in Calendar Server for CALDAV Clients 7 Update 1

These Release Notes contain important information available at the time of the general release of Oracle Communications Calendar Server for CALDAV Clients.

6821041

`davadmin config` command takes invalid value for notification.dav.smtpport

6748104

Event request notification is not displaying the modified time correctly for modification of a single occurrence of a recurring event

6957963

notifemail and notifrecipient properties are inconsistent between davadmin commands

The `davadmin account` command uses the following parameters:

- `notifemail` - Email notification enable flag (0 = disabled, 1 = enabled).
- `notifrecipients` - Recipients of email notifications. Multiple values are separated by a space.

The `davadmin calendar` uses the following parameters:

- `notifemail` - Notification enable/disable boolean. Default true.
- `notifrecipient` - Space separated list of notification addresses. Default is account's email address.

The two commands should use the same values and property key words.

6724653

Separate our consumer logs from Application Server logs

6737896

Add support for Apple iCal private events

6795953

The entries about loglevel should only allow valid input to "DEBUG/INFO/FINEST/FINE"

6808801

The davadmin config command takes invalid values to log.dav.*.maxlogfiles

6822646

Delete range of all day recurring events fails if the range includes an exception

6834023

Error while modifying a single instance of recurring event in Thunderbird

6868370

Convergence calendar busy information is not shown for All Day in WCAP co-deployment scenario

6930726

iCal/Lightning require relogin to get synced deleted event/Todo's

6934312

The `davadmin calcomponent export` command with the -i option exports the user's entire calendar instead of the particular URI

6920439

Calendar Server should give a better error message for not doing LDAP provisioning
Calendar Server 7 does not do its own provisioning. You must use Delegated Administrator or direct LDAP provisioning. You need to add the following LDAP classes for your Calendar Server deployment:

- objectClass: icsCalendarUser
- objectClass: nsManagedPerson

6943472

Logging in as calmaster might result in DavException "Recipient is on another internal server"
This situation occurs if your deployment is using the `davcore.scheduling.localuserattr` value (usually `davStore`) to determine if a user is a Calendar Server 7 enabled user and this attribute is not ste for the administrative user entry in LDAP.

Workaround: Add the required attribute to the administrative user's LDAP entry.

6930726

Lightning 1.0 beta1 requires relogin to get synced deleted event/Todo's

6947374

'Error parsing ical data: User Owners could not be found' while doing migration

This message indicates that a user specified that was specified in the access control list or in subscription list no longer exists. You can ignore this error message.

6943226

Apple iPhone STATUS not being taken into account when invitation event canceled by organizer

When an iPhone 3.x user gets an invitation from a Lightning user, there is no option to accept, reject, or decline the event. Additionally, when the inviting user deletes the event, the iPhone user does not receive an event notification, nor is the event deleted from the user's calendar. The event is in read-only mode. This issue is fixed starting with the iPhone 4 release.

6932487

Check Availability functionality is not clear in case of introp
"All day event" freebusy info is always returned in Zulu.

6962306

Notification producer need to post a special msg to instruct consumer to fetch large msg themselves
This results in a warning message in the log file: "JMS provider fails to write the message due to some internal error."

6847281

Cannot add a new back-end host to configuration

6974743 (Fixed in Calendar Server 7 Update 1 Patch 2)

Backslash not properly escaped in calendar names

6984442

Error accessing shared calendar using CalDAV clients

Attempting to access a shared calendar by using Thunderbird Lightning plugin (1.0b2 or 1.0b3pre) fails due to 404 error. In the case of iCal accessing shared data, the user gets an error the other user's inbox was not found. If there are other calendars that the user does not have access to, errors might occur about those calendars as well. However, the user is able to display the contents of the calendars to which permission was granted.

Scenario:
For user A to access user B's calendar:

1. In Convergence, user B grants user A read, read/write, or owner privilege through the Share panel.
   Alternately, an administrator can do the same by running the `davadmin calendar` command to set ACLs.
2. To view the newly shared calendar of user B, user A creates a new calendar or account on the client, explicitly entering user B's calendar URL (for Lightning) or principal URL (for iCal), depending on what a particular client takes.

Redistributable Files for Calendar Server for CALDAV Clients 7 Update 1

This release of Calendar Server for CALDAV Clients does not contain any files that you can redistribute.

Oracle Communications Calendar Server Release Notes

Oracle Communications Calendar Server Release Notes Version 6.3

> **As of Communications Suite 7, Oracle Communications Calendar Server (formerly Sun Java System Calendar Server 6.3) has been deprecated.**
> You can migrate from Calendar Server 6.3 to Oracle Communications Calendar Server for CALDAV Clients. See Migrating From Sun Java System Calendar Server 6 to Calendar Server 7.

These Release Notes contain important information available at the time of the general release of Oracle Sun Java System Calendar Server 6.3 including:

- About Oracle Communications Calendar Server 6.3
- What's New in This Release of Calendar Server
- Deprecated and Removed Features for Calendar Server 6.3
- Requirements for Calendar Server 6.3
- Important Upgrade Patch Information for Calendar Server 6.3
- Calendar Server Installation Notes
- Calendar Server Documentation Updates
- Calendar Server Compatibility Issues
- Problems Fixed in This Release of Calendar Server
- Known Issues and Limitations in Calendar Server
- Redistributable Files for Calendar Server

About Oracle Communications Calendar Server 6.3

Oracle Communications Calendar Server 6.3 (formerly known as Sun Java System Calendar Server 6.3) is a scalable, web-based solution for centralized calendaring and scheduling for enterprises and service providers. Calendar Server supports user calendars for both events and tasks as well as calendars for resources, such as conference rooms and equipment.

Calendar Server offers two graphical user interfaces, Convergence and Communications Express. It also offers customers the flexibility to use the Web Calendar Access Protocol (WCAP) to access calendar data directly in either `text/calendar` or `text/xml` format.

What's New in This Release of Calendar Server

For details, see the What's New document.

Deprecated and Removed Features for Calendar Server 6.3

For Calendar Server 6.3, the following features have been deprecated:

- The Calendar Express graphical user interface (GUI) has been deprecated and will be removed from the distribution in the the next major feature release.
- The WCAP `attachments` parameter, used by both `storeevents` and `storetodo`, has been deprecated. For backward compatibility, this parameter is still honored. But in a future release this parameter will no longer be recognized. Change any scripts you have using this parameter.
- The `cstool` utility that you use for monitoring Calendar Server activity has been removed in the Calendar Server 6.3 release.

- Calendar Server software is no longer available for Windows and HP-UX platforms.

Requirements for Calendar Server 6.3

See Communications Suite Component Products Release Notes.

Important Upgrade Patch Information for Calendar Server 6.3

The following Calendar Server 6.3 product upgrade patches are as follows:

Calendar Server 6.3 Upgrade Patches

Platform	Patch Number (English and Localized Languages)
Solaris OS, SPARC	121657-44
Solaris x86	121658-44
Red Hat Linux	121659-44

After patching, `csversion` shows the product version as "6.3-23.01".

You can find the most current product patches at Sun Solve. For how to find patches on Sun Solve, use the following procedure:

How to Find Patches on SunSolve

1. For the current list of required patches for Sun Java System Calendar Server, go to: http://sunsolve.sun.com
2. Select either "Patches" or "Patch Portal".
3. Follow the Sun Java System Calendar Server links.
   As operating system patch requirements change and patches to Java Enterprise System components become available, updates will be made available on SunSolve, initially in the form of recommended patch clusters.

Calendar Server Installation Notes

This section contains information you should know before you install Calendar Server 6.3.

- Default Calendar Server Installation Directories on Solaris OS and Red Hat Linux Platforms
- OS Patches
- Required Privileges
- Upgrading From an Earlier Version of Calendar Server 6
- Upgrading Your Calendar Database
- Upgrading to Calendar Server 6.3 Patch 121658-20 or Later on Solaris x86 Platforms
- Calendar Server Postinstallation Configuration
- Automatic Base 64 Encoding of Passwords
- Where to Find Calendar Server Data and Program Files
- Tuning Directory Server Performance for Calendar Server

Caution
Calendar Server does not support Network File System (NFS) mounted partitions. Do not install or create any part of Calendar Server, including executable, database, configuration, data, temporary, or log files, on an NFS-mounted partition.

Default Calendar Server Installation Directories on Solaris OS and Red Hat Linux Platforms

The following table shows the default installation directory paths for Solaris OS and Red Hat Linux:

Default Calendar Server Installation Directories

Solaris OS Default Directories
cal-svr-base=/opt/sun/comms/calendar/
/etc/*cal-svr-base*/SUNWics5/config
/var/*cal-svr-base*/SUNWics5

Red Hat Linux Default Directories
cal-svr-base=/opt/sun/comms/calendar/
/etc/*cal-svr-base*/config
/var/*cal-svr-base*/

> **Tip**
> In the documentation, the default installation directory for Calendar Server is referred to as *cal-svr-base*.

OS Patches

You must apply the required operating system patches before installing Calendar Server. The Communications Suite installer checks for required platform patches. You must install all required patches or the installation process does not continue.

Required Privileges

To run the Communications Suite installer or the Calendar Server 6.3 configuration program on a Solaris OS system, log in as or become the superuser (`root`).

Upgrading From an Earlier Version of Calendar Server 6

Upgrade to the latest Calendar Server 6.3 patch by using `patchadd` process.

For more information about upgrading to Calendar Server 6.3 from previous Calendar Server versions, see Sun Java Communications Suite 5 Upgrade Guide.

Upgrading Your Calendar Database

If you are upgrading from a Calendar Server version prior to 6.3 to the current 6.3 version, you must upgrade your databases also, using various database tools named in this section. More information about the migration tools can be found in the Sun Java System Calendar Server 6.3 Administration Guide.

Upgrading from an Earlier Version of Calendar Server

If the version of your previous Calendar Server software predates version 5.1.1, first contact Oracle Consulting for assistance in migrating your databases to be Calendar Server 5.1.1 compatible. You cannot migrate directly to any of the Calendar Server version 6 releases. You are required to install Calendar Server 5.1.1. After your database files are Calendar Server 5.1.1 compatible, install Calendar Server 6.3 and run the following database tools in the order listed.

cs5migrate

Run this utility to upgrade your databases from version 5.1.1 to version 6.2 level. This is an intermediate step that is required before you run the `csmigrate` utility to bring it up to version 6.3 level. The `cs5migrate` utility can be found in the `sbin` directory after you install Calendar Server 6.2 with latest patch available on SunSolve (116577-42 for SPARC, 116578-42 for x86 and 117851-42 for Red Hat Linux).

You must specify the `-r` option. The `cs5migrate` utility then creates master and exception records for all recurring events and tasks. Going forward these records will be automatically generated by Calendar Server.

This utility performs the following changes to your databases:

- Migrates your Calendar Server 5.1.1 LDAP database to be Calendar Server 6.2 compatible
- Migrates your Berkeley Data Base to version 4.2
- Writes the migration status to `csmigrate.log` log file
- Writes errors to `csmigrateerror.log` log file

csmig

Run this utility so the LDAP CLD plug-in works properly.

csvdmig

Run this utility to convert your non-domain calendar databases to single domain databases compatible with a multiple domain environment.

csmigrate

Now that your Calendar Server Databases are in version 6.2 mode, run the `csmigrate` utility to migrate your Calendar Server 6.2 databases to be compatible with Calendar Server version 6.3.

You can find the `csmigrate` utility, along with other administrative tools, in the `sbin` directory of your newly installed Calendar Server 6.3 software. For more information on `csmigrate`, see Sun Java System Calendar Server 6.3 Administration Guide.

> **Caution**
> If you are upgrading from a much older version of Calendar Server that was configured for limited virtual domain mode or has multiple instances of Calendar Server on the same machine, contact your Oracle sales account representative for an evaluation of your migration requirements and to ensure that you have the specific migration utility that supports those requirements.
>
> **And, as always, never migrate your database without first performing a full backup.**

Upgrading Your Calendar Server Version 6.0, 6.1, or 6.2 Databases to be Calendar Server Version 6.3 Compatible

Run `csmigrate` to upgrade your calendar databases to version 6.3 level.

You can find the `csmigrate` utility, along with other administrative tools, in the `sbin` directory of your newly installed Calendar Server 6.3 software. For more information on `csmigrate`, see Sun Java System Calendar Server 6.3 Administration Guide.

> **Caution**
> If you already have a Calendar Server 6.3 installation and you just upgraded to the latest patch, no migration utilities need to be run.

Upgrading to Calendar Server 6.3 Patch 121658-20 or Later on Solaris x86 Platforms

Data created in the Solaris x86 version of Calendar Server 6.3 patch 121658-19 or earlier is corrupted when you upgrade to patch 121658-20 or later. This issue occurs on Solaris x86 platforms only (CR 6642958).

With patch 121658-20 and later, Calendar Server uses the new Berkeley Database library, which is incompatible with the database created by earlier versions. In order to use the database created by patch 121658-19 (or prior) with this patch, you must update the database.

Follow this procedure:

1. Make sure the Calendar Server installation is patch 121658-19 or prior.
2. Take a copy of the current database.
3. Check that the database is in good condition by running the `db_verify` and `csdb check` commands.
4. Dump the data by using `db_dump`.
   a. Set `LD_LIBRARY_PATH` to *`cal-svr-base`*`/SUNWics5/cal/lib`.
      For example: `./db_dump -r -f /var/opt/SUNWics5/dump/ics50alarms.db.txt /var/opt/SUNWics5/csdb/ics50alarms.db`
   b. Do the same for all the databases.
      This dumps the `ics50alarms.db` to `ics50alarms.db.txt` (text file) and is placed in the "dump" directory.
5. Apply this patch (121658-24 or later).
6. Load the data dumped in the preceding step to the database files using the `cs_dbload` utility provided in this patch.
   a. Set `LD_LIBRARY_PATH` to *`cal-svr-base`*`/SUNWics5/cal/lib`.
   b. Run `cs_dbload` to load files dumped in step **4**.
      For example: `./cs_dbload -f /var/opt/SUNWics5/dump/ics50alarms.db.txt /var/opt/SUNWics5/dbload/ics50alarms.db`
   c. Do the same for all the databases.
      This loads the records present in `ics50alarms.db.txt` to the `ics50alarms.db` in the "dbload" directory. A new "dbload" directory is chosen in order not to overwrite the original database.
7. Run `csdb check` or `csdb rebuild` on the database files created in the preceding step.

FAQ: Solaris x86 Upgrade to Calendar Server 6.3 Patch 121658-20 or Later.

Question: Is this a problem only for Solaris x86?
Answer: Yes, this is problem only for Solaris x86. SPARC and Red Hat Linux platforms are not affected.

Question: Do you have to perform this task for every patch? Or only one time?
Answer: This is a one-time only task. Once you convert the database to work with this patch, you do not have to repeat these steps for future patches. You can just perform a `patchadd`.

Question: If I have patch -17 or -18, what should I do?
Answer: Follow the previous procedure.

Question: If I have patch -21, -22, or -23, and I have not previously done a dump/load, what should I do?
Answer: We don't expect Calendar Server to run without crashes on these patch levels if the dump/load procedure is not performed. If you have these patches installed and do not see any issue, then please

contact technical support on how to move forward with the patches.

Question: If I have already applied patch -24, and I've already done a dump/load, and I want patch -25 or the Communications Suite 6 software, what should I do?
Answer: Perform a `patchadd` of patch -25. No additional steps are required.

Question: If I have Communications Suite 5 (Calendar Server 6.3) and I want to be a Beta customer, what should I do?
Answer: If you want to move data from your existing database to the new database, you will have to perform the dump/load procedure described in patch -24.

Calendar Server Postinstallation Configuration

After installing or upgrading to Calendar Server 6.3 and before you can use Calendar Server, you must configure it according to the instructions in Oracle Communications Calendar Server Initial Configuration.

Automatic Base 64 Encoding of Passwords

In the past, the Calendar Server configuration file stored some passwords in clear text. Though the `ics.conf` file has read permission restrictions, the passwords could be visible to someone else when the administrator edits the configuration file. In Calendar Server 6.3, the passwords have been moved to another file and obfuscated by base 64 encoding them. The base 64 encoding prevents someone from accidentally seeing the passwords. You must still protect the file with read permission restrictions, and keep the file secure so that no unauthorized user can get to it, to keep the passwords secure.

If you are installing Calendar Server for the first time, the configuration program encodes the passwords that you create during the configuration process, and stores them in a separate password configuration file.

If you are upgrading your existing Calendar Server software to the Calendar Server 6.3 version, the configuration program encodes the existing passwords found in the `ics.conf` file, and moves them to the password configuration file.

In both cases, the configuration program also adds a new `ics.conf` parameter to indicate the location of the password file, as shown in the following example:

```
local.passwordfile="/etc/opt/SUNWics5/config/icspassword.conf"
```

Do not change this configuration parameter.

Due to this change, the following configuration parameters have been moved out of the `ics.conf` file:

- `local.authldapbindcred`
- `local.enduseradmincred`
- `local.lookupldapbindcred`
- `service.siteadmin.cred`

> **Note**
> The LDAP bind passwords that are generated by the configurator are re-generated each time you run the configurator, once they are moved out of the `ics.conf` file.

Where to Find Calendar Server Data and Program Files

The following table shows where to find various files and programs referred to in the documentation for both the Solaris OS and Red Hat Linux platforms:

Location of Calendar Server Files

File Names	Solaris OS Locations	Red Hat Linux Locations
Administrator utilities: `start-cal`, `stop-cal`, `csattribute`, `csbackup`, `cscal`, `cscomponents`, `csdb`, `csdomain`, `csexport`, `csimport`, `csmonitor`, `csplugin`, `cspurge`, `csrename`, `csresource`, `csrestore`, `csschedule`, `csstats`, `cstool`, and `csuser`	*`cal-svr-base`*`/SUNWics5/cal/lsbin`	*`cal-svr-base`*`/sbin`
Migration utilities: `csmig` and `csvdmig`	*`cal-svr-base`*`/SUNWics5/cal/sbin`	*`cal-svr-base`*`/sbin`
Configuration files: `ics.conf`, `version.conf`, `counter.conf`, and `sslpassword.conf`	After installation, files are located at: *`cal-svr-base`*`/SUNWics5/cal/lib/`*`config-template`* During configuration, the various files from the above directory are moved to the locations specified by the configuration options you choose. The default location is: `/etc/`*`cal-svr-base`*`/SUNWics5/config`	After installation, the files are located at: *`cal-svr-base`*`/lib/`*`config-template`* During configuration, the various files from the above directory are moved to the locations specified by the configuration options you choose. The default location is: `/etc/`*`cal-svr-base`*`/config`
Mail formatting (`*.fmt`) files	After installation, the files are located at: *`cal-svr-base`*`/SUNWics5/cal/lib/`*`config-template`* After configuration, the files are located at: `/etc/`*`cal-svr-base`*`/SUNWics5/config/`*`language`* where *language* is en, de, es, fr, ja, ko, zh-TW, or zh-CN.	After installation, the files are located at *`cal-svr-base`*`/lib/`*`config-template`* After configuration, the files are located at: `/etc/`*`cal-svr-base`*`/config/`*`language`* where language is en, de, es, fr, ja, ko, zh-TW, or zh-CN.
Library (`.so`) files SSL utilities: `certutil` and `modutil`	`/var/`*`cal-svr-base`*`/SUNWics5/cal/lib/`	*`cal-svr-base`*`/lib`
Session database	`/var/`*`cal-svr-base`*`/SUNWics5/data/http`	`/var/`*`cal-svr-base`*`/data/http`
Counter statistics files: `counter` and `counter.dbstat`	*`cal-svr-base`*`/SUNWics5/cal/lib/counter`	*`cal-svr-base`*`/lib/counter`
`timezones.ics` file	`/etc/`*`cal-svr-base`*`/SUNWics5/config`	`/etc/`*`cal-svr-base`*`/config`

Tuning Directory Server Performance for Calendar Server

To improve the performance of your LDAP directory server, especially if you are using calendar searches of the LDAP directory consider the following items:

Indexing the LDAP Directory Server Attributes

To improve performance when Calendar Server accesses the LDAP directory server, add indexes to the LDAP configuration file for various attributes.

The configuration program, `comm_dssetup.pl`, will optionally do the indexing for you.

Tip
To see the performance difference indexing can give you, perform the following test:

1. Before indexing, time how long it takes to run the following LDAP command:

   ```
   ldapsearch -b "<base>" "(&(icscalendarowned=* user*)
   (objectclass=icsCalendarUser))"
   ```

   Where base is the LDAP base DN of the directory server where the user and resource data for Calendar Server is located, and user is the value that an end user can enter in the Calendar Search dialog.
2. Run indexing for icsCalendarOwned.
3. Again run the following LDAP command, and time it:

   ```
   ldapsearch -b "<base>" "(&(icscalendarowned=*user*)
   (objectclass=icsCalendarUser))"
   ```

   Where base is the LDAP base DN of the directory server where the user and resource data for Calendar Server is located, and user is the value that an end user can enter in the Calendar Search dialog.
4. Compare the times. There should be a measurable time difference.

Checking and Setting the Size Limit and the Look Through Limit Parameters

To determine if the Look Through Limit (nsslapd-lookthroughlimit) and Size Limit (nsslapd-sizelimit) parameters are set to appropriate values, try the following command:

```
ldapsearch -b "<base>" "(&(icscalendarowned=* user ID*)
(objectclass=icsCalendarUser))"
```

where *base* is the LDAP base DN of the directory server where the user and resource data for Calendar Server is located, and user ID is the value that an end user can enter in a calendar search dialog in Communications Express.

If the LDAP server returns an error, the `nsslapd-sizelimit` or the `nsslapd-lookthroughlimit` parameter might not be large enough. Follow these guidelines to set these parameters:

- Ensure that the value for the `nsslapd-sizelimit` parameter in the `slapd.conf` or equivalent file is large enough to return all the desired results; otherwise, truncation can occur, and no results will be displayed.
- Ensure that the value for the `nsslapd-lookthroughlimit` parameter in the

slapd.ldbm.conf or equivalent file is large enough to complete a search of all the users and resources in the LDAP directory. If possible set nsslapd-lookthroughlimit to -1, which causes no limit to be used.

Using Schema 1 with Calendar Server and Communications Express

There are two issues with Schema 1 in Communications Express:

- If you are running Communications Express with Sun LDAP Schema 1, before running the Communications Express configuration program, you must add the DC root node to your LDAP using ldapmodify. The entry should look like this:

```
dn: o=internet
objectClass: organization
o: internet
description: Root level node in the Domain Component (DC) tree
```

- The Calendar Server utility used to provision users in Schema 1, csuser, was designed for Calendar Express and does not enable a user for Address Book service as is needed for Communications Express.

Calendar Server Provisioning Tools

There are two tools for provisioning users, groups and domains for Calendar Server: The Delegated Administrator and Calendar Server utilities. Delegated Administrator has two user interfaces: the Console, a graphical user interface, and the Utility, a command-line interface. For information on Delegated Administrator, see the Delegated Administrator Administration Guide. Instructions on use of the Console can be found in the Delegated Administrator Console online help.

For information on the Calendar Server utilities, see the Sun Java System Calendar Server 6.3 Administration Guide.

> **Caution**
> Do not attempt to provision users through the Access Manager Console. Though it is possible to create users and assign them a calendar service, do not use this method as results will be unpredictable and will negatively impact your deployment.

Calendar Server Documentation Updates

The csclean Utility Works in Schema 1 and Schema 2

The Communications Suite 5 version of Calendar Server 6.3 Administration Guide incorrectly states that the csclean utility only works in Schema 2.

Restoring Backups

As of Calendar Server 6.0, you can restore a specific calendar using csrestore from any backup including backups saved with Hot Backup or Archival Backup. To do so, issue the following command:

```
csrestore -c <usercal> calendar <backupdir>
```

6544548

The Sun StorEdge Enterprise Backup software (formerly Solstice Backup) and Legato Networker (`legbackup.sh` and `legrestore.sh`) are no longer distributed with Calendar Server 6.3. The Sun Java System Calendar Server 6.3 Administration Guide still documents these utilities in section "17.3 Using Sun StorEdge Enterprise Backup or Legato Networker," in "Chapter 17: Backing Up and Restoring Calendar Server Data." Ignore this information, as it is out of date.

Calendar Server Compatibility Issues

The following table lists the known incompatibilities between Calendar Server 6.3 and earlier versions.

Calendar Server Incompatibilities

Incompatibility	Impact	Comments
Access Manager now has two install types: Legacy and Realm.	At installation, you must choose Legacy as the install type on the following panel: `Access Manager: Administration (1 of 6)`	If the wrong Acc installed, you wil Delegated Admi
The Directory Preparation Tool (`comm_dssetup.pl`) under `/opt/SUNWics5` doesn't work.	`comm_dssetup.pl` is now in its own package installed in `/opt/SUNcomds` for Solaris OS, and `/opt/sun/comms/dssetup` for Red Hat Linux. Existing scripts that specify the old path need to be updated.	To install the pac Directory Prepar the appropriate i
The configuration program for the Delegated Administrator has changed.	Install Delegated Administrator and run the configuration program. The current program is located at: for Solaris, `/opt/SUNWcomm/sbin/config-commda` for Red Hat Linux `/opt/sun/comms/config-commda`	Upgrade to the n Administrator wh version of Calen
This release of Communications Express is incompatible with the previous version of Calendar Server.	If you upgrade Communications Express, you must also upgrade Calendar Server.	This also applies
Due to a change in the way packaging is done, Calendar Express must do string substitution at runtime.	Significant Performance Degradation	Call technical su you can run befo Server operation all the required s Calendar Expres not be included i Calendar Server be fixed.
Due to a program code change in SSL processing, the following parameter no longer works: `service.http.ssl.certdb.path`	Scripts and configuration files still using the old parameter to point to the SSL directory will not work. SSL is not enabled.	A new paramete `ics.conf` [file:] `"/etc/opt/SU`

Password to certificate database is no longer held in `ics.conf` parameter: `service.http.ssl.certdb.password`	SSL password can't be found. Error message: `General Error: http_ssl_init(): SSL initialization failed.`	Password to cert found in the follo `config` director `sslpassword.` Format of passw Internal (Softwar
Non-domain environments no longer allowed.	Scripts that modify LDAP entries must now include a default domain.	When Calendar configured, it run program on all L default domain y Requests that co commands) with automatically as default domain. But any scripts y modify LDAP en new default dom
The `service.admin.calmaster.userid` and `service.admin.calmaster.cred` parameters in the `ics.conf` file are not used anymore.	You cannot set the Calendar user preferences and credentials using these old parameters.	The `service.admi` parameter is cha `service.site` `service.admi` parameter is cha `service.site` of an upgrade th migrated by the
Windows and HP-UX versions of Calendar Server are no longer available.	The only operating system platforms supported by server-side Calendar Server software are Solaris OS and Red Hat Linux.	This does not eff such as the Con Outlook. See the component Rele supported opera

Problems Fixed in This Release of Calendar Server

The list that follows are problems reported fixed for this patch of Calendar Server 6.3:

6697835

A "freebusy" failure should not cause http error to be returned for XML/JSON output
Calendar Server returns http error 404 when doing a "freebusy" lookup on a non-existing calendar.

6683707

`get_freebusy.wcap` crashes `cshttpd`

6681812

`csdb rebuild` should not change the modified timestamp

6680028

cshttpd crashes when a "freebusy" lookup is done on ldapgroup

6677838

Unauthorized WCAP request should return response with http code 401-Unauthorized for JSON payload

6676306

Time zone names are wrong for daylight times in Australia

6674186

Implement handling of SMS reminders

6673980

Calendar Server fails to stay running in Sun Cluster HA when configured in read-only mode

6662778

Event Accepted Notification emails are not sent if multiple calendar ID's are invited

6662417

Integration of localization files into core patch for Communications Suite 5 and 6

6659624

JSON syntax error returned when "freebusylist" is empty in `getfreebusy.wcap`

6657860

JSON format error returned in `get_freebusy.wcap`

6657246

There is a memory leak for every login if the authentication filter is configured

6657242

There is a memory leak when fetching a multivalued attribute from ldap

6656154

Calendar Server needs to implement the Communications Suite Installer upgrade interfaces

6651348

SMF needs to have unique names for Messaging Server and Calendar Server watcher services

6650915

Can't start Calendar Server using SMF

6650391

SMF: watcher fails to start (path to binaries is incorrect in `calexe`)

6650270

SMF : `watcher.xml` references Messaging Server

6649304

Passwords are put back twice in the `ics.conf` with empty value after using removing the latest cs631 patch

6649300

`patchadd` produces error "cannot access `/opt/SUNWics5/cal/lib/com.sun.cmm.cs.xml.new`"

6649297

Red Hat Linux only: Old password related fields left in `ics.conf`

6646891

Calendar Express cannot modify time format if `service.http.numprocesses` is greater than 1

6642958

Bad data representation with patch 121658-19 for the x86 version of Calendar Server 6.3

6642312

The `csversion` utility is missing on Red Hat Linux

6642081

Anonymous login to calendar is not working

6641750

`fetchattachment.wcap` returns incorrect mime output

6640527

`csadmind` crashes when accessing an attachment with an encoded file size that is an exact multiple of the page size

6640009

There is no SMF support in the Calendar Server build

6635743

Configuring CS fails with a java exception error

6629318

`cspassword` reveals passwords to all

6626685

There is a memory leak every time an attachment is fetched

6626674

There is a `cshttpd` memory leak under stress

6626006

`csdb rebuild` and `csrestore` from backup fails due to `sbin` directory ownership issue

6625765

Calendar Server import process causes attachments to be truncated

6624889

Calendar Server encoding session id makes Outlook Connector unstable

6624747

`cshttp` thread lock issue in `ASock_Recv`

6623038

Build failure with Sun Studio 12

6622866

`PROPFIND` causes a denial of service of the Calendar Server

6622081

`csexport` should have the ability to export events including the attachment data

6622015

`get_calprops.wcap` not sending the correct response if `calid` parameter is of a calendar group

6621290

JSON syntax error: `storeevents.wcap with alarmpop`

6621234

JSON syntax error: `list_subscribed.wcap`

6621213

JSON syntax error: `list.wcap`

6621128

JSON syntax error: `get_freebusy.wcap`

6620937

Calendar Server is returning incorrect ICAL output when an event contains an attachment

6620263

`cscomponent` command is missing for the Communications Suite 5 Red Hat Linux installation

6620139

JSON syntax error: `set_userprefs.wcap`

6620122

JSON syntax error: `get_userprefs.wcap`

6620046

JSON syntax error: `search_calprops.wcap`

6619357

`cshttpd` crashes with memory corruption

6618932

`patchadd` error message

6618247

`patchrm` error message

6618196

JSON syntax error: `storeevents.wcap` with timezone ID

6617799

JSON syntax error: `get_all_timezones.wcap`

6617787

JSON syntax error: `deletecomponents_by_range.wcap`

6617784

JSON syntax error: `deletetodos_by_range.wcap`

6617782

JSON: `deletetodos_by_id.wcap` syntax error

6616433

`config-servicetags` exits abnormally on Red Hat Linux

6615480

JSON output has syntax errors

6615475

Calendar Server needs to locate correct product path when the Communications installer is used with `altroot`

6615440

Calendar Server needs to create `/var/opt/sun/install` on Red Hat Linux

6612742

There is a `cshttpd` crash in `print_event_detail`

6612651

`nswcalCALID` should be removed from Calendar Server 6.3 LDAP update code

6611728

While creating an event if you invite a resource, it shows the RSVP status as "Accepted" if `autoaccept` is enabled

6609386

`config-mfwk` and `config-servicetag` scripts are needed for uniformity in documentation for Calendar Server and Messaging Server

6607940

New calendar creation mail feature causes functional test failures

6607478

`com.sun.cmm.cs.xml` has hard-coded values

6605715

Update `timezones.ics` file with the Venezuela time zone change

6604662

You cannot add more invitees to an event when another existing user is removed from LDAP

6603427

Calendar Server emits malformed XML if an event contains an attachment

6602903

`csrename` causes a core dump while renaming the calendars

6597809

Double-booking restrictions are ignored when importing an event

6596706

The `cshttpd` process is crashes when you try to update the attachment information for a recurring series

6596628

Implement `getVersion` for Calendar Server

6592804

The `cshttpd` process crashes in the DWP setup due to memory corruption when fetching the attachment

6592448

A `cshttpd` crash occured in `loginincorrect_negative`

6591407

The `cshttpd` process crashes if the master copy of the recurring event is missing

6590680

`cshttpd` may crash in attachment-related functions for the events created with patch-17 in DWP setup

6589856

`cshttpd` is crashing in `shtml_command` when `browser.cache.enabled` is set to "yes"

6588744

Inviting resources to an event shows wrong RSVP status if `autoaccept` is enabled

6588737

Calendar Server emits broken XML if the email field contains quotes

6588557

Error 81 is returned when an attendee is removed from a single instance of a recurring event

6585886

Recurring events are not shown in Outlook Connector after running `csrename`

6583657

Change output from "error" to "debug" for `caldb_pvt_ScanDeleteLog: Resurrected entry`

6580129

`fetchcomponents_by_id.wcap` could cause `cshttpd` to crash when it returns error 81

6578849

Emit calendar data in JSON format

6577773

Sun Java Enterprise System Monitoring Framework product identifying tag needs to be fixed

6572538

There is no `jmqclient` bundled in Calendar Server 6.3.1 on Red Hat Linux

6571479

`admind.log` shows confusing log message for `jmqInit`

6569278

Creating an event by inviting a resource calendar fails with "Unknown Error 80"

6568622

`httpd` does not start with Message Queue 3.7 on Red Hat Linux

6567265

Make number of Berkeley database locks configurable

6565532

`csdwpd` crashes if there are any errors while reading the calendar properties

6564744

`cshttpd` crashes with `fetchcomponents.wcap` when run under `libumem`

6563558

The `cshttpd` process memory grows very quickly if many events or to do's are fetched in a single request

6563284

`dbstore_is_archivebackup_enabled` contains an incorrect return value

6561930

Update `timezones.ics` file with the new DST changes in New Zealand

6559166

`hotbackup` and `archive` should copy all `.db` files

6558709

The front-end system receives a "backup failed" error email even when `archive` and `hotbackup` are disabled.

6555671

The copyright for Calendar Express is still 2006

6554012

`httpd` crash on `freebusy` query uses mail if redirect is on

6548178

Alarm retry feature may result in thousands of event reminders

6546804

The `icsSubscribed` attribute is not removed from LDAP by `cscal` when deleting a calendar created by Communications Express

6546620

`fetchattachment.wcap` over DWP may return a corrupted file

6546549

A memory leak occurs when an event with attachment is saved

6546541

Uploaded files are not getting deleted after the attachment is saved

6546535
The `cshttpd` process crashes in `ac_fetchattachment()` if the event in the database does not have an `attachid`

6546532

`csimport` crashes when you try to import an event with an attachment

6545488

There is a crash in `wcap_login` on Red Hat Linux

6545035

`attachid` is missing in `fetchcomponents_by_.wcap` *in DWP setup

6542989

`csconfigurator.sh` creates an invalid DWP configuration

6541912

`fetchcomponents` returns a malformed WCAP response for calendar events having an LDAP group as an attendee

6541320

The Calendar Express window title shows incorrect version 6 5

6540503

Attachment store needs to open with a hash flag to maintain only a single copy for each back end

6538972

Notification and reminder timings are off by an hour with the new DST dates

6537923

The copy file utility function fails silently with large files

6537359

In Calendar Server 2005Q4, the `timezones.ics` file does not account for 2007 DST differences in Mexico

6531658

`csrename` returns a segmentation fault and crashes in `csadm_rename_in_ldap()`

6530207

`csrestore` is unable to restore a calendar from the backup database. It cannot connect to the watcher process.

6525791

`csrename` stops abruptly without renaming the LDAP database

6524804

Calendar creation begins to degrade as the number of calendars increases for a single user when using bulk load

6522147

Users can log in with `icsstatus=inactive`

6520001

Hide passwords

6516438

You cannot login to Calendar Server after an upgrade. You will see "Backend Host Unresolvable" on the login page

6509780

Follow new versioning policy

6505280

Introduce daylight savings for Western Australia

6500444

There is an HTTP Request issue in `cshttpd`

6498903

There is a `cshttpd` crash in `caldb_pvt_ReadLinkedComponent`

6498212

The configurator throws a java exception when you choose which server to use as a back end in DWP setup

6497774

`csmigrate` should create the target directory with the owner `icsuser:icsgroup` if it is run by root

6497116

The configurator window's title shows Sun Java System Calendar Server Version 6 5

6496627

Changing the calendar event case in Calendar Express with no spaces added or removed fails the first time

6496601

Deleting the secondary calendar does not remove it from the database

6496586

When switching from December to January using the monthly view, Calendar Express displays January of current year

6496353

There are memory leaks in `cshttpd`

6494811

`admind` dumps core when JMQ is enabled

6494557

There is a WCAP problem replacing X-properties on recurring components

6494514

All-day events are shifted by one day after importing a `.ics` file

6489729

Calendar Server's HTTP server crashes while accepting invitations

6486422

Calendar Express does not display all-day events in some views (Day/Overview)

6480935

Recovery function for databases failed

6479810

There are session database issues

6475187

WCAP `deleteevents_by_id` returns non-published `iErr -5010`

6475106

`cshttpd` uses too much memory

6474557

Database handles remain open during environment close

6472348

The `csadmind` process is spinning and using 100% CPU

6461762

Change the absolute path to relative path in the post install script

6456901

`watcher.log` date/time stamp diverge from the standard used in other log files

6442769

Calendar Server should add the `X-Sun-calendar-msg:` *`ITIP Method`* in calendar notifications

6442476

User calendars automatically created at login have auto-provisioning turned off resulting in calendars not being created on the server

6422917

Notification of an event contains garbled multi-byte characters

6407790

Use the output "This command is not valid for schema 2" message for `csattribute`, `csuser`, and `csdomain` with any option

6406628

JMQ notifications are not triggered for advanced options

6391858

`csstats` is no longer reporting authentication, alarm, disk, or response statistics

6378975

Online Help is not available for new panels in the Calendar Server configurator

6331404

Exception invitations do not show up in Outlook using the connector

6289810

By default, invitations should be "Accepted" for resource calendars

6282134

Some strings need to be translated in event notifications in zh-CN and zh-TW versions of Communications Express

6280808

The title of the tasks List in the Spanish version is corrupted.

6280710

Month names should begin with lower case letters in the Spanish version

6279597

The text for introducing the time in the new-task dialog in the Spanish version is incorrect

6279591

The initials for the days in the Calendar Server web client are incorrect in the German, Spanish, and possibly the French versions

6278714

There is an unnecessary tilde in the message warning about deletion of repeating tasks

6278698

The copyright year 2003 on the Calendar Express login page is incorrect

6275914

The Calendar Server configurator online help is out of sync with the Spanish GUI

6236637

The version of the administration tools displays the wrong build date

6214765

The string in the Spanish versio of the "Create Group" window is corrupted

5109953

The `createcalendar.wcap` command writes errors to the directory server logs

5069988

`cscomponents -e` *`date`* removes all tasks after the end date

4924536

HTML is not rendered under the "Preview" tab of "Edit Event" dialog

6852731

http.log is not logged by child processes when service.http.numprocesses > 1

6896615

Patching an altroot installation results in "Could not find ics.conf file" error

6956549

Only 1 out of 4 configured cshttpd process start on Red Hat Red Hat Linux

6957769

Declined event blocks resource calendar for the given time frame, even with auto-accept on

6866123

`fetchcomponents` should return 'busy' slots for subscribed calendars with freebusy permission

6918111

Unable to fetch components if the read permissions for properties and components exist separately

6919237

Recurrent event not removed from invitee calendar when invitee is removed by the organizer

6920122

Using `csimport` to import a specific event causes the import to hang

6923249

When a user invites a resource to an event by using Communications Express, a notification is sent to the resource owner

6925915

Sharing of calendar add wrong ACES string to Calendar Server

6933924

orgEmail, orgCN should be consistent for given orgCalId in `storeevents.wcap`

6935035

Unauthorized `export.wcap` should return response with http code 401-Unauthorized for JSON payload

6936687

Filter the invalid exdates and rdates in ical emitter

6937763

Events scheduled from 2011 are saved in 1970

6945232

Provide certificate based authentication capability for Calendar Server (WCAP)

6946955

One byte off buffer overflows in Calendar Server

6948652

Support for NSS shared DB feature in Calendar Server

6736647

CS creates events with missing attachid for recurring events with attachments in DWP setup

6890790

JMQ notification: NEWCAL notification sent when adding new event/todo

6893649

On mail invitation, Content-Type and encoding of plain text part influenced by text/calendar part

6899273

No mail notifications on tentative status

6900492

SSL doesn't work if JMQ notifications are enabled

6909156

Recurrent events created with Lightning 1.0 (pre) not visible with Communications Express

6911047

`cshttpd` cores when inviting resource calendar with non-existing co-owner in hosted domain

6912861

`csrestore` from backup database fails if `cwd` is not writable for Calendar Server runtime user

6913066

`csimport` of a huge calendar file fails on Red Hat Linux

6918040

New calendar events not making it to attendee calendars only on Outlook 2007 with Connector

6759181

Set COUNT and RECURRENCE-UNTIL X-PROPs when storing/importing the recurring events

6856072

`local.ugldaphost` ignored when `local.ugldapbasedn` used with `local.authldap`

6870863

`ics.conf local.instance.counter.path` did not take effect

6874243

Deleted instances of a recurring series are still visible in Connector for Outlook

6876814

Provide log message when redirect is returned to freebusy request

6878172

Calendar Server is not preserving the attachment x-props when importing

6879109

No mail sent to group alias when `calstore.group.attendee.maxsize` = "-1"

6886092

All day events in a row didn't work in Europe/Paris timezone and doublebooking disabled

6887284

Inviting people based on 'mailto' receive mail with two ics attachments

6887572

`fetchattachment` response should not contain filename in Cotent-Disposition if filename is unknown

6888687

Confusing description fields in ics attachments

6889953

Missing X-NSCP-CALPROPS-TZID provision might result in WCAP client misbehavior

Known Issues and Limitations in Calendar Server

This section contains known issues at the time of this Calendar Server 6.3 release:

- Calendar Server Issues
- Documentation Issues in Calendar Server

Calendar Server Issues

Calendar Server Upgrade on x86 Platforms Using the Installer is Not Supported

Upgrading Calendar Server using Communications Suite 6 installer (specifically `commpkg upgrade`) is not supported on x86 platforms. Instead follow the manual steps to upgrade Calendar Server on x86 platforms.

6780694

There are missing apostrophes in the French OLH

6688858

There are some issues when upgrading Calendar Server HA and SC_SCHA by using the Communications Installer

Workaround: After the upgrade, mount the config directory and run `csconfigurator.sh -nodisplay -noconsole -novalidate`.

6568622

`httpd` does not start when running Message Queue 3.7 on Red Hat Linux

7012695

The `double-book=no` property doesn't work under specific circumstances

Documentation Issues in Calendar Server

6979820

The Calendar Server 6.3 Administration Guide, Chapter 3, incorrectly states that the `csvdmig` command updates the calendar DB in place. In fact, the `csvdmig` command does not update the calendar DB in place, and does in fact create a new DB, in the location specified by the `-t` option.

Additionally, the description of the `-t` option is incorrect, stating "Output parameter that specifies the location of the database to be migrated." The documentation should state that the parameter specifies the target location of the new migrated DB that is the output of this utility.

6979824

The Calendar Server 6.3 Administration Guide, Chapter 3 should state that when you run the `csvdmig` command, the source DB is determined from the configuration (determined by the utility reading the `ics.conf` file). Also, you need to specify the target DB directory, which must be different than the source, by using the `-t` option. When this is done, the `csvdmig` command creates a new DB that you need to copy into place (or change the configuration to point to) for it to be live.

If you do not follow these steps, the `csvdmig` utility seems to complete successfully but in actuality has left out events.

Incorrect Description of icsAllowedRights Values

This issue occurs in the Sun Java System Calendar Server 6.3 Administration Guide, in the following section: D.9.3.1 icsAllowRights Attribute: csdomain Utility.

This section describes the `icsAllowRights` attribute and properties that you can set with the `csdomain` utility. The following statement is incorrect:

"If a bit corresponding to a specific right is set (value=1), the right is not allowed. If the bit is not set (value=0), the right is allowed."

The correct statement is as follows:

"If a bit corresponding to a specific right is set (value=1), the right is explicitly allowed. If the bit is not set (value=0), the right is determined by the corresponding `ics.conf` parameter value."

In addition, in Table D-15, `icsAllowRights` LDAP Directory Attribute and Properties, the values documented for the individual attribute bits are incorrect.

For example, this statement is incorrect: "`allowCalendarCreation:` If set (bit 0=1), do not allow calendars to be created."

This statement should read as follows: "`allowCalendarCreation:` If set (bit 0=1), allow calendars to be created."

Redistributable Files for Calendar Server

Sun Java System Calendar Server 6.3 contains the following set of files for which Sun Microsystems, Inc. grants you a non-exclusive, non-transferable, limited license to reproduce and distribute in binary form.

In addition, you may copy and use but not modify the listed header files and class libraries solely to cause your resulting binaries to be able to interface with Sun's software APIs.

Sample code is provided solely for reference purposes pursuant to creating the above mentioned binaries.

All the redistributable files for Calendar Server are for the plug-in API, known as CSAPI. The API is described in the Sun Java System Calendar Server 6 2005Q4 Developer's Guide.

In the following files, `cal-svr-base` is the directory into which Calendar Server was installed. The default for Solaris OS is `/opt/SUNWics5/cal`, for Red Hat Linux it is `/opt/sun/calendar`.

Redistributable files are found in various subdirectories of `cal-svr-base/csapi`:

- authsdk Redistributable Files
- bin Redistributable Files
- classes Redistributable Files
- include Redistributable Files
- plugins Redistributable Files
- samples Redistributable Files

authsdk Redistributable Files

The following are the redistributable files in this subdirectory (`cal-svr-base/csapi/authsdk/`):

```
cgiauth.c
expapi.h
login.html
nsapiauth.c
```

bin Redistributable Files

The following are the redistributable files in this subdirectory (`cal-svr-base/csapi/bin/`):

```
libcsapi_xpcom10.so
libicsexp10.so
```

classes Redistributable Files

The following are the redistributable files in this subdirectory (`cal-svr-base/csapi/classes/`):
`ens.jar`
`jms.jar`

include Redistributable Files

The following are the redistributable files in this subdirectory (`cal-svr-base/csapi/include/`):
`IIDS.h`
`csIAccessControl.h`
`csIAuthentication.h`

`csICalendarDatabase.h`
`csICalendarLookup.h`
`csICalendarServer.h`
`csIDBTranslator.h`
`csIDataTranslator.h`
`csIMalloc.hplugins`
`csIPlugin.h`
`csIQualifiedCalidLookup.h`
`csIUserAttributes.h`
`mozIClassRegistry.h`
`mozIRegistry.h`
`nsAgg.h`
`nsCOMPtr.h`
`nsCRT.h`
`nsCom.h`
`nsDebug.h`
`nsError.h`
`nsHashtable.h`
`nsIAtom.h`
`nsICaseConversion.h`
`nsICollection.h`
`nsID.h`
`nsIEnumerator.h`
`nsIEventQueueService.h`
`nsIFactory.h`
`nsIPtr.h`
`nsIServiceManager.h`
`nsIServiceProvider.h`
`nsISizeOfHandler.h`
`nsISupports.h`
`nsISupportsArray.h`
`nsMacRepository.h`
`nsProxyEvent.h`
`nsRepository.h`
`nsString.h`
`nsTraceRefcnt.h`
`nsVector.h`
`nsUnicharUtilCIID.h`
`nsXPComCIID.h`
`nsXPComFactory.h`
`nscore.h`
`pasdisp.h`
`publisher.h`
`subscriber.h`

```
xcDll.h
xcDllStore.h
```

plugins Redistributable Files

This directory (`cal-svr-base/csapi/plugins/`) has redistributable files in the following subdirectories:

- accesscontrol Redistributable Files
- authentication Redistributable Files
- datatranslator Redistributable Files
- userattributes Redistributable Files

accesscontrol Redistributable Files

The following redistributable files are found in this subdirectory (`cal-svr-base/csapi/plugins/accesscontrol/`):

```
csAccessControl.cpp
csAccessControl.h
csAccessControlFactory.cpp
```

authentication Redistributable Files

The following redistributable files are found in this subdirectory (`cal-svr-base/csapi/plugins/authentication/`):

```
csAuthentication.cpp
csAuthentication.h
csAuthenticationFactory.cpp
```

datatranslator Redistributable Files

The following redistributable files are found in this subdirectory (`cal-svr-base/csapi/plugins/datatranslator/`):

```
csDataTranslator.cpp
csDataTranslator.h
csDataTranslatorFactory.cpp
```

userattributes Redistributable Files

The following redistributable files are found in this subdirectory (`cal-svr-base/csapi/plugins/userattributes/`):

```
csUserAttributes.cpp
csUserAttributes.h
csUserAttributesFactory.cpp
```

samples Redistributable Files

This directory (`cal-svr-base/csapi/samples/`) has redistributable files in the following subdirectories:

- samples/authentication Redistributable Files
- samples/datatranslator Redistributable Files
- samples/ens Redistributable Files
- samples/userattributes Redistributable Files

samples/authentication Redistributable Files

The following redistributable files are found in this subdirectory (

`cal-svr-base/csapi/samples/authentication/`):
`authlogon.c`
`authlogon.h`
`authtest.c`
`csAuthenticationLocal.cpp`
`csAuthenticationLocal.h`
`csAuthenticationLocalFactory.cpp`

samples/datatranslator Redistributable Files

The following redistributable files are found in this subdirectory (
`cal-svr-base/csapi/samples/datatranslator/`):
`csDataTranslatorCSV.cpp`
`csDataTranslatorCSV.h`
`csDataTranslatorCSVFactory.cpp`

samples/ens Redistributable Files

The following redistributable files are found in this subdirectory (
`cal-svr-base/csapi/samples/ens/`):
`apub.c`
`asub.c`
`rpub.c`
`rsub.c`

samples/userattributes Redistributable Files

The following redistributable files are found in this subdirectory (
`cal-svr-base/csapi/samples/userattributes/`):
`csUserAttributesDB.cpp`
`csUserAttributesDB.h`
`csUserAttributesDBFactory.cpp`

Verifying the Correct JDK Version to Support Access Manager

Verifying the Correct JDK Version to Support Access Manager

The information on this page concerns you only if the following software is installed or will be installed on this machine:

- Red Hat Linux operating system
- Access Manager 7.1, to be installed with the Java Enterprise System (Java ES) 5 Update 1 installer
- Java 6 (Java Development Kit 1.6) or later has been installed previously on this machine

This issue does not apply on Solaris OS.

For more information about the compatibility between Access Manager, the Java version, and a Communications Suite installation, see Communications Suite 7 Update 1 Compatibility Issues.

To Verify the Correct Java Development Kit (JDK) Version to Support Access Manager 7.1

The Java ES 5 Update 1 (JES5u1) installer cannot successfully deploy Access Manager 7.1 if Java Development Kit (JDK) 1.6 or later is installed. You can use the following command to verify the currently installed release.

In a terminal window, as `root` run the following command.

```
rpm -qa jdk
```

> **Note**
> A default installation of Red Hat Enterprise Linux 3 or 4 will return no output to this command.

If the output of the command is **`jdk-1.6.`*`version`***, the JDK version will need to be downgraded prior to deploying Access Manager 7.1.

This can be achieved by downloading and installing **JDK 5.0 Update 16** from the following URL:

http://java.sun.com/products/archive/j2se/5.0_16/index.html

Chapter 25. What's New

What's New in Oracle Communications Unified Communications Suite Version 7 Update 1

This document summarizes the features in Oracle Communications Unified Communications Suite 7 Update 1 that are new or have been enhanced since Sun Java Communications Suite 7 was originally distributed in September 29, 2009, for the following components:

Oracle Communications Unified Communications Suite Products and Components Version 7 Update 1

Product	Version
Oracle Communications Messaging Exchange Server	7 Update 4
Oracle Communications Instant Messaging Server	8 Update 3
Convergence	2
Oracle Communications Calendar Server for CALDAV Clients	7 Update 1
Delegated Administrator for Oracle Communications Unified Communications Suite	7 (latest patch)
Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite	7.3 Update 1 (latest patch)
Oracle Communications Calendar Server	6.3 (latest patch)
Indexing and Search Service for Oracle Communications Unified Communications Suite	1 Update 1
Sun Java System Communications Sync	Removed
Messaging Server HA Agent (MS_SCHA)	7
Calendar Server HA Agent (CS_SCHA)	6.3
Instant Messaging HA Agent (IM_SCHA)	7.3
Dssetup for Oracle Communications Unified Communications Suite (`comm_dssetup`)	6.4 (latest patch)

This document contains the following sections:

- What's New in Communications Suite 7 Update 1
- What's New in Convergence 2
- What's New in Messaging Server 7 Update 4
- What's New in Calendar Server 7 Update 1
- What's New in Calendar Server 6.3
- What's New in Indexing and Search Service 1 Update 1
- What's New in Instant Messaging 8 Update 3
- What's New in Delegated Administrator 7
- What's New in Connector for Outlook 7.3 Update 1

- What's New in DSsetup 6.4p6

What's New in Communications Suite 7 Update 1

Communications Suite 7 Update 1 includes the following changes and new features:

- Upgrading to Communications Suite 7 Update 1
- Certificate-based Authentication Support
- Message Queue Configuration Saved After Upgrade

Upgrading to Communications Suite 7 Update 1

If you choose to upgrade to Communications Suite 7 Update 1, see Communications Suite Upgrade Guide.

Certificate-based Authentication Support

Certificate-based authentication is a new feature available in Oracle Communications Calendar Server, Convergence, and Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite.

Messaging Server has supported client certificate authentication since before version 5.2. This version of Messaging Server supports dynamic Certificate Revocation Lists (CRL) updates. The dynamic CRL updates feature is available as a set of patches that you can apply to Messaging Server 7 update 3. See Certificate Based Authentication for Messaging Server.

Message Queue Configuration Saved After Upgrade

In previous releases, if the Communications Suite installer listed Oracle GlassFish Message Queue as a component to be upgraded, you needed to redo the configuration in your `/etc/imq/imqbrokerd.conf` file after the upgrade. This is no longer required, because now the Message Queue configuration is automatically retained during an upgrade.

What's New in Convergence 2

Convergence 2 includes the following changes and new features:

- Customization Enhancements
- Calendar Server 7 Update 1 Support
- Dojo Port
- Improvements to Attachment Search and View
- Certificate-based Authentication
- Proxy Authentication Support
- New Icon Toolbars
- Create New Folder While Selecting Folder
- Schedule Calendar Resources
- New Calendar Event and Task Types
- Calendar print functionality in daily and weekly views has changed between Convergence 1.x and Convergence 2
- Check Box Next to Email in Message List
- Enabling and Disabling Message Preview
- Multi-user Chat
- Instant Messaging Conversations in Tabs
- Address Book Enhancements

Customization Enhancements

To customize Convergence, be sure to install Convergence 2 Patch 1, which is now available. With the patch you are able to modify:

- the UI
- Widgets
- Themes

To customize your Convergence UI, refer to Convergence Customization Guide.

> **Note**
> While you were able to customize themes in Convergence 2, the method for theme customization has been modified in Convergence 2 Patch 1. If you have either already customized themes in Convergence 2, or you have yet to customize your themes, refer to the instructions in Customizing Themes and Banner in Convergence 2.x.

In this release, themes have significantly changed. In addition, you no longer need to modify CSS files for basic customization, making the process more streamlined. For example, refer to the updated reference information for `theme.json`, the customization file for storing theme customizations.

Because of the differences between Convergence 1.x and Convergence 2 customizations, you cannot retain your Convergence 1.x when you upgrading to Convergence 2. Instead, you must recreate your customization in Convergence 2 following the steps described in Customizing Themes and Banner in Convergence 2.x. Upgrading from Convergence 2 is more straightforward: you can retain the customization information in the `c11n` directory. However, if in future releases, new variables are added to the dojo template file or to specific themes, you will need to add those values to your `theme.json` files as well as any new images.

To customize themes, see the newly updated Customizing Themes and Banner in Convergence 2.x.

Calendar Server 7 Update 1 Support

Support for an updated Web Calendar Access Protocol (WCAP) version 7.0 enables Calendar Server 7 Update 1 and Convergence integration. In the Convergence UI, Share Calendar and Privacy Settings can access either Calendar Server 6.3 or Calendar Server 7 Update 1 without client setting or option modifications.

To enable Calendar Server 7 Update 1 Support, see Enabling Calendar Server 7 Update 1 Support.

Dojo Port

In this release, the Dojo version in the product was upgraded from .9 to 1.3.2.

See http://docs.dojocampus.org/ for Dojo documentation.

Improvements to Attachment Search and View

The attachment folder search allows users to find attachments in their mailbox. To enable attachment folder search, Indexing and Search Service (ISS) must also be enabled. The folder search interface has an icon style grid containing all the attachments from a user's mailbox. By selecting attachments, the end user can perform actions on the item. Additionally, the user can narrow down attachments by specific criteria with Filtering options.

To enable Attachment Search and View, see Enabling Indexing and Search Service.

Certificate-based Authentication

Certificate-based authentication was introduced to enable end user authentication in Convergence. See Setting Up Certificate-based Authentication.

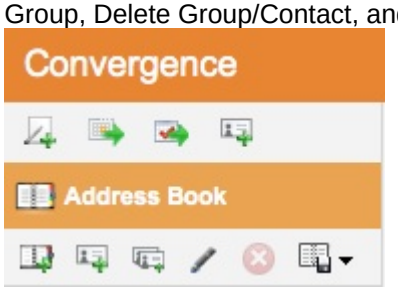
Proxy Authentication Support

You can enable Proxy Authentication support in Convergence. See Configuring Convergence for Proxy Authentication.

New Icon Toolbars

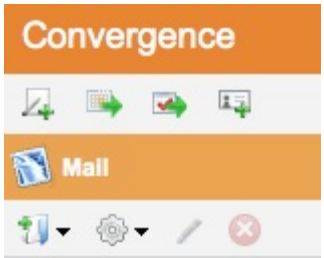
New toolbars were created which contain icons for the following common Convergence tasks:

- **Common icons** (found above each component's toolbar): New Mail, New Event, New Task, and New Contact
- **Address Book**: New Address Book, New Contact, New Group, Rename Personal Address Book Group, Delete Group/Contact, and Import/Export Group/Contact



- **Calendar**: Create or Subscribe to Calendar, Calendar Properties, Delete or Unsubscribe Calendar, Toggle Mini Calendar, and Import/Export Calendar

- **Mail**: Create or Subscribe to a Folder, Folder Properties or Sharing, Rename Folder, and Delete Folder



Create New Folder While Selecting Folder

End users can create new folders in the mail folder selection dialog. New folder functionality in mail folder selection occurs in the following locations:

- General Tab
  - Copying Sent Messages
  - Deleting Mail Messages
  - Saving Drafts
- Mail Filters Tab

    - Move message to and copy message to drop down
- New Account Tab
    - POP account folder that collects messages

Schedule Calendar Resources

In addition to modifying the field organization and spacing in the New Event form, end users can schedule resources with a separate search field and text box for resource look-up. People and resources are invited separately from one another.

New Calendar Event and Task Types

When end users create new events or tasks, they can mark events and tasks as public, private, or displaying only date and time. They can also select the type of event or task from a number of categories such as Business, Conference Call, Seminar, Personal, and so on.

Calendar print functionality in daily and weekly views has changed between Convergence 1.x and Convergence 2

If you print daily or weekly calendars, they print as an agenda-style format instead of a grid-style format. The agenda-style calendar is better at showing the details of an event, particularly when there are multiple events or overlapping events in a single day.

If you choose to print a month view calendar, it prints in a grid-style format.

> **Note**
> You are still able to view daily and weekly calendars in Convergence in both grid-style as well as agenda-style formats.

Check Box Next to Email in Message List

Check boxes have been added to the message list in the mail window.

Enabling and Disabling Message Preview

An end user can change preferences in Options to hide the preview pane in the message list. By default, message preview is enabled.

An administrator can also turn off the mail preview pane for all users on an entire site. This overrides any action by an end user to enable the preview pane. If the Administrator enables preview pane (the default), then the end user may override the preference to disable the preview pane.

See the mail.enablemsgpreview option for more information about enabling and disabling message preview.

Multi-user Chat

Convergence 2 supports multi-user instant messaging conferences (chats). This functionality enables XMPP users to exchange messages in the context of a room or channel, similar to Internet Relay Chat (IRC). Features of multi-user chat include:

- Conferencing tools, including room rosters, invitations, private conversations, and transcripts

See the online help packaged with the Convergence Client for Oracle Communications Unified Communications for information on enabling multi-user chat.

Instant Messaging Conversations in Tabs

In previous versions of Convergence, Instant Messaging (IM) chats were opened in new browsers. Beginning with Convergence 2, end users can launch IM chats in different tabs within the same browser.

Address Book Enhancements

Beginning with this release, administrators can support multiple corporate directories. Unlike personal address books which are created by end users, corporate directories are configured by administrators. See Configuring Corporate Directories.

Additionally in this release, end users can manage multiple Personal Address Books. They can also select or delete multiple contact entries in their Personal Address Book through keyboard shortcuts and check boxes.

What's New in Messaging Server 7 Update 4

Messaging Server 7 Update 4 includes the following changes and new features:

- Third-Party Authentication Server Support
- Support for In-place Upgrade of 32-bit to 64-bit Messaging Server
- Support for Messaging Server 64-bit on Red Hat Linux 5
- Red Hat Linux 5 Update 3 64-bit Installation Requirements
- Sendmail Is Disabled on Solaris OS and Red Hat Linux
- IMAP IDLE Command
- ENS Security Improvements
- MeterMaid Improvements
- Sieve Date and Index Extensions
- SASL and High-Performance User Lookup and Authentication (HULA)
- Dynamic Certificate Revocation Lists (CRL) Updates
- New `defragment` Channel Options
- `ignoremessageencoding` and `ignoremultipartencoding` Channel Options
- LDAP Security Improvements
- Using IPv6 with Messaging Server
- Enhancements to the MTA's BURL Support
- `nslog` Provides Additional Log File Functionality for Dispatcher and Job Controller (CR 6185167 and CR 6191669)
- IMAP `ID` Command (CR 6339827)
- Support for IPv6 Data Type for MeterMaid Tables (CR 6823375)
- SMTP Server Rejects STARTTLS When Followed by Additional Commands
- MTA and MMP Minor Features

Third-Party Authentication Server Support

Beginning with version 7 Update 4 Patch 22, Messaging Server now provides support for third-party authentication servers by supporting a protocol designed to integrate third-party authentication services. For more information, see: Third-Party Authentication Server Support.

Support for In-place Upgrade of 32-bit to 64-bit Messaging Server

You can now do an in-place upgrade from 32-bit to 64-bit Messaging Server using `commpkg upgrade`. Previous versions of `commpkg upgrade` did not provide this option.

Support for Messaging Server 64-bit on Red Hat Linux 5

You can now upgrade a Red Hat Linux 5 installation to a more scalable 64-bit implementation. However, the Message Queue (MQ) library is not yet available for Red Hat Linux 5 64-bit, so Red Hat Linux 64-bit

is not compatible with Indexing and Search Service for Oracle Communications Unified Communications Suite nor with other uses of Java MQ notifications. However, the Messaging Server's event notification system (ENS) is fully supported on this platform. Until a 64-bit version of MQ is available on Red Hat Linux 5, you can deploy on the Solaris operating system (OS), which is now 64-bit only, or you can use the deprecated Red Hat Linux 32-bit version of Messaging Server if Indexing and Search Service or Java MQ support is required.

Red Hat Linux 5 Update 3 64-bit Installation Requirements

Because it uses the default installation cluster for Red Hat Linux 5 Update 3 64-bit, Messaging Server does not require any additional RPMs to run. The `%packages` section of the kickstart file (`anaconda-ks.cfg`) for the default installation is as follows:

```
%packages
@office
@editors
@text-internet
@gnome-desktop
@dialup
@core
@base
@games
@java
@legacy-software-support
@base-x
@graphics
@printing
@sound-and-video
@admin-tools
@graphical-internet
emacs
kexec-tools
fipscheck
device-mapper-multipath
xorg-x11-utils
xorg-x11-server-Xnest
libsane-hpaio
```

Sendmail Is Disabled on Solaris OS and Red Hat Linux

When you run `configure`, you are now informed that sendmail is disabled. This functionality can be disabled if you use the `--ignoreSendmail` option when running `configure`.

IMAP IDLE Command

This version of Messaging Server enables IMAP IDLE by default, using the Event Notification Service (ENS). No configuration is required. In addition, IMAP IDLE now only works using ENS, because the ability to use IMAP IDLE with JMQ has been removed. For existing installations, customers should, at a minimum, ensure that the ENS server is enabled by setting the `configutil` parameter `local.ens.enable` to 1 and restarting the Messaging Server:

```
configutil -o local.ens.enable -v 1
```

The following `configutil` parameters are now marked `OBSOLETE` and are no longer valid:

```
service.imap.ensidle
service.imap.idle
service.imap.idle.jmq.library
service.imap.idle.jmqhost
service.imap.idle.jmqpassword
service.imap.idle.jmqport
service.imap.idle.jmqtopic
service.imap.idle.jmquserid
local.store.notifyplugin.enshost
local.store.notifyplugin.ensport
local.store.notifyplugin.enseventkey
local.store.notifyplugin.noneinbox.enable
```

Customers may remove these obsolete parameters from their configuration, although the only impact is to maintain a clean configuration.

Options can be removed by using the `-d` switch with `configutil`. For example:

```
configutil -o service.imap.ensidle -d
```

Customers who do not use ENS or JMQ for external notification systems can also delete `local.store.notifyplugin`, because an appropriate default value is now configured.

ENS Security Improvements

The new ENS server now supports two options to control TCP access to the ENS server (`service.ens.domainallowed` and `service.ens.domainnotallowed`). These options work the same way as the equivalent options for POP, IMAP, and HTTP. These options replace the functionality of the ENS_ACCESS environment variable that was included in the legacy ENS server.

MeterMaid Improvements

MeterMaid has been enhanced to offer Greylisting support. Greylisting is a technique that you can use to help Messaging Server reduce spam. See Implementing Greylisting by Using MeterMaid for more information.

Sieve Date and Index Extensions

The Sieve Date and Index extensions RFC 5260 are now fully supported. See also Features Introduced in Messaging Server 7 Update 4 for other changes to sieve handling.

SASL and High-Performance User Lookup and Authentication (HULA)

Messaging Server no longer depends on a Sun-private fork of CMU libsasl (SUNWsasl package) for authentication services. The entire Messaging Server product now uses the modern HULA library that has been used by the MMP for several releases for authentication. This change will enable faster implementation of consistent authentication-related features in the future, as well as some behavior changes:

- Improved logging and error text for authentication and authorization failures.
- After a user's password changes, authentication with the new password works immediately.
- The new option to simplify SMTP configuration that requires SSL/TLS prior to password login, `service.smtp.plaintextmincipher`, works like `service.imap.plaintextmincipher`).
- The new option for HTTP proxy authentication to IMAP server, `local.http.replayformat`,

works like the MMP's replayformat setting. This enables configurations where the internal UID is not used for login `6404489`.
- DIGEST-MD5, which was deprecated for several releases, has been removed.
- The undocumented backwards compatibility for PMDF's `security.cnf` was removed to make it easier to identify configuration errors. Equivalent functionality is provided with `sasl.*` configutil settings.
- The undocumented backward compatibility for the SIMS 4.0 `inetSubscriberStatus` and `inetAuthorizedServices` attributes was removed to simplify access control (these attributes are now ignored). The `inetUserStatus`, `mailDomainAllowedServiceAccess`, and `mailAllowedServiceAccess` attributes provide equivalent functionality.
- The undocumented backward compatibility for the NMS 4.x `nsmsgDisallowAccess` and `mailAccessDomain` attributes was removed to simplify access control (these attributes are now ignored). The `mailDomainAllowedServiceAccess` and `mailAllowedServiceAccess` attributes provide equivalent functionality.
- Support for the POP3 AUTH command with no arguments to list authentication mechanisms (a feature replaced by the POP3 CAPA command in RFC 2449, published in 1998) was removed to enable simpler support for new authentication mechanisms.

Dynamic Certificate Revocation Lists (CRL) Updates

Messaging Server has supported client certificate authentication since before version 5.2. This version of Messaging Server supports dynamic Certificate Revocation Lists (CRL) updates. The dynamic CRL updates is available as a set of patches that you can apply to Messaging Server 7 Update 3.

New `defragment` Channel Options

The `defragment` channel now has a channel option called `MAX_PARTS`. `MAX_PARTS` determines the maximum number of parts that a message can have and still be reassembled. The maximum is 100,000; the default is 1000.

`ignoremessageencoding` and `ignoremultipartencoding` Channel Options

The `ignoremessageencoding` and `ignoremultipartencoding` channel options now affect MIME processing done by the conversion, SMS, calendar, and user-written channels.

LDAP Security Improvements

To improve product security, the LDAP SSL client (enabled by `local.ugldapusessl`) now validates the LDAP server certificate by default and fails if the server's certificate cannot be validated. Use `configutil -o local.ldapcheckcert -v 0` to turn off LDAP SSL certificate validation.

The `configure` utility now supports LDAP SSL. This is done by including the `--ssl` switch when configuring LDAP. You should store the LDAP server certificate or CA as a trusted peer or CA in `cert8.db` (using `certutil`) in the directory which will be used for Messaging Server product configuration (the default location is `/var/opt/sun/comms/messaging64/config`).

Using IPv6 with Messaging Server

You can use IPv6 with Messaging Server. See Using IPv6 with Messaging Server for details.

Enhancements to the MTA's BURL Support

BURL has been enhanced to support additional configuration regarding its behavior. See BURL Support for SMTP SUBMIT.

`nslog` Provides Additional Log File Functionality for Dispatcher and Job Controller (CR 6185167 and CR 6191669)

The capability of nslog to handle log file rollover can now be used with Dispatcher and Job Controller.

To enable this functionality, set the `USE_NSLOG=1` option in the beginning of the `dispatcher.cnf` or `job_controller.cnf` file. You can then set up the `logfile.dispatcher.x` or `logfile.job_controller.x` `configutil` options to control the various logging characteristics. This uses the additional functionality provided by the `logfile` `configutil` options, including log file rotation and expiration.

When this functionality is enabled, the Dispatcher log file is named `dispatcher` by default instead of `dispatcher.log-x`. Similarly, the Job Controller log file is named `job_controller` by default instead of `job_controller.log-x`.

IMAP `ID` Command (CR 6339827)

The `ID` extension to IMAP allows the server and client to exchange identification information on their implementation to make bug reports and usage statistics more complete. IMAP `ID` information is logged to the `imapd` log file at `info` level. This means the client ID information is not logged unless you use `configutil -o logfile.imap.loglevel -v info` (or a more verbose logging level). For more information about the `ID` extension, see RFC 2971.

Support for IPv6 Data Type for MeterMaid Tables (CR 6823375)

IPv6 addresses can now be used as lookup keys in MeterMaid tables when you set the `metermaid.table.*.data_type` `configutil` parameter to `ipv6`.

SMTP Server Rejects STARTTLS When Followed by Additional Commands

In Messaging Server 7 Update 4 Path 21, the SMTP server rejects STARTTLS if there are additional commands piggybacked on it in the stream. The purpose of this is to avoid certain attacks.

MTA and MMP Minor Features

A number of smaller features were also introduced in this release. See: MTA and MMP Minor Features.

What's New in Calendar Server 7 Update 1

Calendar Server 7 Update 1 includes the following changes and new features:

- Support for an Updated WCAP Protocol Version 7.0
- Implicit Scheduling
- Support for CalDAV and CardDAV Autodiscovery
- Invitation of LDAP Groups
- Access Control Support
- Document Store
- Support for Resource Calendars
- Calendar Subscription Support
- Property-based Search Filtering
- Enhancements and Changes to `davadmin`
- WebDAVSync Enhancements
- Secure LDAP Connection
- Migration From Sun Java System Calendar Server 6.3
- Public and Private Events and Tasks Filter

Support for an Updated WCAP Protocol Version 7.0

Web Calendar Access Protocol (WCAP) is a command-based system consisting of client requests and

server responses for transmitting calendaring data. WCAP returns calendaring data using the HTTP protocol. In most cases, Calendar Server receives data through URL-encoded arguments to the commands.

WCAP commands consist of five general categories of usage:

- Creating calendars
- Storing, retrieving, and managing calendar properties
- Storing, retrieving, and managing calendar data
- Scheduling
- Retrieving calendar information of other users

Calendar data is always stored in Standard iCal format in the calendar database. But you can retrieve this calendar data by using WCAP commands with the `fmt-out` parameter set to `text/calendar`, `text/json`, or `text/xml`. The default format is `text/calendar` which outputs in standard iCal format as defined in RFC5545.

WCAP is a command-based system consisting of client requests and server responses for transmitting calendaring data. WCAP returns calendaring data using the HTTP protocol. In most cases, Calendar Server receives data through URL-encoded arguments to the commands.

WCAP enables Calendar Server 7 Update 1 and Convergence 2 integration.

For more information, see Calendar Server WCAP Developer's Guide.

Implicit Scheduling

Calendar Server 7 Update 1 supports implicit scheduling, in which the server has the capability to add invitations that arrive in the calendar inbox to the user's default calendar without any client intervention. This implementation is based on the latest CalDAV scheduling draft. Invitations created by using the WCAP protocol always lead to implicit scheduling. Storing an event with attendees automatically triggers invitations to all attendees.

Support for CalDAV and CardDAV Autodiscovery

Calendar Server 7 Update 1 supports the `.well-known` URI concept as defined in Locating CalDAV and CardDAV services for CalDAV clients to access the Principal URI without having to specify the entire URI. That is, access to `/` (root) or `/.well-known/caldav/` is redirected to the `/dav/principals/` URI.

Invitation of LDAP Groups

Calendar Server 7 Update 1 supports the ability to invite entire groups in the LDAP directory as one attendee. The group is maintained as one attendee in the organizer's calendar, but the Scheduling Service expands the group and adds each member as a recipient of the invitation. When storing the invitation in each recipients' calendar, that recipient is added as an ATTENDEE, which is referenced as a member of the group. When a recipient replies, that recipient is added as an individual ATTENDEE, also referenced as member of the initial group in the organizer's calendar. This feature can be used to invite both static and dynamic groups in LDAP.

Access Control Support

Calendar Server 7 Update 1 enables you to set and make use of the access control list (ACL) feature to determine access control for scheduling, calendar properties, and calendar components such as events and "todo's" (tasks). An ACL consists of one or more access control entries (ACE), which are strings that collectively apply to the same calendar or component. In this release, access control management is restricted to the WCAP and `davadmin` interfaces.

Document Store

Calendar Server 7 Update 1 introduces the document store, which is used for storing calendar attachments. The document store can be local or remote. Essentially, the document store is file-system-based storage with a built-in web server front-end that is used by the Calendar Server to store and retrieve documents.

Support for Resource Calendars

Calendar Server 7 Update 1 supports special handling of resource calendars. A resource in the context of scheduling is any shared entity that can be scheduled by a calendar user but does not control its own attendance status. For example, you would use a resource calendar for such items as conference rooms and video equipment. Some of the related features are auto-acceptance of invitations, declining invitations that could result in conflicting multiple bookings for the same time slot, and so on.

The `davcore.autocreate.calattendantresourceflags` configuration options control the settings on a new resource calendar. You change the settings for a resource by using the `davadmin account` command and `set_accountprops` WCAP command.

Calendar Subscription Support

Calendar Server 7 Update 1 provides the capability for one user to subscribe to other users' calendars on the server and maintain a subscription list, for easy access. The ability to subscribe, list subscriptions, and unsubscribe is limited to the WCAP access for this release, since a standard CalDAV way does not yet exist.

You can use the WCAP command `subscribe_calendars.wcap` to subscribe, `unsubscribe_calendars.wcap` to unsubscribe, and `list_subscribed.wcap` to list your subscriptions.

CalDAV clients can access other calendars to which a logged-in user has access by explicitly providing the URLs.

Property-based Search Filtering

Certain calendar properties were indexed to enable faster search based on those filters. The WCAP filter parameter of the `fetch` command uses this feature. See Filter Parameter for more information.

Enhancements and Changes to `davadmin`

- The `calresource` operation has been renamed to `calcomponent`.
- The `migration` operation has been added for migration of data from Calendar Server 6.3 to Calendar Server 7.
- The `account` operation has been added to enable listing, deletion, and properties modification of user accounts.
- The `calendar` operation has been enhanced to enable setting of more calendar properties.

WebDAVSync Enhancements

The WebDAVSync support was enhanced to match the latest draft. An extension to the WebDAV spec, WebDAVSync defines a protocol for HTTP clients to query an overview of the data changes on the HTTP server, enabling the clients to efficiently synchronize their local data cache with the server.

Secure LDAP Connection

You can configure Calendar Server 7 Update 1 to communicate with Directory Server over SSL. See the necessary configuration changes as described in Oracle Communications Calendar Server for CALDAV

Clients Post Configuration.

Migration From Sun Java System Calendar Server 6.3

The `davadmin migration` command enables you to migrate Calendar Server 6.3 data to Calendar Server 7 Update 1. See Migrating From Sun Java System Calendar Server 6 to Calendar Server 7 for more information on how to perform the actual data migration.

Public and Private Events and Tasks Filter

Calendar Server supports the iCal CLASS property and behaves as follows.

When creating a new event or task, a user can specify whether the event or task is Public, Private, or Time and Date Only (confidential):

- **Public.** Anyone with read permission to the user's calendar can view the event or task.
- **Private.** Only owners of the calendar can view the event or task.
- **Time and Date Only.** These are confidential events and tasks. Owners of the calendar can view the event or task. Other users see it just as a busy slot when requesting freebusy information.

> **Note**
> In Calendar Server 6.3, you can set the `calstore.filterprivateevents` parameter to filter or not filter Private, and Time and Date Only (confidential) events and tasks. Calendar Server 7 does not provide a way of disabling filtering private and confidential events and tasks. That is, Calendar Server 7 always filters (recognizes) Private, and Time and Date Only (confidential) events and tasks.

What's New in Calendar Server 6.3

This version of Calendar Server 6.3 includes bug fixes only.

What's New in Indexing and Search Service 1 Update 1

Indexing and Search Service 1 Update 1 includes the following changes and new features:

- Scalability Improvements
- Office 2007 Open XML File Format Support
- Apple iWork File Format Support
- New Attachment Types: `ataudio`, `atvideo`, `atcompress`, `atimage`
- Attachment Search Available for All Attachment Types
- Attachments No Longer Saved to Attachment Store
- Search Timeout Can Be Client-Specified
- New `issversion` Utility
- Admin CLIs Are Now Symlinked Into and Executable From the *iss-base* `/bin` Directory
- `issadmin.sh` Now Has `--threads` and `--continueonerror` Options for `--accountlist` Actions
- `issadmin.sh` Now Has `--listactiveservices` and `--stopservice` Actions
- New `indexSvcFork.sh` Script to Replace `indexSvcFork.pl`
- `svc_control.sh stop` No Longer Persistent Across Reboots
- A `commpkg upgrade` Now Requires That `postpatch_restart.sh` Be Run Manually After the Upgrade
- Accounts Must Be Rebootstrapped After the Upgrade

Scalability Improvements

Real-time event processing has been improved, allowing at least an order of magnitude higher indexing rate.

Office 2007 Open XML File Format Support

The Office 2007 Open XML File Format (`docx`, `xlsx`, `pptx`) is now supported. These attachments are categorized in the `atdoc`, `atxls`, and `atppt` attachment types along with the Word, Excel, and PowerPoint Binary File Format attachments (`doc`, `xls`, `ppt`) that were previously supported.

Apple iWork File Format Support

Apple iWork (Keynote, Pages and Numbers) files are now supported. These attachments are categorized into the new `iwork` attachment type.

New Attachment Types: `ataudio`, `atvideo`, `atcompress`, `atimage`

To categorize more attachment types, new types have been added for audio, video, image, and compressed file formats.

Attachment Search Available for All Attachment Types

All attachment types (for example, `atplain`, `athtml`, and new attachment types such as `ataudio`) can now be searched by type in attachment (`contentFormat=attachmentOnly`) searches. In Indexing and Search Service 1, only `atjpeg`, `atpdf`, `atodf`, `atdoc`, `atppt`, `atxls`, and `atvsd` were searchable by type in attachment searches.

Attachments No Longer Saved to Attachment Store

Attachment files are no longer saved to the attachment store. Instead, search results include body part information for pointing back to the attachment file residing on the Messaging Server store.

Search Timeout Can Be Client-Specified

A new search query parameter, `timeoutmsec`, allows a timeout to be set per search query.

New `issversion` Utility

The new *iss-base*`/bin/issversion` utility reports versioning information.

Admin CLIs Are Now Symlinked Into and Executable From the *iss-base*`/bin` Directory

For convenience, the admin command line interfaces are now symlinked into and executable from the *iss-base*`/bin` directory.

`issadmin.sh` Now Has `--threads` and `--continueonerror` Options for `--accountlist` Actions

The new `--threads` option enables `issadmin.sh --accountlist` actions to be performed in parallel across a set of threads. The new `--continueonerror` option enables `issadmin.sh --accountlist` actions to continue on error. (By default, the first account in an `--accountlist` action that finds an error terminates the remaining actions.)

`issadmin.sh` Now Has `--listactiveservices` and `--stopservice` Actions

The new command line options, `--listactiveservices` and `--stopservice`, enable services that are running to be listed and terminated if necessary.

New `indexSvcFork.sh` Script to Replace `indexSvcFork.pl`

The utility which supports bootstrapping a set of users in parallel has been rewritten for improved performance.

`svc_control.sh stop` No Longer Persistent Across Reboots

In Indexing and Search Service 1, if the services were stopped after a reboot, they would remain stopped. This behavior was changed in Indexing and Search Server 1 Update 1 to make `svc_control.sh stop` a temporary action, not persistent across reboots.

A `commpkg upgrade` Now Requires That `postpatch_restart.sh` Be Run Manually After the Upgrade

Because the postpatch process might be interactive, you must now manually run `postpatch_restart.sh` if you upgrade to this release by using `commpkg upgrade`.

Accounts Must Be Rebootstrapped After the Upgrade

Although Indexing and Search Service 1 indexes are backward-compatible with this release, you should rebootstrap all user accounts after upgrading to Indexing and Search Service 1 Update 1 to index the new attachment types and other changes in this release.

What's New in Instant Messaging 8 Update 3

Instant Messaging 8 Update 3 includes the following changes and new features:

- Shoal for Conferences Across Server Pools
- XEP 0191 - Simple Communications Blocking Protocol Support

Shoal for Conferences Across Server Pools

Instant Messaging 8 Update 3 enables the use of Shoal group messaging to broadcast conference messages across the server pool. You can now send conference messages across the server pool even if you have not used Shoal for auto-discovery or across subnets. For more information, see Using Shoal for Conferences Across Server Pools.

XEP 0191 - Simple Communications Blocking Protocol Support

This protocol enables you to block communications with selected users in an instant messaging system. You can block communications from contacts using any XEP-0191-compliant client. For more information, see XEP 0191.

What's New in Delegated Administrator 7

This version of Delegated Administrator 7 includes bug fixes only.

What's New in Connector for Outlook 7.3 Update 1

Connector for Outlook 7.3 Update 1 includes the following new features:

- Folder size and quota
- Support for Windows 7
- Support for Apple iPhone

What's New in DSsetup 6.4p6

This version of DSsetup contains the following new features and bug fixes:

- The sunMaxGroups is now correctly defined in the `sunDelegatedOrganization` objectclass, which is used by Delegated Administrator.
- A new search directory for LDAP utilities is available in the Directory Server 7 zipped version.
- The default schema type is now schema 2.
- The message pertaining to Access Manager has been removed. You can now use schema2 without Access Manager.

Chapter 26. Installing the Desktop Deployment Toolkit

Installing the Desktop Deployment Toolkit for Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Version 7.3 Update 1

This information describes installing and upgrading the administrator's Desktop Deployment Toolkit for Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite. The InstallShield Wizard installs all of the components of the Deployment Toolkit:

- **Deployment Configuration Program**: Lets system administrators create bundled, customized installation packages for end users.
- **Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite Setup Wizard**: Lets end users install the Connector for Microsoft Outlook software, configure its operations and features, and convert existing Outlook data files (`.pst` files) associated with Exchange into a form that Oracle Communications Unified Communications Suite can use.
- **Installation kit (MSI) for Connector for Microsoft Outlook**: Installation utility for the per-desktop software that facilitates ongoing, permanent communications between Microsoft Outlook and Oracle Communications Unified Communications Suite.
- **Special Kits for using Microsoft System Management Services (SMS) to install Connector for Microsoft Outlook**: utilities that support the "push" functionality of Microsoft's SMS to let a system administrator distribute and install the Connector for Microsoft Outlook desktop components to user desktops with minimal or no user involvement.

These components are described in more detail in Deploying Outlook Connector and the Connector for Microsoft Outlook Administration Guide. This Installation Guide describes only the installation of this Deployment Toolkit, and is organized into the following sections:

- Installation Overview
- Installing the Administrator's Software
- What's Next?

Prerequisites to installing Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite is that you have a general understanding of the following:

- The Internet and the World Wide Web
- Messaging Server and Calendar Server protocols
- System Administration and Networking on the following platforms:
    - Microsoft Windows Vista
    - Microsoft Windows XP
    - Microsoft Windows 2000
    - Microsoft Windows 7
- Microsoft Outlook
- General Deployment Architectures

Installation Overview

If the most recent version of the administrator's Deployment Toolkit for the Connector for Microsoft

Outlook for Oracle Communications Unified Communications Suite is not already installed on your computer, you must install it before you can create end-user installation packages.

Before you install, you should verify that the systems on which you plan to install the software meet the minimum product requirements. It is also a good idea to plan how you want to deploy and configure the software components before you begin the installation process. See Deploying Outlook Connector for information about deploying Connector for Microsoft Outlook to user desktops. And see the Release Notes for hardware and software requirements and supported versions.

> **Note**
> If you are upgrading from an earlier version of the Desktop Deployment Toolkit: This InstallShield Wizard will simply overwrite the earlier version with this new version, and leave only a single program entry in the Add/Remove Programs applet in Windows' Control Panel. There is no separate procedure or special accommodation for a version upgrade versus a first-time installation.

Installing the Administrator's Software

Follow the steps below to install the administrator's Desktop Deployment Toolkit.

To Install the Desktop Deployment Toolkit

1. Locate the Connector for Microsoft Outlook setup file, `Setup.exe` , that you have downloaded or otherwise copied to your computer.
   Double-click the filename to start the program. You are prompted to select your preferred language.
   The InstallShield Wizard then welcomes you to the process and prompts you to click **Next** to continue.

2. Accept the license agreement.
   Read the license agreement for Connector for Microsoft Outlook and select the option to accept the license agreement terms.
   Click **Next** to continue.

3. Enter your customer information.
   Enter your user name and organization and choose whether you want the Deployment Configuration Program software to be available to all users of this computer, or only to your user name.
   Click **Next** to continue.

4. Select or confirm the destination folder where the Deployment Configuration Program is installed.
   The Destination Folder window prompts you to confirm or change the location where the Deployment Configuration Program is installed.
   To change the location, click **Change**. In the Change Current Destination Folder window, set the desired folder.
   Once the destination folder is set, click **Next** in the Destination Folder window.

5. Install the software.
   The InstallShield Wizard then announces that it is ready to begin the actual installation, and prompts you to click **Next** to begin.

6. Wait for the installation to proceed and conclude.
   A progress meter appears in the window while you are waiting. The Installation Complete window notifies you that the process is complete, and prompts you to click **Finish**.

7. Click the **Launch the Connector for Microsoft Outlook Deployment Configuration Program**

checkbox.

8. Click **Finish**.
   The Connector for Microsoft Outlook Deployment Configuration Program icon "Oracle Communications Unified Communications Suite Connector Deployment" appears on the desktop. As the InstallShield Wizard exits, it opens a browser window with links to the Oracle website where you can access Outlook Connector documentation.

The Desktop Deployment Toolkit has now been installed to the location you specified in the Destination Folder window. The default folder is:

```
C:\Program Files\Sun\Deployment Configuration Program\
```

A new shortcut icon for the administrator's Deployment Configuration program (`Admin.exe`) appears on your desktop.

What's Next?

Planning and foresight are critical to a smooth deployment, so you should have already prepared a comprehensive Deployment Plan before installing the administrator software as described in this information. If you have not yet prepared a Deployment Plan, do it now, before you attempt to create your first desktop deployment kit. The process of developing a comprehensive Deployment Plan is a valuable exercise that leads you to consider and accommodate all of the factors likely to influence your organization's migration. Consult the Communications Suite Deployment Planning Guide for migration concepts, prerequisites, and strategic choices to develop a Deployment Plan that will guide you through your migration.

After you have prepared your Deployment Plan and installed the administrator software, you can:
Configure an end-user package. The Administration Guide explains how to use the Deployment Configuration Program to create customized packages for Outlook end users. These packages can be configured to install the necessary software on user desktops, or to convert users' existing Outlook and Exchange data files for use with the new software, or both, depending on your circumstances.
Deploy each end-user package. Once you have created an installation package for your users, you must tell them where to find it and how to use it. Many administrators simply copy the package and the Connector for Microsoft Outlook User's Guide to a shared folder, and then provide links to the installation package and documentation in an announcement email to users.
If your migration strategy calls for two or more different installation packages for different users or user groups, repeat these two steps for each package until all users have been migrated.

Chapter 27. Convergence Initial Configuration

Convergence Initial Configuration Version 2

After you install the Convergence software with the Communications Suite installer, you must configure Convergence to complete the installation. You perform this initial runtime configuration by running the Convergence configuration program, `init-config`.

After you configure Convergence the first time, you can change the configuration settings and property values by using the Convergence command-line interface, `iwcadmin`. For more information about ongoing administration of Convergence, see Convergence Administration Guide.

Topics:

- Gather Your Convergence Configuration Information
- Configuring Components to Enable Communication with the Instant Messaging Server
- Run the Convergence Configuration Program
- Enabling Indexing and Search Service
- Perform Silent Installation
- Configuring Certificate Based Authentication

Gather Your Convergence Configuration Information

Convergence Components

You can configure the Convergence to communicate with the following back-end Communication Suite servers:

- Messaging Server
- Calendar Server (CALDAV)
- Sun Calendar Server
- Instant Messaging Server

You can choose to configure any or all of these components. Only the configured components will appear in the Convergence user interface and be available to all Convergence users.

Configure Messaging Server and Calendar Server First
Before you run the Convergence configuration program, you must install and configure Messaging Server and Calendar Server (if you want to use these services in Convergence). However, if you add a component to your deployment after running the Convergence configuration program, rerun the program so that Convergence will be able to communicate with the new component.

Alternatively, you can set up any additional installed components with Convergence by using the `iwcadmin` command-line interface. For example, to enable the CalDAV service with Convergence, see: Enabling CalDAV Service.

You do not have to configure Instant Messaging before you configure Convergence. However, to enable the Instant Messaging service, you must take the steps described in Configuring Components to Enable Communication with Instant Messaging Server.

Web Containers

The Convergence server must be deployed to a Web container. See Product Requirements for Convergence 2 for the list of supported web containers.

Configuration Worksheets

Before you run the configuration program, you should gather configuration information by filling out the Convergence Configuration Worksheets.

Configuring Components to Enable Communication with the Instant Messaging Server

To enable Convergence to communicate with Instant Messaging Server, you must configure values for the following Instant Messaging Server features before you run the Convergence configuration program:

- Httpbind Component JID
- Httpbind Component Password
- Avatar Component JID
- Avatar Component Password

You need to configure these components manually, after you install and configure Instant Messaging.

A Note About Configuring Instant Messaging Server
When you are configuring the Instant Messaging Server (with the `configure` utility), be sure that the XMPP/HTTP Gateway Deployment parameter is set `false`. The XMPP/HTTP Gateway is deployed through the Convergence server but its value is set when you configure Convergence.

About the Httpbind Component JID and Avatar Component JID

The Httpbind JID and Avatar JID can be any string. These values do not have to identify a particular Instant Messaging host and domain name. However, these values should be meaningful. For example, a good practice might be to include the host and domain name in these JIDs to make the identifiers easy to recognize.

The passwords for Httpbind JID and Avatar JID can be unique. They do not have to match any other password used for IM or another back-end service.

The JIDs and passwords that you configure in the `iim.conf` file must match the Httpbind and Avatar JIDs that you will configure when you configure Convergence with the `init-config` program.

Configuring Multiple Instances of Convergence with One Instant Messaging Server

If you are configuring multiple instances of Convergence to use one Instant Messaging server, you must add a unique `httpbind` and `avatar.jid` value for each instance of Convergence. For example, if you configure three instances of Convergence, the Instant Messaging server configuration (`iim.conf`) file must have three instances of `httpbind` component configuration:

```
iim_server.components=agent-calendar,httpbind1,httpbind2,httpbind3,avatar1,
httpbind1 component (HTTP/XMPP Gateway)
! ======================================
iim_agent.httpbind1.enable="true"
httpbind1.jid=convergence1-jid.httpbind.example.com
httpbind1.password=secret

! httpbind2 component (HTTP/XMPP Gateway)
! ======================================
iim_agent.httpbind2.enable="true"
httpbind2.jid=convergence2-jid.httpbind.example.com
httpbind2.password=secret

! httpbind3 component (HTTP/XMPP Gateway)
! ======================================
iim_agent.httpbind3.enable="true"
httpbind3.jid=convergence3-jid.httpbind.example.com
httpbind3.password=secret
```

Similarly, in this example, the Instant Messaging server configuration (`iim.conf`) file must have three instances of avatar component configuration:

```
! avatar1 component
! ======================
iim_agent.avatar1.enable = "true"
avatar1.jid=convergence1-jid.avatar.example.com
avatar1.password=secret

! avatar2 component
! ======================
iim_agent.avatar2.enable = "true"
avatar2.jid=convergence2-jid.avatar.example.com
avatar2.password=secret

! avatar3 component
! ======================
iim_agent.avatar3.enable = "true"
avatar3.jid=convergence3-jid.avatar.example.com
avatar3.password=secret
```

You must run the Convergence `init-config` script for each instance of Convergence. When you set the values for the Httpbind Component JID and Avatar Component JID, be sure that these values correspond to the values you have set for this particular instance of Convergence in the `iim.conf` file. For details, see Run the Convergence Configuration Program.

To Configure the Instant Messaging Server Components

1. Perform the initial configuration of Instant Messaging by running the Instant Messaging `configure` program.
   For details, see Instant Messaging Initial Configuration.
2. Edit the *im-svr-base*`/config/iim.conf` file.
   By default, the *im-svr-base* is `/opt/sun/comms/im` on both Solaris OS and Red Hat Linux.
3. Add the Avatar component to the `im_server.components` property.
   For example, the entry can look like this:

   ```
   im_server.components = "agent-calendar, httpbind, avatar"
   ```

4. Set the `iim_agent.enable` property to `true`.
5. Provide the Httpbind JID and password. For example:

   ```
   ! httpbind component (HTTP/XMPP Gateway)
   ! ========================================
   iim_agent.httpbind.enable="true"
   httpbind.jid="<httpbind.varrius.com>"
   httpbind.password="<password>"
   ```

6. Add the following entries to configure the Avatar component:

   ```
   ! avatar component
   ! =============
   iim_agent.avatar.enable = "true"
   avatar.jid = "<avatar.varrius.com>"
   avatar.password = "<password>"
   ```

   If you are configuring more than one Convergence client to use this Instant Messaging Server host, add a unique `httpbind` and `avatar.jid` value for each instance of Convergence. For details, see Configuring Multiple Instances of Convergence with One Instant Messaging Server.

7. Restart Instant Messaging Server.

Configuring Instant Messaging Server to Display Presence Information in Email

To enable Convergence to show presence information in email, you must configure Instant Messaging server. For information on how to do this, see How do I Configure Convergence so that Presence Information is Shown in my Email?

Run the Convergence Configuration Program

The steps described in this section walk you through configuring Convergence by using the configuration program, `init-config`.

Before you Run the Configuration Program

Be sure that the back-end servers and the web container are up and running:

- Directory Server
- Messaging Server
- Calendar Server

> **A Note About GlassFish Server**
> If you configured the web container with a CA or self-signed certificate, you must accept the certificate by running any of the GlassFish Server commands. See Convergence Installation Notes.

Verify that users are able to log in to the back-end servers correctly:

- Messaging Server
- Calendar Server

To Launch the Configuration Program

1. Log in as (or become) `root`.
2. Change to the *iwc-base*`/sbin` directory.
   For example, on Solaris OS and Red Hat Linux, change directories.

   ```
   cd /opt/sun/comms/iwc/sbin
   ```

3. To launch the configuration program, type the one of the following commands:
   - GUI:

     ```
     ./init-config
     ```

   - CLI:

     ```
     ./init-config -nodisplay
     ```

     The configuration program starts, displaying the first panel. The sections that follow lead you through the configuration panels.

The remainder of this section describes how to run the configuration program in GUI mode.

To Enter Information in the Configuration Program Panels

The following steps lead you sequentially through the panels displayed by the `init-config` program.

If you'd rather read a list than a task-based procedure, you can refer instead to the configuration values shown in Worksheet 1-1 and Worksheet 1-2 as you run the program.

1. **Welcome**
   The first panel in the configuration program is a copyright page. Click **`Next`**.
2. **Select the directory to store configuration and data files**

Select the directory where you want to store the Convergence configuration and data files. The default configuration and data directory is located here:

- Solaris OS and Red Hat Linux: `/var/opt/sun/comms/iwc`
  This directory should be separate from the *iwc-base* directory. (On both Solaris OS and Red Hat Linux, this is `/opt/sun/comms/iwc` by default.)

  Enter the name of the directory, or keep the default, and click **`Next`**.

  If the directory does not exist, a dialog appears asking if you want to create the directory or choose a new directory. Click **`Create Directory`** to create the directory or **`Choose New`** to enter a new directory.

  A dialog appears indicating that the components are being loaded. This may take a few minutes.

3. **Select Services to configure**

   Select the service or services you want to configure:

   - **Mail Service**---the Convergence servlets that communicate with Messaging Server and GUI components that provide end-user access to mail service.
   - **Calendar Service**---the Convergence servlets that communicate with Calendar Server and GUI components that provide end-user access to calendar service.
   - **Instant Messaging Service**---the Convergence servlets that communicate with Instant Messaging Server and GUI components that provide end-user access to Instant Messaging service.
     Note: To configure the Instant Messaging Service, you must also select either Mail Service or Calendar Service (or both). You cannot select Instant Messaging Service only.
     Click **`Next`**.

4. **Convergence server host name and DNS domain name**

   Enter the host name of the machine on which Convergence is being configured.

   For example: `mymachine`

   Enter the DNS domain name of the Convergence host machine.

   For example: `siroe.com`

   Click **`Next`**.

5. **GlassFish Server 2.1.1 Configuration Details**

   Installation directory. Enter the GlassFish Server installation directory. By default, on Solaris OS, this directory is `/opt/SUNWappserver`.

   Domain directory. Enter the GlassFish Server domain directory. By default, on Solaris OS, this directory is `/opt/SUNWappserver/domains/domain1`.

   Document root directory. Enter the GlassFish Server document root directory. By default, on Solaris OS, this directory is `/opt/SUNWappserver/domains/domain1/docroot`.

   You can browse to select any of these directories.

   Server Target Name. Enter the GlassFish Server target name. For example: `server`.

   Virtual Server Identifier. Enter the GlassFish Server virtual server identifier. For example: `server`.

   Server Instance HTTP port. Enter the GlassFish Server target HTTP port number. Default port is

`8080`.

Click **`Next`**.

The configuration program checks if the directories you specified are valid. If a directory is invalid or does not exist, a dialog box tells you to choose a new directory.

Next, the configuration program checks if an GlassFish Server target connection is alive. If not, a dialog box warns you that the configuration program could not connect to the specified target and your configuration may not be completed. You can accept the specified values or choose new GlassFish Server configuration values.

6. **GlassFish Server 2.1.1: Administration Instance Details**

   Administration Server Port. Enter the Administration Server port number. For example: `4848`

   Administrator User ID. Enter the Administration Server administrator user ID. For example: `admin`

   Administrator Password. Enter the administrator user password.

   Specify whether the HTTP access to the Administration Server instance is secure (HTTPS) or not (HTTP).
   By default, the *Secure Administration Server Instance* box shown in this panel is checked. If your HTTP access is not secure, uncheck the box.

   Click **`Next`**.

   The configuration program checks if a GlassFish Server Administration Instance is alive. If not, a dialog box warns you that the configuration program could not connect to the specified target and your configuration may not be completed. You can accept the specified values or choose new GlassFish Server configuration values.

   Next, the configuration program checks if the credentials are valid. An Information dialog box is displayed with GlassFish Server's Administration Instance running in normal or secure mode.

7. **Enter the URI path where Convergence will be deployed.**

   For example, enter **`/iwc`**.

   Click **`Next`**.

8. **Specify whether or not you want hosted domain support**

   Select this option if you want to support for hosted domains in the current Convergence deployment.
   If you enable or disable this option, ensure that the same settings are applied at the following back-end servers:
   - Calendar Server - For more information on setting up hosted domains for Calendar Server, see Chapter 10 Setting Up a Multiple Domain Calendar Server 6.3 Environment in Sun Java System Calendar Server Administration Guide.
   - Messaging Server - For more information on setting up hosted domains for Messaging Server, see Configuring and Administering Multiplexor Services.
   - Instant Messaging Server - For more information on setting up hosted domains for Instant Messaging Server, see Configuring Hosted Domain Support in Instant Messaging Administration Guide.

9. **Specify the LDAP User/Group configuration details.**

   The Communications Suite servers (Messaging Server, Calendar Server, Instant Messaging) store user and group data in an LDAP directory. This screen asks you to supply configuration

information that enables the Convergence server to connect to the Directory Server managing this data.

User/Group LDAP URL. Enter the LDAP host and port where the User/Group is located. The URL should be in the format: `ldap://LDAP host name:LDAP port number.`

For example: `ldap://siroe.com:389`

Bind DN. Enter the LDAP distinguished name (DN) of the administrator used to bind to the Directory Server. This administrator should have appropriate privileges to manage the User/Group data.

For example `cn=Directory Manager`.

Bind Password. Enter the password for the Bind DN.

Click **`Next`**.

The configuration program checks if the LDAP connection is alive and the credentials are valid. If not, an error box tells you that the configuration program could not connect to the specified target. You need to provide valid User/Group LDAP details.

10. **Confirm the base distinguished name (DN) of the DC Tree suffix.**
    For example: `o=isp`

    The Convergence configuration program retrieves this base DN from the Directory Server and displays it. Use the displayed value, or change it if your configuration uses another base DN.

    This base DN is used to perform domain lookups. If the Communications Suite servers are using Schema 1, this configuration setting specifies the DN of the DC Tree suffix. If the Communications Suite servers are using Schema 2, this setting specifies the DN of the root suffix under which the User/Group tree is located. You must enter (confirm) a value for this item whether you are using Schema 1 or Schema 2.

    In a Schema 1 directory layout, Convergence uses the DC Tree suffix to search for domain information. In a Schema 2 directory layout, there is only one root suffix; both domain and user/group data are located under this one suffix.

    Click **`Next`**.

11. **Enter the default domain name.**

    When a user logs into Convergence without including a mail domain component in the user name, this domain is used by default to supply the fully qualified domain name. The default domain name is used when a domain name is required but not provided explicitly during login/authentication.

    For example: `sesta.com`

    In this example, if a user logs in as `fred`, the user name is qualified as `fred@sesta.com`.

12. **Specify the Mail Service configuration details.**

    This screen appears only if you selected Messaging Service in the Select Components to Be Configured screen.

    Webmail Host Name. Enter the name of the machine where Messaging Server is installed. For example: `ms.sesta.com`

    Webmail Server Port Number. Enter the Messaging Server HTTP (`mshttpd`) port number. For

example, the default is: `8990`

Access in SSL mode. Select this option if you want a connection between Convergence and Messaging Server in secure mode. If you select this option, make sure that the Messaging Server Port Number provided above is an SSL port.

Webmail Server Admin UserID. Enter the Messaging Server administrator user ID. For example: `admin`

By default, the Messaging Server administrator user ID is `admin`. This value is chosen during Messaging Server configuration.

Webmail Server Admin Password. Enter the Messaging Server administrator user password.

Click **`Next`**.

The configuration program checks if Messaging Server connection is alive and Credentials are valid. If not, a warning box displayed that the configuration program could not connect to the specified target.

13. **Select Calendar Server Version.**

    This screen appears only if you selected Calendar Server in the Select Components to Be Configured screen.

    Choose "CS7 and up" for Calendar Server 7.x or "CS6.3" for Calendar Server 6.3.

    If you plan to enable Calendar Server 7 at a later time, follow instructions in Enabling CalDAV Service.

    Click **`Next`**.

14. **Specify the Calendar Service configuration details.**

    This screen appears only if you selected Calendar Server in the Select Components to Be Configured screen.

    Calendar Server Host Name. Enter the name of the machine where Calendar Server is installed. For example: `cs.siroe.com`

    Calendar Server Port Number. Enter the Calendar Server HTTP port number. For example: `80` (Default Calendar Server port is `80`.)

    Access in SSL mode. Select this option if you want connection between Communication Center and Calendar Server in secure mode. Make sure that Calendar Server Port Number provided above is SSL port if you select this option.

    Service URI. Enter the URI path where the WCAP servlet is deployed for Calendar Server 7. (Default Service URI is `/davserver/wcap`). If you selected CS 6.3 in the previous screen, you will not see the Service URI field.

    Calendar Server Admin User ID. Enter the Calendar Server administrator user ID. For example: `calmaster`

    > **Note**
    > Add the `davcore.scheduling.localuserattr` value (usually `davStore`) to the administrative user's entry in LDAP to prevent a calmaster DavException.

Calendar Server Admin Password. Enter the Calendar Server administrator user password.

Click **`Next`**.

The configuration program checks if the Calendar Server connection is alive and Credentials are valid. If not, a warning box is displayed, stating that the configuration program could not connect to the specified target.

15. **Specify the Instant Messaging Service configuration details.**

    This screen appears only if you selected Instant Messaging Service in the Select Components to Be Configured screen.

    Note: You must configure the Httpbind Component JID, Httpbind Component Password, Avatar Component JID, and Avatar Component Password in the IM Server before you enter these values in the Convergence configuration program. For details, see Configure IM Components to Enable Communication with the Instant Messaging Server.

    Server Domain Name. Enter the domain name of the Instant Messaging server. For example: `varrius.com`. If multiple domains need to be supported, enter the domain names separated by spaces.
    Server Host Name. Enter the name of the machine where Instant Messaging is installed. For example: `im.varrius.com`

    Server Port Number. Enter the Instant Messaging Server HTTP port number. For example: `5269` ((Default Instant Messaging Server port is `5269`.)

    Note: The following items, Httpbind Component JID, Httpbind Component Password, Avatar Component JID, and Avatar Component Password, must match the JID values and passwords that you configured in the `iim.conf` file for the IM Server. If multiple instances of Convergence use one IM server, these items must match the JID values in the `iim.conf` file configured for this particular instance of Convergence. For details, see Configuring Multiple Instances of Convergence with One IM Server.

    Httpbind Component JID. Enter Instant Messaging Server httpbind component JID. This value must match the JID you configured in the `iim.conf` file. For example: `httpbind.varrius.com`

    Httpbind Component Password. Enter the Instant Messaging Server httpbind component password
    Avatar Component JID. Enter Instant Messaging Server avatar component jid. For example: `avatar.varrius.com`
    Avatar Component Password. Enter Instant Messaging Server avatar component password.

    Click **`Next`**.
16. **Specify the Convergence Administrator details**

    The Administrator username and password are needed for ongoing administration of Convergence, implemented by using the Administration Utility `iwcadmin`. The user details for the Convergence Administrator are stored in the Convergence configuration files, not in the Directory Server. This administrator user is not tied to any back-end server administrator accounts.

    Username. Enter the administrator username. For example `admin`

Password. Enter the password, make sure that password is more than 6 charactors
Password Again. Enter the password again to confirm

17. **Ready to Configure**

    The verification panel displays the items that will be configured.

    Click **`Configure Now`** to begin the configuration.

    To change information on a previous panel, click **`Back`**.

18. **Task Sequence**

    The Task Sequence Panel displays a sequence of tasks being performed. The actual configuration takes place as these tasks are displayed.

    When the panel displays "All Tasks Passed," you can click **`Next`** to continue or **`Cancel`** stop the tasks from being performed and exit.

19. **Installation Summary**

    The Installation Summary panel displays the product installed and a **`Details...`** button that displays more information about this configuration.

    A log file for the `init-config` program is created in the *iwc-base*`/install` directory. (On Solaris OS and Red Hat Linux, the default path is `/opt/sun/comms/iwc/install`.) The name of the log file is `Iwc-config-`*YYYYMMDDHHMMSS*`.log`, where *YYYYMMDDHHMMSS* identifies the 4-digit year, month, date, hour, minute, and second of the configuration.

    Click **`Close`** to complete the configuration.

Enabling Indexing and Search Service

If you also installed Indexing and Search Service, you need to enable Indexing and Search Service related parameters in Convergence. See Enabling Indexing and Search Service (This page also covers how to enable ISS Proxy Authentication with Convergence).

Perform Silent Installation

The Convergence initial runtime configuration program automatically creates a silent installation state file (called `saveState`). This file contains internal information about the configuration program and is used for running silent installations.

The silent installation `saveState` file is stored in the `/opt/sun/comms/iwc/data/setup/Iwc-config-`*YYYYMMDDHHMMSS*`/` directory, where *YYYYMMDDHHMMSS* identifies the 4-digit year, month, date, hour, minute, and second of the `saveState` file.

The silent installation `saveState` file is stored in the *da-base*`/data/setup/commda-config_`*YYYYMMDDHHMMSS*`/` directory, where *YYYYMMDDHHMMSS* identifies the 4-digit year, month, date, hour, minute, and second of the `saveState` file.

For example, once you have run the `init-config` program once, you can run it in silent install mode:

```
iwc-base-dir/sbin/init-config -nodisplay -noconsole -state fullpath
/saveState
```

The *fullpath* variable is the full directory path of where the `saveState` file is located.

Configuring Certificate Based Authentication

For information on how to configure certificate based authentication for Convergence see Certificate Based Authentication for Oracle Communications Unified Communications Suite

Chapter 28. Delegated Administrator Initial Configuration

Delegated Administrator for Oracle Communications Unified Communications Suite Initial Configuration Version 7

The Delegated Administrator configuration program (`config-commda`) creates a new configuration with your specific requirements. This initial runtime configuration program performs minimal configuration.

After you run the program, complete the initial configuration by following the steps described in Post-Configuration Tasks.

You can further customize your Delegated Administrator configuration by performing the tasks described in Customizing Delegated Administrator.

You might need to perform additional configuration, as described in the Messaging Server Administration Guide.

Topics:

- If You Are Upgrading from a Previous Release of Delegated Administrator
- Choose Which Components to Configure
- Run the Configuration Program
- Perform Silent Installation
- Run Delegated Administrator Console and Utility
- Post-Configuration Tasks
- Configuring Web Server to Run Delegated Administrator in SSL Mode

If You Are Upgrading from a Previous Release of Delegated Administrator

If you are configuring Delegated Administrator for the first time, you can skip this section and go directly to the section, Choose Which Components to Configure.

If you are upgrading to this release of Delegated Administrator from an earlier release, and you have customized your configuration, you might have to take steps to preserve your customizations.

For instructions on how to upgrade Delegated Administrator from a previous version, see Delegated Administrator Upgrade.

To learn how to preserve your customized configuration, see Preserving Customized Data When You Upgrade Delegated Administrator.

Choose Which Components to Configure

The third panel in the configuration program asks which Delegated Administrator components you want to configure:

- **Delegated Administrator Utility (client)**---the command-line interface invoked with `commadmin`.

- **Delegated Administrator Console**---the Delegated Administrator graphical user interface (GUI).
- **Delegated Administrator Server**---the Delegated Administrator server components required to run the Delegated Administrator utility and console.

The configuration program displays different panels depending on which components you select.

The following steps summarize the configuration choices. Each summary step (below) links you to a section (later in this article) that walks you through the actual configuration panels.

Summary of Configuration Choices

1. Starting the Configuration
   Enter the information requested in these panels to begin the configuration.
2. Configuring the Delegated Administrator Utility
   These panels follow directly after the *Select Components to Configure* panel. They ask for information used to configure the Delegated Administrator utility. You can either use the command line utility or the GUI console to configure Delegated Administrator.
   - The standard approach is to configure the Delegated Administrator utility with the other two components, the server and console, on the same machine.
     You must configure the Delegated Administrator utility on all machines on which you install a Delegated Administrator server.
   - You can also configure the Delegated Administrator utility and console on a separate machine. On the machine on which you configure the utility and console, you would select only those components on the *Select Components to Configure* panel.
     In this case, you must run the configuration program again on the machine where you configure the server.
3. Configuring the Delegated Administrator Console
   These panels follow the panels that configure the utility.
   You can choose whether or not to configure the Delegated Administrator console.
   - If you configure the Delegated Administrator console and server on the same machine, you would select both the console and the server in *Select Components to Configure* panel.
   - You also can configure the Delegated Administrator console and server on different machines.
     On the machine on which you configure the console, you would select only the console on the *Select Components to Configure* panel. The utility is selected by default; be sure it remains selected.
     In this case, you must run the configuration program again on the machine on which you configure the server.
   - If you have not configured the server when using the command line utility, then a dialog box cautions you that you must configure the Delegated Administrator Server on another machine. The server must be configured to enable the Delegated Administrator utility and console to work. If you are using the GUI to configure, then no warning will be displayed. If you configure the console and server on different machines, the utility is configured on *both* machines.
     To select a component, enter the number (1,2, or 3) or `0` to deselect it.
     The configuration program displays different panels depending on which Web container you select for the console. You can deploy to one of the following Web containers:
   - Oracle iPlanet Web Server 6.*x* [WEB]
   - Oracle iPlanet Web Server 7.*x* [WEB7]
   - Sun Java System Application Server 7.*x* [APP7]
   - Sun Java System Application Server 8.*x* or higher[APP8]
     If you are configuring the Delegated Administrator server and console on one machine, you will go through these instructions *twice* (once for the server, once for the console).
4. Configuring the Delegated Administrator Server
   These panels follow the panels that configure the console.
   You can choose whether or not to configure the Delegated Administrator server on a given machine.
   If you do not choose to configure the server on a given machine, the configuration program warns you that you must configure it on another machine. The server component is required for running

the utility and console.
All other considerations for deploying the server are the same as those for the console, as (described in Configuring the Delegated Administrator Console).
You can select Access Mode of either Direct LDAP or Access Manager.

> **Note**
> **The Delegated Administrator server uses the same Web container as Access Manager.** The configuration program asks for Web container information after it asks for the Access Manager base directory. This is applicable only if you have chosen Access Manager Access Mode.

5. Completing the Configuration
   Enter the information requested in these panels to complete the configuration.

Run the Configuration Program

The steps described in this section walk you through configuring Delegated Administrator.

NOTE: *da-base* is `/opt/sun/comms/da` by default on all platforms; use this value unless you chose a different path during installation. In Communications Suite 5, the Solaris value is: `/opt/SUNWcomm/`.

Launching the Configuration Program

To run the configuration program, log in as (or become) root and go to the *da-base*`/sbin` directory. Then enter the command:

```
# ./config-commda
```

Once you run the `config-commda` command, the configuration program starts.

For example, in Communication Suite 5 in Solaris, the command is: `/opt/SUNWcomm/sbin/config-commda`.

The sections that follow lead you through the configuration panels.

Starting the Configuration

You must enter the information requested in the first configuration-program panels.

To start the configuration

1. **Welcome**
   The first panel in the configuration program is a copyright page. Click **`Next`** to continue or **`Cancel`** to exit.
2. **Select directory to store configuration and data files**
   Select the directory where you want to store the Delegated Administrator configuration and data files. The default configuration directory is `/var/`*da-base*. This directory should be separate from the *da-base* directory, (which is `/opt/sun/comms/da` by default).
   Enter the name of the directory, or keep the default and click **`Next`** to continue.
   If the directory does not exist, a dialog appears asking if you want to create the directory or choose a new directory. Click **`Create Directory`** to create the directory or **`Choose New`** to enter a new directory.
   A dialog appears indicating that the components are being loaded. This may take a few minutes.

3. **Select components to configure**
   Select the component or components you want to configure on the Components Panel.
   - **Delegated Administrator Utility (client)**---the command-line interface invoked with `commadmin`. This component is required and is selected by default. It cannot be deselected.
   - **Delegated Administrator Console**---the Delegated Administrator graphical user interface (GUI).
   - **Delegated Administrator Server**---the Delegated Administrator server components required to run commadmin or the Delegated Administrator console.
     Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.

For more information about how to choose components, see Choose Which Components to Configure

If you choose not to configure the Delegated Administrator server, a dialog box cautions you that you must configure the Delegated Administrator Server on another machine. The server must be configured to enable the Delegated Administrator utility and console to work.

Configuring the Delegated Administrator Utility

You must configure the Delegated Administrator utility on all machines on which you install a Delegated Administrator component (server or console).

To configure the Delegated Administrator Utility

1. **DA Server host name and port number**
   Enter the DA Server host name and port number. If you are installing the Delegated Administrator server component, you must install it on the same host as Access Manager.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
2. **Default domain**
   Enter the default domain for the Top-Level Administrator. This is the domain used when a domain is not explicitly specified by the `-n` option when executing the `commadmin` command-line utility. This is also known as the default organization. If the domain specified does not exist in the directory, it will be created.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
3. **Default SSL port for client**
   Enter the default SSL port that the Delegated Administrator utility uses.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.

- If you chose to configure only the Delegated Administrator utility, go on to
  Completing the Configuration
- If you chose to configure both the Delegated Administrator console and the server, or if you chose to configure the console only, go on to
  Configuring the Delegated Administrator Console
- If you chose to configure the Delegated Administrator server only (together with the required Delegated Administrator utility), go on to
  Configuring the Delegated Administrator Server

Configuring the Delegated Administrator Console

The configuration program now displays the following panel:

Select a Web Container for Delegated Administrator

Select the Web container on which you will deploy the Delegated Administrator console. You can configure Delegated Administrator on

- Oracle iPlanet Web Server 6.*x* [WEB]
- Oracle iPlanet Web Server 7.*x* [WEB7]

- Sun Java System Application Server 7.*x* [APP7]
- Sun Java System Application Server 8.*x* or higher[APP8]

Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.

This panel and the panels that follow gather information about the Web container for the Delegated Administrator console. Follow the instructions in the appropriate section:

- Web Server 6.x Configuration
- Web Server 7.x Configuration
- Application Server 7.x Configuration
- Application Server 8.x or higher Configuration

You can deploy the Delegated Administrator console and server on two different Web containers, on two different instances of the Web container, or on the same Web container.

If you chose to configure both the Delegated Administrator console and Delegated Administrator server in Panel 3, a second series of panels will ask for Web container information for the server.

Thus, you will see the Web container configuration panels twice. Follow the appropriate instructions for deploying each of the Delegated Administrator components.

When you complete the Web container configuration panels, take one of the following actions:

- If you chose to configure both the Delegated Administrator console and the server, go on to

Configuring the Delegated Administrator Server

- If you chose to configure the Delegated Administrator console only (together with the required Delegated Administrator utility), go on to

Completing the Configuration

Web Server 6.*x* Configuration

If you are deploying the Delegated Administrator server or console on Web Server 6.*x*, follow the steps described in this section.

To Configure Web Server 6.x

1. **Web Server 6.x Configuration Details**
   The panel text tells you if you are providing Web Server 6.*x* configuration information for the Delegated Administrator server or console.
   - Enter the Web Server 6.*x* root directory. You can browse to select the directory.
   - Enter the Web Server 6.*x* instance identifier. This can be specified by a *host.domain* name such as `west.sesta.com`.
   - Enter the virtual server identifier. This can be specified by a `https-`*host.domain* name such as `https-west.sesta.com`.
     For more information about the Web Server 6.*x* instance identifier and virtual server identifier, see the Web Server documentation.
     Files for the Web Server 6.*x* instance are stored in the `https-`*host.domain* directory under the Web Server 6.*x* installation directory, for example `/opt/SUNWwbsvr/https-west.sesta.com`.
   - Enter the HTTP port number that the specified virtual server listens to.
     Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
     The configuration program checks if the values you specified are valid. If a directory or identifier is invalid or does not exist, a dialog box tells you to choose a new value.
     Next, the configuration program checks if a Web Server 6.*x* instance connection is alive. If not, a dialog box warns you that the configuration program could not connect to the

specified instance and your configuration may not be completed. You can accept the specified values or choose new Web Server 6.*x* configuration values.

2. **Default Domain Separator**
   This panel appears only if you are configuring the Delegated Administrator console. The domain separator is needed to configure the console; this information is not related to the Web container. Enter the default domain separator to be used for authentication when the user logs on. For example: `@`.
   - If you are configuring the Delegated Administrator console, take one of the following actions:*
   - If you chose to configure both the Delegated Administrator console and the server, go on to Configuring the Delegated Administrator Server
   - If you chose to configure the Delegated Administrator console only (together with the required Delegated Administrator utility), go on to Completing the Configuration
   - If you are configuring the Delegated Administrator server, go on to Step 3 in Configuring the Delegated Administrator Server.

Web Server 7.*x* Configuration

If you are deploying the Delegated Administrator server or console on Web Server 7.*x*, follow the steps described in this section.

To Configure Web Server 7.x

1. **Web Server 7.x Configuration Details**
   The panel text tells you if you are providing Web Server 7.*x* configuration information for the Delegated Administrator server or console.
   - Enter the Web Server 7.*x* server root directory. The Web Server software files are installed in this directory. You can browse to select the directory. The default value is `/opt/SUNWwbsvr7`.
   - Enter the Web Server 7.*x* configuration root directory. The Web Server configuration files are installed in this directory. You can browse to select the directory. The default value is `/var/opt/SUNWwbsvr7`.
   - Enter the Web Server 7.*x* instance identifier. This can be specified by a *host.domain* name such as `west.sesta.com`.
   - Enter the virtual server identifier. This can be specified by a *host.domain* name such as `west.sesta.com`.
     For more information about the Web Server 7.*x* instance identifier and virtual server identifier, see the Web Server documentation.
     Files for the Web Server 7.*x* instance are stored in the `https-`*host*`.`*domain* directory under the Web Server 7.*x* configuration directory, for example `/var/opt/SUNWwbsvr7/https-west.sesta.com`.
   - Enter the HTTP port number that the specified virtual server listens to. For example: `80`.
     Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
     The configuration program checks if the values you specified are valid. If a directory or identifier is invalid or does not exist, a dialog box tells you to choose a new value.
     Next, the configuration program checks if a Web Server 7.*x* instance connection is alive. If not, a dialog box warns you that the configuration program could not connect to the specified instance and your configuration may not be completed. You can accept the specified values or choose new Web Server 7.*x* configuration values.
2. **Web Server 7.x: Administration Instance Details**
   - Enter the Administration Server port number. For example: `8800`
   - Enter the Administration Server administrator user ID. For example: `admin`
   - Enter the administrator user password.
     If you are using a secure Administration Server instance, check the **Secure Administration Server Instance** box. If you are not, leave the box unchecked.
     Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
3. **Default Domain Separator**
   This panel appears only if you are configuring the Delegated Administrator console. The domain

separator is needed to configure the console; this information is not related to the Web container. Enter the default domain separator to be used for authentication when the user logs on. For example: `@`.

If you are configuring the Delegated Administrator console, take one of the following actions:

- If you chose to configure both the Delegated Administrator console and the server, go on to Configuring the Delegated Administrator Server
- If you chose to configure the Delegated Administrator console only (together with the required Delegated Administrator utility), go on to Completing the Configuration
  *If you are configuring the Delegated Administrator server: Go on to Configuring the Delegated Administrator Server.

Application Server 7.*x* Configuration

If you are deploying the Delegated Administrator server or console on Application Server 7.*x*, follow the steps described in this section.

To configure Application Server 7.x

1. **Application Server 7.x Configuration Details**
   The panel text tells you if you are providing Application Server 7.*x* configuration information for the Delegated Administrator server or console.
   Enter the Application Server installation directory. By default, this directory is `/opt/SUNWappserver7`.
   Enter the Application Server domain directory. By default, this directory is `/var/opt/SUNWappserver7/domains/domain1`.
   Enter the Application Server document root directory. By default, this directory is{{/var/opt/SUNWappserver7/domains/domain1/server1/docroot}}.
   You can browse to select any of these directories.
   Enter the Application Server instance name. For example: `server1`.
   Enter the Application Server virtual server identifier. For example: `server1`.
   Enter the Application Server instance HTTP port number.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
   The configuration program checks if the directories you specified are valid. If a directory is invalid or does not exist, a dialog box tells you to choose a new directory.
   Next, the configuration program checks if an Application Server instance connection is alive. If not, a dialog box warns you that the configuration program could not connect to the specified instance and your configuration may not be completed. You can accept the specified values or choose new Application Server configuration values.
2. **Application Server 7.x: Administration Instance Details**
   Enter the Administration Server port number. For example: `4848`
   Enter the Administration Server administrator user ID. For example: `admin`
   Enter the administrator user password.
   If you are using a secure Administration Server instance, check the **Secure Administration Server Instance** box. If you are not, leave the box unchecked.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
3. **Default Domain Separator**
   This panel appears only if you are configuring the Delegated Administrator console. The domain separator is needed to configure the console; this information is not related to the Web container. Enter the default domain separator to be used for authentication when the user logs on. For example: `@`.
4. **If you are configuring the Delegated Administrator console, take one of the following actions:**
   - If you chose to configure both the Delegated Administrator console and the server, go on to Configuring the Delegated Administrator Server
   - If you chose to configure the Delegated Administrator console only (together with the required Delegated Administrator utility), go on to Completing the Configuration

5. **If you are configuring the Delegated Administrator server:**
   Go on to
   Configuring the Delegated Administrator Server.

Application Server 8.*x* or higher Configuration

If you are deploying the Delegated Administrator server or console on Application Server 8.*x* or higher, follow the steps described in this section.

To configure Application Server 8.x or higher

1. **Application Server 8.x or higher Configuration Details**
   The panel text tells you if you are providing Application Server 8.*x* or higher configuration information for the Delegated Administrator server or console.
   Enter the Application Server installation directory. By default, this directory is `/opt/SUNWappserver/appserver`.
   Enter the Application Server domain directory. By default, this directory is `/var/opt/SUNWappserver/domains/domain1`.
   Enter the Application Server document root directory. By default, this directory is `/var/opt/SUNWappserver/domains/domain1/docroot`.
   You can browse to select any of these directories.
   Enter the Application Server target name. For example: `server`.
   Enter the Application Server virtual server identifier. For example: `server`.

   > **Note**
   > If you are running the `config-commda` program to upgrade Delegated Administrator, and you also have upgraded Application Server from version 7 to version 8.*x*, specify the following values for the Application Server target name and virtual server identifier:
   > - Target name: `server1`
   > - Virtual server identifier: `server{`
   > You must specify these values because the `asupgrade` utility migrates the Application Server 7 `server1` instance into the Application Server 8.*x* or higher `server1` target running under a nodeagent. However, `asupgrade` changes the value of the virtual server from `server1` in Application Server 7 to `server` in Application Server 8.*x* or higher.

   Enter the Application Server target HTTP port number.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
   The configuration program checks if the directories you specified are valid. If a directory is invalid or does not exist, a dialog box tells you to choose a new directory.
   Next, the configuration program checks if an Application Server target connection is alive. If not, a dialog box warns you that the configuration program could not connect to the specified target and your configuration may not be completed. You can accept the specified values or choose new Application Server configuration values.

> **Note**
> If you are deploying the Delegated Adminstrator server or console on Application Server 9.x, please note that the default installation directories are different from those for Application Server 8.x as follow:
> Enter the Application Server installation directory. By default, this directory is `/opt/SUNWappserver`.
> Enter the Application Server domain directory. By default, this directory is `/opt/SUNWappserver/domains/domain1`.
> Enter the Application Server document root directory. By default, this directory is `/opt/SUNWappserver/domains/domain1/docroot`.

2. **Application Server 8.x or higher: Administration Instance Details**
   Enter the Administration Server port number. For example: `4849`
   Enter the Administration Server administrator user ID. For example: `admin`
   Enter the administrator user password.
   If you are using a secure Administration Server instance, check the **Secure Administration Server Instance** box. If you are not, leave the box unchecked.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
3. **Default Domain Separator**
   This panel appears only if you are configuring the Delegated Administrator console. The domain separator is needed to configure the console; this information is not related to the Web container. Enter the default domain separator to be used for authentication when the user logs on. For example: `@`.
4. **If you are configuring the Delegated Administrator console, take one of the following actions:**
   - If you chose to configure both the Delegated Administrator console and the server, go on to Configuring the Delegated Administrator Server
   - If you chose to configure the Delegated Administrator console only (together with the required Delegated Administrator utility), go on to Completing the Configuration
5. **If you are configuring the Delegated Administrator server:**
   Go on to
   Configuring the Delegated Administrator Server.

Configuring the Delegated Administrator Server

If you chose to configure the Delegated Administrator server, the configuration program displays the following panels.

To configure Delegated Administrator Server

1. Select the Access Mode from the following options:
   - **Direct LDAP**
     If you select Direct LDAP, you must choose the web container for the server.
   - **Access Manager base directory**
     Enter the Access Manager Base Directory. The default directory is `/opt/SUNWam`.
     Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
     The configuration program checks if a valid Access Manager base directory is specified. If not, a dialog box is displayed indicating that an existing Access Manager base directory must be selected.
2. Next, a Web container **Configuration Details** panel is displayed.
   If you chose to configure the console and server, this is the second time a Web container

Configuration Details panel appears.
The Delegated Administrator server is deployed to the same Web container as Access Manager. (You cannot choose a Web container for the Delegated Administrator server.)

Follow the instructions in the appropriate section:

1. #* Web Server 6.x Configuration
   - Application Server 7.x Configuration
   - Application Server 8.x or higher Configuration
2. **Directory (LDAP) Server**
   This panel asks for information about connecting to the LDAP Directory Server for the user/group suffix.
   Enter the User and Group Directory Server LDAP URL (**LdapURL**), Directory Manager (**Bind As**), and password in the text boxes.
   The Directory Manager has overall administrator privileges on the Directory Server and all Sun Java System servers that make use of the Directory Server (for example, Delegated Administrator) and has full administration access to all entries in the Directory Server. The default and recommended Distinguished Name (DN) is `cn=Directory Manager`.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
3. **DA Server Internal LDAP**
   Enter the username and the password for DA Server Internal LDAP. The username is hardcoded and cannot be changed. The default username is `daAdmin`.
4. **Access Manager Top-Level Administrator**
   Enter the user ID and password for the Access Manager Top-Level Administrator. The user ID and password are created when Access Manager is installed. The value, `amadmin`, is hard-coded in AM.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
5. **Access Manager internal LDAP authentication password**
   Enter the password for the Access Manager Internal LDAP authentication user.
   The authentication user name is hard-coded as `amldapuser`. It is created by the Access Manager installer and is the Bind DN user for the LDAP service.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
6. **Organization Distinguished Name (DN)**
   Enter the Organization DN for the default domain. For example, if your organization DN is `o=siroe.com`, all the users in that organization will be placed under the LDAP DN `o=siroe.com, o=usergroup`, where `o=usergroup` is your root suffix.
   By default, the configuration program adds the default domain under the root suffix in the LDAP directory.
   If you want to create the default domain at the root suffix (not underneath it), delete the organization name from the DN that appears in the **Organization Distinguished Name (DN)** text box.
   For example, if your organization DN is `o=siroe.com` and your root suffix is `o=usergroup`, delete `"o=siroe.com"` from the DN in the text box; leave only `o=usergroup`.
   If you choose to create the default domain at the root suffix, and if you later decide to use hosted domains, it can be difficult to migrate to the hosted-domain configuration. The `config-commda` program displays the following warning:
   "The Organization DN you chose is the User/Group Suffix. Although this is a valid choice, if you ever decide to use hosted domains, there will be difficult migration issues. If you do wish to use hosted domains, then specify a DN one level below the User/Group suffix."
   For more information, see Directory Structure Supporting a One-Tiered Hierarchy.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
7. **Top-Level Administrator for the default organization**
   Enter the user ID and password for the Top-Level Administrator that is to be created in the default domain (organization).
   A **Confirm Password** field asks you to enter the password a second time.
   Click **`Next`** to continue, **`Back`** to return to the previous panel, or **`Cancel`** to exit.
8. **Service Package and Organization Samples**
   You can choose to add sample service packages and sample organizations to your LDAP directory.

Load sample service packages. Select this option if you want to use or modify sample service package templates to create your own Class-of-Service packages.
Load sample organizations. Select this option if you want your LDAP directory tree to contain sample provider organization nodes and subordinate organization nodes.

9. You can select:
   - Both the sample service packages and the sample organizations
   - Only one of these options
   - Neither option

     Preferred Mailhost for Sample. Enter the name of the machine on which Messaging Server is installed.
     For example: `mymachine.siroe.com`
     If you chose to load the sample organizations into your LDAP directory, you must enter a preferred mail host name for these samples.
     For information about service packages and organizations, see "Delegated Administrator Overview," in the *Sun Java System Delegated Administrator Administration Guide*.
     After you run the configuration program, you must modify the service package templates to create your own Class-of-Service packages. For information about this post-configuration task, see Create Service Packages.

Completing the Configuration

Take the steps described in this section to finish running the configuration program.

To complete the configuration

1. **Ready to Configure**
   The verification panel displays the items that will be configured.
   Click **`Configure Now`** to begin the configuration, **`Back`** to return to any previous panel to change information, or **`Cancel`** to exit.
2. **Task Sequence**
   A sequence of tasks being performed is displayed on the Task Sequence Panel. This is when the actual configuration takes place.
   When the panel displays "All Tasks Passed" you can click **`Next`** to continue or **`Cancel`** stop the tasks from being performed and exit.
   A dialog box appears reminding you to restart the Web container in order for configuration changes to take effect.
3. **Installation Summary**
   The Installation Summary panel displays the product installed and a **`Details...`** button that displays more information about this configuration.
   A log file for the `config-commda` program is created in the *`da-base`*`/install` directory. The name of the log file is `commda-config_`*`YYYYMMDDHHMMSS`*`.log`, where *YYYYMMDDHHMMSS* identifies the 4-digit year, month, date, hour, minute, and second of the configuration.

Click **`Close`** to complete the configuration.

Restarting the Web Container

After you complete the Delegated Administrator configuration, you must restart the Web container to which Delegated Administrator is deployed.

Configuration and Log Files Deployed by the `config-commda` Program

Configuration Files

Using the information you provided in the panels, the `config-commda` program deploys the following configuration files for the three Delegated Administrator components:

- Delegated Administrator utility:
  - `cli-usrprefs.properties`

Location: *da-base*`/data/config`

- Delegated Administrator server:
  - `resource.properties`
- Delegated Administrator console:
  - `daconfig.properties`
  - `Resources.properties`
  - `Security.properties`
  - `logger.properties`

(The `logger.properties` file specifies the location of log files and whether or not logging is enabled. It is a configuration file, not a log file.)

The `config-commda` program deploys the configuration files to the application repository of the Web container where you deployed Delegated Administrator. For a list of the deployed locations of the files, see Deployed Locations of the Configuration Files.

For information about the properties contained in the configuration files and how to edit these properties to customize your configuration, see Chapter 4, "Customizing Delegated Administrator," in the *Sun Java System Delegated Administrator Administration Guide*.

Log Files

The Delegated Administrator console creates a runtime log [file:]
Default log file name: `da.log`

Default location: *da-base*`/log`

For more information about this and other Delegated Administrator log files, see Debugging Delegated Administrator in the *Sun Java System Delegated Administrator Administration Guide*.

Perform Silent Installation

The Delegated Administrator utility initial runtime configuration program automatically creates a silent installation state file (called `saveState`). This file contains internal information about the configuration program, and is used for running silent installs.

The silent installation `saveState` file is stored in the *da-base*`/data/setup/commda-config_`*YYYYMMDDHHMMSS*`/` directory, where *YYYYMMDDHHMMSS* identifies the 4-digit year, month, date, hour, minute, and second of the `saveState` file.

For example, once you have run the `config-commda` program once, you can run it in silent install mode:

```
da-base/sbin/config-commda -nodisplay -noconsole -state
 fullpath/saveState
```

The *fullpath* variable is the full directory path of where the `saveState` file is located.

Run Delegated Administrator Console and Utility

Launching the Console

The Delegated Administrator console is launched by accessing the Web container to which it is deployed.

To launch the Delegated Administrator console

1. Go to the following url:
   `http://host:port/dawhere`
   host is the Web container host machine
   port is the Web container port
   For example:
   {{http://siroe.com:8080/da}}The Delegated Administrator console log-in window appears.

   > **Note**
   > In previous releases of Delegated Administrator, the console was launched from the following url:
   > `http://host:port/da/DA/Login`You can continue to use this url in the current release.

2. Log in to the Delegated Administrator console.

You could use the Top-Level Administrator (TLA) user ID and password specified in the Delegated Administrator configuration program. This information was requested in the following panel:

Top-Level Administrator for the default organization

> **Note**
> Values set in Access Manager can determine session time-outs when you are running the Delegated Administrator console. For information on the session time-out values, see "Session Service Attributes," in the *Sun Java System Access Manager Administration Guide*. For information on viewing these values in the Access Manager console, see "Current Sessions" in the *Sun Java System Access Manager Administration Guide*.

Running the Command-Line Utility

You can run the Delegated Administrator utility by entering the command name, `commadmin`, from a terminal window.

To run the command-line utility

1. Go to the *da-base*`/bin/` directory.
2. Enter the `commadmin` command.
   For example, in Comm Suite 5 in Solaris: `/opt/SUNWcomm/bin/commadmin`

Example: Using `commadmin` to search for users

The following command searches for users in the `varrius.com` domain:

```
commadmin user search -D chris -w bolton -d varrius.com -n sesta.com
```

For details about this `commadmin` command, see commadmin user search.

commadmin Return Codes

When a `commadmin` operation success, an OK message is displayed on the command line.

If a failure occurs, the following message appears:

`FAIL`

<message>

Where *<message>* displays the error text.

Post-Configuration Tasks

After you run the Delegated Administrator configuration program, you should perform the following tasks:

- Add Mail and Calendar Services to the Default Domain
- Enforce Unique Values for Mail Attributes
- Create Service Packages

Perform the following task only if you are using an LDAP directory in Schema 2 compatibility mode:

- Add ACIs for Schema 2 Compatibility Mode

Add Mail and Calendar Services to the Default Domain

The `config-commda` program creates a default domain.

If you want to create users with mail service or calendar service in the default domain, you first must add mail service and calendar service to the domain.

To perform this task, use the `commadmin domain modify` command with the `-S mail` and `-S cal` options.

The following example shows how you can use `commadmin domain modify` to add mail and calendar services to the default domain:

```
commadmin domain modify -D chris -w bolton -n sesta.com -d siroe.com
 -S mail,cal -H test.siroe.com
```

For `commadmin` command syntax and details, see "Chapter 5, "Command Line Utilities," in the *Sun Java System Delegated Administrator Administration Guide*.

Enforce Unique Values for Mail Attributes

Messaging Server uses the following mail attributes to identify a user's email address and alternate email addresses:

- `mail`
- `mailAlternateAddress`
- `mailEquivalentAddress`

Each user's mail attributes should be unique across the directory.

The following procedure shows how to modify a Directory Server ldif file to enforce the uniqueness of

these attributes. Whenever Delegated Administrator (or any LDAP tool) adds an entry or modifies a mail attribute, the ldif plug-in checks that the mail attribute values are unique. If an operation would cause two entries to have the same mail-attribute values, it is terminated.

For definitions of the mail attributes, see Messaging Server and Calendar Server Attributes in the Sun Java Communications Suite 6 Schema Reference .

To enforce the uniqueness of mail attributes

Before You Begin

> **Note**
> If you are running Directory Server 5.2 Patch 6 (Java ES Release 4) or later, follow the procedures described below.
>
> If you are running Directory Server 5.2.4 (Java ES Release 4), you need to apply patch 5.2_Patch_4_6313027 before you begin the following procedure.
>
> If you are running an earlier version of Directory Server, you need to upgrade to Directory Server 5.2 Patch 6 or later before you begin.
>
> To access Directory Server patches, go to http://sunsolve.sun.com.

1. Create a text file with the following lines. Replace the parameters shown in the file with values specific to your installation:

   ```
   {{dn: cn=Uniqueness in Attribute Set,cn=plugins,cn=cc
   ```

   Change the following parameters:

Replace *server_root* with the directory underneath which your Directory Server is installed. For example: `/var/opt/mps/serverroot`

Replace _ugldapbasedn_with your root suffix. Uniqueness checking is performed on all entries underneath this suffix.

1. Stop Directory Server.
2. Add your modified text file to the Directory Server `dse.ldif` file.
   Location of the dse.ldif File:
   The `dse.ldif` file is located in the following directory:

   ```
   server_root/slapd-machine_name/config
   ```

   where
   _ server_root_ is the directory underneath which Directory Server is installed. For example: `/var/opt/mps/serverroot`
   machine_name is the name of the host machine where Directory Server is installed.
   Where to Add Your Text File:
   Add your text file after the `uid uniqueness` section of the `dse.ldif` file. The first line of this section (the dn) is as follows:

   ```
   dn: cn=uid uniquenss,cn=plugins,cn=config
   ```

3. Restart Directory Server.
   When Directory Server starts, it installs the modified `dse.ldif` file in the directory.

Troubleshooting

If Directory Server does not start because the `dse.ldif` file has generated an error, check the values you used to replace the parameters in the sample text file. Your LDAP root suffix and the Directory Server installation path and host machine must be correct for your installation.

If Directory Server still does not start, you can, as a last resort, remove the text file from the `dse.ldif` file and restart Directory Server.

Create Service Packages

Each user and group provisioned in the LDAP directory with Delegated Administrator should have a service package. A user or group can have more than one service package.

Predefined Class-of-Service Templates

When you run the Delegated Administrator configuration program (`config-commda`), you can choose to have the `config-commda` program install sample Class-of-Service templates in the directory.

For information about the sample Class-of-Service templates and the available mail attributes in a service package, see Service Package Details.

You can use the sample Class-of-Service templates to create and assign service packages. However, the sample templates are meant to be examples.

Creating Your Own Service Packages

Most likely you will want to create your own service packages based on customized Class-of-Service templates with attribute values appropriate for the users and groups in your installation.

To create your own service packages, use the Class-of-Service templates stored in the `da.cos.skeleton.ldif` file, located in the following directory:

da-base`/lib/config-templates`

This file was created specifically for use as a template for writing customized Class-of-Service templates. It is not installed in the LDAP directory when Delegated Administrator is configured.

The `da.cos.skeleton.ldif` file contains a parameterized template for each Class-of-Service definition provided by Delegated Administrator:

- `standardUserMail`
- `standardUserCalendar`
- `standardUserMailCalendar`
- `standardGroupMail`
- `standardGroupCalendar`
- `standardGroupMailCalendar`

You can create your own Class-of-Service templates by using one or more of the parameterized templates in the `da.cos.skeleton.ldif` file.

The Class-of-Service templates in the `da.cos.skeleton.ldif` file are as follows:

```
{{\# Templates for creating COS templates for&nb
      => o=mailuser,o=costemplates,<ugldapb
      => o=mailgroup,o=costemplates,}}
{{\#            &r
  => o=calendargroup,o=costemplates,}}
{{\#            &r
standardMailUser COS template}}
{{\#}}{{\##############################################################}}{{\#&nb
standardCalendarUser COS template}}
{{\#}}{{\##############################################################}}{{\#&nb
standardMailCalendarUser COS template}}
{{\#}}{{\##############################################################}}{{\#&nb
standardMailGroup COS template}}
{{\#}}{{\##############################################################}}{{\#&nb
standardCalendarGroup COS template}}
{{\#}}{{\##############################################################}}{{\#&nb
standardMailCalendarGroup COS template}}
{{\#}}{{\##############################################################}}{{\#&nb
```

To create your own service packages

1. Copy and rename one of the parameterized templates in the `da.cos.skeleton.ldif` file.
   When you install Delegated Administrator, the `da.cos.skeleton.ldif` file is installed in the following directory:
   da-base`/lib/config-templates`
   Choose one of these templates in the `da.cos.skeleton.ldif` file to copy and rename:

   ```
   standardUserMailstandardUserCalendarstandardUserMailCalendar
   standardGroupMail
   ```

2. Edit the following parameters in your copy of the template:
   - `<ugldapbasedn>`
     Change the root suffix parameter,`<rootSuffix>`, to your root suffix (such as `o=usergroup`).
     The `<ugldapbasedn>` parameter appears in the DN.
3. #* `<service package name>`
   Change the `<service package name>` parameter to your own service package name.
   The `<service package name>` parameter appears in the DN and the `cn`.
4. #* Mail attribute values:

   ```
   <mailMsgMaxBlocksValue> <mailQuotaValue> <mailMsgQuotaValue>
   <mailAllowedServiceAccessValue>
   ```

   Edit these values to your specifications.
   For example, you could enter the following values for the mail attributes:

   ```
   mailMsgMaxBlocks: 400 mailQuota: 400000000 mailMsgQuota: 5000
   mailAllowedServiceAccess: imap:ALL$+pop:ALL$+smtp:ALL$+http:ALL
   ```

5. #* Calendar attribute values:

   ```
   <preferredHostValue><dwpHostValue><firstDayValue>
   ```

These parameters represent values for the `icsPreferredHost`, `icsDWPHost`, and `icsFirstDay` LDAP attributes.
Edit these values to your specifications.
For definitions and descriptions of these attributes, see Chapter 3, "Messaging Server and Calendar Server Attributes," in the *Sun Java Communications Suite Schema Reference*.
You must use at least one attribute in a customized Class-of-Service template. You do not have to use all four mail attributes in a custom template. You can delete one or more attributes from the service package.

6. Use the LDAP directory tool `ldapmodify` to install the service package in the directory.

For example, you could run the following command:

```
ldapmodify -D <directory manager> -w <password> -f
<cos.finished.template.ldif>
```

where
`<directory manager>` is the name of the Directory Server administrator.
`<password>` is the password of the Directory Service administrator.
`<cos.finished.template.ldif>` is the name of the edited ldif file to be installed as a service package in the directory.

Add ACIs for Schema 2 Compatibility Mode

If you are using an LDAP directory in Schema 2 compatibility mode, you must manually add ACIs to the directory to enable Delegated Administrator to provision in your directory. Take the following steps:

To add ACIs for Schema 2 compatibility mode

1. Add the following two ACIs to the OSI root. You can find the following two ACIs in the `usergroup.ldif` file, located in the *da-base*`/config` directory.
   Be sure to replace `ugldapbasedn` with your usergroup suffix. Add the edited `usergroup.ldif` into the LDAP directory.

   ```
   {{\#}}{{\# acis to limit Org Admin Role{}}}
   ```

   ```
   {{dn: <ugldapbasedn>}}{{{}changetype: modify{}}}{{{}add: a
   ```

2. Add the following two ACIs to the DC Tree root suffix. You can find the following two ACIs in the `dctree.ldif` file, located in the *da-base*`/lib/config-templates` directory.
   Be sure to replace *dctreebasedn* with your DC Tree root suffix and *ugldapbasedn* with your usergroup suffix. Add the edited `dctree.ldif` into the LDAP directory.

   ```
   {{\#}}{{\# acis to limit Org Admin Role{}}}
   ```

   ```
   {{dn: <dctreebasedn>}}{{{}changetype: modify{}}}{{{}add: a
   ```

3. Add the following additional ACIs to the DC Tree root suffix. (These ACIs are not in the `dctree.ldif` file.)

   ```
   {{dn:<dctreebasedn> }}{{{}changetype:modify{}}}{{{}add:aci{}}}{{{}ac
   ```

   ```
   {{dn:<dctreebasedn>}}{{{}changetype:modify{}}}{{{}add:aci{}}}{{{}aci:&nbs
   ```

   ```
   {{dn:<dctreebasedn>}}{{{}changetype:modify{}}}{{{}add:aci{}}}{{{}aci:&nbs
   ```

4. Set the `com.iplanet.am.domaincomponent` property in the `AMConfig.properties` file to

your DC Tree root suffix.
For example, modify the following lines in the <*AM_base_directory*
>`/lib/AMConfig.properties` [file:]
from
`com.iplanet.am.domaincomponent=o=isp`
to
`com.iplanet.am.domaincomponent=o=internet`

5. Enable Access Manager to use compatibility mode.
   In the Access Manager Console, in the Administration Console Service page, check (enable) the **Domain Component Tree Enabled** check box.
6. Add the `inetdomain` object class to all the DC Tree nodes (such as `dc=com,o=internet`), as in following example:

   ```
   {{/var/mps/serverroot/shared/bin 298% ./ldapmodify }}{{\-D
   ```

7. Restart the Web container.

Configuring Web Server to Run Delegated Administrator in SSL Mode

If you have deployed the Delegated Administrator console to Web Server 6 or Web Server 7.*x*, you can run the Delegated Administrator console in SSL mode, over a secure port.

If the Delegated Administrator server is deployed to Web Server 6 or Web Server 7.*x*, you can run the Delegated Administrator utility (`commadmin`) in SSL mode.

To enable the Delegated Administrator console and utility to use SSL access:

- For the console, complete all the steps in the SSL-configuration procedure.
- For the utility, you only have to complete Step 1 in the SSL-configuration procedure. Use the `-s` option with the `commadmin` commands to run in SSL mode.

For Web Server 6, follow this procedure:

- To Configure Web Server 6 to Enable Delegated Administrator to Run in SSL Mode

For Web Server 7.*x*, follow this procedure:

- To Configure Web Server 7.x to Enable Delegated Administrator to Run in SSL Mode

To Configure Web Server 6 to Enable Delegated Administrator to Run in SSL Mode

In this procedure, the certificate truststore is created in the Delegated Administrator configuration directory. For example: `/var/da-base/config`

1. Request and install a certificate.
   In a production environment, you must request a certificate from a Certificate Authority (CA), which issues the certificate to you. Next, you install the certificate.
   In a test environment, you can create and install a self-signed certificate.
   For information about requesting and installing certificates for Web Server 6, see "Using Certificates and Keys" in the *Oracle iPlanet Web Server 6.1 SP6 Administrator's Guide*.
   After you complete this step, you can run the Delegated Administrator utility in SSL mode.
2. Export the specific certificate in ASCII encoding.
   For example:

   ```
   {{/opt/SUNWwbsvr/bin/https/admin/bin/certutil -L -n Server
   ```

   where
3. #* `Server-Cert` is the default name created by the Administration interface
   - *host* is the host name of the machine where Web Server 6 is running. For example:

myhost.
- *host.domain* is the host and domain name of the machine where Web Server 6 is running. For example: myhost.siroe.com.

4. Use the java keytool utility to import the certificate into a truststore.
   This step assumes that you are creating a new truststore in the Delegated Administrator configuration directory.
   Import the certificate.
   For example:

```
cd /var/da-base/config
keytool -import -alias Server-Cert -file /tmp/host.cert
-keystore truststore
```

   Enter a password when the keytool prompts you for one.

5. Define the ssl.truststore property in the JVM Setting for the Web Server 6 instance configuration.
   For example:

```
-Djavax.net.ssl.trustStore=/var/da-base/config/truststore
Djavax.net.ssl.trustStorePassword=password
```

   where *password* is the password you entered at the keytool prompt.

6. Modify the following property in the JVM Setting for the Web Server 6 instance configuration.
   Change

```
-Djava.protocol.handler.pkgs=com.iplanet.services.comm
```

   to the following value:

```
-Djava.protocol.handler.pkgs=com.sun.identity.protocol
```

7. Change the following properties in the daconfig.properties file:
   Open the daconfig.properties file in a text editor.
   The daconfig.properties file is located by default in the Delegated Administrator configuration directory:

```
da-base/data/da/WEB-INF/classes/com/sun/comm/da/resources
```

   (In a later step, you will deploy the daconfig.properties file to the Web Server 6 configuration directory.)
   Change the property values as follows:

```
commadminserver.host=host.domaincommadminserver.port=port
commadminserver.usessl=true
```

   where *host.domain* is the host and domain name of the machine where Web Server 6 is running. For example: myhost.siroe.com.

And where *port* is the SSL port. For example: 443.

8. Deploy the Web Server 6 configuration and restart the instance:
   Run the Web Server 6 deploy script:

   ```
   da-base/sbin/config-wbsvr-da
   ```

   Restart the Web Server 6 instance.

To Configure Web Server 7.x to Enable Delegated Administrator to Run in SSL Mode

In this procedure, the certificate truststore is created in the Delegated Administrator configuration directory. For example: `/var/da-base/config`

1. Request and install a certificate.
   In a production environment, you must request a certificate from a Certificate Authority (CA), which issues the certificate to you. Next, you install the certificate.
   In a test environment, you can create and install a self-signed certificate.
   For information about requesting and installing certificates for Web Server 7.*x*, see [Managing Certificates in ??Sun Java System Web Server Administrator's Guide??].
   After you complete this step, you can run the Delegated Administrator utility in SSL mode.
2. Run the `certutil` utility to list all certificates in the certificate database.
   For example:

   ```
   cd /var/da-base/config/usr/sfw/bin/certutil -L -d
   /var/opt/SUNWwbsvr7/https-host.domain/config
   ```

   where *host.domain* is the host and domain name of the machine where Web Server 7.*x* is running.
   For example: `myhost.siroe.com`

3. Export the specific certificate in ASCII encoding.
   For example:

   ```
   /usr/sfw/bin/certutil -L -n cert-host.domain -d
   /var/opt/SUNWwbsvr7/https-host.domain/config-a > host.cert
   ```

   where *host* and *host.domain* are the host name or host and domain name of the machine where Web Server 7.*x* is running.

4. Use the java `keytool` utility to import the certificate into a truststore.
   This step assumes that you are creating a new truststore in the Delegated Administrator configuration directory.
   Import the certificate.
   For example:

   ```
   keytool -import -alias cert-host.domain -file host.cert
   -keystore truststore
   ```

   Enter a password when the `keytool` prompts you for one.

5. Define the `ssl.truststore` property in the JVM Setting for the Web Server 7.*x* instance configuration.
   For example:

```
-Djavax.net.ssl.trustStore=/var/da-base/config/truststore
-Djavax.net.ssl.trustStorePassword=password
```

where *password* is the password you entered at the `keytool` prompt.

6. Modify the following property in the JVM Setting for the Web Server 7.*x* instance configuration. Change

```
-Djava.protocol.handler.pkgs=com.iplanet.services.comm
```

to the following value:

```
-Djava.protocol.handler.pkgs=com.sun.identity.protocol
```

7. Change the following properties in the `daconfig.properties` file:
Open the `daconfig.properties` file in a text editor.
The `daconfig.properties` file is located by default in the Delegated Administrator configuration directory:

```
da-base/data/da/WEB-INF/classes/com/sun/comm/da/resources
```

(In a later step, you will deploy the `daconfig.properties` file to the Web Server 7.*x* configuration directory.)
Change the property values as follows:

```
commadminserver.port=portcommadminserver.usessl=true
```

where *port* is the SSL port. For example: 443.

8. Deploy the Web Server 7.*x* configuration and restart the instance:
Run the Web Server 7.*x* deploy script:

```
da-base/sbin/config-wbsvr7x-da
```

Restart the Web Server 7.*x* instance.

Chapter 29. Preserving Delegated Administrator Customizations During Upgrades

Preserving Delegated Administrator for Oracle Communications Unified Communications Suite Customizations During Upgrades

If you are configuring Delegated Administrator for the first time, you can skip this topic.

If you have not yet performed initial configuration of Delegated Administrator, see Delegated Administrator Initial Configuration.

If you are upgrading to this release of Delegated Administrator from an earlier release, you might have to perform the following tasks:

- Preserving an Existing Customized Configuration
- Upgrading Customized Service Packages in Delegated Administrator

For instructions on how to upgrade Delegated Administrator from a previous Sun Java version, see Delegated Administrator Upgrade.

Preserving an Existing Customized Configuration

This section concerns you only if you previously have installed and configured Delegated Administrator and have customized the Delegated Administrator configuration.

When you upgrade Delegated Administrator, the Delegated Administrator configuration program, `config-commda` runs automatically. The properties in the configuration files are reset to the default values for the new release. However, you can replace the default values with your earlier, customized configuration by following the instructions in this section.

This section contains the following topics:

- How It Works: Merging Your Customized Configuration With the New Release describes the concepts and operations for preserving your customization.
- To Preserve an Existing Configuration tells you how to preserve your customization.
- Delegated Administrator Properties Files lists the Delegated Administrator configuration files

For information about how you can customize Delegated Administrator, see Customizing Delegated Administrator.

Top

How It Works: Merging Your Customized Configuration With the New Release

You can run a merge utility to preserve your customized configuration after you upgrade Delegated Administrator and run the Delegated Administrator configuration program. The merge process works as follows:

When you upgrade Delegated Administrator to the latest release, the upgrade patch process takes a snapshot of the existing configuration *before* the software is upgraded. Two versions of the existing

configuration (the configuration of the earlier release) are saved:

- A snapshot of the default configuration of the earlier release–without user customization—is saved in the *da-base*`/data/staging/base` directory. (For example: `/var/opt/sun/comms/da/staging/base.`)
- A snapshot of the customized configuration of the earlier release is saved in the *da-base* `/data/staging/current` directory.

Next, the upgrade process installs the new release, including the new configuration files.

When you run `config-commda` after the upgrade, the configuration files are installed in the *da-base* `/data` directory. These files contain the default values for the new release, not your customized values.

Next, you can run the `damerge` utility, which merges your customized files with the new configuration. Specifically, the utility copies the *da-base*`/data` directory into a staging area: *da-base* `/data/staging/new`. The utility then performs a three-way `diff` on the following file sets:

- *da-base*`/data/staging/current`. Your customized configuration.
- *da-base*`/data/staging/base`. The default configuration of the earlier release.
- *da-base*`/data/staging/new`. The copy of the default configuration of the current release.

The `damerge` utility saves the merged files in *da-base*`/data/staging/new`.

The utility preserves your customization in the merged files. In rare instances, a conflict might occur between a particular customization and the default functioning of Delegated Administrator. The utility reports on these conflicts so that you can resolve them.

For details about how to run the merge utility, check for conflicts, and complete the preservation of your customized configuration, see To Preserve an Existing Configuration.

To Preserve an Existing Configuration

Before You Begin

It is assumed that you have upgraded Delegated Administrator to the latest release and run `config-commda`.

1. Run the `damerge` utility to merge your customized files with the default configuration files installed in the latest release.

   Log in as root and go to the *da-base*`/sbin` directory (for example, `/opt/sun/comms/da/sbin`). Enter the command:

   ```
   # ./damerge
   ```

   The utility asks whether you want to proceed with the merge operation. Type **`y`**.

   To bypass this interactive prompt, use the `-s` option with the `damerge` command. For example:

   ```
   # ./damerge –s
   ```

   The utility merges your customized files into a new directory: *da-base*`/data/staging/new`.

2. Examine the merge reports to check if any conflicts occurred between your customized files and the newly installed configuration files.

Go to the *da-base*/`data/staging` directory and examine the following files:

`all.list`

Lists all files processed by the `damerge` utility. Shows the status of each file, as follows:

`Merge` indicates that the customized and newly released files were merged successfully.

`Skip` indicates that a file was not merged; typically, a binary file would be skipped. Text files such as the properties files are merged.

`Conflict` indicates that a conflict remains between the customized file and newly released file.

`conflict.list`

Lists the names of the files in which a conflict occurred.

3. If a merged file contains a conflict, resolve it by editing the differing lines.
   a. Open the merged file in the *da-base*/`data/staging/new` directory.
   b. Search for the `diffs`.

      The merged file lists both your original customized line and the line derived from the new release. Both lines are bracketed in angle brackets:

      ```
      <conflicting line>
      <conflicting line>
      ```

   c. Delete one line and remove the angle brackets from the remaining line. You could also edit the remaining line to resolve the conflict correctly.
   d. Repeat these steps for each conflict in the file.
4. Repeat Step 3 for each file that contains conflicts, until all files are successfully merged.
5. Copy the customized configuration files from:

   ```
   da-base/data/staging/new
   ```

   to:

   ```
   da-base/data
   ```

6. Redeploy the merged files to the Web container (or containers) used by the Delegated Administrator server and console.

   Before the customized values can take effect, you must run the script that deploys the resolved files to your Web container.

   For instructions on how to deploy customized files to a particular Web container, see Deploying a Customized Configuration File.

> **Note**
> If you run `config-commda` a second time without upgrading the software, the default configuration of the new release again replaces your customized configuration. You can run `damerge` again to restore your customization from the earlier release. However, `damerge` cannot restore any customization performed *since* the upgrade.

Top

Delegated Administrator Properties Files

Delegated Administrator installs the following properties files:

- Delegated Administrator utility
  - `cli-usrprefs.properties`

Location: *da-base*`/data/config`

- Delegated Administrator console
  - `daconfig.properties`
  - `logger.properties`
  - `Resources.properties`
  - `Security.properties`

For the default location of the Delegated Administrator console files, see Original (Standard) Locations of the Configuration Files.

- Delegated Administrator server
  - `resource.properties`

For the default location of the `resource.properties` file, see Original (Standard) Locations of the Configuration Files.

For more information, see Delegated Administrator Files and Directories.

Chapter 30. Indexing and Search Service Initial Configuration

< Back to Communications Suite 7 Update 1 Installation Scenario - Indexing and Search Service

What You Need to Do Before Performing Indexing and Search Service 1 Update 1 Initial Configuration
In Communications Suite terminology, initial configuration is not the same as initial installation. Thus, before using the information on this page, make sure that you have completed all the prerequisite steps. If you have come to this page to start your ISS 1u1 installation, instead start with the instructions in Installation Scenario - Indexing and Search Service.

Indexing and Search Service for Oracle Communications Unified Communications Suite Installation Initial Configuration Version 1 Update 2

After you install the Indexing and Search Search software by using the Communications Suite installer, you must configure the components to complete the installation. You perform this initial runtime configuration by running the Indexing and Search Service configuration program, `setup`.

Topics:

- Running setup
- Using setup in a Multi-host Environment

Running setup

Generating a Configuration File

The configuration utility generates configuration files required to run the indexing services. The utility uses *iss-base*`/etc/jiss.conf.template` for default values but you are prompted for answers to various configuration questions about the Messaging Server messaging store install and the local system services.

Local Parameters

These parameters are used to configure local system settings.

Parameter	Description	Example Setting
`hostname`	The host name for this Indexing and Search Service system. You must provide a fully qualified domain name.	`isshost.example.com`
`iss.user`	The user under which all ISS services will run.	`jiss`
`iss.group`	The group under which all ISS services will run.	`jiss`
`iss.store.dir`	Location to store the Lucene indexes.	`/var/opt/sun/comms/jiss/index`
`iss.data.dir`	Location of attachment data.	`/var/opt/sun/comms/jiss/attach`
`iss.log.dir`	Location of ISS log files.	`/var/opt/sun/comms/jiss/logs`
`java.home`	Location of Java software.	`/usr/jdk/latest`

Message Store Parameters

These parameters are used to contact and operate with the Messaging Server message store.

Parameter	Description	Example Settin
`mail.ldap`	User/Group Directory Server	`host.example`
`mail.basedn`	User/Group base DN	`dc=example,d`
`mail.schemalevel`	User/Group Schema Level	`2`
`mail.defaultdomain`	User/Group default domain	`example.com`
`mail.searchbind`	User/Group Directory Manager DN	`cn=Directory`
`mail.searchbind.password`	User/Group Directory Manager password	`dmpassword`
`mail.server`	The fully qualified domain name of the default Messaging Server that will be indexed	`mailhost.exa`
`mail.server.ip`	Comma-delimited list of backend IPs corresponding to `mail.server`	`10.0.0.1,10.0`
`mail.imap.admin.username`	Messaging Server read-only store administrator user name (defined with the `store.indexeradmins` `configutil` parameter)	`indexeradmin`
`mail.imap.admin.password`	Messaging Server read-only store administrator password	`changeme`
`mail.imq`	Message Queue broker *hostname*:*port* for Messaging Server JMQ notifications	`mailhost.exa`
`mail.imq.user`	User name for Messaging Server JMQ notifications (must match `local.store.notifyplugin.index.jmquser` in `configutil`)	`jmquser`
`mail.imq.password`	Password for Messaging Server JMQ notifications (must match `local.store.notifyplugin.index.jmqpwd` in `configutil`)	`changeme`

GlassFish Application Server Parameters

These parameters are used to configure and deploy the `.war` file to GlassFish.

Parameter	Description	Example Setting
`appserv.dir`	Location of the `appserver` directory	`/opt/SUNWappserver`
`appserv.admin.port`	GlassFish admin port	`4848`
`appserv.web.port`	GlassFish web port	`8080`
`appserv.admin.user`	GlassFish admin user	`admin`
`appserv.admin.password`	GlassFish admin user's password	`changeme`

GlassFish Message Queue (JMQ) Service Parameters

These parameters contain information about accessing the GlassFish Message Queue.

Parameter	Description	Example
`imq.host`	ISS JMQ broker host name	`jmq.example.com`
`imq.port`	ISS JMQ broker port	`7676`
`iss.imq.user`	User name for ISS JMQ broker	`misoadmin`
`iss.imq.password`	Password for ISS JMQ user	`changeme`
`iss.imq.admin.password`	Password for admin user on ISS JMQ broker	`admin`

Directory Service Parameters

These parameters contain information about connecting to directory services that hold the Java Naming and Directory Interface (JNDI) lookup.

Parameter	Description	Example Setting
`ldap`	ISS Directory Server host	`ldap.example.com`
`ldap.port`	ISS Directory Server port	`389`
`java.naming.security.principal`	ISS Directory Manager DN	`cn=Directory Manager`
`ldap.password`	ISS Directory Server password	`changeme`

ISS Services Parameters

This section contains ISS services configuration.

Parameter	Description	Example Setting
`iss.storeui.access.method`	Storeui access method. Use `disk` for a single host environment, or `http` for a multi-host environment	`disk`

Examples

```
# cd <iss-base>/bin
# ./setup -b /opt/sun/comms/jiss/
# ./setup -b /opt/sun/comms/jiss/ -c my.conf (for silent mode
configuration)
```

Using setup in a Multi-host Environment

For more information on ISS multi-host deployment planning, see ISS Logical Architecture.

Using a Default Configuration File

All machines in the environment should have the same configuration. You should create your configuration ahead of time by using a copy of the *iss-base*`/etc/jiss.conf.example` file. If you concatenate the `jiss.conf` and `jiss_passwd.conf` files to generate the configuration that you will use on all hosts, then before doing so, you must update all the passwords in the configuration to plain text.

The iss.storeui.access.method Parameter

In a multi-machine deployment, if the application server and the index reside on different hosts, you must set up an Apache server on the indexing host to provide access to the attachment store to the application server. This Apache server runs under the `iss.user` and `iss.group` credentials.

```
Storeui access method, disk for single machine, http for multi-machine
[disk]: http
```

Install Order

Run the `setup` utility in the following order for multi-machine installs:

- `ldap` - Holds JNDI lookups
- `ms` - Message store configuration
- `jmq` - Requires JNDI lookups
- `index` - Requires JNDI lookup and GlassFish Message Queue
- `web` - Requires index services to be started

When using an ISS host to perform the Directory Server function for JNDI lookups, you run the `setup ldap` command on the ISS host, *not* on the Directory Server host (which typically serves your entire deployment). This enables the external Directory Server to host JISS's JDNI lookups. The ISS host that you use to run the command must have access to the `ldapmodify` and `ldapsearch` binaries.

Example 1

This example describes a three-machine setup for JISS:

- `web.example.com` - Application server (`web`)
- `middle.example.com` - Directory service and GlassFish Message Queue (`ldap`, `jmq`)
- `index.example.com` - JISS Indexing services (`index`)

The first time that `setup` is run on each machine, you must provide the `-c <CONF_FILE>` and `-i <FQDN>` options. Once `jiss.conf` and `jiss_passwd.conf` are configured, these options can be omitted.

Run the following commands on `middle.example.com`:

```
# <iss-base>/bin/setup -t ldap -c my.conf -i middle.example.com
# <iss-base>/bin/setup -t ms
# <iss-base>/bin/setup -t jmq
```

Run the following commands on `index.example.com`:

```
# <iss-base>/bin/setup -t index -c my.conf -i index.example.com
```

Run the following commands on `web.example.com`:

```
# <iss-base>/setup -t web -c my.conf -i web.example.com
```

Example 2

This example describes a two-machine setup for JISS:

- `web.example.com` - Application server (`web`)
- `index.example.com` - JISS Indexing services, Directory service, and GlassFish Message Queue (`index`, `ldap`, `jmq`)

The first time `setup` is run on each machine, you must provide the `-c <CONF_FILE>` and `-i <FQDN>` options. Once `jiss.conf` and `jiss_passwd.conf` are configured, these options can be omitted.

Run the following commands on `index.example.com`:

```
# <iss-base>/bin/setup -t ldap -c my.conf -i index.example.com
# <iss-base>/bin/setup -t ms
# <iss-base>/bin/setup -t jmq
# <iss-base>/bin/setup -t index
```

Run the following commands on `web.example.com`:

```
# <iss-base>/setup -t web -c my.conf -i web.example.com
```

Example 3

This example describes another three-machine setup for JISS:

- `web.example.com` - Application server (`web`)
- `index1.example.com` - JISS Indexing services (`index`), Directory service, and GlassFish Message Queue (`ldap`, `jmq`)
- `index2.example.com` - JISS Indexing services (`index`)

The first time `setup` is run on each machine, you must provide the `-c <CONF_FILE>` and `-i <FQDN>` options. Once `jiss.conf` and `jiss_passwd.conf` are configured, these options can be omitted.

Run the following commands on `index1.example.com`:

```
# <iss-base>/bin/setup -t ldap -c my.conf -i index1.example.com
# <iss-base>/bin/setup -t ms
# <iss-base>/bin/setup -t jmq
# <iss-base>/bin/setup -t index
```

Run the following commands on `index2.example.com`:

```
# <iss-base>/bin/setup -t index -c my.conf -i index2.example.com
```

Run the following commands on `web.example.com`:

```
# <iss-base>/setup -t web -c my.conf -i web.example.com
```

Additional Indexing Node Configuration

The Apache server must be configured to respond to requests from the web nodes' IP addresses. The default is `deny`. You can add and remove additional hosts by using the `configure_web_node` utility.

The IP address(es) should be the IP address(es) of the hosts running the application server(s).

Add an IP address:

```
# <iss-base>/bin/configure_web_node -a 10.10.10.10
```

Remove an IP address:

```
# <iss-base>/bin/configure_web_node -d 10.10.10.10
```

Add multiple IP addresses:

```
# <iss-base>/bin/configure_web_node -a 10.10.10.10 10.10.10.11
10.10.10.12
```

Chapter 31. Instant Messaging Initial Configuration

Completing the Oracle Communications Instant Messaging Server Initial Configuration Version 8 Update 3

After you install the Instant Messaging software by using the Communications Suite installer, you must configure the Instant Messaging server and client to complete the installation. You perform this initial runtime configuration by running the Instant Messaging configuration program, `configure`.

Topics:

- Configuring Instant Messaging After Installation
- Setting up and Launching Instant Messenger

Chapter 32. Messaging Server Initial Configuration

Oracle Communications Messaging Exchange Server Initial Configuration
Version 7 Update 4

This information describe the configuration and migration steps you must perform, after installation, before you can use Messaging Server. This information assumes that you have read the Communications Suite Deployment Planning Guide and installed Messaging Server software. Performing the following tasks results in a functioning Messaging Server. You still want to customize your deployment as well as provision and perhaps migrate users and groups. Provisioning is described in the Delegated Administrator Administration Guide.

Topics:

- Creating UNIX System Users and Groups
- To Prepare Directory Server for Messaging Server Configuration
- Creating the Initial Messaging Server Runtime Configuration
- Installing Messaging Server Against a Directory Server Replica
- Installing Messaging Server Provisioning Tools
- SMTP Relay Blocking
- Enabling Startup After a Reboot
- Performance and Tuning
- Post-Installation Directory Layout
- Post-Installation Port Numbers
- JMQ Notification
- Configuring Certificate Based Authentication

Creating UNIX System Users and Groups

System users run specific server processes, and privileges need to be given to these users so that they have appropriate permissions for the processes they are running.

Set up a system user account and group for all Communications Suite servers, and set permissions for the directories and files owned by that user. To do so, use the following steps.

> **Note**
> For security reasons, in some deployments it might be desirable to have different system administrators for different servers. This is done by creating different system users and groups per server. For example, the system user for Messaging Server would be different from the system user for Web Server, and system administrators administering Messaging Server would not be able to administer the Web Server.

To Create UNIX System Users and Groups

Creating UNIX system users and groups is optional. The initial configuration script does this if necessary.

1. Log in as `root`.

2. Create a group to which your system users belong, for example:

```
groupadd mail
```

3. Create the system user and associate it with the group you just created. In addition, set the password for that user. For example:

```
useradd -g mail mailsrv
```

   The `useradd` and `usermod` commands are located in the `/usr/sbin` directory. See UNIX man pages for more information.

4. You might also need to check the `/etc/group` and `/etc/passwd` files to be sure that the user has been added to the system group that you created.

> **Note**
> Should you decide not to set up UNIX system users and groups prior to installing Messaging Server, you are able to specify them when you run the configuration script.

To Prepare Directory Server for Messaging Server Configuration

For more information on directory preparation and the directory preparation script `comm_dssetup.pl`, see Communications Suite Directory Server Setup Script (comm_dssetup.pl). The `comm_dssetup.pl` script prepares the Directory Server by setting up new schema, index, and data in your Directory Server. It must be run for new installations of Messaging Server, Convergence, and Communications Express. The latest version of `comm_dssetup.pl` should also be run if you are upgrading any of the component products that depend on Directory Server.

Creating the Initial Messaging Server Runtime Configuration

The initial runtime configuration program provides a configuration to get your Messaging Server up and running. It is meant to create an *initial runtime configuration* to set up a generic functional Messaging Server configuration. Thus it gives you a base working configuration from which you can make your specific customizations. The program is only meant to be run once. Subsequent running of this program overwrites the existing configuration. To modify your initial runtime configuration, use the configuration utilities described here and in the Messaging Server Administration Reference.

Messaging Server Prerequisites

Before running the initial runtime configuration program, you must:

- Install and configure the Directory Server.
- Run the `comm_dssetup.pl` program. See Communications Suite Directory Server Setup Script (comm_dssetup.pl).
- Record your Administration and Directory installation and configuration parameters in the checklists supplied in Configuration Worksheets - Messaging Server.

Messaging Server Configuration Checklist

When you run the Messaging Server initial runtime configuration program, record your parameters in Installation Worksheets - Directory Server. To answer certain questions, refer to your Directory Server installation checklists in Configuration Worksheets - Messaging Server.

To Run the Configure Program

This procedure walks you through configuring the Messaging Server initial runtime configuration.

1. Ensure that DNS is properly configured and that it is clearly specified how to route to hosts that are not on the local subnet.
   - The `/etc/defaultrouter` file should contain the IP address of the gateway system. This address must be on a local subnet.
   - The `/etc/resolv.conf` file exists and contains the proper entries for reachable DNS servers and domain suffixes.
   - In the `/etc/nsswitch.conf` file, the `hosts:` and `ipnodes:` line has the `files`, `dns` and `nis` keywords added. The keyword `files` must precede `dns` and `nis`. So if the lines look like this:

     ```
     hosts:  nis dns files
     ipnodes:  nis dns files
     ```

     They should be changed to this:

     ```
     hosts:  files nis dns
     ipnodes:  files nis dns
     ```

   - Make sure that the FQDN is the first host name in the `/etc/hosts` file.
     If your Internet host table in your `/etc/hosts` file looks like this:

     ```
     123.456.78.910 budgie.west.sesta.com
     123.456.78.910 budgie loghost mailhost
     ```

     Change it so that there is only one line for the IP address of the host. Be sure the first host name is a fully qualified domain name. For example:

     ```
     123.456.78.910 budgie.west.sesta.com budgie loghost mailhost
     ```

   - You can verify that the lines are read correctly by running the following commands:

     ```
     # getent hosts <ip_address>
     # getent ipnodes <ip_address>
     ```

     If the lines are read correctly, you should see the IP address followed by the FQDN and then the other values. For example:

     ```
     # getent hosts 192.18.126.103
     192.18.126.103  budgie.west.sesta.com budgie loghost mailhost
     ```

2. Invoke the Messaging Server initial runtime configuration with the following command:

   ```
   cd <msg-svr-base>/bin
   ./configure <options>
   ```

   The following table describes options you can set with the `configure` program:

Option	Description
`--ldapport` [*ldapport*]	Specifies an LDAP port other than the default port 389.
`--ssl` [*ssl*]	Requires SSL when configuring LDAP.
`--ldif`	Causes configure to run without modifying the directory and instead generate an ldif file (*msg-svr-base*`/data/install/configure.ldif`) which the admin can apply to the directory after initial configuration. This is needed if the person doing the installation does not have directory admin rights.
`--saveState` [*statefile*]	Specifies a location other than the default location (mentioned below) to save a state file.
`--state` [*statefile*]	Uses a silent installation file. See To Perform a Silent Installation.
`--debug`	Provides general debug info.

After running the command, the welcome text appears.

3. Select the directory where you want to store the Messaging Server configuration and data files. Symbolic links are created under *msg-svr-base* to the configuration and data directory. For more information on these symbolic links, see Post-Installation Directory Layout.
   Make sure you have large enough disk space set aside for these files.
   The "Overwrite the existing configuration" prompt appears if you have an existing configuration.
4. To accept the default of yes, press Enter. Otherwise, type **n** to exit the configuration utility.
5. Select the user name for server processes.
   To accept the default user name `mailsrv`, press Enter. Otherwise, type in the user name for the server processes.
6. Select the group name for server processes.
   To accept the default group name `mail`, press Enter. Otherwise, type in the group name for the server processes. This question only appears only if the UNIX user name has not yet been created.
7. Select the fully-qualified local host name.
   This is the machine on which Messaging Server runs. When you installed the server, you might have specified the physical host name. However, if you are installing a cluster environment, use the logical host name. Here is the chance to change what you originally specified.
8. Select the hostname for the LDAP Directory Server.
9. Select the LDAP administrator login.
   The Directory Manager has overall administrator privileges on the Directory Server and all Communications Suite servers that make use of the Directory Server (for example, the Messaging Server) and has full administration access to all entries in the Directory Server. The default and recommended Distinguished Name (DN) is `cn=Directory Manager` and is set during Directory Server configuration
   If you are installing against a replicated Directory Server instance, you must specify the credentials of the replica, not the master directory.
10. Type the LDAP administrator password.
    The following messages appear:

```
==Checking Directory Server Setup from comm_dssetup
Domain Suffix: o=isp
User/Group Suffix: o=isp
Mail List User Suffix: o=mlusers
Schema Type: 2
```

11. Type a postmaster email address.
    Select an address that your administrator actively monitors. For example, `pma@siroe.com` for a

postmaster on the `siroe` domain. This address cannot begin with "Postmaster."
The user of the email address is not automatically created (although the default "admin" user is automatically created). Therefore, you need create it later by using a provisioning tool.

12. Type the password for administrator accounts.
    Type an initial password to be used for service administrator, server, user/group administrator, end user administrator privileges as well as PAB administrator and SSL passwords.
    After the initial runtime configuration, you might change this password for individual administrator accounts. For more information, see To Modify Your Passwords.
13. Verify the password for administration.
    Retype the administration password.
14. You see output similar to the following:

```
==Creating LDAP domain, group and admin accounts
==Creating Configuration Files
==Writing install/VERSION file
==Compiling MTA character set tables (chbuild)
==Compiling MTA command line tables (clbuild)
==Setting secure runtime path with crle
==Checking for Common Configuration Warnings
==Writing Save State File
 /var/opt/sun/comms/messaging64/setup/saveState
Next Steps:
* Disable other mail servers (e.g. 'svcadm disable sendmail' on
Solaris 10).
* Configure sendmail client (see documentation for details)
* Make sure nsswitch.conf (or equivalent) has 'hosts: files dns'
* Make sure DNS MX/A record is present for 'siroe.com'
* Make sure DNS A record for 'host1.siroe.com' points to this
machine
* Generate/Install SSL Certificate if SSL services desired
* Enable/Disable required services:
 Service          Port  Change Port          Enable/Disable Service
 -------          ----  -----------          ----------------------
 Message Store                               local.store.enable (1)
  IMAP Server     143   service.imap.port     service.imap.enable
(1)
  POP Server      110   service.pop.port      service.pop.enable
(1)
  IMAPS Server    993   service.imap.sslport
service.imap.enablesslport (0)
  POPS Server     995   service.pop.sslport
service.pop.enablesslport (0)
  LMTP Server     225   dispatcher.cnf       dispatcher.cnf
(disabled)
 MTA                                         local.imta.enable (1)
  SMTP Relay      25    dispatcher.cnf        dispatcher.cnf
(enabled)
  SMTP Submit     587   dispatcher.cnf        dispatcher.cnf
(enabled)
  SMTPS Submit    465   dispatcher.cnf        dispatcher.cnf
(disabled)
 http mail proxy  8990  service.http.port    local.http.enable (1)
 https mail proxy 8991  service.http.sslport
service.http.enablesslport (0)
 MMP                                         local.mmp.enable (0)
```

```
  IMAP Proxy      143   AService.cfg          AService.cfg (0)
  POP Proxy       110   AService.cfg          AService.cfg (0)
  Submit Proxy    587   AService.cfg          AService.cfg
(disabled)
  IMAPS Proxy     993   AService.cfg & ImapProxyAService.cfg
(disabled)
  POPS Proxy      995   AService.cfg & PopProxyAService.cfg
(disabled)
  Submits Proxy   465   AService.cfg & SmtpProxyAService.cfg
(disabled)
Internal Servers
 watcher          49994 local.watcher.port   local.watcher.enable
(1)
 job_controller   27442 job_controller.cnf   local.imta.enable (1)
 ENS              7997  local.ens.port       local.ens.enable (0)
* Configure your network firewall to allow/block above services as
appropriate
* Enable RBAC non-root support for improved security
* Use 'start-msg' to start servers
Configuration Completed with 1 warning
```

```
See log file for details:
 /var/opt/sun/comms/messaging64/log/configure_20090928181150.log
#
```

To Start Messaging Server

- To start Messaging Server, use the following command:

```
cd <msg-svr-base>/bin
./start-msg
```

To Perform a Silent Installation

The Messaging Server initial runtime configuration program automatically creates a silent installation *state* file (called `saveState`) that can be used to quickly configure additional Messaging Server instances in your deployment where the Messaging Server packages have been installed. All of your responses to the configuration prompts are recorded in that file.

By running the silent installation, you instruct the `configure` program to read the silent installation state file. The `configure` program uses the responses in this file rather than ask the same installation questions again for subsequent initial runtime configurations of Messaging Server. When you use the state file in a new installation, you are not asked any questions. Instead, all of the state file responses are automatically applied as the new installation parameters.

The silent installation `saveState` *`statefile`* file is stored in the *msg-svr-base*`/data/setup/` directory.

To use the silent installation *statefile* to configure another Messaging Server instance on another machine in the deployment, follow these steps:

1. Copy the silent installation *statefile* to a temporary area on the machine where you are performing the new installation.
2. Review and edit the silent installation *statefile* as necessary.
   Change parameters and specifications in the *statefile* as needed. For example, the default email domain for the new installation might be different than the default email domain recorded in the *statefile*. Remember that the parameters listed in the *statefile* are automatically applied to this installation. It will almost always be desirable to change the host name (`Fqdn.TextField`). The `UGDIR_BINDPW` and `admin.password` fields are obfuscated but still need to be kept private.
3. Run the following command to configure other machines with the silent installation file:

   ```
   cd <msg-svr-base>/bin
   ./configure -state <statefile>
   ```

   where *statefile* is file name of the `saveState` file, including the full path to the file. (See Step 1 of this section).

   > **Note**
   > After running the silent installation program, a new *statefile* is created from the silent installation in the *msg-svr-base*`/data/setup/` directory.

Installing Messaging Server Against a Directory Server Replica

The following conditions might prevent you from installing Messaging Server against a Directory Server master:

- You do not have Directory Server master credentials.
- Messaging Server cannot communicate directly with the Directory Server master.

To Install Messaging Server Against a Directory Server Replica

The Directory Server team does not recommend doing this with current releases of Directory Server. Instead, they install against a master in a multi-master deployment.

Installing Messaging Server Provisioning Tools

The following sections provide a summary of install information about the supported provisioning tools:

- Understanding Schema and Provisioning Options
- LDAP Provisioning Tools

Understanding Schema and Provisioning Options

To learn more about the schema and provisioning options for Messaging Server and Communications Suite, see Understanding Schema and Provisioning Options, in the Sun Java Communications Suite Deployment Planning Guide.

LDAP Provisioning Tools

LDAP Schema 1 users and groups can be provisioned by using the LDAP Directory tools. You cannot provision Schema 2 by using the LDAP Directory tools. Beginning with Delegated Administrator 7, you can provision by Schema 1 and 2 with the Delegated Administrator tools.

To Install Schema 1 LDAP Provisioning Tools

1. If Directory Server is not already installed, be sure to install and configure it.
   For more information, refer to the *Sun Java Enterprise System 5 Installation Guide for UNIX*.
2. Configure Access Manager to recognize data in your Directory Server.
   Before Access Manager can recognize the data in your LDAP directory, you must add special object classes to entries for all organizations, groups and users that will be managed by Access Manager. If you have not done this already, do it before you start provisioning new accounts. Sample scripts are bundled in the Access Manager product to help you automatically add these object classes to your directory. For more information on these post-installation steps, see the *Sun Java System Access Manager Migration Guide*.
3. Install and configure Messaging Server.
   Messaging Server detects which LDAP Schema you are using, depending on whether or not Access Manager is installed.
4. Install and configure Oracle iPlanet Web Server to enable mail filtering in Messenger Express.
   For more information on enabling mail filtering, see Configuring Messenger Express and Communications Express Mail Filters.
   Though mail filtering is not a provisioning tool, its functionality existed in the previous GUI version of Delegated Administrator for Messaging.
5. Refer to the Messaging Server documentation to perform LDAP provisioning.
   See Communications Suite Schema Reference, which contains object classes and attributes for both Sun LDAP Schema.

SMTP Relay Blocking

By default, Messaging Server is configured to block attempted SMTP relays. That is, Messaging Server

rejects attempted message submissions to external addresses from unauthenticated external sources (external systems are any other system than the host on which the server itself resides). This default configuration is quite aggressive in blocking SMTP relaying in that it considers all other systems to be external systems.

After installation, it is important to manually modify your configuration to match the needs of your site. Specifically, your Messaging Server should recognize its own internal systems and subnets from which SMTP relaying should always be accepted. If you do not update this configuration, you might encounter problems when testing your MTA configuration.

IMAP and POP clients that attempt to submit messages by using Messaging Server system's SMTP server destined for external addresses, and which do not authenticate using SMTP AUTH (SASL), find their submission attempts rejected. Which systems and subnets are recognized as internal is typically controlled by the `INTERNAL_IP` mapping table, which may be found in the *msg-svr-base* `/config/mappings` file.

For instance, on a Messaging Server system whose IP address is `192.45.67.89`, the default `INTERNAL_IP` mapping table would appear as follows:

```
INTERNAL_IP
  $(192.45.67.89/32)  $Y
  127.0.0.1  $Y
  *  $N
```

The initial entry, using the `$(IP-pattern/significant-prefix-bits)` syntax, is specifying that any IP address that matches the full 32 bits of `192.45.67.89` should match and be considered internal. The second entry recognizes the loopback IP address `127.0.0.1` as internal. The final entry specifies that all other IP addresses should not be considered internal.

You can add additional entries by specifying additional IP addresses or subnets before the final `$N` entry. These entries must specify an IP address or subnet (using the `$(.../...)` syntax to specify a subnet) on the left side and `$Y` on the right side. Or you can modify the existing `$(.../...)` entry to accept a more general subnet.

For instance, if this same sample site has a class C network, that is, it owns all of the `192.45.67.0` subnet, then the site would want to modify the initial entry so that the mapping table appears as follows:

```
INTERNAL_IP
  $(192.45.67.89/24)  $Y
  127.0.0.1  $Y
  *  $N
```

Or if the site owns only those IP addresses in the range `192.45.67.80-192.45.67.99`, then the site would want to use:

```
INTERNAL_IP
! Match IP addresses in the range 192.45.67.80-192.45.67.95
  $(192.45.67.80/28)  $Y
! Match IP addresses in the range 192.45.67.96-192.45.67.99
  $(192.45.67.96/30)  $Y
  127.0.0.1  $Y
  *  $N
```

The *msg-svr-base*`/bin/imsimta -test-match` utility can be useful for checking whether an IP

address matches a particular `$(.../...)` test condition. The `imsimta test -mapping` utility can be more generally useful in checking that your `INTERNAL_IP` mapping table returns the desired results for various IP address inputs.

After modifying your `INTERNAL_IP` mapping table, be sure to issue the *msg-svr-base*/`bin/imsimta cnbuild` (if you are using a compiled configuration) and the *msg-svr-base*/`bin/imsimta restart` utilities so that the changes take effect.

Further information on the mapping file and general mapping table format, as well as information on `imsimta` command line utilities, can be found in Message Transfer Agent Command-line Utilities. In addition, information on the `INTERNAL_IP` mapping table can be found in To Add SMTP Relaying.

Enabling Startup After a Reboot

You can enable Messaging Server startup after system reboots by using the bootup script. On Red Hat Linux, this script is *msg-svr-base*/`data/install/Sun_MsgSvr`. For Solaris OS 10, you should use the Service Management Framework. That is, by default, Messaging Server is not restart after a system reboot unless you run this script. In addition, this script can also start up your MMP, if enabled.

To Enable Messaging Server After a Reboot

1. Copy the *msg-svr-base*/`data/install/Sun_MsgSvr` script into the `/etc/init.d` directory.
2. Change the following ownerships and access modes of the `Sun_MsgSvr` script:

Ownership (chown(1M))	Group Ownership (chgrp(1M))	Access Mode (chmod(1M))
`root` (superuser)	`sys`	0744

3. Change directories to the `/etc/rc2.d` directory and create the following link:

```
ln /etc/init.d/Sun_MsgSvr S92Sun_MsgSvr
```

4. Change directories to the `/etc/rc0.d` directory and create the following link:

```
ln /etc/init.d/Sun_MsgSvr K08Sun_MsgSvr
```

Performance and Tuning

Refer to Performance Tuning Considerations for a Messaging Server Architecture and Communications Suite Tuning and Best Practices.

Post-Installation Directory Layout

After installing Messaging Server, its directories and files are arranged in the organization described in the following table. The table shows only those directories and files of most interest for typical server administration tasks.

Post-Installation Directories and Files

Directory	Default Location and Description

Messaging Server Base (*msg_svr_base*)	`/opt/sun/comms/messaging/` or `/opt/sun/comms/messaging64/` (default location) The directory on the Messaging Server machine dedicated to holding the server program, configuration, maintenance, and information files. Only one Messaging Server Base directory per machine is permitted.
Configuration `config`	*`msg_svr_base`*`/config/` Contains all of the Messaging Server configuration files such as the `imta.cnf` and the `msg.conf` files. This directory is symbolically linked to the `config` subdirectory of the data and configuration directory (default: `/var/opt/sun/comms/messaging/` or `/var/opt/sun/comms/messaging64/`) that you specified in the initial runtime configuration.
Log `log`	*`msg_svr_base`*`/log/` A convenience symbolic link to *msg_svr_base*/data/log which contains the Messaging Server log files like the `mail.log_current` file.
Data `data`	*`msg_svr_base`*`/data/` (required location) Contains databases, configuration, log files, site-programs, queues, store and message files. The `data` directory includes the `config` and `log` directories. This directory is by default symbolically linked (on UNIX platforms) to the data and configuration directory (default: `/var/opt/sun/comms/messaging/` or `/var/opt/sun/comms/messaging64`) that you specified in the initial runtime configuration.
System Administrator Programs `bin`	*`msg_svr_base`*`/bin/` (required location) Contains the Messaging Server system administrator executable programs and scripts such as `imsimta`, `configutil`, `stop-msg`, `start-msg`, and `uninstaller`.
Library `lib`	*`msg_svr_base`*`/lib/` (required location) Contains shared libraries, private executable programs and scripts, daemons, and non-customizable content data files. For example: `imapd` and `qm_maint.hlp`.
SDK Include Files `include`	*`msg_svr_base`*`/include/` (required location) Contains Messaging header files for Software Development Kits (SDK).

Examples `examples`	*`msg_svr_base`*`/examples/` (required location) Contains the examples for various SDKs.
Installation Data `install`	*`msg_svr_base`*`/data/install/` and *`msg_svr_base`*`/data/setup/` (required location) Contains installation-related data files such as installation log files, silent installation files, factory default configuration files, and the initial runtime configuration log files.

Post-Installation Port Numbers

In the installation and initial runtime configuration programs, port numbers will be chosen for various services. These port numbers can be any number from 1 to 65535. The following table lists the port numbers that are designated after installation.

Port Numbers Designated During Installation

Service	Port	Change Port	Enable/Disable Service
Message Store			`local.store.enable (1)`
IMAP Server	143	`service.imap.port`	`service.imap.enable (1)`
POP Server	110	`service.pop.port`	`service.pop.enable (1)`
IMAPS Server	993	`service.imap.sslport`	`service.imap.enablesslport (0)`
POPS Server	995	`service.pop.sslport`	`service.pop.enablesslport (0)`
LMTP Server	225	`dispatcher.cnf`	`dispatcher.cnf (disabled)`
MTA			`local.imta.enable (1)`
SMTP Relay	25	`dispatcher.cnf`	`dispatcher.cnf (enabled)`
SMTP Submit	587	`dispatcher.cnf`	`dispatcher.cnf (enabled)`
SMTPS Submit	465	`dispatcher.cnf`	`dispatcher.cnf (disabled)`
http mail proxy	8990	`service.http.port`	`local.http.enable (1)`
https mail proxy	8991	`service.http.sslport`	`service.http.enablesslport (0)`
MMP			`local.mmp.enable (0)`

IMAP Proxy	143	`Aservice.cfg`	`Aservice.cfg (0)`
POP Proxy	110	`Aservice.cfg`	`Aservice.cfg (0)`
Submit Proxy	587	`Aservice.cfg`	`Aservice.cfg (0)`
IMAPS Proxy	993	`Aservice.cfg` and `ImapProxyAService.cfg`	`Aservice.cfg` and `ImapProxyAService.cfg (disabled)`
POPS Proxy	995	`Aservice.cfg` and `PopProxyAService.cfg`	`Aservice.cfg` and `PopProxyAService.cfg (disabled)`
Submits Proxy	465	`Aservice.cfg` and `SmtpProxyAService.cfg`	`Aservice.cfg` and `SmtpProxyAService.cfg (0)`
Internal Servers			
watcher	49994	`local.watcher.port`	`local.watcher.enable (1)`
job_controller	27442	`job_controller.cnf`	`local.imta.enable (1)`
ENS	7997	`local.ens.port`	`local.ens.enable (0)`

JMQ Notification

Messaging Server can use Oracle GlassFish Message Queue, a standards-based messaging service, to send event notifications. Message Queue is provided as a shared component when you install Messaging Server or other Communications Suite products.

> **For More Information**
> See JMQ Notification Overview for information on integrating JMQ and Messaging Server.

Configuring Certificate Based Authentication

For information on how to configure certificate based authentication for Messaging Server see Certificate Based Authentication for Oracle Communications Unified Communications Suite.

Messaging Server Sun Cluster HA Agent Initial Configuration

Oracle Communications Messaging Exchange Server Sun Cluster HA Agent Initial Configuration Version 7.0

After installing the Messaging Server Sun Cluster HA Agent software, you need to perform an initial configuration by running the following command:

msg_scha_base`/bin/init-config`

This command registers the HA agent with the Sun Cluster HA software. You must have the Sun Cluster HA software installed prior to issuing this command.

> **For Messaging Server 7 Update 2 Only**
> After configuring Messaging Server 7 Update 2 for HA or upgrading to Messaging Server 7 Update 2 in HA, if you are using a compiled configuration, you must recompile the configuration by issuing the command:
> `# imsimta cnbuild`
> Otherwise, the Messaging Server fails to start in the HA environment.

Chapter 33. Oracle Communications Calendar Server Initial Configuration

Oracle Communications Calendar Server Initial Configuration Version 6.3 (Formerly known as Sun Java System Calendar Server)

After you install the Calendar Server 6.3 software by using the Communications Suite installer, you must configure Calendar Server to complete the installation. You perform this initial runtime configuration by using the Calendar Server 6.3 configuration program, `csconfigurator.sh`. In addition, you must perform a few manual post-configuration steps.

Topics:

- Oracle Communications Calendar Server Initial Runtime Configuration Program
- Oracle Communications Calendar Server Post-Configuration Tasks
- Database Migration Utilities for Oracle Communications Calendar Server
- Migrating Oracle Communications Calendar Server Users to a Different Domain
- How to Configure Oracle Communications Sun Calendar Server Client Authentication

Database Migration Utilities for Oracle Communications Calendar Server

Database Migration Utilities for Oracle Communications Calendar Server
Version 6.3 (Formerly known as Sun Java System Calendar Server)

This information describes the various database migration utilities available for migrating your calendar databases and LDAP database after you have installed and configured Calendar Server 6.3 software.

Topics:

- An Overview of Calendar Server Database Migration Utilities
- Choosing the Right Calendar Server Utilities
- csmigrate Utility
- cs5migrate Utility
- csmig Utility
- csvdmig
- commdirmig

Tip
If you are migrating from Calendar Server 6.0, 6.1, or 6.2 versions, run the utility called csmigrate. If you did not already run `cs5migrate` for recurring events and tasks in your previous deployment, you must run `cs5migrate` on your existing calendar databases before running `csmigrate`.

If you are migrating from Calendar Server 5.1.1, migrate the calendar databases and the LDAP database using the migration utilities as explained in Choosing the Right Calendar Server Utilities.

If you had an even earlier version of Calendar Server installed, call technical support for assistance with migration of your data.

An Overview of Calendar Server Database Migration Utilities

This section describes each of the migration utilities. Use only the migration utilities you need, depending on which version of Calendar Server you previously had installed. These utilities are found in the `sbin` directory.

Tip
If you have ever run the `cs5migrate` utility against your databases, but did not use the *-r* option, you must run it again with the *-r* option before running any of the other utilities.

The migration utilities are as follows:

csmig Utility

Assigns an owner to each calendar in the Calendar Server 6 database and maps each calendar ID (`calid`) to an owner, if needed, which allows support for multiple domains and the LDAP Calendar Lookup Database (CLD) plug-in.

Run this utility before `cs5migrate` and `csvdmig`.

csvdmig

Upgrades a Calendar Server 6 site to use multiple domains by adding the calendar's domain (*@domainname*) to each `calid`. For example, in the domain `sesta.com`, the **jdoe** `calid` would now be `jdoe@sesta.com`. This utility is packaged with Calendar Server.

Run this utility after `csmig` and before `cs5migrate`.

cs5migrate Utility

Migrates your calendar databases from Calendar Server version 5 to version 6.2 format. You must run this utility against your databases specifying the `-r` option. If you migrated from Calendar Server version 5.1.1 to version 6.2 prior to this time, but you did not run the `cs5migrate` utility with the `-r` option, you must run it with that option before running the `csmigrate` utility.

Run this utility after `csmig` and `csvdmig` and before `csmigrate`.

csmigrate Utility

Migrates your calendar databases for upgrading from Calendar Server version 6.0, 6.1, or 6.2 to Calendar Server 6.3 version. If you need to run `cs5migrate` with the `-r` option, run it before this utility.

commdirmig

Migrates LDAP data from Schema version 1 to Schema version 2 in preparation for use with Access Manager (in Legacy mode).

Choosing the Right Calendar Server Utilities

This section helps you decide which utilities you need to run to have all calendar databases and your LDAP database at the Calendar Server 6.3 software level.

Use the following table to find the correct collection of utilities to run:

> **Note**
> Run the utilities in the order given.

Choosing the Right Utilities

Calendar Server Version You Are Migrating From	Condition of Your Database Files	Utilities to Use
Calendar Server 6.0, 6.1, 6.2	You are using recurring events and tasks. If you ever had a pre 6.0 installation at some point, you have already run `cs5migrate` in the past. You already use Schema version 2.	Run `csmigrate`
Calendar Server 6.0, 6.1, 6.2	You are using recurring events and tasks. If you ever had a pre 6.0 installation at some point, you have already run `cs5migrate` in the past. You did not use Schema version 2 before, but need to now.	Run `csmigrate` and `commdirmig`.
Calendar Server 6.0, 6.1, 6.2	You had a pre 6.0 installation at some point, and you have never run `cs5migrate` against your files. You already use Schema version 2, or you are on Schema version 1 and plan to stay with it.	Run `cs5migrate` and `csmigrate`.
Calendar Server 6.0, 6.1, 6.2	You had a pre 6.0 installation at some point, and you have never run `cs5migrate` against your files. You did not use Schema version 2 before, but need to now.	Run `cs5migrate`, `csmigrate`, and `commdirmig`.
Calendar Server 5.1.1	You did not use multiple domains in the past.	Run `csmig`, `csvdmig`, `cs5migrate`, `csmigrate`, and `commdirmig`.
Earlier than Calendar Server 5.1.1	Your files do not support multiple domains or the LDAP CLD. Your LDAP database is using Schema version 1.	Call technical support for help getting your database and LDAP files to Calendar Server 5.1.1 level.
Earlier than Calendar Server 5.1.1	Your system is configured for limited virtual domains, or you have multiple instances of Calendar Server software installed on an operating system that predates Solaris 10.	Contact the sales account representative for an evaluation of your migration requirements.

csmigrate Utility

The `csmigrate` utility is used to migrate Calendar Server 6.0, 6.1 or 6.2 databases to Calendar Server 6.3 databases. You can find the `csmigrate` utility in the `sbin` directory of the Calendar Server product along with other administrative tools.

This section contains the following topics:

- csmigrate Utility Syntax
- csmigrate Example
- How to Run the Calendar Server csmigrate Utility

csmigrate Utility Syntax

The syntax for the `csmigrate` command is:

```
csmigrate [-q] [-d] [-l min|max] [-b backup_dir] source_dbdir target_dbdir
```

The options and their usage are as follows:

-q (optional)

Specifies quiet mode and no print instructions.

-d (optional)

Specifies dry run mode and no new database written.

-l min|max (optional)

Specifies log level. The migration logs are written to `csmigrate.log` and errors are written to `csmigrateError.log` in the default logs directory.

-b backup_dir (optional)

Specifies the directory to backup source database. The program backs up the source database to this directory and works on that copy to prevent any damage to the source databases. Default location is the `backup` under the source database directory.

-source_dbdir (mandatory)

The directory where pre-migration database files are located.

-target_dbdir (mandatory)

The directory where post-migration files are created.

-V (other supported option)

To print the version information of the tool.

-? (other supported option)

To print the usage information of the tool.

> **Note**
> The exit codes for the program are 255 on failure and 0 on success.

csmigrate Example

Examples of using the options in `csmigrate` command are:

```
csmigrate -b /var/opt/SUNWics5/tmpdb /var/opt/SUNWics5/old_db /var/opt/SUNWics5/new_db

csmigrate -q /var/opt/SUNWics5/old_db /var/opt/SUNWics5/new_db
csmigrate -l min old_db /var/opt/SUNWics5/new_db
csmigrate -l max old_db /var/opt/SUNWics5/new_db
```

1. Log in with root privileges.
2. Stop all services.

   For example, issue the following command:

   ```
   stop-cal
   ```

3. Move your current databases to a temporary directory.

   For example, move the entire `csdb` directory to the `oldcsdb`.

   ```
   mv cal-svr-base/SUNWics5/csdb/* cal-svr-base/SUNWics5/oldcsdb
   ```

4. Make sure both the new directory and old files in that directory are owned by the default administrator (icsuser, icsgroup).

   If the ownership is not correct, change ownership using the following command:

   ```
   chown -R icsuser:icsgroup /cal-svr-base/SUNWics5/oldcsdb/
   ```

5. Run the migration tool.

   Migrate from your new backup copy (`oldcsdb`) to the `csdb` directory as shown in the following example:

   ```
   cd cal-svr-base/SUNWics5/cal/sbin/
   ./csmigrate -l max /cal-svr-base/SUNWics5/oldcsdb cal-svr-base/SUNWics5/csdb
   ```

6. Restart calendar services.

   For example, use the following command:

   ```
   stop-cal
   ```

cs5migrate Utility

The `cs5migrate` utility is used to migrate the Calendar Server 5.1.1 databases to Calendar Server 6.3 level. In addition, run this utility if you are migrating from one of the earlier Calendar Server 6 versions, and you did not use the recurring option.
The original cs5migrate documentation in Sun ONE Calendar Server 6.0 Installation Guide for Solaris Operating Systems. In Calendar Server 6.3, no new information was provided.

> **Note**
> In the past, if you did not plan to use the Connector for Microsoft Outlook, you could choose to run this utility without doing the recurring data conversion. However, starting with Calendar Server 6.3, you must convert your recurring data to the new format.

This utility can be found in the `sbin` directory along with other administrative tools, after you have

upgraded to Calendar Server 6.3 software.

csmig Utility

The `csmig` utility assigns an owner to each calendar in the calendar database and maps each calendar ID (`calid`) to an owner, if needed.

The `csmig` utility supports multiple domains and the LDAP Calendar Lookup Database (CLD) plug-in. Calendars in the migrated database are accessible using the LDAP CLD plug-in. For information about the LDAP CLD plug-in, see Chapter 5, Configuring Calendar Database Distribution Across Multiple Machines in Calendar Server Version 6.3.
This section describes the following topics:

- csmig Utility Functions
- csmig Utility Requirements
- csmig Syntax
- csmig Utility Migration Steps
- csmig Tips and Troubleshooting

csmig Utility Functions

The `csmig` migration utility performs the following functions:

- Migrates Calendars
- Assigns Owners to Calendars
- Updates LDAP Attributes

Migrates Calendars

`csmig` migrates both user and resource calendars in the current calendar database (`*.db` files) specified by the `caldb.berkeleydb.homedir.path` parameter. In the new destination target database, `csmig` updates entries required by the LDAP CLD plug-in in the calendar properties (`calprops`), events, todos (tasks), and group scheduling engine (GSE) database files.

`csmig` writes only to the destination target database; it does not update your existing calendar database.

Assigns Owners to Calendars

`csmig` assigns an owner to each calendar in the calendar database and maps each calendar ID (`calid`) to an owner, if needed. All default `calids` are kept as is, and no changes are made.
Other calendars are mapped as follows:

- User calendars that don't have valid owners will be owned by the user passed to `csmig` by the -c option. For example, if calendar ID `jsmith` doesn't have an owner, it will be converted to `orphan:jsmith`, where `orphan` is specified as the -c option.
- Resource calendars that don't have an owner will be owned by the resource user passed to `csmig` by the -r option.
- If a resource calendar has any colons (`:`) in the name, the colons are converted to underscores, so that the migrated name has only one colon.

For example, a calendar named `football` with owner `bkamdar` will be converted to `bkamdar:football` . A calendar named `tchang:soccer` with the owner `bkamdar` will be converted to `bkamdar:tchang_soccer`. A resource calendar named `auditorium:room1` with an owner `admin1` will be converted to `admin1:auditorium_room1` .

Updates LDAP Attributes

`csmig` updates LDAP attributes for all relevant LDAP entries, including `icsSubscribed`,

icsCalendar, icsCalendarOwned, icsFreeBusy, icsSet, and for resource calendars, uid. csmig creates the icsDWPHost attribute for each calendar in the LDAP directory server database. icsDWPHost specifies the host name of the back-end server where a calendar resides.

csmig Utility Requirements

The requirements for using csmig are:

- The calendar database must not be corrupted. Use the csdb check command to check your calendar database, and if necessary, run the csdb rebuild command to rebuild the database. For information about these commands, Appendix D, Calendar Server Command-Line Utilities Reference.
- You must have sufficient disk space for the new destination target database and if applicable, your backup database.
- To run csmig, log in as icsuser (or as the Calendar Server runtime user ID specified during configuration). If you run csmig as superuser (root), you might need to reset the permissions for the migrated files.

You must also have privileges to manage the attributes of calendar users in the LDAP directory server that stores user preferences.

- Calendar Server must be stopped.

csmig Syntax

The csmig utility has the following syntax:

```
csmig [-t DestinationDB]
      [-b Backend-DWPHost]
      [-o OutputFile]
      [-e ErrorFile]
      [-m MappingFile]
      [-c calendarOwner]
      [-r resourceOwner]
      [migrate |dryrun ]
```

The following table lists the utility options, gives a description of each, and gives the default value.

csmig Options	Description and Default Value
-t *DestinationDB*	Specifies the destination target database that csmig generates. The default is MigratedDB.
-b *Backend-DWPHost*	Specifies the name of the DWP back-end host server. This name must match the DWP back-end host server name specified in the ics.conf file.
-o *OutputFile*	Specifies an output file that captures the csmig output to the screen as well as any errors that occur. The default is MigrateOut.
-e *ErrorFile*	The file where csmig writes any errors or database entries that cannot be resolved. If database entries cannot be resolved, they are not written to the destination database. The default is MigrateError.
-m *MappingFile*	Specifies an output mapping file generated in dryrun mode that lists entries in the LDAP schema that need to be changed. For example:

Old: calid=jsmith

New: `calid=jsmith:basketball`

The mapping file provides only a list of changes to make to the LDAP schema. csmig does not actually make the changes to the schema.

The mapping file is not used in `migrate` mode.

`-c` *calendarOwner*	Specifies the owner for user calendars that don't have owners.
`-r` *resourceOwner*	Specifies the owner for resource calendars that don't have owners.
`migrate | dryrun`	Specifies which mode the utility is running in. Use `migrate` mode to perform the migration. Use `dryrun` mode to generate the output mapping file before you actually migrate.

csmig Utility Migration Steps

If you had a version of Calendar Server predating version 5.1.1, after you install and configure Calendar Server 6.3, run `csmig` to migrate your existing Calendar Server and LDAP databases. Migration of the LDAP data is required for the LDAP CLD plug-in to work properly. Use these steps to migrate calendar data using `csmig`:

High Level Steps for Using csmig

1. Configure your Directory Server using `comm_dssetup.pl`.
   If you have not already indexed LDAP attributes using `comm_dssetup.pl`, do so at this time. This will greatly help performance of the LDAP data migration.
2. Using a staging server (not your production server), perform a test dry run.
   A dry run reports what `csmig` would do during an actual migration but does not migrate any data. After the dry run, and before you actually migrate, correct any errors and determine a plan to handle any unresolved calendars.
   For instructions on how to perform a test dry run, see csmig Utility Migration Steps.
3. Migrate Your Production Data
   During a production run, `csmig` migrates the calendar database (`.db` files) and LDAP data (user and group preferences data), `icsSubscribed`, `icsCalendar`, `icsCalendarOwned`, `icsFreeBusy`, `icsSet`, and `uid` (for resource calendars). After the migration, all calendar resources will have an LDAP entry created.
   For instructions on how to migrate your production data, see csmig Utility Migration Steps.

To Perform a Test Dry Run

1. Install Calendar Server 6.3 (if necessary) on the staging server.
2. Copy a snapshot of your calendar database to the staging server.
3. Mimic your production LDAP environment on the staging server by performing the following tasks:
   - Install Directory Server.
   - Install a snapshot of the LDAP database on this server.
4. Run `comm_dssetup.pl` to configure the staging Directory Server.
5. Run `csconfigurator.sh` to configure the staging Calendar Server.
6. Log in as `icsuser` (or, if its different, log in as the Calendar Server runtime user ID specified during configuration). If you run `csmig` as superuser (`root`), you might need to reset the permissions for the migrated files.
7. Change to the *`cal-svr-base`*`/SUNWics5/cal/sbin` directory.
8. Run the `csdb check` command to check your database for corruption. If corruption is indicated, run `csdb rebuild` to rebuild the database.
9. Consider creating a catchall `calid` for user calendars that don't have an owner. For example, the following command creates a user with the `calid` of `orphan`:

```
./csuser -g orphan -s adminuser -y password -l en -c orphan create orphan
```

10. Stop the Calendar Server using the `stop-cal` command (if necessary).
    `cal-svr-base``/SUNWics5/cal/sbin/stop-cal`
11. Run `csmig` with the -dryrun option. For example, you might enter:

    ```
    ./csmig -b sesta.com -o csmig.out -e csmig.errors
     -m csmig.map -c orphan -r calmaster dryrun
    ```

    This command assigns user calendars without an owner (orphan calendars) to the owner `orphan` and resource calendars without an owner to the owner `calmaster`.

12. Check the output mapping file (`csmig.map`). The mapping file lists entries that need to be updated in the LDAP schema.
13. Check the output, mapping, and error files. Resolve any LDAP issues or errors that you find. Determine how you will handle any unresolved calendars before the actual migration.
    Several options are:
    - Delete any unneeded calendars before you migrate.
    - Assign owners to any unresolved calendars.
    - Allow `csmig` to assign owners to the calendars during migration using the -c and -r options.
14. Run `csmig` to migrate your staging calendar database.
    For example, the following command migrates the calendar database to the `/var/opt/SUNWics5/testcsdb/` directory:

    ```
    ./csmig -t /var/opt/SUNWics5/testcsdb/ -b sesta.com
    -o csmig.out -e csmig.errors -m csmig.map -c orphan
    -r calmaster migrate
    ```

15. After the test migration is finished, perform these steps to check out the newly migrated calendar database.
    a. Copy the migrated database to the `/csdb` directory specified by the `caldb.berkeleydb.homedir.path` parameter. Or, edit this parameter to point to the new location of the migrated database.
    b. Run `csdb check` on the new calendar database. The number of events and todos in the migrated database should match the pre-migration totals.
    c. Search for `icsCalendarOwned` entries and make sure that the entries match the pre-migration number of calendars.
    d. Log in to Communications Express and verify some of the calendars in the migrated database.
    If the test migration is successful, you are ready to migrate your production database.

To Migrate Your Production Data

1. Log in as `icsuser` (or as the Calendar Server runtime user ID specified during configuration). If you run `csmig` as superuser (`root`), you might need to reset the permissions for the migrated files.
2. Change to the *`cal-svr-base`*`/SUNWics5/cal/sbin` directory.
3. Stop the Calendar Server using the `stop-cal` command.
   `cal-svr-base``/SUNWics5/cal/sbin/stop-cal`
4. Backup the following data:
   - Calendar database (`.db` files).
   - LDAP data: `slapd` database directory and LDAP database.
   - `ics.conf` file. This step is not actually required, but it can be useful if you need to revert to

your original configuration.

5. Run `csmig` with the -migrate option.
   For example, the following command migrates the calendar database to the `/var/opt/SUNWics5/newcsdb/` directory:

```
./csmig -t /var/opt/SUNWics5/newcsdb/ -b sesta.com
-o csmig.out -e csmig.errors -m csmig.log -c orphan
-r calmaster migrate
```

6. Check for any unresolved calendars in the error file (`csmig.errors`) and resolve them according to your plan from csmig Utility Migration Steps under csmig Utility Migration Steps.
7. Run the `csdb check` command to check your migrated database. If any corruption is indicated, run `csdb rebuild` to rebuild the database.
8. Copy the new migrated database to the `/csdb` directory specified by the `caldb.berkeleydb.homedir.path` parameter. Or, edit this parameter to point to the new location of the migrated database.
9. Enable the LDAP CLD plug-in by making any necessary changes to the following configuration parameters in the `ics.conf` file:
   - `service.dwp.enable` = `"yes"`
   - `service.dwp.port` = `"59779"`
   - `csapi.plugin.calendarlookup` = `"yes"`
   - `csapi.plugin.calendarlookup.name` = `"*"`
   - `caldb.cld.type` = `"directory"`
   - `caldb.dwp.server.default` = `"default-server-name"`
   - `caldb.dwp.server.`*server-hostname*`.ip` = "_ server-hostname_" (for each back-end server including the local server)
   - `caldb.cld.cache.enable` = `"yes"` (if you want to use the CLD cache option)
   - `caldb.cld.cache.homedir.path` specifies the location of the CLD cache directory. The default is `/var/opt/SUNWics5/csdb/cld_cache`.
     For information about setting configuration parameters for the LDAP CLD plug-in, see Chapter 5, Configuring Calendar Database Distribution Across Multiple Machines in Calendar Server Version 6.3.
10. Restart Calendar Server using the `start-cal` command.
11. Log in to Communications Express and verify that your configuration is working by checking several of the migrated calendars.
    To disable alarms while you are making your checks, set each of the following parameters in the `ics.conf` file to `"no"`:
    - `caldb.serveralarms` = `"no"`
    - `caldb.serveralarms.dispatch` = `"no"`
    - `service.ens.enable` = `"no"`
    - `service.notify.enable` = `"no"`
    - `ine.cancellation.enable` = `"no"`
    - `ine.invitation.enable` = `"no"`
    - `service.admin.alarm` = `"no"`

csmig Tips and Troubleshooting

The section describes the following tips and trouble shooting examples:

- The csmig dry run calendar shows the wrong owner for a calendar.
- The LDAP calendar search doesn't work correctly.
- The csmig dry run indicates duplicate calendar names.
- How do I assign orphan calendars to different owners?
- How do I move calendar users to another back-end server?

The csmig dry run calendar shows the wrong owner for a calendar.

Example Problem

A calendar named `tchang:myCalendar` has the owner `jsmith` in the calendar database, and the `csmig` dry run shows the mapping as `jsmith:tchang_myCalendar`. However, you would like to name this calendar `tchang:myCalendar` and assign the owner as `tchang`.

Example Solution

Before the migration, use the `cscal` utility to change the owner of the calendar `tchang:myCalendar` to `tchang`. Once this is done, the migration will map this calendar to `tchang:myCalendar` and add `icsCalendarowned` to the LDAP entry for user ID `tchang`.

The LDAP calendar search doesn't work correctly.

Example Problem

After migration, the LDAP calendar search is enabled, but the calendar search dialog does not return any results or returns only partial results.

Example Solution

Enabling the LDAP calendar search allows Calendar Server to search `(&(objectclass=icscalendaruser)(icscalendarowned=`**`substr`**`))`.
Manually run two different searches on the LDAP data with the following filters and compare the output:

- LDAP search with filter `(&(objectclass=icscalendaruser)(icscalendarowned=`**`substr`**`))`
- LDAP search with filter `(icscalendarowned=`**`substr`**`)`

Since the server uses the filter that includes `icsCalendarUser` object class, the LDAP server might have been deployed with the schema check disabled, and some calendar entries may have been provisioned without the <classname>icsCalendarUser</classname> object class.

The csmig dry run indicates duplicate calendar names.

Example Problem

The `csmig` dry run mapping file and output file indicate that there is a duplicate calendar name.
For example, in the original database, `jsmith` owns the following calendars:

- `basketball` with 5 events
- `jsmith:basketball` with 10 events

The dry run indicates that during a migration, the two calendars will be merged, and the resulting calendar will be `jsmith:basketball` with owner `jsmith` and 15 total events

The output file will include the following warning message:

```
Error modifying calendar properties, error=2
```

Example Solution

If you don't want the two calendars to be merged, change the owner of `basketball` to a user other than `jsmith` before the migration. This will preserve the data integrity of the two separate calendars.

How do I assign orphan calendars to different owners?

Example Problem

By default `csmig` assigns all orphan calendars to a single owner, but I would like to assign different owners for some orphan calendars.

Example Solution

`csmig` does not accept the mapping file in the command line. However, you can assign owners to the orphan calendars in the original database before the migration. Check the dry run mapping file for all orphan calendars. Then use the `cscal` utility to assign owners to the orphan calendars before the migration. Run `csmig` in -dryrun mode again to verify the new owners.

How do I move calendar users to another back-end server?

Example Problem

How do I move users from one back-end server to another?

Example Solution

To move a calendar user, you `export` each of the user's calendars on the original server and then `import` the calendars on the second server. After the calendars are moved, you can delete the calendars on the original server. For instructions on how to move calendars, see Managing User Calendars.

csvdmig

The `csvdmig` utility prepares your calendar databases and LDAP user and group entries for use in a multiple-domain environment. Even if you plan to use only the default domain, you must run this utility.

> **Note**
> Be sure to run `csmig` before using this utility if you are migrating from a non-domain environment to the multiple domain environment in Calendar Server 6.3.

This sections contains the following topics:

- csvdmig Functions
- csvdmig Syntax
- csvdmig Examples

csvdmig Functions

The {{csvdmig}}utility performs the following changes to your databases and LDAP entries:

- The format of calendar IDs (`calids`) is changed:

  From: `userid[:calendar-name]`

  To: `userid@domain[:calendar-name]`
- Access Control List (ACL) access rules are changed:

  From: `userid`

  To: `userid@domain`
- The LDAP directory server user entries for the Calendar Server attributes are modified as:

  `userid[:calendar-name]` to `userid@domain[:calendar-name]`.

- Updates the owner and attendee fields in events and tasks in the calendar database. For example:

  If `jsmith` in the domain `sesta.com` is the owner of an event, the new owner field would contain `jsmith@sesta.com`.

> **Caution**
> The `csvdmig` utility updates the databases and LDAP directory in place. That is, it does not create a separate migrated database, but alters the database you are converting. Therefore, to be safe, run `csvdmig` against snapshots of your databases and LDAP directory.

csvdmig Syntax

The `csvdmig` utility has the following syntax:

```
csvdmig [-t DestinationDB]
        [-c ConfigFile]
        [-e ErrorFile]
        [-m MappingFile]
        migrate [DB|LDAP]
```

The following table lists the options used by `csvdmig`, and gives a description of each.

Option	Description and Default Value
-m *MappingFile*	Input parameter specifying a mapping file. For more information on the mapping file, see Mapping File. The default is `MigrateMapping`.
-c *ConfigFile*	Input parameter that specifies a Calendar Server configuration file. The default is the `ics.conf` file.
-t *DestinationDB*	Output parameter that specifies the location of the database to be migrated. The default is `MigratedDB`. **Tip** Always use the `-t` option. For more information on this option, see Destination DB.
-e *ErrorFile*	output parameter that specifies the name of the error file for errors that cannot be resolved. The default is `MigrateError`.
`DB` | `LDAP`	Specifies which database to modify: `DB` – the calendar database `LDAP` – the LDAP directory The default is the calendar database (`DB`).

Mapping File

The mapping file is an input text file that maps existing users to their respective domains. You must

create the mapping file before you run `csvdmig`. Specify one entry per line with a space between the old and new values. For example:

```
user1 user1@sesta.com
user2 user2@siroe.com
user3 user3@sesta.com
 ...
user_n_ user_n_@siroe.com
```

Destination DB

The location of the database to be migrated. The utility updates the file in place. Be sure you have backed up this directory before using the `csvdmig` utility.

If you do not specify the -t option, the utility will attempt to migrate the contents of the current directory (the directory specified by performing `pwd` at the command line), with unpredictable results.

csvdmig Examples

The following are `csvdmig` examples

- Migrate the LDAP directory server data using default values:

  ```
  csvdmig migrate LDAP
  ```

- Migrate the Calendar Server database:

  ```
  csvdmig -t targetDB -e errorFile -m mappingFile migrate
  ```

commdirmig

The `commdirmig` utility migrates your LDAP data from Sun Java System LDAP Schema version 1 to Schema version 2 in preparation for using Access Manager for authentication services. If your previous installation already used Schema version 2, you do not have to run this utility again.

- Who Should Run the commdirmig Utility
- When to Run the commdirmig Utility
- Where to Find Documentation on the commdirmig Utility
- Where to Find the Utility

Who Should Run the commdirmig Utility

This migration utility migrates your Schema version 1 LDAP database to Schema version 2. If you are going to use Access Manager software for authentication, you must convert your LDAP entries to Schema version 2 format by running this utility.

If you are not using Access Manager, you should still consider migrating your LDAP data, since Schema version 2 is the preferred LDAP mode for all Communications Suite products that use LDAP.

> **Note**
> If you have a separate LDAP directory for preferences, you must run `commdirmig` on that LDAP as well as the one used for authentication.

When to Run the commdirmig Utility

Run `commdirmig` after you have run all the other migration utilities necessary to migrate your calendar and LDAP databases from your earlier version of Calendar Server software to the 6.3 version of the Calendar Server software.

Where to Find Documentation on the commdirmig Utility

The `commdirmig` migration utility requires special preparation and planning. It is documented in a separate guide, see *Sun Java Communications Suite 5 Schema Migration Guide*.

Where to Find the Utility

The `commdirmig` utility comes bundled with Delegated Administrator that you install from the Communications Suite installer.

A patch is also available from technical support for the utility.

Migrating Oracle Communications Calendar Server Users to a Different Domain

Migrating Oracle Communications Calendar Server Users to a Different Domain
Version 6 (Formerly known as Sun Java System Calendar Server)

This scenario explains how to migrate Calendar Server 6 user calendars to a different domain by using the `csexport` and `csimport` commands. This scenario moves a user `ggreen@logical.tld` from a Java ES 5 environment to a Communications Suite 6 environment with a different domain name `ggreen@vmdomain.tld`.

> **Note**
> It possible to use a different user *and* a different domain as well. This scenario can be used, for example, to move `userA@domain1.tld` to `userX@domain2.tld`.

Topics:

- Java ES 5 LDAP User Entry
- Exporting the Java ES 5 User Calendar `ggreen@logical.tld`
- Communications Suite 6 LDAP User Entry
- Migrating the Calendar
- Importing the Calendar to the Communications Suite 6 Environment

Java ES 5 LDAP User Entry

> **Note**
> For a calendar migration, the `ics*` attributes are important, specifically the `icsCalendarOwned` and `icsSubscribed` attributes. The `mail` attribute is also important.

```
dn: uid=ggreen,ou=People,o=logical.tld,dc=vmdomain,dc=tld
cn: Gustaf Green
givenName: Gustaf

icsCalendar: ggreen@logical.tld
icsCalendarOwned: ggreen@logical.tld$Gustaf Green
icsDWPHost: myjazz.vmdomain.tld
icsStatus: Active
icsSubscribed: ggreen@logical.tld$Gustaf Green
icsTimezone: Europe/Paris

mail: Gustaf.Green@logical.tld
```

Exporting the Java ES 5 User Calendar `ggreen@logical.tld`

```
bash-3.00# ./csexport -c ggreen@logical.tld calendar /tmp/ggreen.ics
Calendar ggreen@logical.tld has been exported to /tmp/ggreen.ics
```

The important lines in the exported file are those where the Calendar Server user is mentioned, for example:

the calendar properties itself

```
X-NSCP-CALPROPS-RELATIVE-CALID:ggreen@logical.tld
X-NSCP-CALPROPS-NAME:Gustaf Green
X-NSCP-CALPROPS-PRIMARY-OWNER:ggreen@logical.tld
```

the calendar events

```
ORGANIZER;CN="Gustaf Green"
 ;SENT-BY="Gustaf.Green@logical.tld"
 ;X-S1CS-EMAIL=Gustaf.Green@logical.tld
 :ggreen@logical.tld

X-NSCP-ORGANIZER-EMAIL:Gustaf.Green@logical.tld
```

Note
Your exported user calendar `*.ics` file may vary and include more places where the user is mentioned.

Communications Suite 6 LDAP User Entry

Note
For a calendar migration, the `ics*` attributes are important, specifically the `icsCalendarOwned` and `icsSubscribed` attributes. The `mail` attribute is also important.

```
dn: uid=ggreen,ou=People,o=vmdomain.tld,o=isp
cn: Gustaf Green
givenName: Gustaf

icsCalendar: ggreen@vmdomain.tld
icsCalendarOwned: ggreen@vmdomain.tld$Gustaf Green
icsDWPHost: mycando.vmdomain.tld
icsFirstDay: 2
icsStatus: Active
icsSubscribed: ggreen@vmdomain.tld$Gustaf Green
icsTimezone: Europe/Paris

mail: Gustaf.Green@vmdomain.tld
```

Migrating the Calendar

As you from `logical.tld` to `vmdomain.tld`, you need the edit the `*.ics` file, which you exported from the Java ES 5 environment, before importing the file into the Communications Suite 6 environment.

> **Note**
> In the exported file, all events are created and owned by `ggreen@logical.tld`. When you import this file to "another" user or another domain, you will most likely run into problems. The solution is to replace the string `ggreen@logical.tld` with `ggreen@vmdomain.tld` in the whole exported file *before* you import this file.

This scenario replaces the value of LDAP attribute `icsCalendar` of the "old" user with the value of the LDAP attribute `icsCalendar` of the "new" user.

> **Tip**
> In this example you simply could replace `logical` with `vmdomain` in the `*`.ics file as the user name and the Top Level Domain part are the same.

If you use vi, you could do it by simply typing **`:1,$s/logical/vmdomain/g`**.

The important lines in the `*.ics` file looks like this after editing:

For the calendar properties itself:

```
X-NSCP-CALPROPS-RELATIVE-CALID:ggreen@vmdomain.tld
X-NSCP-CALPROPS-NAME:Gustaf Green
X-NSCP-CALPROPS-PRIMARY-OWNER:ggreen@vmdomain.tld
```

For the calendar events:

```
ORGANIZER;CN="Gustaf Green"
 ;SENT-BY="Gustaf.Green@vmdomain.tld"
 ;X-S1CS-EMAIL=Gustaf.Green@vmdomain.tld
 :ggreen@vmdomain.tld

X-NSCP-ORGANIZER-EMAIL:Gustaf.Green@vmdomain.tld
```

Importing the Calendar to the Communications Suite 6 Environment

```
bash-3.00# ./csimport -c ggreen@vmdomain.tld calendar /export/ggreen.ics
Calendar ggreen@vmdomain.tld has been imported from /export/ggreen.ics
```

> **Note**
> Be aware to have the same time zone settings on the Convergence client as on the client that the user regularly uses. Otherwise, the calendar events become imported but are displayed "wrong."

The following shell script shows how to export and import of calendar. This script is shown for educational reason only.

Example shell script to **export** all users:

```
#!/bin/sh

#################
### Functions ###
#################

_validate()
{
  ### Chech Command line path is valid ###
  if [ "$dbexportpath" = "" ]
  then
    echo "Error: No export location specified!"
    echo
    echo "Usage:"
    echo "  exportdb.sh [path of exported database]"
    echo
    exit
  fi
  if [ ! -d "$dbexportpath" ]
  then
    echo "Error: Export location specified not found!"
    exit
  fi

  ### Check it is okay to continue with export ###

  echo
  echo "Export entire calendar database!"
  echo "--------------------------------"
  echo
  echo "It's highly recommended to shutdown your calendar server before"
  echo "you continue to export the entire database."
  echo
  echo "Export to: $dbexportpath"
  echo
  echo "Do you wish it continue [y/n]?"
  read ask
  if [ "$ask" != "y" ] && [ "$ask" != "Y" ]
  then
    ### Exit if user does not enter Y ###
    exit
  fi
}

_build_cal_list()
{
  ################################
  ### Build Calendar List File ###
  ################################

  echo
  echo "Building Calendar List..."
  ./cscal list | cut -f1 -d" " > $dbexportpath/cal-list

  ### Find EOF ###
  numofcals=`cat $dbexportpath/cal-list | wc -l`
```

```
  echo "Found: $numofcals Calendars in database."
}

_export_calendars()
{
  ########################
  ### Export Calendars ###
  ########################

  echo

  for calid in `cat $dbexportpath/cal-list`
  do
    ### Remove ending colon in line ':' ###
    chars=`echo "$calid" | wc -c`
    chars=`expr $chars - 2`
    calid=`echo "$calid" | cut -c1-$chars`

    ### Export Calendar with csexport command ###
    ./csexport -v -c $calid calendar $dbexportpath/$calid.ics >>
$dbexportpath/export.log
    echo "Exported: $calid"
  done
}

#############
### Start ###
#############

dbexportpath=$1

_validate
_build_cal_list
_export_calendars

echo
echo "Export process complete!"
echo "  Check $dbexportpath/export.log for details."
```

```
echo

### End of Script ###
```

Example shell script to **import** all users:

```
#!/bin/sh

#################
### Functions ###
#################

_validate()
{
  ### Chech Command line path is valid ###
  if [ "$dbimportpath" = "" ]
  then
    echo "Error: No import location specified!"
    echo
    echo "Usage:"
    echo "  importdb.sh [path to exported database]"
    echo
    exit
  fi
  if [ ! -d "$dbimportpath" ]
  then
    echo "Error: Import location specified not found!"
    exit
  fi

  ### Check it is okay to continue with export ###
  echo
  echo "Import entire calendar database!"
  echo "--------------------------------"
  echo
  echo "It's highly recommended to shutdown your calendar server before"
  echo "you continue to import the entire database."
  echo
  echo "Import from: $dbimportpath"
  echo "`cat $dbimportpath/cal-list | wc -l` calendars to import."
  echo
  echo "Do you wish it continue [y/n]?"
  read ask
  if [ "$ask" != "y" ] && [ "$ask" != "Y" ]
  then
    ### Exit if user does not enter Y ###
    exit
  fi
}

_import_calendars()
{
```

```
  ########################
  ### Import Calendars ###
  ########################

  echo

  for calid in `cat $dbimportpath/cal-list`
  do
    ### Remove ending colon in line ':' ###
    chars=`echo "$calid" | wc -c`
    chars=`expr $chars - 2`
    calid=`echo "$calid" | cut -c1-$chars`

    ### Export Calendar with csexport command ###
    ./csimport -v -c $calid calendar $dbimportpath/$calid.ics >>
$dbimportpath/import.log
    echo "Imported: $calid"
  done
}

#############
### Start ###
#############

dbimportpath=$1

_validate
_import_calendars

echo
echo "Import process complete!"
echo "  Check $dbimportpath/import.log for details."
```

```
echo

### End of Script ###
```

Oracle Communications Calendar Server Initial Runtime Configuration Program

Initial Runtime Configuration Program for Oracle Communications Calendar Server Version 6.3 (Formerly known as Sun Java System Calendar Server)

After you install the Calendar Server 6.3 software, and before using it, run the two configuration programs in the following order:

1. `comm_dssetup.pl`
   Configure the LDAP directory server.
2. `csconfigurator.sh`
   Configure Calendar Server as described in this information.

Topics:

- Gathering Your Configuration Information for Calendar Server 6.3 Software
- Running csconfigurator.sh
- Automatic Base 64 Encoding of Passwords for Calendar Server 6.3

> **Note**
> If you had an earlier version of Calendar Server or Messaging Server installed, you might need to migrate your LDAP directory entries from Schema version 1 to Schema version 2.
>
> Do not run the configuration utility described in this information until you have read the *Sun Java Communications Suite 5 Schema Migration Guide*. It will instruct you on the timing and options for running the configuration utilities.

Gathering Your Configuration Information for Calendar Server 6.3 Software

The Calendar Server configuration program `csconfigurator.sh`, creates a new `ics.conf` configuration file in the following directory:

For Solaris OS: *cal-svr-base*`/config`

For Red Hat Linux: *cal-svr-base*`/config`

The configuration program asks you questions for which you must enter specific information about your installation. Use the Calendar Server Worksheet to gather your information before running the configuration program. (You should determine this information before you install any Communications Suite or Java ES components to avoid conflicts (such as port numbers) with other component products.)

Running csconfigurator.sh

You can run the configuration program from a graphical user interface (GUI), or from the command line.

If you run the program remotely, you must set your `DISPLAY` environment variable properly and allow X-Windows connections from the server to display on your computer. For example, to use the `xhost` utility, execute the following command on your computer:

```
# xhost +
```

This section contains the following topics:

- To Run the Configuration Program from the Command Line
- To Run the Configuration Program from the GUI

To Run the Configuration Program From the Command Line

1. Log in as or become superuser (`root`).
2. Change to the *cal-svr-base*`/sbin` directory.
3. Run the script using the options chosen from the following table:

Option	Description
`-nodisplay`	Run the configuration script in text-only mode (non-GUI).
`-noconsole`	Do not display text output. Use this with -nodisplay to run the configuration script in silent mode.
`-novalidate`	Do not validate input field text.
`-saveState` *statefile*	Save the answers that you input in response to configuration questions to a state file (text file). Unless you specify a fully qualified path for the state file, it will be saved in the default directory: `/opt/SUNWics5/cal/jconfigure`.
`-state` *statefile*	Use the state file for setting input values. This option must be used in conjunction with `-novalidate` and `-noconsole`.

For example, to run the configuration script in command-line mode, run the following command:

```
./csconfigurator.sh -nodisplay
```

The command-line version asks for the same information and in the same order as the GUI. Default values are indicated in square brackets, `[]`. To accept a default value, press Enter on your keyboard.

> **Note**
> For the text of the information contained in the various questions presented by the script, refer to the Calendar Server Worksheet or see the text in the GUI section that follows.

To Run the Configuration Program from the GUI

1. Log in as or become superuser (`root`).
2. Change to the *cal-svr-base*`/sbin` directory.
3. Run the command:

   ```
   ./csconfigurator.sh
   ```

   The configuration program displays the Welcome Screen.

   > **Caution**
   > The configuration program only configures a single domain. If you plan to use multiple domains, you need to add the domains by using Delegated Administrator.

4. Click Next to continue or Cancel to exit.
   The Administration, User Preferences and Authentication Screen appears.
5. Type your information and click Next.
   The User Preferences Directory Options Screen appears.

6. Type your information and click Next.
   Use the following information for assistance in filling out this screen.

   LDAP Server Host Name

   Host name of the LDAP directory server you are using for user authentication. Default: current host

   LDAP Server Port

   Port number that the LDAP server listens on. Default: `389`

   Directory Manager DN

   User name that can make changes in the directory server schema. Default: `cn=Directory Manager`

   Directory Manager Password

   Password of the Directory Manager. This will not be stored in plain text. Default: None

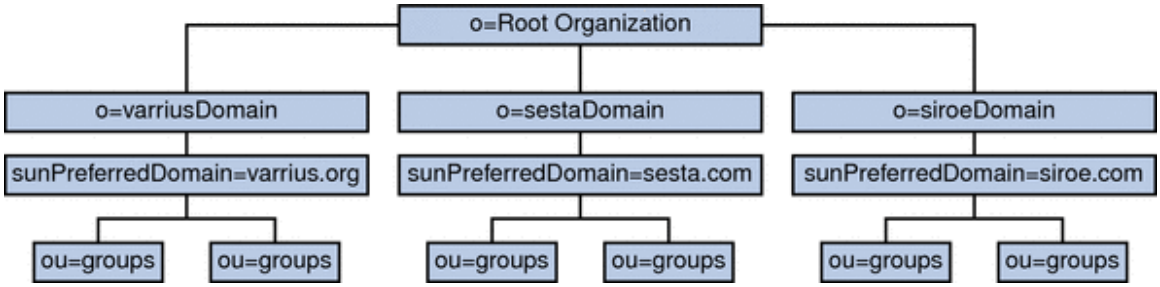
   The Virtual Domains and Calendar Administrator Screen appears.

7. Type your information and click Next.
   Use the following information for assistance in filling out this screen.

   > **Note**
   > Virtual domains, hosted domains and multiple domains are all names for the same ability to have more than one LDAP domain with its corresponding user and group records.

   If you are upgrading from a non-virtual domain environment, the Enable Virtual Domains Support checkbox must be selected. If you already have a multiple domain environment, the checkbox is greyed out. Virtual domains support is now the default behavior of Calendar Server, and is not optional.

   Virtual Domain Structure

   Virtual domains support is now the default behavior for Calendar Server for fresh installations. Using the configuration program graphical user interface, enter a default domain name in the New Default domain input box. The configuration program then creates the domain for you.

   Choose your default domain from one of those showing in the Default domain box. If you already used multiple domains in the previous version of Calendar Server, and you do not want to use the domain showing in the Default domain box, click the box to see the list of domains you can choose from and select a new default domain.
   The Calendar Administrator Name and Password Screen appears.

8. Type your information and click Next.

Use the following information for assistance in filling out this screen.

Username

Username of the Calendar Server Administrator. Default: `calmaster`

Administrator Password

Password of the Calendar Server Administrator. Default: `None`

Email Address

Email address for the Calendar Server Administrator.

Site Administrator

The Site Administrator is the user that has proxy authentication rights across domains.

Click the appropriate response: `Yes` if the Calendar Administrator is also the Site Administrator. `No` if the Calendar Administrator is not the Site Administrator.

The Email and Email Alarms Screen appears.

9. Type your information and click Next.
   Use the following information for assistance in filling out this screen.

   Email Alarms

   Specifies whether Calendar Server should send an email alarm message to a Calendar Server administrator in case a server problem occurs. Default: `disabled`. If you choose `Disabled`, no administrator receives email alarms for server problems.

   Administrator Email Address

   Email address of the Calendar Server Administrator who will receive the email alarm messages. Default: `None`

   SMTP Host Name

   Host name of the SMTP server where used to send alarm messages. Default: `current host`.

   The Runtime Configuration Screen appears.

10. Type your information and click Next.
    Use the following information for assistance in filling out this screen.

    Service Port

    Port number that Calendar Server listens on to provide Web (HTTP) access to users. Default: `80`.

    Maximum Sessions

    Maximum number of concurrent Calendar Server sessions. Default: `5000`

    Maximum Threads

    Maximum number of concurrent Calendar Server threads. Default: `20`

Number of Server Processes

Maximum number of Calendar Server processes to run on the server. Default: Number of CPUs on the server where you are installing Calendar Server.

Runtime User ID

UNIX user name under which Calendar Server will run. If the account does not exist, the configuration program will create it. Default: `icsuser`

> **Caution**
> Do not use `root` as the Runtime User ID.

Runtime Group ID

UNIX group under which Calendar Server will run. If the group does not exist, the configuration program will create it. Default: `icsgroup`

Calendar Server Startup Options

Select one or both options by clicking in the check box.

- Start after successful configuration

  Specifies whether to start Calendar Server automatically after this configuration program successfully finishes running.
- Start on system startup

  Specifies whether to start Calendar Server automatically after a system startup.

  > **Note**
  > By default, only the Start on system startup checkbox is selected.

The Set Up a Front End-Back End Deployment Screen appears.

11. Choose whether to configure this server as a single server deployment, or a front-end, back-end deployment. If you choose to have a single server instance of Calendar Server, do not select the check box on this screen. If you want to put your Calendar Server databases on one or more servers, while keeping the processes that communicate with the client on a different server, select the check box.

    For instructions on how to configure an instance of Calendar Server as a front end or a back end server, see Configuring a Front End or Back End Calendar Server.
    The Directories to Store Configuration and Data Files Screen appears.

12. Accept the default directories on this screen. While you are allowed to choose the store configuration and data files directories, it is not advised.
    Click Next to continue. The Select Directories Configuration Screen appears.
13. Type your information and click Next.
    Use the following information for assistance in filling out this screen.

    Config Directory

    Directory where the configuration file (`ics.conf`) resides.

Database Directory

Directory where Calendar Server creates and stores the calendar database files. Default: `/var/opt/SUNWics5/csdb`

Attachment Store Directory

Directory where the attachment store resides. Default: `/var/opt/SUNWics5/astore`

Logs Directory

Directory where Calendar Server writes log files. Default: `/var/opt/SUNWics5/logs`

Temporary Files Directory

Directory where the Calendar Server writes temporary files. Default: `/var/opt/SUNWics5/tmp`

> **Note**
> If any of these directories do not already exist, a pop-up window appears for each missing directory. Click the appropriate button to choose whether to have the configuration program create the new directory, or to return you to the screen where you can choose a different directory.
>
> For any directory that already exists but is not empty, a pop-up window appears with two choices. Click the appropriate button to accept the directory anyway, or to return to the screen where you can choose a different directory.

The Archive and Hot Backup Configuration Screen appears.

14. Type your information and click Next.
    This screen enables you to select both automatic backup types, or either one of the two, or none. Select or deselect the boxes appropriately. Using both archive backups and hot backups is strongly recommended.

    > **Tip**
    > Prevent the catastrophic loss of all your database copies due to an equipment failure. Keep your automatic backup copies on a disk or disk system other than the one where your live databases reside.

    For information on automatic backups, see "Chapter 9, Configuring Automatic Backups (csstored)" in the *Sun Java System Calendar Server 6.3 Administration Guide*.
    The Archive and hot backup Configuration Screen appears.

15. Type your information and click Next.
    Use the following information for assistance in filling out this screen.

    Enable Archive

    When this box is selected (default), `csstored` will take a snapshot of your calendar databases every 24 hours. Throughout the day, at regular intervals, it stores the transaction log files for that day with the snapshot in the archive backup directory.

    If this box is not checked, the Archive Directory input field is greyed out.

Archive Directory

Choose the backup directory by clicking Browse, or accept the default.

Enable Hot Backup

When this box is selected (default), `csstored` takes a snapshot of your calendar databases every 24 hours, then applies the transaction logs to the snapshot at a set interval (default is two minutes), throughout the day, ensuring a nearly complete duplicate of your live database.

If this box is not checked, the Hot Backup Directory input field is greyed out.

Hot Backup Directory

Choose the backup directory by clicking Browse, or accept the default.

Keep Archives for (in days)

This field is only active if the Enable Archive box is selected; otherwise, it is greyed out.

Click the up or down arrows in the Minimum and Maximum fields to select range of days of archival backups to keep in the backup directory.

Keep Hot Backups for (in days)

This field is only active if the Enable Hot Backup box is selected; otherwise, it is greyed out.
You can set the number of hot backups to keep in two ways:

- Click the up or down arrows in the Minimum and Maximum fields to select the range of days of hot backups to keep in the directory.

  The number of copies actually stored at any one time depends on the size of the files and the size of the directory. When either the size limits, or maximum number of copies exceeds the limit, the oldest copies are purged down to the minimum number specified on this configuration screen.
- If you want the same settings for Hot Backups as for Archival Backups, you can check the Same As Archive box.

The Ready to Configure Screen appears.

16. Click Configure Now to configure Calendar Server.
    Up to now the screens have been gathering data needed for the configuration and performing some validity checking. You can go back and redo the configuration information at this point, or start the configuration.
    The Sequence Completed Screen appears.
    This panel provides a running update of all the tasks and the disposition (passed or failed). When the message "All Tasks Passed", the configuration has finished. Check the log files indicated to see if there are any error messages.

17. Click Next when the configuration program completes.
    The Configuration Summary Screen appears.
18. Click Details to view the details of the configuration log or Close to exit the configuration program.

Automatic Base 64 Encoding of Passwords for Calendar Server 6.3

In the past, the Calendar Server configuration file had some passwords in clear text. Though there are read permission restrictions on `ics.conf`, someone can see the passwords when the Administrator is

editing the configuration file. In Calendar Server 6.3, the passwords have been moved to another file and obfuscated by base 64 encoding them. This will prevent someone from seeing the passwords accidentally. Since no encryption is done, the file must still be read protected and prevented from falling into the wrong hands to keep the passwords secure.

If you are installing Calendar Server for the first time, the configuration program encodes the passwords you create during the configuration process, and stores them in a separate password configuration file.

If you are upgrading your existing Calendar Server software to the Calendar Server 6.3 version, the configuration program encodes the existing passwords found in the `ics.conf` file, and moves them to the password configuration file.

In both cases, the configuration program also adds a new `ics.conf` parameter to indicate the location of the password file, as shown in the following example:

```
local.passwordfile="/etc/opt/SUNWics5/config/icspassword.conf"
```

It is not advisable to change this configuration parameter.

The configuration parameters moved out of ics.conf due to this change are the following:

- `local.authldapbindcred`
- `local.enduseradmincred`
- `local.lookupldapbindcred`
- `service.siteadmin.cred`

> **Note**
> The LDAP bind passwords that are generated by the configurator are re-generated each time the configurator is run, once they are moved out of the `ics.conf` file.

Configuring Oracle Communications Calendar Server Front End and Back End

Configuring Oracle Communications Calendar Server Front End and Back End (Formerly known as Sun Java System Calendar Server) Version 6.3

In the Calendar Server configuration tool, the **Set Up a Front End-Back End Deployment Screen** enables you to choose whether to configure this server as one of the following:

- A single-server deployment of Calendar Server
- A front-end instance of Calendar Server
- A back-end instance of Calendar Server

If you choose to have a single-server instance of Calendar Server, do not select the check box on this screen. If you want to put your Calendar Server databases on one or more servers, while keeping the processes that communicate with the client on different servers, select the check box.

Use the following topics for more information:

- Single-Server Deployment
- Front-End and Back-End Deployment

Single-Server Deployment

Do not change any part of this screen if you want a single-server deployment in which both the administrative processes and the databases reside on one server. Click **Next** to continue.

If you wish to deploy separate Front End and Back End machines, click the check box labeled: **Setup a Front End/Back End deployment.** The screen will change and you will be allowed to configure the front-end and back-end servers separately.

Front-End and Back-End Deployment

> **Note**
> You must run the Calendar Server configuration program on each front-end server and back-end server you add to your configuration.

To complete this screen, perform the following steps:

1. To configure this instance of Calendar Server as a back-end server (that is, the server on which to store calendar databases), you need only specify the service port.
   The service port entry box is pre-filled with the port named in the `ics.conf` parameters `service.dwp.server.hostname.port` and `service.dwp.port`.
   If you want to change the port number, enter the desired port number in the Service Port entry box.
2. To configure this instance of Calendar Server as a front-end server, click **Add a Host**.
   Next, enter the host names and IP addresses of the back-end Calendar Server instances with which this front-end will communicate.
   For each back-end Calendar Server, click **Add a Host** and enter its host name and IP address.
3. If this server is the default front-end server, select the **Default** check box.
4. Click Next.

Note
You may also remove back-end Calendar Servers from this list by clicking **Remove Selected Host**.

Oracle Communications Calendar Server Post-Configuration Tasks

Oracle Communications Calendar Server Post-Configuration Tasks Version 6.3 (Formerly known as Sun Java System Calendar Server)

After you install the Calendar Server software and run the Calendar Server configuration program (`csconfigurator.sh`), you must perform some configuration settings and changes that the Communications Suite installer and Calendar Server configuration utility do not make. You must manually make changes to the following two items by editing the `ics.conf` file:

- **DWP and CLD Configurations.** Enable the CLD cache option. This cache stores the DWP host server information for calendar users and thus reduces calls to the LDAP directory server.
- **Default Time Zone.** Change the default time zone if you are not in the Americas/New York time zone.

For more information on these changes, see the *Sun Java System Calendar Server 6.3 Administration Guide*.