Oracle® Communications Unified Communications Suite

Installation and Configuration Guide

Release 7 Update 2

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Oracle Communications Unified Communications Suite Installation and Configuration Guide, Release 7 Update 2

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Chapter 1. Get the Software

Get the Software to Install an Oracle Communications Unified Communications Suite Deployment Version 7 Update 2

Topics:

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

Communications Suite Software

To install a Communications Suite 7 Update 2 deployment, download the necessary software from Oracle Software Delivery Cloud .

1. Click the Sign In/Register link.
2. Log in to the Oracle Software Delivery Cloud.
3. 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.
4. Click Continue.
5. From the drop-down menu, select Oracle Communications Applications and platform then click Go.
   A list of items is displayed.
6. Select Oracle Communications Unified Communications Suite 7 Update 2 Media Pack then click Continue.
   A set of Communications Suite downloads is displayed.
7. 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.

- Sun GlassFish Enterprise Server 2.1.1 with HADB
  - If you have an existing support ID, 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 If these patches are superceded by another patch, use the more recent patch.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: 128643-27
    - Solaris x86: 128644-27
    - Red Hat Linux and Oracle Linux: 128645-27
  - If you do not have an existing support ID, log in to Oracle Software Delivery Cloud and perform the following steps:
    1. 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.
    2. Click Continue.
    3. From the drop-down menu, select Sun Products and your platform (for example,

Oracle Solaris on x86-64 64 bit) then click Go.
4. Choose Sun Products Media Pack and click Continue.
5. Choose Sun Glassfish Server 2.1.1 with HADB to download.

- Directory Server Enterprise Edition 6.3 or greater
  If you do not have Directory Server deployed, download and install the following version: 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)
- Database software for Calendar Server 7 Update 2 back end (calendar store)
  - Oracle Database 11g Release 2 or
  - MySQL 5.5.8, which is included in the Communications Suite Media Pack.

For more information about Communications Suite 7 Update 2 component product dependencies, see Requirements for Communications Suite 7 Update 2.

Notes and Caveats

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

Licensing Information

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

Chapter 2. Communications Suite Initial Configuration

Oracle Communications Unified Communications Suite Initial Configuration
Version 7 Update 2

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: Calendar Server Initial Configuration

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

Chapter 3. Communications Suite Installation Guide

Oracle Communications Unified Communications Suite Installation Guide
Version 7 Update 2

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 product versions that are available in Communications Suite 7 Update 2.

Oracle Communications Unified Communications Suite Products and Components Version 7 Update 2

Product	Version
Oracle Communications Messaging Server	7 Update 4 (Patch 23)
Oracle Communications Instant Messaging Server	9
Convergence	2 (Patch 2)
Oracle Communications Calendar Server	7 Update 2
Delegated Administrator for Oracle Communications Unified Communications Suite	7 (Patch 4)
Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite	7.3 Update 1 (Patch 13)
Indexing and Search Service for Oracle Communications Unified Communications Suite	1 Update 3
Messaging Server HA Agent (MS_SCHA)	7
Instant Messaging HA Agent (IM_SCHA)	7.3
Dssetup for Oracle Communications Unified Communications Suite (`comm_dssetup`)	6.4 (Patch 23)

Check Communications Suite Component Patches for current patches that have shipped since the initial Communications Suite 7 Update 2 release.

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 2 on a Single Host (Solaris)
- Deployment Example: Communications Suite 7 Update 2 on a Single Host (Linux)

Communications Suite Installation Scenarios

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.
Oracle Linux 5.5	x64	See Oracle 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 2, Indexing and Search Service 1 Update 3, and Instant Messaging 9.

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 2 table lists the products and versions that are compatible with the Communications Suite 7 Update 2 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. If you are using Oracle Database as the back-end data store for Calendar Server, see Oracle Database Online Documentation for Oracle Database installation instructions.
5. 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. See: Access Manager Deprecation of Support.
   - 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:

- Oracle iPlanet 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 2

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

> Starting with **Calendar Server 7 Update 2**, you can use either Oracle Database or MySQL Server as the calendar back-end database.

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`
3. The Communications Suite installer installs product components under a single umbrella installation directory *INSTALLROOT*. The default value for *INSTALLROOT* is `/opt/sun/comms`.

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

- `commpkg install` Usage
- Installing Communications Suite in 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 - 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 2

Run the initial configuration program:

INSTALLROOT`/davserver/sbin/init-config`

For detailed instructions, see Calendar Server Initial Configuration.

Indexing and Search Service 1 Update 3

Run the initial configuration program:

INSTALLROOT`/jiss/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 9

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.

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 in 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
```

- 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 2

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 2

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 2 products:

Topics:

- Summary of Commands Run
- Session

Summary of Commands Run

```
614  pwd
  615  uname -a
  616  ./commpkg info
  617  ./commpkg info --verbose
```

Session

```
# uname -a
SunOS host1 5.10 Generic_142910-17 i86pc i386 i86pc

# ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20110921210123.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/messaging64
           Build Date: 20110810
  Product: Comms DSsetup 6.4
           Version: 6.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/dssetup
           Build Date: 20110713
  Product: Calendar Server 7u2
           Version: 7.2-4.19
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/davserver
           Build Date: 20110909
  Product: Instant Messaging 9
           Version: 9.0-00.15
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/im
           Build Date: 20110905
  Product: Convergence 2
           Version: 2.0-2.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/iwc
           Build Date: 20110817
  Product: Indexing and Search Service 1u3
           Version: 1.3-8.6501
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/jiss
           Build Date: 20110811
  Product: Comms Delegated Administrator 7
           Version: 7.0-4.00
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/da
           Build Date: 20110805
  Product: Messaging Server Sun Cluster HA agent 7.0
           Version: 7.0-0.03
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/msg_scha
           Build Date: 20080519
  Product: Instant Messaging Sun Cluster HA agent 7.3
           Version: 7.3-01.02
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/im_scha
           Build Date: 20080403

[617 Wed Sep 21 21:01:29 root@riot1%
/home/dl111122/wspace/releases/ci72# ]
# ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20110921210135.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
```

```
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/messaging64
           Build Date: 20110810
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           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: 6.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/dssetup
           Build Date: 20110713
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server 7u2
           Version: 7.2-4.19
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/davserver
           Build Date: 20110909
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWdavserver    7.0,REV=2009.08.27
  Product: Instant Messaging 9
```

```
          Version: 9.0-00.15
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/im
          Build Date: 20110905
          getVersion UNAME: SunOS
          getVersion ARCH: i386
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiim          9.0,REV=2011.09.05
            PRESENT  SUNWiimin        9.0,REV=2011.09.05
            PRESENT  SUNWiimm         9.0,REV=2011.09.05
            PRESENT  SUNWiimjd        9.0,REV=2011.09.05
            PRESENT  SUNWiimid        9.0,REV=2011.09.05
            PRESENT  SUNWiimgw        9.0,REV=2011.09.05
            PRESENT  SUNWiimw         9.0,REV=2011.09.05
            PRESENT  SUNWiimfed       9.0,REV=2011.09.05
Product: Convergence 2
          Version: 2.0-2.01
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/iwc
          Build Date: 20110817
          getVersion UNAME: SunOS
          getVersion ARCH: i386
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u3
          Version: 1.3-8.6501
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/jiss
          Build Date: 20110811
          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: 7.0-4.00
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/da
          Build Date: 20110805
          getVersion UNAME: SunOS
          getVersion ARCH: i386
          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
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/msg_scha
          Build Date: 20080519
          getVersion UNAME: SunOS
```

```
            getVersion ARCH: i386
            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
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/im_scha
            Build Date: 20080403
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.17

# ./commpkg info --verbose --includeSC
-- LOGFILE: /tmp/CommsInstaller_20110921210142.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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 4.8.8
            Version: 4.3.2
            ALTROOT: /
            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=2006.11.16.21.41
              PRESENT  SUNWpr           4.6.4,REV=2006.11.16.21.41
              PRESENT  SUNWprd          4.6.4,REV=2006.11.16.21.41
              PRESENT  SUNWtls          3.11.4,REV=2006.11.16.21.41
              PRESENT  SUNWtlsd         3.11.4,REV=2006.11.16.21.41
              PRESENT  SUNWtlsu         3.11.4,REV=2006.11.16.21.41
  Product: Simple Authentication and Security Layer 2.19
            Version: 2.19
            ALTROOT: /
            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=2003.07.18.13.13
Product: LDAPCSDK6 6.0
          Version: 6.03
          ALTROOT: /
          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=2006.12.11.00.35
            PRESENT  SUNWldapcsdk-dev 6.00,REV=2006.12.11.00.35
Product: LDAPCSDK6 Tools 6.0
          Version: 6.03
          ALTROOT: /
          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=2006.12.11.00.35
Product: International Components for Unicode ICU2,ICU3
          Version: 10/Generic
          ALTROOT: /
          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_26/1.6.0_26-b03
          ALTROOT: /
          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=2006.11.29.05.03
            PRESENT  SUNWj6rtx        1.6.0,REV=2006.11.29.02.51
            PRESENT  SUNWj6dev        1.6.0,REV=2006.11.29.05.03
            PRESENT  SUNWj6dvx        1.6.0,REV=2006.11.29.02.51
            PRESENT  SUNWj6cfg        1.6.0,REV=2006.11.29.05.03
Product: Java Help Runtime 2.0
          Version: 2.0/FCS
          ALTROOT: /
```

```
          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
          ALTROOT: /
          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=2009.08.27.09.45
            PRESENT  SUNWiqu          4.4,REV=2009.08.27.09.45
            PRESENT  SUNWiqdoc        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiquc         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqum         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqjx         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqfs         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqcrt        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqcdv        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqlen        4.4,REV=2009.08.27.09.46
Product: Message Queue Localization 4.4
          Version: 4.4.1.0
          ALTROOT: /
          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=2009.10.01.09.34.22
            PRESENT  SUNWfiquc        4.4,REV=2009.10.01.09.34.22
            PRESENT  SUNWdiqu         4.4,REV=2009.10.01.09.34.32
            PRESENT  SUNWdiquc        4.4,REV=2009.10.01.09.34.32
            PRESENT  SUNWjiqu         4.4,REV=2009.10.01.09.34.58
            PRESENT  SUNWjiquc        4.4,REV=2009.10.01.09.34.58
            PRESENT  SUNWeiqu         4.4,REV=2009.10.01.09.34.40
            PRESENT  SUNWeiquc        4.4,REV=2009.10.01.09.34.40
            PRESENT  SUNWkiqu         4.4,REV=2009.10.01.09.34.50
            PRESENT  SUNWkiquc        4.4,REV=2009.10.01.09.34.50
            PRESENT  SUNWciqu         4.4,REV=2009.10.01.09.35.07
            PRESENT  SUNWciquc        4.4,REV=2009.10.01.09.35.07
            PRESENT  SUNWhiqu         4.4,REV=2009.10.01.09.35.15
            PRESENT  SUNWhiquc        4.4,REV=2009.10.01.09.35.15
Product: LDAPJDK 4.21
```

```
          Version: 4.21
          ALTROOT: /
          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 9
          Version: 9.0-00.15
          ALTROOT: /
          Basedir: /
          Build Date: none
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiimdv        9.0,REV=2011.09.05
Product: MySQL Marker 1.1
          Version: 1.1-0.01
          ALTROOT: /
          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 1.1,REV=2011.09.09
Product: MySQL 5.5.8
          Version: none
          ALTROOT: /
          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            5.5.8
Product: Service Tags 1.1.4
          Version: 1.1.4.1
          ALTROOT: /
          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=2008.03.21.07.56
            PRESENT  SUNWservicetagu  1.1.4,REV=2008.03.21.07.56
            PRESENT  SUNWstosreg      1.1.4,REV=2008.03.21.07.56
```

```
  Product: CommsInstaller 7u2
           Version: 7.2-0.36
           ALTROOT: /
           Basedir: /opt/sun/comms/CommsInstaller
           Build Date: 20110909
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomms        7.2,REV=2011.09.09

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Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/messaging64
           Build Date: 20110810
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           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: 6.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/dssetup
           Build Date: 20110713
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server 7u2
           Version: 7.2-4.19
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/davserver
           Build Date: 20110909
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
```

```
            PRESENT  SUNWdavserver    7.0,REV=2009.08.27
Product: Instant Messaging 9
         Version: 9.0-00.15
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/im
         Build Date: 20110905
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWiim          9.0,REV=2011.09.05
            PRESENT  SUNWiimin        9.0,REV=2011.09.05
            PRESENT  SUNWiimm         9.0,REV=2011.09.05
            PRESENT  SUNWiimjd        9.0,REV=2011.09.05
            PRESENT  SUNWiimid        9.0,REV=2011.09.05
            PRESENT  SUNWiimgw        9.0,REV=2011.09.05
            PRESENT  SUNWiimw         9.0,REV=2011.09.05
            PRESENT  SUNWiimfed       9.0,REV=2011.09.05
Product: Convergence 2
         Version: 2.0-2.01
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/iwc
         Build Date: 20110817
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u3
         Version: 1.3-8.6501
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/jiss
         Build Date: 20110811
         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: 7.0-4.00
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/da
         Build Date: 20110805
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         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
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/msg_scha
```

```
          Build Date: 20080519
          getVersion UNAME: SunOS
          getVersion ARCH: i386
          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
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/im_scha
          Build Date: 20080403
          getVersion UNAME: SunOS
          getVersion ARCH: i386
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.17
Product: NSS/NSPR/JSS 4.8.8
          Version: 4.3.2
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/
          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=2006.11.16.21.41
            PRESENT  SUNWpr           4.6.4,REV=2006.11.16.21.41
            PRESENT  SUNWprd          4.6.4,REV=2006.11.16.21.41
            PRESENT  SUNWtls          3.11.4,REV=2006.11.16.21.41
            PRESENT  SUNWtlsd         3.11.4,REV=2006.11.16.21.41
            PRESENT  SUNWtlsu         3.11.4,REV=2006.11.16.21.41
Product: Simple Authentication and Security Layer 2.19
          Version: 2.19
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/
          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=2003.07.18.13.13
Product: LDAPCSDK6 6.0
          Version: 6.03
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/
          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=2006.12.11.00.35
```

```
            PRESENT  SUNWldapcsdk-dev 6.00,REV=2006.12.11.00.35
Product: LDAPCSDK6 Tools 6.0
         Version: 6.03
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/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=2006.12.11.00.35
Product: International Components for Unicode ICU2,ICU3
         Version: 10/Generic
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/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_26/1.6.0_26-b03
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/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=2006.11.29.05.03
            PRESENT  SUNWj6rtx        1.6.0,REV=2006.11.29.02.51
            PRESENT  SUNWj6dev        1.6.0,REV=2006.11.29.05.03
            PRESENT  SUNWj6dvx        1.6.0,REV=2006.11.29.02.51
            PRESENT  SUNWj6cfg        1.6.0,REV=2006.11.29.05.03
Product: Java Help Runtime 2.0
         Version: 2.0/FCS
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/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
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/
```

```
          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=2009.08.27.09.45
            PRESENT  SUNWiqu          4.4,REV=2009.08.27.09.45
            PRESENT  SUNWiqdoc        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiquc         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqum         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqjx         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqfs         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqcrt        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqcdv        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqlen        4.4,REV=2009.08.27.09.46
Product: Message Queue Localization 4.4
          Version: 4.4.1.0
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/
          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=2009.10.01.09.34.22
            PRESENT  SUNWfiquc        4.4,REV=2009.10.01.09.34.22
            PRESENT  SUNWdiqu         4.4,REV=2009.10.01.09.34.32
            PRESENT  SUNWdiquc        4.4,REV=2009.10.01.09.34.32
            PRESENT  SUNWjiqu         4.4,REV=2009.10.01.09.34.58
            PRESENT  SUNWjiquc        4.4,REV=2009.10.01.09.34.58
            PRESENT  SUNWeiqu         4.4,REV=2009.10.01.09.34.40
            PRESENT  SUNWeiquc        4.4,REV=2009.10.01.09.34.40
            PRESENT  SUNWkiqu         4.4,REV=2009.10.01.09.34.50
            PRESENT  SUNWkiquc        4.4,REV=2009.10.01.09.34.50
            PRESENT  SUNWciqu         4.4,REV=2009.10.01.09.35.07
            PRESENT  SUNWciquc        4.4,REV=2009.10.01.09.35.07
            PRESENT  SUNWhiqu         4.4,REV=2009.10.01.09.35.15
            PRESENT  SUNWhiquc        4.4,REV=2009.10.01.09.35.15
Product: LDAPJDK 4.21
          Version: 4.21
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/
          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 9
          Version: 9.0-00.15
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/
          Build Date: none
```

```
          getVersion UNAME: none
          getVersion ARCH: none
          getVersion BITS: none
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiimdv        9.0,REV=2011.09.05
Product: MySQL Marker 1.1
          Version: 1.1-0.01
          ALTROOT: /
          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 1.1,REV=2011.09.09
Product: MySQL 5.5.8
          Version: none
          ALTROOT: /
          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            5.5.8
Product: Service Tags 1.1.4
          Version: 1.1.4.1
          ALTROOT: /
          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=2008.03.21.07.56
            PRESENT  SUNWservicetagu  1.1.4,REV=2008.03.21.07.56
            PRESENT  SUNWstosreg      1.1.4,REV=2008.03.21.07.56
Product: CommsInstaller 7u2
          Version: 7.2-0.36
          ALTROOT: /opt/altroot
          Basedir: /opt/altroot/CommsInstaller
          Build Date: 20110909
          getVersion UNAME: SunOS
          getVersion ARCH: i386
          getVersion BITS: 32
          Product Installation Status: PRESENT
```

```
Package Status/Name/Version:
  PRESENT  SUNWcomms        7.2,REV=2011.09.09
```

commpkg info Sample Session

commpkg info Sample Session

This sample session shows the output of `commpkg info` in Communications Suite 7 Update 2.

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

```
606  pwd
  607  uname -a
  608  ./commpkg info
  609  ./commpkg info --verbose
```

Session

```
# uname -a
SunOS host1 5.10 Generic_142910-17 i86pc i386 i86pc
# ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20110921205445.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/messaging64
```

```
            Build Date: 20110810
  Product: Comms DSsetup 6.4
            Version: 6.4-23.01
            ALTROOT: /
            Basedir: /opt/sun/comms/dssetup
            Build Date: 20110713
  Product: Calendar Server 7u2
            Version: 7.2-4.19
            ALTROOT: /
            Basedir: /opt/sun/comms/davserver
            Build Date: 20110909
  Product: Instant Messaging 9
            Version: 9.0-00.15
            ALTROOT: /
            Basedir: /opt/sun/comms/im
            Build Date: 20110905
  Product: Convergence 2
            Version: 2.0-2.01
            ALTROOT: /
            Basedir: /opt/sun/comms/iwc
            Build Date: 20110817
  Product: Indexing and Search Service 1u3
            Version: 1.3-8.6501
            ALTROOT: /
            Basedir: /opt/sun/comms/jiss
            Build Date: 20110811
  Product: Comms Delegated Administrator 7
            Version: 7.0-4.00
            ALTROOT: /
            Basedir: /opt/sun/comms/da
            Build Date: 20110805
  Product: Messaging Server Sun Cluster HA agent 7.0
            Version: 7.0-0.03
            ALTROOT: /
            Basedir: /opt/sun/comms/msg_scha
            Build Date: 20080519
  Product: Instant Messaging Sun Cluster HA agent 7.3
            Version: 7.3-01.02
            ALTROOT: /
            Basedir: /opt/sun/comms/im_scha
            Build Date: 20080403

# ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20110921205520.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20110810
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           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: 6.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20110713
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server 7u2
           Version: 7.2-4.19
           ALTROOT: /
           Basedir: /opt/sun/comms/davserver
           Build Date: 20110909
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWdavserver    7.0,REV=2009.08.27
  Product: Instant Messaging 9
           Version: 9.0-00.15
           ALTROOT: /
           Basedir: /opt/sun/comms/im
           Build Date: 20110905
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWiim          9.0,REV=2011.09.05
             PRESENT  SUNWiimin        9.0,REV=2011.09.05
             PRESENT  SUNWiimm         9.0,REV=2011.09.05
             PRESENT  SUNWiimjd        9.0,REV=2011.09.05
             PRESENT  SUNWiimid        9.0,REV=2011.09.05
             PRESENT  SUNWiimgw        9.0,REV=2011.09.05
             PRESENT  SUNWiimw         9.0,REV=2011.09.05
             PRESENT  SUNWiimfed       9.0,REV=2011.09.05
  Product: Convergence 2
           Version: 2.0-2.01
           ALTROOT: /
```

```
            Basedir: /opt/sun/comms/iwc
            Build Date: 20110817
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiwc          2.0,REV=2010.07.26
   Product: Indexing and Search Service 1u3
            Version: 1.3-8.6501
            ALTROOT: /
            Basedir: /opt/sun/comms/jiss
            Build Date: 20110811
            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: 7.0-4.00
            ALTROOT: /
            Basedir: /opt/sun/comms/da
            Build Date: 20110805
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            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
            ALTROOT: /
            Basedir: /opt/sun/comms/msg_scha
            Build Date: 20080519
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            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
            ALTROOT: /
            Basedir: /opt/sun/comms/im_scha
            Build Date: 20080403
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.17

# ./commpkg info --verbose --includeSC
-- LOGFILE: /tmp/CommsInstaller_20110921205528.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
```

```
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20110810
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           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: 6.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20110713
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server 7u2
           Version: 7.2-4.19
           ALTROOT: /
           Basedir: /opt/sun/comms/davserver
           Build Date: 20110909
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWdavserver    7.0,REV=2009.08.27
  Product: Instant Messaging 9
           Version: 9.0-00.15
           ALTROOT: /
           Basedir: /opt/sun/comms/im
           Build Date: 20110905
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
```

```
             PRESENT  SUNWiim          9.0,REV=2011.09.05
             PRESENT  SUNWiimin        9.0,REV=2011.09.05
             PRESENT  SUNWiimm         9.0,REV=2011.09.05
             PRESENT  SUNWiimjd        9.0,REV=2011.09.05
             PRESENT  SUNWiimid        9.0,REV=2011.09.05
             PRESENT  SUNWiimgw        9.0,REV=2011.09.05
             PRESENT  SUNWiimw         9.0,REV=2011.09.05
             PRESENT  SUNWiimfed       9.0,REV=2011.09.05
Product: Convergence 2
         Version: 2.0-2.01
         ALTROOT: /
         Basedir: /opt/sun/comms/iwc
         Build Date: 20110817
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
             PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u3
         Version: 1.3-8.6501
         ALTROOT: /
         Basedir: /opt/sun/comms/jiss
         Build Date: 20110811
         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: 7.0-4.00
         ALTROOT: /
         Basedir: /opt/sun/comms/da
         Build Date: 20110805
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         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
         ALTROOT: /
         Basedir: /opt/sun/comms/msg_scha
         Build Date: 20080519
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         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
         ALTROOT: /
         Basedir: /opt/sun/comms/im_scha
```

```
          Build Date: 20080403
          getVersion UNAME: SunOS
          getVersion ARCH: i386
          getVersion BITS: 32
          Product Installation Status: PRESENT
          Package Status/Name/Version:
            PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.17
Product: NSS/NSPR/JSS 4.8.8
          Version: 4.3.2
          ALTROOT: /
          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=2006.11.16.21.41
            PRESENT  SUNWpr           4.6.4,REV=2006.11.16.21.41
            PRESENT  SUNWprd          4.6.4,REV=2006.11.16.21.41
            PRESENT  SUNWtls          3.11.4,REV=2006.11.16.21.41
            PRESENT  SUNWtlsd         3.11.4,REV=2006.11.16.21.41
            PRESENT  SUNWtlsu         3.11.4,REV=2006.11.16.21.41
Product: Simple Authentication and Security Layer 2.19
          Version: 2.19
          ALTROOT: /
          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=2003.07.18.13.13
Product: LDAPCSDK6 6.0
          Version: 6.03
          ALTROOT: /
          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=2006.12.11.00.35
            PRESENT  SUNWldapcsdk-dev 6.00,REV=2006.12.11.00.35
Product: LDAPCSDK6 Tools 6.0
          Version: 6.03
          ALTROOT: /
          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=2006.12.11.00.35
Product: International Components for Unicode ICU2,ICU3
         Version: 10/Generic
         ALTROOT: /
         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_26/1.6.0_26-b03
         ALTROOT: /
         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=2006.11.29.05.03
            PRESENT  SUNWj6rtx        1.6.0,REV=2006.11.29.02.51
            PRESENT  SUNWj6dev        1.6.0,REV=2006.11.29.05.03
            PRESENT  SUNWj6dvx        1.6.0,REV=2006.11.29.02.51
            PRESENT  SUNWj6cfg        1.6.0,REV=2006.11.29.05.03
Product: Java Help Runtime 2.0
         Version: 2.0/FCS
         ALTROOT: /
         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
         ALTROOT: /
         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=2009.08.27.09.45
            PRESENT  SUNWiqu          4.4,REV=2009.08.27.09.45
            PRESENT  SUNWiqdoc        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiquc         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqum         4.4,REV=2009.08.27.09.46
```

```
            PRESENT  SUNWiqjx         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqfs         4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqcrt        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqcdv        4.4,REV=2009.08.27.09.46
            PRESENT  SUNWiqlen        4.4,REV=2009.08.27.09.46
Product: Message Queue Localization 4.4
         Version: 4.4.1.0
         ALTROOT: /
         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=2009.10.01.09.34.22
            PRESENT  SUNWfiquc        4.4,REV=2009.10.01.09.34.22
            PRESENT  SUNWdiqu         4.4,REV=2009.10.01.09.34.32
            PRESENT  SUNWdiquc        4.4,REV=2009.10.01.09.34.32
            PRESENT  SUNWjiqu         4.4,REV=2009.10.01.09.34.58
            PRESENT  SUNWjiquc        4.4,REV=2009.10.01.09.34.58
            PRESENT  SUNWeiqu         4.4,REV=2009.10.01.09.34.40
            PRESENT  SUNWeiquc        4.4,REV=2009.10.01.09.34.40
            PRESENT  SUNWkiqu         4.4,REV=2009.10.01.09.34.50
            PRESENT  SUNWkiquc        4.4,REV=2009.10.01.09.34.50
            PRESENT  SUNWciqu         4.4,REV=2009.10.01.09.35.07
            PRESENT  SUNWciquc        4.4,REV=2009.10.01.09.35.07
            PRESENT  SUNWhiqu         4.4,REV=2009.10.01.09.35.15
            PRESENT  SUNWhiquc        4.4,REV=2009.10.01.09.35.15
Product: LDAPJDK 4.21
         Version: 4.21
         ALTROOT: /
         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 9
         Version: 9.0-00.15
         ALTROOT: /
         Basedir: /
         Build Date: none
         getVersion UNAME: none
         getVersion ARCH: none
         getVersion BITS: none
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWiimdv        9.0,REV=2011.09.05
Product: MySQL Marker 1.1
         Version: 1.1-0.01
         ALTROOT: /
         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 1.1,REV=2011.09.09
Product: MySQL 5.5.8
          Version: none
          ALTROOT: /
          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            5.5.8
Product: Service Tags 1.1.4
          Version: 1.1.4.1
          ALTROOT: /
          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=2008.03.21.07.56
            PRESENT  SUNWservicetagu  1.1.4,REV=2008.03.21.07.56
            PRESENT  SUNWstosreg      1.1.4,REV=2008.03.21.07.56
Product: CommsInstaller 7u2
          Version: 7.2-0.36
          ALTROOT: /
          Basedir: /opt/sun/comms/CommsInstaller
          Build Date: 20110909
          getVersion UNAME: SunOS
          getVersion ARCH: i386
          getVersion BITS: 32
          Product Installation Status: PRESENT
```

```
Package Status/Name/Version:
  PRESENT  SUNWcomms        7.2,REV=2011.09.09
```

commpkg install Usage

commpkg install Usage
Version 7 Update 2

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.

For a sample installation and uninstallation, see: Sample Session - Communications Suite Simple Install and Uninstall.

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.
`--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. 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 in 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 2

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.

For a sample installation and uninstallation, see: Sample Session - Communications Suite Simple Install and Uninstall.

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
Version 7 Update 2

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 (6.4-23.01)

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`).

> **Note**
> This information also includes sample sessions for DSsetup 6.4 Patch 24 (6.4-24).

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 steps:

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 the comm_dssetup.pl Script.
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 a configuration tool that is for local LDAP instances servers. Thus,

- You must install the `comm_dssetup.pl` script on every machine on which a Directory Server resides.
- 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
	deleted	pres, eq
	inetCos	eq
User/Group (additional for 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 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 7.
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 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. The following table lists the specific OID's that might cause problems.

Object Class	Old OID	New OID
`icsCalendarUser`	1.3.6.1.4.1.42.2.27.9.2.44	1.3.6.1.4.1.42.2.27.9.2.140
`icsCalendarResource`	1.3.6.1.4.1.42.2.27.9.2.45	{{1.3.6.1.4.1.42.2.27.9.2.141
`icsCalendarDomain`	1.3.6.1.4.1.42.2.27.9.2.4}	1.3.6.1.4.1.42.2.27.9.2.149

2. After you edit the `99user.ldif` file, restart the Directory Server.

Sample Sessions

- DSsetup 6.4-23.01 Sample Session - Fresh Directory Server 7.0 Instance for Schema 1
- DSsetup 6.4-23.01 Sample Session - Existing Directory Server 7.0 Instance for Schema 1
- DSsetup 6.4-23.01 Sample Session - Fresh Directory Server 7.0 Instance for Schema 2
- DSsetup 6.4-23.01 Sample Session - Existing Directory Server 7.0 Instance for Schema 2
- DSsetup 6.4-24 Sample Session - Fresh Directory Server 7.0 Instance for Schema 1
- DSsetup 6.4-24 Sample Session - Existing Directory Server 7.0 Instance for Schema 1
- DSsetup 6.4-24 Sample Session - Fresh Directory Server 7.0 Instance for Schema 2
- DSsetup 6.4-24 Sample Session - Existing Directory Server 7.0 Instance for Schema 2

DSsetup Patches by Release

- DSsetup Patches By Release

DSsetup 6.4-23.01 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 an existing Directory Server 7.0 instance for Schema 1.

Summary of Commands Run

```
708  /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
  709  ls /var/tmp/dssetup_20110922183154/
  710  ls /var/tmp/dssetup_20110922183154/save
  711  cat /var/tmp/dssetup_20110922183154/99user_new.ldif
  712  cat /var/tmp/dssetup_20110922183154/dssetup.ldif
  713  cat /var/tmp/dssetup_20110922183154/dssetup.ldif.rej
  714  cat /var/tmp/dssetup_20110922183154/dssetup.sh
  715  cat /var/tmp/dssetup_20110922183154/dssetup.log
```

Comments

- Sample Session for running comm_dssetup.pl a second time on the same DS instance

Session

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

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:50:22 PDT 2011)

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_20110922183154/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


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/dsee11g/dsee7
- DS hostname: riot1
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on riot1 port 389

Warning: This version of comm_dssetup.pl (6.4 23.01) has been run
previously (6.4 23.01), 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 cn
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for groupid
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    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 uniqueMember
```

```
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for deleted
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for icsCalendarOwned
      No new indexes required
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      No new indexes required
    Checking indexes for inetCanonicalDomainName
      No new indexes required
    Checking indexes for mailDomainStatus
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfManagedGroup
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for un
      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 mail
      No new indexes required
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      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_20110922183154/dssetup.sh
   /var/tmp/dssetup_20110922183154/dssetup.ldif

Running /var/tmp/dssetup_20110922183154/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_20110922183154/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20110922183154/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=10047
-- Applying ldif file /var/tmp/dssetup_20110922183154/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_20110922183154/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20110922183154/dssetup.ldif

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mail o=usergroup
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20110922183154/dssetup.log for details

# ls /var/tmp/dssetup_20110922183154/
ls /var/tmp/dssetup_20110922183154/
total 62
   5 99user_new.ldif      29 dssetup.log
   6 dssetup.ldif         15 dssetup.sh*
   2 dssetup.ldif.rej      5 save/

# ls /var/tmp/dssetup_20110922183154/save
ls /var/tmp/dssetup_20110922183154/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

# cat /var/tmp/dssetup_20110922183154/99user_new.ldif
cat /var/tmp/dssetup_20110922183154/99user_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: 20110923012801Z
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: 4e7be0a1000000000000


# cat /var/tmp/dssetup_20110922183154/dssetup.ldif
cat /var/tmp/dssetup_20110922183154/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 riot1 -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20110922183154/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=23.01
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";)

# cat /var/tmp/dssetup_20110922183154/dssetup.ldif.rej
cat /var/tmp/dssetup_20110922183154/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";)

# cat /var/tmp/dssetup_20110922183154/dssetup.sh
cat /var/tmp/dssetup_20110922183154/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee11g/dsee7/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/dsee11g/dsee7/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_20110922183154/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h riot1 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20110922183154/dssetup.ldif.rej -f
/var/tmp/dssetup_20110922183154/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20110922183154/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_20110922183154/dssetup.ldif
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mail" "approx-enabled:on"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mail reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mail"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
```

```
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mailAlternateAddress reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t
"mailAlternateAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"mailAlternateAddress" "o=usergroup"
echo

# cat /var/tmp/dssetup_20110922183154/dssetup.log
cat /var/tmp/dssetup_20110922183154/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

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

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:50:22 PDT 2011)

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_20110922183154/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


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/dsee11g/dsee7
- DS hostname: riot1
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20110922183154/dssetup.pw" -p 389 -h riot1 -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/11.1.1.3.0
B2010.0630.2254
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on riot1 port 389
-- Stored Dssetup data ver=6.4 rev=23.01, dctree=o=internet
   ug=o=usergroup, schematype=1

Warning: This version of comm_dssetup.pl (6.4 23.01) has been run
previously (6.4 23.01), 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 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 cosspecifier
      Index exists
      Index eq found
      Index pres found
        Index pres 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 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 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
    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 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 uniqueMember
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      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 deleted
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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 mailUserStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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
  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 inetCanonicalDomainName
      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
  Adding Indexes for PAB Tree (backend:pabdb2)
    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 memberOfPABGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    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 un
      Index exists
      Index eq found
      Index pres found
        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 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 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 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_20110922183154/dssetup.sh
   /var/tmp/dssetup_20110922183154/dssetup.ldif

Running /var/tmp/dssetup_20110922183154/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_20110922183154/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20110922183154/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=10047
-- Applying ldif file /var/tmp/dssetup_20110922183154/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_20110922183154/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20110922183154/dssetup.ldif

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mail o=usergroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
```

```
mailAlternateAddress sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

Successful Completion. Consult
```

```
/var/tmp/dssetup_20110922183154/dssetup.log for details
[716 Thu Sep 22 18:35:06 root@riot1% /opt/dsee11g/dsee7/bin# ]
```

DSsetup 6.4-23.01 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

```
688  /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
  689  ls /var/tmp/dssetup_20110922182001/
  690  ls /var/tmp/dssetup_20110922182001/save
  691  cat /var/tmp/dssetup_20110922182001/99user_new.ldif
  692  cat /var/tmp/dssetup_20110922182001/dssetup.ldif
  693  cat /var/tmp/dssetup_20110922182001/dssetup.ldif.rej
  694  cat /var/tmp/dssetup_20110922182001/dssetup.sh
  695  cat /var/tmp/dssetup_20110922182001/dssetup.log
```

Comments

- Sample Session for running comm_dssetup.pl a second time on the same DS instance

Session

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

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:50:22 PDT 2011)

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_20110922182001/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


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/dsee11g/dsee7
- DS hostname: riot1
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on riot1 port 389

Warning: This version of comm_dssetup.pl (6.4 23.01) has been run
previously (6.4 23.01), 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
  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 cn
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for groupid
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    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 uniqueMember
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for deleted
```

```
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for icsCalendarOwned
      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 sunOrganizationAlias
      No new indexes required
    Checking indexes for sunPreferredDomain
      No new indexes required
    Checking indexes for mailDomainStatus
      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 memberOfManagedGroup
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for un
      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 mail
      No new indexes required
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      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_20110922182001/dssetup.sh
   /var/tmp/dssetup_20110922182001/dssetup.ldif

Running /var/tmp/dssetup_20110922182001/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_20110922182001/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20110922182001/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=9254
-- Applying ldif file /var/tmp/dssetup_20110922182001/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_20110922182001/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20110922182001/dssetup.ldif

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mail o=usergroup
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20110922182001/dssetup.log for details

# ls /var/tmp/dssetup_20110922182001/
ls /var/tmp/dssetup_20110922182001/
total 63
   5 99user_new.ldif      30 dssetup.log
   6 dssetup.ldif         15 dssetup.sh*
   2 dssetup.ldif.rej      5 save/

# ls /var/tmp/dssetup_20110922182001/save
ls /var/tmp/dssetup_20110922182001/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

# cat /var/tmp/dssetup_20110922182001/99user_new.ldif
cat /var/tmp/dssetup_20110922182001/99user_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: 20110923011825Z
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: 4e7bde61000000000000

# cat /var/tmp/dssetup_20110922182001/dssetup.ldif
cat /var/tmp/dssetup_20110922182001/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 riot1 -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20110922182001/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=23.01
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";)

# cat /var/tmp/dssetup_20110922182001/dssetup.ldif.rej
cat /var/tmp/dssetup_20110922182001/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";)

# cat /var/tmp/dssetup_20110922182001/dssetup.sh
cat /var/tmp/dssetup_20110922182001/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee11g/dsee7/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/dsee11g/dsee7/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_20110922182001/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h riot1 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20110922182001/dssetup.ldif.rej -f
/var/tmp/dssetup_20110922182001/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20110922182001/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_20110922182001/dssetup.ldif
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mail" "approx-enabled:on"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mail reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mail"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
```

```
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mailAlternateAddress reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t
"mailAlternateAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"mailAlternateAddress" "o=usergroup"
echo

# cat /var/tmp/dssetup_20110922182001/dssetup.log
cat /var/tmp/dssetup_20110922182001/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

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

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:50:22 PDT 2011)

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_20110922182001/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


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/dsee11g/dsee7
- DS hostname: riot1
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20110922182001/dssetup.pw" -p 389 -h riot1 -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/11.1.1.3.0
B2010.0630.2254
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on riot1 port 389
-- Stored Dssetup data ver=6.4 rev=23.01, dctree=o=usergroup
   ug=o=usergroup, schematype=2

Warning: This version of comm_dssetup.pl (6.4 23.01) has been run
previously (6.4 23.01), 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
  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 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 cosspecifier
      Index exists
      Index eq found
      Index pres found
        Index pres 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 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 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
    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 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 uniqueMember
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      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 deleted
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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 mailUserStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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
  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 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 mailDomainStatus
```

```
      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 memberOfManagedGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        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
    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 un
      Index exists
      Index eq found
      Index pres found
        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 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 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 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_20110922182001/dssetup.sh
   /var/tmp/dssetup_20110922182001/dssetup.ldif

Running /var/tmp/dssetup_20110922182001/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_20110922182001/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20110922182001/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=9254
-- Applying ldif file /var/tmp/dssetup_20110922182001/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_20110922182001/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20110922182001/dssetup.ldif

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mail o=usergroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup
```

```
Successful Completion. Consult
/var/tmp/dssetup_20110922182001/dssetup.log for details
```

DSsetup 6.4-23.01 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

```
699  /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
  700  ls /var/tmp/dssetup_20110922182713/
  701  ls /var/tmp/dssetup_20110922182713/save
  702  cat /var/tmp/dssetup_20110922182713/99user_new.ldif
  703  cat /var/tmp/dssetup_20110922182713/dssetup.ldif
  704  cat /var/tmp/dssetup_20110922182713/dssetup.sh
  705  cat /var/tmp/dssetup_20110922182713/dssetup.log
```

Comments

To create a pristine DS instance:

```
cd /opt/dsee11g/dsee7/bin
  ./dsadm create /var/opt/sun/directory/ds7
  ./dsadm start /var/opt/sun/directory/ds7
  ./dsadm delete /var/opt/sun/directory/ds7
```

Session

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

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:50:22 PDT 2011)

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_20110922182713/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


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/dsee11g/dsee7
- DS hostname: riot1
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on riot1 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
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 cn
      No new indexes required
    Checking indexes for cosspecifier
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for inetCos
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for memberOf
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for groupid
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
    Checking indexes for mail
      No new indexes required
    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 uniqueMember
      No new indexes required
    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 deleted
      New indexes and Reindexing required
      ReIndex will happen for index type deleted
    Checking indexes for mgrpUniqueId
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for mailUserStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailUserStatus
    Checking indexes for icsCalendarOwned
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
  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 inetCanonicalDomainName
      New indexes and Reindexing required
      ReIndex will happen for index type inetCanonicalDomainName
    Checking indexes for mailDomainStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfManagedGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for memberOfPABGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
    Checking indexes for memberOfPAB
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for un
      New indexes and Reindexing required
      ReIndex will happen for index type un
  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 mail
```

```
      No new indexes required
    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 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: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20110922182713/dssetup.sh
   /var/tmp/dssetup_20110922182713/dssetup.ldif

Running /var/tmp/dssetup_20110922182713/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_20110922182713/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20110922182713/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=9569
-- 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_20110922182713/dssetup.ldif
modifying entry cn=schema

modifying entry cn=schema

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20110922182713/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20110922182713/dssetup.ldif

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
cosspecifier

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendar

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted

-- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
```

```
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on

-- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on

-- /opt/dsee11g/dsee7/bin/dsconf -t deleted reindex o=usergroup
## usergroupdb2: Indexing attribute: deleted
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t deleted o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailUserStatus

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t icsCalendarOwned
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetDomainBaseDN
```

```
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetDomainBaseDN

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetDomainBaseDN
o=internet

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetCanonicalDomainName
o=internet
```

```
-- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
mailDomainStatus
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
mailDomainStatus

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailDomainStatus
o=internet

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfManagedGroup
o=pab
```

```
-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfPABGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t un o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t MemberofPiGroup
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
```

```
displayname

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t displayname
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mlsubListIdentifier
o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20110922182713/dssetup.log for details
# ls /var/tmp/dssetup_20110922182713/
ls /var/tmp/dssetup_20110922182713/
total 173
   2 99user_new.ldif     67 dssetup.log          5 save/
   5 dssetup.ldif        94 dssetup.sh*
# ls /var/tmp/dssetup_20110922182713/save
ls /var/tmp/dssetup_20110922182713/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

# cat /var/tmp/dssetup_20110922182713/99user_new.ldif
cat /var/tmp/dssetup_20110922182713/99user_new.ldif
#
# Copyright 2003 Sun Microsystems, Inc. All Rights Reserved
# Patents Pending.Use is subject to license terms.
#
#
# PROPRIETARY/CONFIDENTIAL. 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
# cat /var/tmp/dssetup_20110922182713/dssetup.ldif
cat /var/tmp/dssetup_20110922182713/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 riot1 -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20110922182713/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
# 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=23.01
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";)
# cat /var/tmp/dssetup_20110922182713/dssetup.sh
cat /var/tmp/dssetup_20110922182713/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee11g/dsee7/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/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
usergroupdb2 o=usergroup
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=internet
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
internetdb2 o=internet
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=internet
echo
```

```
echo -- Creating Suffix o=pab
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
pabdb2 o=pab
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=PiServerDb
echo

echo -- Creating Suffix o=mlusers
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=mlusers
echo

echo -- Applying ldif file /var/tmp/dssetup_20110922182713/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h riot1 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20110922182713/dssetup.ldif.rej -f
/var/tmp/dssetup_20110922182713/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20110922182713/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_20110922182713/dssetup.ldif
echo
```

```
echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
cosspecifier
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"cosspecifier"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t cosspecifier reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "cosspecifier"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "cosspecifier"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"inetCos"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"inetCos"
echo
```

```
echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t inetCos reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "inetCos"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "inetCos"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"memberOf"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"memberOf"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"memberOf" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
```

```
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t memberOf reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "memberOf"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "memberOf"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"groupid"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"groupid"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
```

```
"groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t groupid reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "groupid"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "groupid"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendar
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"icsCalendar"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendar" "pres-enabled:on"
```

```
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t icsCalendar reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "icsCalendar"
"o=usergroup"
stat=$?
```

```
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "icsCalendar"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"ou"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"ou"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"ou" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t ou reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "ou" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "ou" "o=usergroup"

echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
```

```
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"mailEquivalentAddress"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
```

```
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t
"mailEquivalentAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"mailEquivalentAddress" "o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"deleted"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"deleted"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"deleted" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
deleted pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"deleted" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
deleted eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t deleted reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "deleted"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "deleted"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mgrpUniqueId
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"mgrpUniqueId"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mgrpUniqueId"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mgrpUniqueId"
```

```
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailUserStatus
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"mailUserStatus"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailUserStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mailUserStatus reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mailUserStatus"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mailUserStatus"
```

```
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"icsCalendarOwned"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
```

```
icsCalendarOwned approx-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "icsCalendarOwned"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "icsCalendarOwned"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetDomainBaseDN
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=internet"
"inetDomainBaseDN"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
```

```
inetDomainBaseDN pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t inetDomainBaseDN reindex
o=internet
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "inetDomainBaseDN"
"o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "inetDomainBaseDN"
"o=internet"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"inetCanonicalDomainName"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=internet"
"inetCanonicalDomainName"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"inetCanonicalDomainName" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
```

```
inetCanonicalDomainName pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"inetCanonicalDomainName" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t inetCanonicalDomainName reindex
o=internet
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t
"inetCanonicalDomainName" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"inetCanonicalDomainName" "o=internet"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
mailDomainStatus
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=internet"
"mailDomainStatus"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
```

```
mailDomainStatus pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=internet"
"mailDomainStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mailDomainStatus reindex
o=internet
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mailDomainStatus"
"o=internet"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mailDomainStatus"
"o=internet"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfManagedGroup
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
```

```
memberOfManagedGroup pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfManagedGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t memberOfManagedGroup reindex
o=pab
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t
"memberOfManagedGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"memberOfManagedGroup" "o=pab"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfPABGroup
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPABGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=pab"
"memberOfPABGroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
```

```
memberOfPABGroup pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "memberOfPABGroup"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "memberOfPABGroup"
"o=pab"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=pab"
"memberOfPAB"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
echo
```

```
echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t memberOfPAB reindex o=pab
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "memberOfPAB" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "memberOfPAB"
"o=pab"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab" "un"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=pab" "un"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab" "un"
"eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t un reindex o=pab
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "un" "o=pab"
stat=$?
```

```
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "un" "o=pab"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=PiServerDb"
"MemberOfPiBook"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "MemberOfPiBook"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "MemberOfPiBook"
"o=PiServerDb"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=PiServerDb"
"MemberofPiGroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "MemberofPiGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "MemberofPiGroup"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "MemberofPiGroup"
"o=PiServerDb"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
displayname
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "displayname"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=PiServerDb"
"displayname"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t displayname reindex
o=PiServerDb
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "displayname"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "displayname"
"o=PiServerDb"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=mlusers"
"mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
```

```
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=mlusers"
"mlsubMail"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=mlusers"
"mlsubMail" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mlsubMail reindex o=mlusers
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mlsubMail"
"o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mlsubMail"
"o=mlusers"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=mlusers"
"mlsubListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=mlusers"
"mlsubListIdentifier"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=mlusers"
"mlsubListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
```

```
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mlsubListIdentifier"
"o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"mlsubListIdentifier" "o=mlusers"
echo
# cat /var/tmp/dssetup_20110922182713/dssetup.log
cat /var/tmp/dssetup_20110922182713/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=

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

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:50:22 PDT 2011)

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_20110922182713/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


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/dsee11g/dsee7
- DS hostname: riot1
- DS port: 389
```

```
ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20110922182713/dssetup.pw" -p 389 -h riot1 -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/11.1.1.3.0
B2010.0630.2254
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on riot1 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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=
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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
```

```
  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 cn
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub 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 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 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 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
    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 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 uniqueMember
      Default index DN exists
      Default index eq found
      No new indexes required
    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 deleted
      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 deleted
    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 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 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
  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 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
    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
  Adding Indexes for PAB Tree (backend:pabdb2)
    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 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
    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 un
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type un
  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 mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
```

```
    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 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: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20110922182713/dssetup.sh
   /var/tmp/dssetup_20110922182713/dssetup.ldif

Running /var/tmp/dssetup_20110922182713/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_20110922182713/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20110922182713/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=9569
-- 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_20110922182713/dssetup.ldif
modifying entry cn=schema

modifying entry cn=schema

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20110922182713/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20110922182713/dssetup.ldif

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
cosspecifier

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendar

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted
```

```
-- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on

-- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on

-- /opt/dsee11g/dsee7/bin/dsconf -t deleted reindex o=usergroup
## usergroupdb2: Indexing attribute: deleted
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t deleted o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailUserStatus

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t icsCalendarOwned
o=usergroup
```

```
-- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetDomainBaseDN
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetDomainBaseDN

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetDomainBaseDN
o=internet

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
inetCanonicalDomainName

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetCanonicalDomainName
o=internet

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
mailDomainStatus
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=internet
mailDomainStatus

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailDomainStatus
o=internet

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfManagedGroup
```

```
o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfPABGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t un o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t MemberofPiGroup
o=PiServerDb
```

```
-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
displayname

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t displayname
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mlsubListIdentifier
o=mlusers
```

```
Successful Completion. Consult
/var/tmp/dssetup_20110922182713/dssetup.log for details
```

DSsetup 6.4-23.01 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 for Schema 2.

Summary of Commands Run

```
518  /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
  519  ls /var/tmp/dssetup_20110922140136/
  520  ls /var/tmp/dssetup_20110922140136/save
  521  cat /var/tmp/dssetup_20110922140136/99user_new.ldif
  522  cat /var/tmp/dssetup_20110922140136/dssetup.ldif
  523  cat /var/tmp/dssetup_20110922140136/dssetup.sh
  524  cat /var/tmp/dssetup_20110922140136/dssetup.log
```

Comments

- To create a pristine DS instance:

```
cd /opt/dsee11g/dsee7/bin
  ./dsadm create /var/opt/sun/directory/ds7
  ./dsadm start /var/opt/sun/directory/ds7
  ./dsadm delete /var/opt/sun/directory/ds7
```

Session

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

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:50:22 PDT 2011)

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_20110922140136/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


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/dsee11g/dsee7
- DS hostname: riot1
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on riot1 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 cn
      No new indexes required
    Checking indexes for cosspecifier
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for inetCos
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for memberOf
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for groupid
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
    Checking indexes for mail
      No new indexes required
    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 uniqueMember
```

```
      No new indexes required
    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 deleted
      New indexes and Reindexing required
      ReIndex will happen for index type deleted
    Checking indexes for mgrpUniqueId
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for mailUserStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailUserStatus
    Checking indexes for icsCalendarOwned
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
  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 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 mailDomainStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    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 memberOfManagedGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for memberOfPABGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
    Checking indexes for memberOfPAB
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for un
      New indexes and Reindexing required
      ReIndex will happen for index type un
  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 mail
      No new indexes required
    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 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: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20110922140136/dssetup.sh
   /var/tmp/dssetup_20110922140136/dssetup.ldif

Running /var/tmp/dssetup_20110922140136/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_20110922140136/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20110922140136/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=5125
-- 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_20110922140136/dssetup.ldif
modifying entry cn=schema

modifying entry cn=schema

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20110922140136/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20110922140136/dssetup.ldif

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
cosspecifier

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendar

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup
```

```
-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted

-- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on

-- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on

-- /opt/dsee11g/dsee7/bin/dsconf -t deleted reindex o=usergroup
## usergroupdb2: Indexing attribute: deleted
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t deleted o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailUserStatus

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t icsCalendarOwned
```

```
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
inetDomainBaseDN
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
inetDomainBaseDN

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetDomainBaseDN
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t sunOrganizationAlias
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t sunPreferredDomain
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailDomainStatus
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailDomainStatus

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailDomainStatus
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup o
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup o

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t o o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
associatedDomain
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
associatedDomain

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t associatedDomain
o=usergroup
```

```
-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfManagedGroup
o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfPABGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t un o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t MemberofPiGroup
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
displayname

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t displayname
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mlsubListIdentifier
o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20110922140136/dssetup.log for details
# ls /var/tmp/dssetup_20110922140136/
ls /var/tmp/dssetup_20110922140136/
total 196
   2 99user_new.ldif     80 dssetup.log          5 save/
   5 dssetup.ldif       104 dssetup.sh*
# ls /var/tmp/dssetup_20110922140136/save
ls /var/tmp/dssetup_20110922140136/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
# cat /var/tmp/dssetup_20110922140136/99user_new.ldif
cat /var/tmp/dssetup_20110922140136/99user_new.ldif
#
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#
#
# PROPRIETARY/CONFIDENTIAL. Use of this product is subject to
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# Some preexisting portions Copyright (c) 2001 Netscape Communications
Corp.
# All rights reserved.
#
#
# User-defined schema
#
dn: cn=schema
# cat /var/tmp/dssetup_20110922140136/dssetup.ldif
cat /var/tmp/dssetup_20110922140136/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 riot1 -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20110922140136/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
# 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=23.01
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";)
# cat /var/tmp/dssetup_20110922140136/dssetup.sh
cat /var/tmp/dssetup_20110922140136/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee11g/dsee7/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/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
```

```
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
usergroupdb2 o=usergroup
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=pab
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
pabdb2 o=pab
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=PiServerDb
echo

echo -- Creating Suffix o=mlusers
/opt/dsee11g/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured --db-name
mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-suffix returned
$stat"
fi
echo -- Done Creating o=mlusers
echo

echo -- Applying ldif file /var/tmp/dssetup_20110922140136/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h riot1 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20110922140136/dssetup.ldif.rej -f
```

```
/var/tmp/dssetup_20110922140136/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20110922140136/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_20110922140136/dssetup.ldif
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
cosspecifier
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"cosspecifier"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t cosspecifier reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "cosspecifier"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "cosspecifier"
"o=usergroup"
```

```
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"inetCos"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"inetCos"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t inetCos reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "inetCos"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "inetCos"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"memberOf"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"memberOf"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
```

```
memberOf eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"memberOf" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t memberOf reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "memberOf"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "memberOf"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"groupid"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"groupid"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
```

```
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t groupid reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "groupid"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "groupid"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendar
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
```

```
"icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"icsCalendar"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendar" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
```

```
"icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t icsCalendar reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "icsCalendar"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "icsCalendar"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"ou"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"ou"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"ou" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t ou reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "ou" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
```

```
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "ou" "o=usergroup"

echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"mailEquivalentAddress"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
```

```
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t
"mailEquivalentAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"mailEquivalentAddress" "o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"deleted"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"deleted"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"deleted" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
```

```
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
deleted pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"deleted" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
deleted eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t deleted reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "deleted"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "deleted"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mgrpUniqueId
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"mgrpUniqueId"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mgrpUniqueId"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mgrpUniqueId"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailUserStatus
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"mailUserStatus"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailUserStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mailUserStatus reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mailUserStatus"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mailUserStatus"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"icsCalendarOwned"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "icsCalendarOwned"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "icsCalendarOwned"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
inetDomainBaseDN
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"inetDomainBaseDN"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t inetDomainBaseDN reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "inetDomainBaseDN"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "inetDomainBaseDN"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"sunOrganizationAlias"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"sunOrganizationAlias"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"sunOrganizationAlias" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"sunOrganizationAlias" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t sunOrganizationAlias reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t
"sunOrganizationAlias" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"sunOrganizationAlias" "o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"sunPreferredDomain"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"sunPreferredDomain"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"sunPreferredDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"sunPreferredDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t sunPreferredDomain reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "sunPreferredDomain"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"sunPreferredDomain" "o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailDomainStatus
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"mailDomainStatus"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"mailDomainStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mailDomainStatus reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mailDomainStatus"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mailDomainStatus"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup o
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"o"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
```

```
"o"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"o" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"o" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t o reindex o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "o" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "o" "o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
associatedDomain
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"associatedDomain"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=usergroup"
"associatedDomain"
echo
```

```
echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"associatedDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=usergroup"
"associatedDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t associatedDomain reindex
o=usergroup
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "associatedDomain"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "associatedDomain"
"o=usergroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfManagedGroup
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo
```

```
echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfManagedGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t memberOfManagedGroup reindex
o=pab
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t
"memberOfManagedGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"memberOfManagedGroup" "o=pab"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfPABGroup
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPABGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=pab"
"memberOfPABGroup"
echo
```

```
echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "memberOfPABGroup"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "memberOfPABGroup"
"o=pab"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=pab"
"memberOfPAB"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
```

```
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab"
"memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t memberOfPAB reindex o=pab
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "memberOfPAB" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "memberOfPAB"
"o=pab"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab" "un"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=pab" "un"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=pab" "un"
"eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t un reindex o=pab
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "un" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "un" "o=pab"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=PiServerDb"
"MemberOfPiBook"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "MemberOfPiBook"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "MemberOfPiBook"
"o=PiServerDb"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=PiServerDb"
"MemberofPiGroup"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "MemberofPiGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "MemberofPiGroup"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "MemberofPiGroup"
"o=PiServerDb"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
displayname
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "displayname"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=PiServerDb"
"displayname"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured
"o=PiServerDb" "displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t displayname reindex
o=PiServerDb
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "displayname"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
```

```
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "displayname"
"o=PiServerDb"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=mlusers"
"mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=mlusers"
"mlsubMail"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=mlusers"
"mlsubMail" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mlsubMail reindex o=mlusers
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mlsubMail"
"o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t "mlsubMail"
"o=mlusers"
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
/opt/dsee11g/dsee7/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=mlusers"
"mlsubListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf create-index returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf create-index "o=mlusers"
"mlsubListIdentifier"
```

```
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
/opt/dsee11g/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname riot1 --unsecured "o=mlusers"
"mlsubListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf set-index-prop
returned $stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
echo

echo -- /opt/dsee11g/dsee7/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
/opt/dsee11g/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname riot1 --unsecured -t "mlsubListIdentifier"
"o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee11g/dsee7/bin/dsconf reindex returned
$stat"
fi
echo -- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t
"mlsubListIdentifier" "o=mlusers"
echo
# cat /var/tmp/dssetup_20110922140136/dssetup.log
cat /var/tmp/dssetup_20110922140136/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

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

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:50:22 PDT 2011)

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_20110922140136/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


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/dsee11g/dsee7
- DS hostname: riot1
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20110922140136/dssetup.pw" -p 389 -h riot1 -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/11.1.1.3.0
B2010.0630.2254
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on riot1 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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=
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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "riot1:389".
```

```
-=-=-=-=-=-=-=-=-=-=
  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 cn
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub 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 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 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 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
    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 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 uniqueMember
      Default index DN exists
      Default index eq found
      No new indexes required
    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 deleted
      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 deleted
    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 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 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
  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 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 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 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 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 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
    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 un
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type un
  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 mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    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 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: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20110922140136/dssetup.sh
   /var/tmp/dssetup_20110922140136/dssetup.ldif

Running /var/tmp/dssetup_20110922140136/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_20110922140136/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20110922140136/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=5125
-- 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_20110922140136/dssetup.ldif
modifying entry cn=schema

modifying entry cn=schema

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20110922140136/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20110922140136/dssetup.ldif

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
cosspecifier

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendar

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup ou

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup deleted

-- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on

-- /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on

-- /opt/dsee11g/dsee7/bin/dsconf -t deleted reindex o=usergroup
## usergroupdb2: Indexing attribute: deleted
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/dsee11g/dsee7/bin/dsconf reindex -t deleted o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailUserStatus

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
```

```
icsCalendarOwned approx-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t icsCalendarOwned
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
inetDomainBaseDN
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
inetDomainBaseDN

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t inetDomainBaseDN
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
```

```
sunOrganizationAlias pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t sunOrganizationAlias
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t sunPreferredDomain
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailDomainStatus
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
mailDomainStatus

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mailDomainStatus
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup o
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup o

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t o o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
associatedDomain
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=usergroup
associatedDomain

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
```

```
-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t associatedDomain
o=usergroup

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfManagedGroup
o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab
memberOfPABGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=pab un

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t un o=pab
```

```
-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t MemberofPiGroup
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=PiServerDb
displayname

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t displayname
o=PiServerDb

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /opt/dsee11g/dsee7/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/dsee11g/dsee7/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/dsee11g/dsee7/bin/dsconf reindex -t mlsubListIdentifier
o=mlusers
```

```
Successful Completion. Consult
/var/tmp/dssetup_20110922140136/dssetup.log for details
```

DSsetup 6.4-24 Sample Session - Fresh Directory Server 7.0 Instance for Schema 1

DSsetup 6.4-24 Sample Session - Fresh Directory Server 7.0 Instance for Schema 1

This section outlines the commands to run and lists a sample session.

Topics:

- DSsetup 6.4-24 Sample Session - Fresh Directory Server 7.0 Instance for Schema 1
  - Summary of Commands Run
  - Comments
  - Session

Summary of Commands Run

```
113  sbin/comm_dssetup.pl
  114  stty -echo
  115  ls /var/tmp/dssetup_20120906233644
  116  ls /var/tmp/dssetup_20120906233644/save
  117  cat /var/tmp/dssetup_20120906233644/99user_new.ldif
  118  cat /var/tmp/dssetup_20120906233644/dssetup.ldif
  119  cat /var/tmp/dssetup_20120906233644/dssetup.ldif.rej
  120  cat /var/tmp/dssetup_20120906233644/dssetup.sh
  121  cat /var/tmp/dssetup_20120906233644/dssetup.log
```

Comments

Sample Session for running `comm_dssetup.pl` a second time on the same DS instance

Session

```
# sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120906233644/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on sc11152328 port 389

Warning: This version of comm_dssetup.pl (6.4 24.03) has been run
previously (6.4 24.03), 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 cn
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for groupid
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    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 uniqueMember
```

```
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for deleted
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for icsCalendarOwned
      No new indexes required
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      No new indexes required
    Checking indexes for inetCanonicalDomainName
      No new indexes required
    Checking indexes for mailDomainStatus
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfManagedGroup
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for un
      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 mail
      No new indexes required
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      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_20120906233644/dssetup.sh
   /var/tmp/dssetup_20120906233644/dssetup.ldif

Running /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120906233644/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=10349
-- Applying ldif file /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20120906233644/dssetup.ldif

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mail o=usergroup
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20120906233644/dssetup.log for details
[114 Thu Sep 06 23:43:51 root@sc11152328% /opt/sun/comms/dssetup# ]
# stty -echo
stty -echo
[115 Thu Sep 06 23:44:50 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120906233644
total 61
   5 99user_new.ldif      29 dssetup.log
   6 dssetup.ldif         14 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
[116 Thu Sep 06 23:49:00 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120906233644/save
total 936
 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            21 55ims-ical.ldif
   4 50ns-certificate.ldif         55 56ims-schema.ldif
  24 50ns-compass.ldif             39 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
[117 Thu Sep 06 23:49:05 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/99user_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: 20120907062648Z
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: 504993a8000000000000

[118 Thu Sep 06 23:49:21 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/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 sc11152328 -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20120906233644/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=24.03
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")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
[119 Thu Sep 06 23:49:27 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/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";)
[120 Thu Sep 06 23:49:46 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee7/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/dsee7/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_20120906233644/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h sc11152328 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20120906233644/dssetup.ldif.rej -f
/var/tmp/dssetup_20120906233644/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.ldif
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup" "mail"
"approx-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf -t mail reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mail" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
```

```
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf -t mailAlternateAddress reindex
o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mailAlternateAddress"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mailAlternateAddress"
"o=usergroup"
echo
[121 Thu Sep 06 23:49:51 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120906233644/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20120906233644/dssetup.pw" -p 389 -h sc11152328 -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/11.1.1.3.0
B2010.0630.2203
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on sc11152328 port 389
-- Stored Dssetup data ver=6.4 rev=24.03, dctree=o=internet
   ug=o=usergroup, schematype=1

Warning: This version of comm_dssetup.pl (6.4 24.03) has been run
previously (6.4 24.03), 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 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 cosspecifier
      Index exists
      Index eq found
      Index pres found
        Index pres 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 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 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
    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 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 uniqueMember
    Index exists
    Index eq found
      Index eq exists
    Default index eq found
    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 deleted
    Index exists
```

```
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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 mailUserStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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
  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 inetCanonicalDomainName
      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
  Adding Indexes for PAB Tree (backend:pabdb2)
    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 memberOfPABGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    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 un
      Index exists
      Index eq found
      Index pres found
        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 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 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 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_20120906233644/dssetup.sh
   /var/tmp/dssetup_20120906233644/dssetup.ldif

Running /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120906233644/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=10349
-- Applying ldif file /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20120906233644/dssetup.ldif

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mail o=usergroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup
```

```
Successful Completion. Consult
/var/tmp/dssetup_20120906233644/dssetup.log for details
```

DSsetup 6.4-24 Sample Session - Existing Directory Server 7.0 Instance for Schema 1

DSsetup 6.4-24 Sample Session - Existing Directory Server 7.0 Instance for Schema 1

This section outlines the commands to run and lists a sample session.

Topics:

- Summary of Commands Run
- Comments
- Session

Summary of Commands Run

```
113  sbin/comm_dssetup.pl
  114  stty -echo
  115  ls /var/tmp/dssetup_20120906233644
  116  ls /var/tmp/dssetup_20120906233644/save
  117  cat /var/tmp/dssetup_20120906233644/99user_new.ldif
  118  cat /var/tmp/dssetup_20120906233644/dssetup.ldif
  119  cat /var/tmp/dssetup_20120906233644/dssetup.ldif.rej
  120  cat /var/tmp/dssetup_20120906233644/dssetup.sh
  121  cat /var/tmp/dssetup_20120906233644/dssetup.log
```

Comments

Sample Session for running `comm_dssetup.pl` a second time on the same DS instance

Session

```
# sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120906233644/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on sc11152328 port 389

Warning: This version of comm_dssetup.pl (6.4 24.03) has been run
previously (6.4 24.03), 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 cn
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for groupid
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    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 uniqueMember
      No new indexes required
```

```
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for deleted
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for icsCalendarOwned
      No new indexes required
  Adding Indexes for DC Tree (backend:internetdb2)
    Checking indexes for inetDomainBaseDN
      No new indexes required
    Checking indexes for inetCanonicalDomainName
      No new indexes required
    Checking indexes for mailDomainStatus
      No new indexes required
  Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfManagedGroup
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for un
      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 mail
      No new indexes required
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      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_20120906233644/dssetup.sh
   /var/tmp/dssetup_20120906233644/dssetup.ldif

Running /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120906233644/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=10349
-- Applying ldif file /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20120906233644/dssetup.ldif

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mail o=usergroup
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20120906233644/dssetup.log for details
[114 Thu Sep 06 23:43:51 root@sc11152328% /opt/sun/comms/dssetup# ]
# stty -echo
stty -echo
[115 Thu Sep 06 23:44:50 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120906233644
total 61
   5 99user_new.ldif      29 dssetup.log
   6 dssetup.ldif         14 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
[116 Thu Sep 06 23:49:00 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120906233644/save
total 936
 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            21 55ims-ical.ldif
```

```
   4 50ns-certificate.ldif         55 56ims-schema.ldif
  24 50ns-compass.ldif             39 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
[117 Thu Sep 06 23:49:05 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/99user_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: 20120907062648Z
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: 504993a8000000000000

[118 Thu Sep 06 23:49:21 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/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 sc11152328 -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20120906233644/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=24.03
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")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
[119 Thu Sep 06 23:49:27 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/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";)
[120 Thu Sep 06 23:49:46 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee7/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/dsee7/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_20120906233644/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h sc11152328 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20120906233644/dssetup.ldif.rej -f
/var/tmp/dssetup_20120906233644/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.ldif
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup" "mail"
"approx-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf -t mail reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mail" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
```

```
"mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf -t mailAlternateAddress reindex
o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mailAlternateAddress"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mailAlternateAddress"
"o=usergroup"
echo
[121 Thu Sep 06 23:49:51 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906233644/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120906233644/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20120906233644/dssetup.pw" -p 389 -h sc11152328 -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/11.1.1.3.0
B2010.0630.2203
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on sc11152328 port 389
-- Stored Dssetup data ver=6.4 rev=24.03, dctree=o=internet
   ug=o=usergroup, schematype=1

Warning: This version of comm_dssetup.pl (6.4 24.03) has been run
previously (6.4 24.03), 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 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 cosspecifier
      Index exists
      Index eq found
      Index pres found
        Index pres 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 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 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
    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 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 uniqueMember
    Index exists
    Index eq found
      Index eq exists
    Default index eq found
    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 deleted
    Index exists
    Index eq found
```

```
      Index pres found
        Index pres exists
        Index eq 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 mailUserStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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
  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 inetCanonicalDomainName
      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
  Adding Indexes for PAB Tree (backend:pabdb2)
    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 memberOfPABGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq exists
      No new indexes required
    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 un
      Index exists
      Index eq found
      Index pres found
        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 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 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 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_20120906233644/dssetup.sh
   /var/tmp/dssetup_20120906233644/dssetup.ldif

Running /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120906233644/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=10349
-- Applying ldif file /var/tmp/dssetup_20120906233644/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_20120906233644/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20120906233644/dssetup.ldif

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mail o=usergroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup
```

```
Successful Completion. Consult
/var/tmp/dssetup_20120906233644/dssetup.log for details
```

DSsetup 6.4-24 Sample Session - Fresh Directory Server 7.0 Instance for Schema 2

DSsetup 6.4-24 Sample Session - Fresh Directory Server 7.0 Instance for Schema 2

This section outlines the commands to run and lists a sample session.

Topics:

- Summary of Commands Run
- Comments
- Session

Summary of Commands Run

```
128  sbin/comm_dssetup.pl
  129  stty -echo
  130  ls /var/tmp/dssetup_20120906235554
  131  ls /var/tmp/dssetup_20120906235554/save
  132  cat /var/tmp/dssetup_20120906235554/99user_new.ldif
  133  cat /var/tmp/dssetup_20120906235554/dssetup.ldif
  134  cat /var/tmp/dssetup_20120906235554/dssetup.sh
  135  cat /var/tmp/dssetup_20120906235554/dssetup.log
```

Comments

To create a pristine DS instance:

```
cd /opt/dsee11g/dsee7/bin
  ./dsadm create /var/opt/sun/directory/ds7
  ./dsadm start /var/opt/sun/directory/ds7
  ./dsadm delete /var/opt/sun/directory/ds7
```

Session

```
[128 Thu Sep 06 23:55:47 root@sc11152328% /opt/sun/comms/dssetup# ]
# sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120906235554/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on sc11152328 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 cn
      No new indexes required
    Checking indexes for cosspecifier
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for inetCos
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for memberOf
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for groupid
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
    Checking indexes for mail
      No new indexes required
    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 uniqueMember
      No new indexes required
    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 deleted
      New indexes and Reindexing required
      ReIndex will happen for index type deleted
    Checking indexes for mgrpUniqueId
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for mailUserStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailUserStatus
    Checking indexes for icsCalendarOwned
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
  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 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 mailDomainStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    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 memberOfManagedGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for memberOfPABGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
    Checking indexes for memberOfPAB
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
    Checking indexes for un
      New indexes and Reindexing required
      ReIndex will happen for index type un
  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 mail
      No new indexes required
    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 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: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20120906235554/dssetup.sh
   /var/tmp/dssetup_20120906235554/dssetup.ldif

Running /var/tmp/dssetup_20120906235554/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_20120906235554/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120906235554/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=10904
-- 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_20120906235554/dssetup.ldif
modifying entry cn=schema

modifying entry cn=schema

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20120906235554/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20120906235554/dssetup.ldif

-- /opt/dsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup cosspecifier

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup cosspecifier
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t cosspecifier o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendar

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup ou

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailEquivalentAddress
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup deleted
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup deleted

-- /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
```

```
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on

-- /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on

-- /opt/dsee7/bin/dsconf -t deleted reindex o=usergroup
## usergroupdb2: Indexing attribute: deleted
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/dsee7/bin/dsconf reindex -t deleted o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mgrpUniqueId
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mgrpUniqueId o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mailUserStatus

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
eq-enabled:on
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailUserStatus o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendarOwned
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendarOwned

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t icsCalendarOwned o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t inetDomainBaseDN o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup sunOrganizationAlias
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t sunOrganizationAlias
o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup sunPreferredDomain
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t sunPreferredDomain o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailDomainStatus
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mailDomainStatus

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailDomainStatus o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup o
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup o

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup o eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t o o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup associatedDomain
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup associatedDomain

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t associatedDomain o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfManagedGroup o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab un
-- Done /opt/dsee7/bin/dsconf create-index o=pab un

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t un o=pab

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb MemberOfPiBook
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t MemberOfPiBook o=PiServerDb

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t MemberofPiGroup o=PiServerDb

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb displayname

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t displayname o=PiServerDb

-- /opt/dsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/dsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/dsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier
-- Done /opt/dsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mlsubListIdentifier o=mlusers

Successful Completion. Consult
```

```
/var/tmp/dssetup_20120906235554/dssetup.log for details
[129 Fri Sep 07 00:12:00 root@sc11152328% /opt/sun/comms/dssetup# ]
# stty -echo
stty -echo
[130 Fri Sep 07 00:12:12 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120906235554
total 186
   2 99user_new.ldif     75 dssetup.log          5 save/
   5 dssetup.ldif        99 dssetup.sh*
[131 Fri Sep 07 00:12:23 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120906235554/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
[132 Fri Sep 07 00:12:34 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906235554/99user_new.ldif
#
# Copyright 2003 Sun Microsystems, Inc. All Rights Reserved
# Patents Pending.Use is subject to license terms.
#
#
# PROPRIETARY/CONFIDENTIAL. 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
[133 Fri Sep 07 00:12:46 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906235554/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 sc11152328 -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20120906235554/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
# 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=24.03
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";)
[134 Fri Sep 07 00:12:50 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906235554/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee7/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/dsee7/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/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured --db-name
comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-suffix returned $stat"
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/opt/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured --db-name
usergroupdb2 o=usergroup
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-suffix returned $stat"
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=pab
/opt/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured --db-name pabdb2
o=pab
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-suffix returned $stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/opt/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured --db-name
PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-suffix returned $stat"
fi
echo -- Done Creating o=PiServerDb
echo

echo -- Creating Suffix o=mlusers
/opt/dsee7/bin/dsconf create-suffix --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured --db-name
mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-suffix returned $stat"
fi
echo -- Done Creating o=mlusers
echo

echo -- Applying ldif file /var/tmp/dssetup_20120906235554/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h sc11152328 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20120906235554/dssetup.ldif.rej -f
/var/tmp/dssetup_20120906235554/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20120906235554/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_20120906235554/dssetup.ldif
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup cosspecifier
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"cosspecifier"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup cosspecifier
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t cosspecifier reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "cosspecifier"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
```

```
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "cosspecifier"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup inetCos
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"inetCos"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup" "inetCos"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t inetCos reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "inetCos" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "inetCos" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup memberOf
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"memberOf"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup" "memberOf"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"memberOf" "eq-enabled:on"
```

```
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t memberOf reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "memberOf" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "memberOf" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup groupid
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"groupid"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup" "groupid"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup groupid
```

```
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t groupid reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "groupid" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "groupid" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendar
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"icsCalendar"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendar" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
```

```
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t icsCalendar reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "icsCalendar"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "icsCalendar"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup ou
```

```
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup" "ou"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup" "ou"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup" "ou"
"pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t ou reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "ou" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "ou" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"mailEquivalentAddress"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
```

```
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t mailEquivalentAddress reindex
o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mailEquivalentAddress"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mailEquivalentAddress"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup deleted
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
```

```
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"deleted"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup" "deleted"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"deleted" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"deleted" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t deleted reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "deleted" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "deleted" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"mgrpUniqueId"
echo
```

```
echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup mgrpUniqueId
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t mgrpUniqueId reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mgrpUniqueId"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mgrpUniqueId"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup mailUserStatus
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"mailUserStatus"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailUserStatus" "eq-enabled:on"
```

```
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t mailUserStatus reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mailUserStatus"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mailUserStatus"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendarOwned
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"icsCalendarOwned"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
```

```
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t icsCalendarOwned reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "icsCalendarOwned"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "icsCalendarOwned"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"inetDomainBaseDN"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
```

```
"inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t inetDomainBaseDN reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "inetDomainBaseDN"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "inetDomainBaseDN"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"sunOrganizationAlias"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"sunOrganizationAlias"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"sunOrganizationAlias" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
```

```
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"sunOrganizationAlias" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t sunOrganizationAlias reindex
o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "sunOrganizationAlias"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "sunOrganizationAlias"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"sunPreferredDomain"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"sunPreferredDomain"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"sunPreferredDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
echo
```

```
echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"sunPreferredDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t sunPreferredDomain reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "sunPreferredDomain"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "sunPreferredDomain"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup mailDomainStatus
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"mailDomainStatus"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailDomainStatus" "eq-enabled:on"
stat=$?
```

```
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t mailDomainStatus reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mailDomainStatus"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mailDomainStatus"
"o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup o
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup" "o"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup" "o"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup" "o"
"pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup o eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup" "o"
"eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t o reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
```

```
--port 389 --hostname sc11152328 --unsecured -t "o" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "o" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=usergroup associatedDomain
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"associatedDomain"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=usergroup"
"associatedDomain"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"associatedDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"associatedDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t associatedDomain reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "associatedDomain"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "associatedDomain"
"o=usergroup"
```

```
echo

echo -- /opt/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfManagedGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t memberOfManagedGroup reindex o=pab
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "memberOfManagedGroup"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "memberOfManagedGroup"
"o=pab"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfPABGroup"
```

```
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=pab"
"memberOfPABGroup"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t memberOfPABGroup reindex o=pab
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "memberOfPABGroup"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "memberOfPABGroup" "o=pab"

echo

echo -- /opt/dsee7/bin/dsconf create-index o=pab memberOfPAB
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=pab" "memberOfPAB"
echo
```

```
echo -- /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab"
"memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t memberOfPAB reindex o=pab
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "memberOfPAB" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "memberOfPAB" "o=pab"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=pab un
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab" "un"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=pab" "un"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=pab" "un"
"eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on
```

```
echo

echo -- /opt/dsee7/bin/dsconf -t un reindex o=pab
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "un" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "un" "o=pab"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=PiServerDb"
"MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=PiServerDb"
"MemberOfPiBook"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb MemberOfPiBook
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=PiServerDb"
"MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t MemberOfPiBook reindex o=PiServerDb
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "MemberOfPiBook"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "MemberOfPiBook"
"o=PiServerDb"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=PiServerDb"
"MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
```

```
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=PiServerDb"
"MemberofPiGroup"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=PiServerDb"
"MemberofPiGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t MemberofPiGroup reindex o=PiServerDb
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "MemberofPiGroup"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "MemberofPiGroup"
"o=PiServerDb"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=PiServerDb displayname
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=PiServerDb"
"displayname"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=PiServerDb"
"displayname"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=PiServerDb"
"displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
```

```
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=PiServerDb"
"displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=PiServerDb"
"displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t displayname reindex o=PiServerDb
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "displayname"
"o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "displayname"
"o=PiServerDb"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=mlusers mlsubMail
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=mlusers"
"mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=mlusers" "mlsubMail"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=mlusers"
"mlsubMail" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
```

```
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t mlsubMail reindex o=mlusers
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mlsubMail" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mlsubMail" "o=mlusers"
echo

echo -- /opt/dsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier
/opt/dsee7/bin/dsconf create-index --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=mlusers"
"mlsubListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf create-index returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf create-index "o=mlusers"
"mlsubListIdentifier"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=mlusers"
"mlsubListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
echo

echo -- /opt/dsee7/bin/dsconf -t mlsubListIdentifier reindex o=mlusers
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mlsubListIdentifier"
"o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mlsubListIdentifier"
"o=mlusers"
echo
[135 Fri Sep 07 00:12:52 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120906235554/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl sbin/comm_dssetup.pl
```

```
Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120906235554/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20120906235554/dssetup.pw" -p 389 -h sc11152328 -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/11.1.1.3.0
B2010.0630.2203
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on sc11152328 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 "sc11152328:389".

-=-=-=-=-=-=-=-=-=-=-=
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 "sc11152328:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "sc11152328:389".

-=-=-=-=-=-=-=-=-=-=-=
```

```
  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 "sc11152328:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "sc11152328:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 "sc11152328:389".

-=-=-=-=-=-=-=-=-=-=-=
  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 cn
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub 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 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 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 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
    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 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 uniqueMember
      Default index DN exists
      Default index eq found
      No new indexes required
    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 deleted
      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 deleted
    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 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 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
  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 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 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 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 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 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
    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 un
      Index does not exist
        Index eq does not exist
      New indexes and Reindexing required
      ReIndex will happen for index type un
  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 mail
      Default index DN exists
      Default index pres found
      Default index eq found
      Default index sub found
      No new indexes required
    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 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: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20120906235554/dssetup.sh
   /var/tmp/dssetup_20120906235554/dssetup.ldif

Running /var/tmp/dssetup_20120906235554/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_20120906235554/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120906235554/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=10904
-- 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_20120906235554/dssetup.ldif
modifying entry cn=schema

modifying entry cn=schema
```

```
adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20120906235554/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20120906235554/dssetup.ldif

-- /opt/dsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup cosspecifier

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup cosspecifier
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t cosspecifier o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendar

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup ou

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailEquivalentAddress
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup deleted
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup deleted

-- /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on

-- /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on

-- /opt/dsee7/bin/dsconf -t deleted reindex o=usergroup
## usergroupdb2: Indexing attribute: deleted
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
```

```
-- Done /opt/dsee7/bin/dsconf reindex -t deleted o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mgrpUniqueId
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mgrpUniqueId o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mailUserStatus

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailUserStatus o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendarOwned
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendarOwned

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t icsCalendarOwned o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t inetDomainBaseDN o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup sunOrganizationAlias
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t sunOrganizationAlias
o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup sunPreferredDomain
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t sunPreferredDomain o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailDomainStatus
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mailDomainStatus

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailDomainStatus o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup o
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup o

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup o eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t o o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup associatedDomain
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup associatedDomain

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
```

```
associatedDomain eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t associatedDomain o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfManagedGroup o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfPABGroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab un
-- Done /opt/dsee7/bin/dsconf create-index o=pab un

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t un o=pab

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb MemberOfPiBook
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t MemberOfPiBook o=PiServerDb

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t MemberofPiGroup o=PiServerDb

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb displayname

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t displayname o=PiServerDb
```

```
-- /opt/dsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/dsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/dsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier
-- Done /opt/dsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mlsubListIdentifier o=mlusers
```

```
Successful Completion. Consult
/var/tmp/dssetup_20120906235554/dssetup.log for details
```

DSsetup 6.4-24 Sample Session - Existing Directory Server 7.0 Instance for Schema 2

DSsetup 6.4-24 Sample Session - Existing Directory Server 7.0 Instance for Schema 2

This section outlines the commands to run and lists a sample session.

Topics:

- Summary of Commands Run
- Session

Summary of Commands Run

```
137  sbin/comm_dssetup.pl
  138  stty -echo
  139  ls /var/tmp/dssetup_20120907001444
  140  ls /var/tmp/dssetup_20120907001444/save
  141  cat /var/tmp/dssetup_20120907001444/99user_new.ldif
  142  cat /var/tmp/dssetup_20120907001444/dssetup.ldif
  143  cat /var/tmp/dssetup_20120907001444/dssetup.ldif.rej
  144  cat /var/tmp/dssetup_20120907001444/dssetup.sh
  145  cat /var/tmp/dssetup_20120907001444/dssetup.log
```

Session

```
# sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120907001444/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on sc11152328 port 389

Warning: This version of comm_dssetup.pl (6.4 24.03) has been run
previously (6.4 24.03), 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=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) [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 cn
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for groupid
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    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 uniqueMember
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for deleted
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for mailUserStatus
```

```
      No new indexes required
    Checking indexes for icsCalendarOwned
      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 sunOrganizationAlias
      No new indexes required
    Checking indexes for sunPreferredDomain
      No new indexes required
    Checking indexes for mailDomainStatus
      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 memberOfManagedGroup
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for un
      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 mail
      No new indexes required
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      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_20120907001444/dssetup.sh
   /var/tmp/dssetup_20120907001444/dssetup.ldif

Running /var/tmp/dssetup_20120907001444/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_20120907001444/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120907001444/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=11411
-- Applying ldif file /var/tmp/dssetup_20120907001444/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_20120907001444/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20120907001444/dssetup.ldif

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mail o=usergroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20120907001444/dssetup.log for details
[138 Fri Sep 07 00:18:00 root@sc11152328% /opt/sun/comms/dssetup# ]
# stty -echo
stty -echo
[139 Fri Sep 07 00:19:09 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120907001444
total 62
   5 99user_new.ldif      30 dssetup.log
   6 dssetup.ldif         14 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
[140 Fri Sep 07 00:19:22 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120907001444/save
total 936
 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            21 55ims-ical.ldif
   4 50ns-certificate.ldif         55 56ims-schema.ldif
  24 50ns-compass.ldif             39 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
[141 Fri Sep 07 00:19:26 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907001444/99user_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: 20120907071017Z
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: 50499dd9000000000000

[142 Fri Sep 07 00:19:34 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907001444/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 sc11152328 -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20120907001444/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=24.03
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";)
[143 Fri Sep 07 00:19:39 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907001444/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";)
[144 Fri Sep 07 00:19:40 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907001444/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee7/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/dsee7/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_20120907001444/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h sc11152328 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20120907001444/dssetup.ldif.rej -f
/var/tmp/dssetup_20120907001444/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20120907001444/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_20120907001444/dssetup.ldif
echo
```

```
echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup" "mail"
"approx-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf -t mail reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mail" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
stat=$?
```

```
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf -t mailAlternateAddress reindex
o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mailAlternateAddress"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mailAlternateAddress"
"o=usergroup"
echo
[145 Fri Sep 07 00:19:46 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907001444/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120907001444/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


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/dsee7
- DS hostname: sc11152328
```

```
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20120907001444/dssetup.pw" -p 389 -h sc11152328 -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/11.1.1.3.0
B2010.0630.2203
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on sc11152328 port 389
-- Stored Dssetup data ver=6.4 rev=24.03, dctree=o=usergroup
   ug=o=usergroup, schematype=2

Warning: This version of comm_dssetup.pl (6.4 24.03) has been run
previously (6.4 24.03), 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=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) [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 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 cosspecifier
    Index exists
    Index eq found
    Index pres found
      Index pres 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 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 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
  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 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 uniqueMember
      Index exists
      Index eq found
        Index eq exists
      Default index eq found
      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 deleted
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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 mailUserStatus
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        Index eq 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
  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 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 mailDomainStatus
      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 memberOfManagedGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        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
    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 un
      Index exists
      Index eq found
      Index pres found
        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 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 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 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_20120907001444/dssetup.sh
   /var/tmp/dssetup_20120907001444/dssetup.ldif

Running /var/tmp/dssetup_20120907001444/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_20120907001444/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120907001444/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=11411
-- Applying ldif file /var/tmp/dssetup_20120907001444/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_20120907001444/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20120907001444/dssetup.ldif

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mail o=usergroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup
```

```
Successful Completion. Consult
/var/tmp/dssetup_20120907001444/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: `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 3

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 9

Print and fill out this worksheet to use when responding to the `configure` script, the utility that performs the initial Instant Messaging configuration.

(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, Red Hat Linux, and Oracle 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 (XMPP Server Port)	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	
Gateway Connector Port	The port number on which you communicate with external Facebook instant messaging users. Default: 55222	
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.xml` file to 1. See General Instant Messaging Server Configuration Properties 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 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 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 roster information, conferences, and so on. If you are configuring High Availability (HA) for Instant Messaging, this path must be globally available. See Configuring Instant Messaging 9 for High Availability 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 and Oracle Linux: `/var/opt/sun/im/` Solaris OS: `/var/opt/sun/comms/im` The configure utility creates the following directories for the runtime files: Red Hat Linux and Oracle Linux: `/var/opt/sun/im/default` Solaris OS: `/var/opt/sun/comms/im/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 and Oracle Linux: `/var/opt/sun/im/default/db` Solaris OS: `/var/opt/sun/comms/im/default/db` The log directory defaults are as follows: Red Hat Linux and Oracle Linux: `/var/opt/sun/im/default/log` Solaris OS: `/var/opt/sun/comms/im/default/log`	

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://`*app-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).	
Facebook Gateway	Enables you to communicate with Facebook IM servers. From the configurator panel, choose: 1. Enable Facebook Gateway: true if you want to enable the gateway on the server. You then type the Facebook API Key, Facebook API Secret, and Gateway Connectors (*host*:*port*).	
`iim_server.useport` This parameter is available starting in **Instant Messaging Server 9 Patch 1**.	Enables S2S (Static pool,Shoal,Federation) communication either through federation, or pool communication through the `add-coserver` option. To configure: 1. Install and configure Instant Messaging. 2. Enable `iim_server.useport` by setting true to enable S2S communication. 3. Start the servers.	

TLS-BASED CONFIGURATION This parameter is available starting in **Instant Messaging Server 9 Patch 1**.	From the configurator panel, choose: Enable SSL [yes]: Server keystore file: Server password file: If you opt for Enable SSL, the respective server configuration is mandatorily set to TLS for all communication. To disable mandating TLS, set `iim_server.requiressl` to false by using the `imconfutil` command.	

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)
Path for Data and Configuration Files	`/var/`*msg-svr-base*	
User Name for Server Processes	`mailsrv`	
Group Name for Server Processes	`mail` (if the User Name for Server Processes already exists, then the primary group for that User Name is used, and no option will be prompted for)	
Fully Qualified Host Name (FQHN)	*your host.your domain* For example: `myhost.west.sesta.com`	
Default mail domain name	*your domain*	
Hostname for LDAP Directory Server	blank (indicating the local hostname)	
LDAP administrator login	cn=Directory Manager	
LDAP administrator password	-	
Mail address for postmaster notices	`admin@`*your domain*	
Password for server administration	-	

Configuration Worksheets - Calendar Server

Configuration Worksheets - Oracle Communications Calendar Server Version 7 Update 2

Print and fill out this worksheet to use when responding to the Oracle Communications Calendar Server `init-config` script configuration options.

Calendar Server 7 Update 2 Worksheet

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`	
DNS	-	
MySQL Server or Oracle Database (for back end)	-	
Questions for MySQL Server		
Server Host	`localhost`	
MySQL Server Port	`3306`	
MySQL Runtime User	`caldav`	
MySQL Password	–	
Database User ID	`caldav`	
Database User Password	–	
Calendar Database Name	`caldav`	
Questions for Oracle Database		
Server Host	`localhost`	
Oracle Database Port	`1512`	
Service Name	`orcl`	
Database User ID	`caldav`	
Database User Password	-	
iSchedule Database User ID The iSchedule protocol (currently in draft) defines how to handle scheduling between two different calendar servers. In general, the architecture accounts for a global calendar inbox/outbox for invitations. However, because iSchedule is still in draft form and not a standard, general adoption of the protocol has not yet taken place. Calendar Server currently handles invitations through the iMIP protocol (that is, by email). You need to configure the iSchedule database even though it is not currently used. If you remove the iSchedule database configuration, Calendar Server 7 Update 2 does not function correctly without it.	`ischedule`	
ISchedule Database User Password	-	
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 7 Update 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	The default value comes from when you run `comms_dssetup.pl` against the Directory Server.	
LDAP Unique ID Attribute	`davUniqueId`, starting with Calendar Server 7 Update 3 `nsuniqueid`, Calendar Server 7 Update 2 and prior releases	
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 needs a separate step 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 does not start up. This may not be a huge issue at this time because the other ENS server handles the requests.

To Configure the Host to Be Multi-Homed

To configure a host to multi-homed, refer to http://docs.oracle.com/cd/E19082-01/819-3000/ipconfig-22a/index.html.

For more information, see the Solaris 2 FAQ.

To Configure Multiple Addresses Per Interface

To configure multiple addresses per interface, refer to http://docs.oracle.com/cd/E19082-01/819-3000/ipconfig-22a/index.html.

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
Setting the metermaid.config.listenaddr configutil parameters
Setting the metermaid.config.serverhost configutil parameters
Setting the local.ens.port 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
Setting the metermaid.config.listenaddr configutil parameters
Setting the metermaid.config.serverhost configutil parameters
Setting the local.ens.port 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.

To look for MTA-related processes, view the `dispatcher.cnf` file. `store` and `mshttpd` ports can be found by using `configutil`. MMP ports are in `configutil` as well 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 various product initial configurators.

Option	Default Value	Fill in Your Site's Value (to Respond to the Installer)
Instance Directory	`/var/opt/SUNWdsee/dsins1`	
Directory Instance Port	389	
Directory Instance SSL Port	636	
Directory Manager DN	`cn=Directory Manager`	
Directory Manager Password		

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 various product initial configurators.

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 in Silent Mode

Installing Oracle Communications Unified Communications Suite in Silent Mode
Version 7 Update 2

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 --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
EXCLUDESC	Specifies to exclude shared component patches	EXCLUDESC=no
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.	to specify 64-bit Messaging Server: COMPONENTS=MS64
ACCEPTLICENSE	This option is no longer used	
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.

Installing Communications Suite on Solaris Zones

Installing Oracle Communications Unified Communications Suite on Solaris Zones
Version 7 Update 2

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 products in 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. To verify you are in the global zone, run `zonename`. The output should be `global`.
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
   ```

Sample Session - Communications Suite Install Using ALTROOT

Sample Session - Oracle Communications Unified Communications Suite Install Using ALTROOT Version 7 Update 2

This sample session shows an install and uninstall of Communications Suite 7 Update 2 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

```
- Instant Messaging 9 supports altroot.
- 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

```
584  pwd
  585  uname -a
  586  ./commpkg info
  587  cat /etc/softlist.xml
  588  ./commpkg install /opt/altroot
  589  cat
/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20110921203315
  590  cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201109212033
591  cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20110921203315.log
592  ./commpkg info
  593  ./commpkg info --verbose
  594  ./commpkg uninstall /opt/altroot
  595  cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201109212035
596  cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20110921203504.log
597  ./commpkg info --verbose
  598  cat /etc/softlist.xml
  599  ls /opt/altroot
  600  ls -l /opt/altroot
  601  \rm -rf /opt/altroot
  602  ./commpkg info
  603  cat /etc/softlist.xml
  604  history
```

Session

```
# pwd
/home/dl111122/wspace/releases/ci72
# uname -a
SunOS riot1 5.10 Generic_142910-17 i86pc i386 i86pc
# ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20110921203303.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""

# cat /etc/softlist.xml
<?xml version="1.0" encoding="utf-8"?>
```

```
<!-- Do not edit! This file is automatically generated. -->
<!-- Last Update: Wed Sep 21 18:08:20 PDT 2011 -->
<!-- By: /net/example.com/export/megan/wspace/dl111122/releases/ci72
./commpkg -->

<multi-inst-list>
  <install name="" root="/" suite="comms" />
</multi-inst-list>
# ./commpkg install /opt/altroot
-- LOGFILE: /tmp/CommsInstaller_20110921203315.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011

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.

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=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
INFO: altroot mode is activated.
-- Creating /opt/altroot
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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 (7.4-23.01)
       2  Comms DSsetup 6.4 (6.4-23.01)
       3  Calendar Server 7u2 (7.2-4.19)
       4  Instant Messaging 9 (9.0-00.15)
       5  Convergence 2 (2.0-2.01)
       6  Indexing and Search Service 1u3 (1.3-8.6501)
       7  Comms Delegated Administrator 7 (7.0-4.00)
```

```
       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)


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]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Generating list of things to install...
Checking for Shared Component Upgrade Requirements...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: MySQL 5.5.8
  WILL INSTALL: Instant Messaging API 9
  WILL INSTALL: LDAPJDK 4.21
  WILL INSTALL: International Components for Unicode ICU2,ICU3
  WILL INSTALL: Simple Authentication and Security Layer 2.19
  WILL INSTALL: LDAPCSDK6 Tools 6.0
                to /opt/altroot/directory
  WILL INSTALL: NSS/NSPR/JSS 4.8.8
  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 (7.4-23.01)
                to /opt/altroot/messaging64
  WILL INSTALL: Comms DSsetup 6.4 (6.4-23.01)
                to /opt/altroot/dssetup
  WILL INSTALL: Calendar Server 7u2 (7.2-4.19)
                to /opt/altroot/davserver
  WILL INSTALL: Instant Messaging 9 (9.0-00.15)
                to /opt/altroot/im
  WILL INSTALL: Convergence 2 (2.0-2.01)
                to /opt/altroot/iwc
  WILL INSTALL: Indexing and Search Service 1u3 (1.3-8.6501)
                to /opt/altroot/jiss
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-4.00)
                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: CommsInstaller 7u2 (7.2-0.36)
                to /opt/altroot/CommsInstaller
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to install

Do you want to continue ? [yes] :

============================================================
Installing MySQL 5.5.8...
```

```
------ Executing Task 1 of 64 ...

============================================================
Installing Instant Messaging API 9...
------ Executing Task 2 of 64 ...

============================================================
Installing LDAPJDK 4.21...
------ Executing Task 3 of 64 ...

============================================================
Installing International Components for Unicode ICU2,ICU3...
------ Executing Task 4 of 64 ...

============================================================
Installing Simple Authentication and Security Layer 2.19...
------ Executing Task 5 of 64 ...

============================================================
Installing LDAPCSDK6 Tools 6.0...
------ Executing Task 6 of 64 ...

============================================================
Installing NSS/NSPR/JSS 4.8.8...
------ Executing Task 7 of 64 ...
------ Executing Task 8 of 64 ...
------ Executing Task 9 of 64 ...
------ Executing Task 10 of 64 ...
------ Executing Task 11 of 64 ...
------ Executing Task 12 of 64 ...

============================================================
Installing LDAPCSDK6 6.0...
------ Executing Task 13 of 64 ...
------ Executing Task 14 of 64 ...

============================================================
Installing JDK 1.6.0...
------ Executing Task 15 of 64 ...
------ Executing Task 16 of 64 ...
------ Executing Task 17 of 64 ...
------ Executing Task 18 of 64 ...
------ Executing Task 19 of 64 ...

============================================================
Installing Java Help Runtime 2.0...
------ Executing Task 20 of 64 ...
------ Executing Task 21 of 64 ...
------ Executing Task 22 of 64 ...
------ Executing Task 23 of 64 ...

============================================================
Installing Message Queue 4.4...
------ Executing Task 24 of 64 ...
------ Executing Task 25 of 64 ...
------ Executing Task 26 of 64 ...
```

```
------ Executing Task 27 of 64 ...
------ Executing Task 28 of 64 ...
------ Executing Task 29 of 64 ...
------ Executing Task 30 of 64 ...
------ Executing Task 31 of 64 ...
------ Executing Task 32 of 64 ...
------ Executing Task 33 of 64 ...

============================================================
Installing Message Queue Localization 4.4...
------ Executing Task 34 of 64 ...
------ Executing Task 35 of 64 ...
------ Executing Task 36 of 64 ...
------ Executing Task 37 of 64 ...
------ Executing Task 38 of 64 ...
------ Executing Task 39 of 64 ...
------ Executing Task 40 of 64 ...
------ Executing Task 41 of 64 ...
------ Executing Task 42 of 64 ...
------ Executing Task 43 of 64 ...
------ Executing Task 44 of 64 ...
------ Executing Task 45 of 64 ...
------ Executing Task 46 of 64 ...
------ Executing Task 47 of 64 ...

============================================================
Installing Messaging Server (64bit) 7u4 (7.4-23.01)...
------ Executing Task 48 of 64 ...

============================================================
Installing Comms DSsetup 6.4 (6.4-23.01)...
------ Executing Task 49 of 64 ...

============================================================
Installing Calendar Server 7u2 (7.2-4.19)...
------ Executing Task 50 of 64 ...

============================================================
Installing Instant Messaging 9 (9.0-00.15)...
------ Executing Task 51 of 64 ...
------ Executing Task 52 of 64 ...
------ Executing Task 53 of 64 ...
------ Executing Task 54 of 64 ...
------ Executing Task 55 of 64 ...
------ Executing Task 56 of 64 ...
------ Executing Task 57 of 64 ...
------ Executing Task 58 of 64 ...

============================================================
Installing Convergence 2 (2.0-2.01)...
------ Executing Task 59 of 64 ...

============================================================
Installing Indexing and Search Service 1u3 (1.3-8.6501)...
------ Executing Task 60 of 64 ...
```

```
============================================================
Installing Comms Delegated Administrator 7 (7.0-4.00)...
------ Executing Task 61 of 64 ...

============================================================
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
------ Executing Task 62 of 64 ...

============================================================
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
------ Executing Task 63 of 64 ...

============================================================
Installing CommsInstaller 7u2 (7.2-0.36)...
------ Executing Task 64 of 64 ...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

-- Output of Task 1: generic
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
LOGFILE: /tmp/ci-mysql-installer_20110921203326.log
pkgadd -n -r /dev/null -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.

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 riot1 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!

pkgadd -n -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
```

```
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright (c) 2009, 2011, Oracle and/or its affiliates. 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_20110921203315

NOTICE: silent file created in:

/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201109212033
LOGFILE  created in:

/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20110921203315.log
cat
/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20110921203315
#! /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 SUNWiimsc
#######################################################
# Finished Undo of: Installing CommsInstaller 7u2 (7.2-0.36)...
#######################################################
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
(7.0-4.00)...
#######################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiwc
#######################################################
# Finished Undo of: Installing Indexing and Search Service 1u3
```

```
(1.3-8.6501)...
#####################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimfed
#####################################################
# Finished Undo of: Installing Convergence 2 (2.0-2.01)...
#####################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimw
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimgw
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 9 (9.0-00.15)...
#####################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWcomds
#####################################################
# Finished Undo of: Installing Calendar Server 7u2 (7.2-4.19)...
#####################################################
pkgrm -R /opt/altroot -n -a $ADMIN SUNWmessaging-server-64
#####################################################
# Finished Undo of: Installing Comms DSsetup 6.4 (6.4-23.01)...
#####################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWhiquc
#####################################################
# Finished Undo of: Installing Messaging Server (64bit) 7u4
(7.4-23.01)...
#####################################################
# 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 SUNWldapcsdk-tools
#######################################################
# Finished Undo of: Installing NSS/NSPR/JSS 4.8.8...
#######################################################
# 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 SUNWicu
#######################################################
# Finished Undo of: Installing Simple Authentication and Security Layer
2.19...
#######################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWljdk
#######################################################
# Finished Undo of: Installing International Components for Unicode
ICU2,ICU3...
#######################################################
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimdv
#######################################################
# Finished Undo of: Installing LDAPJDK 4.21...
#######################################################
# IRREVERSIBLE:
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a $ADMIN
#######################################################
# Finished Undo of: Installing Instant Messaging API 9...
```

```
#######################################################
#######################################################
# Finished Undo of: Installing MySQL 5.5.8...
#######################################################
# cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201109212033
Silent File for CommsInstaller 7.2-0.36 [7.0.2.0.0]
# Generated on 20110921203315
#

#
# 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/example.com/export/megan/wspace/dl111122/releases/ci72
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 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
COMPONENT_VERSIONS=
# cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20110921203315.log
LOGFILE started Wed Sep 21 20:33:15 2011 ==========
LOGFILE = /tmp/CommsInstaller_20110921203315.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg install /opt/altroot
-- perl version: 5.008004 pid: 10679
-- basetime: 1316662395 Wed Sep 21 20:33:15 2011
-- scriptDir:
/net/example.com/export/megan/wspace/dl111122/releases/ci72
-- LOGFILE: /tmp/CommsInstaller_20110921203315.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
-- UNAME = SunOS ARCH = i386 OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS riot1 5.10 Generic_142910-17 i86pc i386 i86pc
-- Exit status: 0
!!! ENV
$VAR1 = {
          'HOME' => '/',
          'LOGNAME' => 'uadmin',
          'SHLVL' => '1',
          'OLDPWD' => '/home/dl111122/wspace/releases/ci71',
          'PS1' => '[\\! \\d \\t \\u@\\h% \\w\\$ ]
\\$ ',
          '_' => './commpkg',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc::~dl111122/bin:/usr/sbin:/usr/bin',
'CDPATH' => ':..:/home/dl111122',
          'SHELL' => '/sbin/sh',
          'HZ' => '',
          'MAIL' => '/var/mail/uadmin',
          'TERM' => 'dumb',
          'PWD' => '/home/dl111122/wspace/releases/ci72',
          'TZ' => 'US/Pacific',
          'LANG' => 'C'
        };
cat /etc/release 2>&1
                    Oracle Solaris 10 9/10 s10x_u9wos_14a X86
     Copyright (c) 2010, Oracle and/or its affiliates. All rights
reserved.
                            Assembled 11 August 2010
-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
          'MS64',
          'DSSETUP',
          'DAV',
```

```
          'IM',
          'IWC',
          'JISS',
          'DA',
          'MS_SCHA',
          'IM_SCHA'
        ];
!!! products found in distro, distrProds
$VAR1 = {
          'SASL' => 1,
          'IWC' => 1,
          'MS' => 1,
          'DSSETUP' => 1,
          'MQ_L10N' => 1,
          'ICU' => 1,
          'MS64' => 1,
          'DAV' => 1,
          'LDAPCSDK6' => 1,
          'JDK' => 1,
          'CE' => 1,
          'MYSQL' => 1,
          'PATCHUTILS' => 1,
          'MQ' => 1,
          'CI' => 1,
          'IMAPI' => 1,
          'LDAPCSDK6_TOOLS' => 1,
          'JISS' => 1,
          'NSS' => 1,
          'IM' => 1,
          'ST' => 1,
          'CS_SCHA' => 1,
          'LDAPJDK' => 1,
          'BZIP' => 1,
          'MYSQL_MARKER' => 1,
          'IM_SCHA' => 1,
          'LIBCPLUSPLUS' => 1,
          'SNMP' => 1,
          'MS_SCHA' => 1,
          'CS' => 1,
          'JHRT' => 1,
          'DA' => 1
        };
/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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
```

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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC
'MS64_L10N' => 'none',
          'MS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS/
'DSSETUP' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSS
'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS6
'DAV' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CE/
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produ
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JIS
'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/
'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS_
```

```
'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_
'CS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS/
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/
};
!!! prod_getVers
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-2.01',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-23.01',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-23.01',
          'DAV' => '7.2-4.19',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.2-0.36',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.3-8.6501',
          'NSS' => 0,
          'CS_L10N' => 0,
          'IM' => '9.0-00.15',
          'ST' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'BZIP' => 0,
          'MYSQL_MARKER' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'SNMP' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-29.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
```

```
          'DA' => '7.0-4.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20110817',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20110713',
          'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' => '20110810',
          'DAV' => '20110909',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20110909',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20110811',
          'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' => '20110905',
          'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20110527',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20110805'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.8
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) = 4.21
INFO: prod_mktVers{IMAPI} (w/ map) = 9
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
```

```
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{SNMP} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2011.06.17
INFO: prod_mktVers{MYSQL_MARKER} (w/ map) = 1.1
INFO: prod_mktVers{MYSQL} (w/ map) = 5.5.8
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u2
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u2
INFO: prod_mktVers{IM} (w/ map) = 9
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u3
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

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.

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=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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
mkdir -m 1777 -p /opt/altroot/var/tmp 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 SNMP Unknown ...
  Checking pkg SUNWsmagt... present.
  Checking pkg SUNWsmcmd... present.
  Checking pkg SUNWsmmgr... present.
  SNMP Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2011.06.17 ...
  RECOMMENDED 2011.06.17 is not present.
Checking MYSQL_MARKER 1.1 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.1 is not present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.0 is not present.
Checking MYSQL 5.5.8 ...
  Checking pkg mysql... not present.
  MYSQL 5.5.8 is not present.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... not present.
  MYSQL 5.1.36 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 4.8.8 ...
  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 4.8.8 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 4.3 ...
  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 4.3 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 MQ_L10N 4.3 ...
  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 4.3 is not present.
Checking LDAPJDK 4.21 ...
  Checking pkg SUNWljdk... not present.
  LDAPJDK 4.21 is not present.
Checking IMAPI 9.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 9.0 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 IMAPI 8.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 8.0 is not present.
Checking CI 7.2 ...
  Checking pkg SUNWcomms... not present.
  CI 7.2 is not present.
Checking MS64 7.4 ...
  Checking pkg SUNWmessaging-server-64... not present.
  MS64 7.4 is not present.
Checking MS64 6.3 ...
  Checking pkg SUNWmessaging-server-64... not present.
  MS64 6.3 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 7.2 ...
  Checking pkg SUNWdavserver... not present.
  DAV 7.2 is not present.
Checking IM 9.0 ...
  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 SUNWiimgw... not present.
  Checking pkg SUNWiimw... not present.
  Checking pkg SUNWiimfed... not present.
  IM 9.0 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 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 IWC 2.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 2.0 is not present.
Checking IWC 1.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 1.0 is not present.
Checking JISS 1.3 ...
  Checking pkg SUNWjiss... not present.
  JISS 1.3 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 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 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 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 SUNWdiimin... 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.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  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 CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119964-23 /tmp/.patchout_20110921203315.10679
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20110921203315.10679
patchadd  -p > /tmp/.patchout_20110921203315.10679 2>>
/tmp/CommsInstaller_20110921203315.log
-- Exit status: 0
--  older version at lineno 218 found 119964-21 - not acceptable
--  Exact match found at line 219
--  Final return status: 1
  LIBCPLUSPLUS patch 119964-23 is already present.
-- chk4patch 120901-03 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 40
--  Final return status: 1
  PATCHUTILS patch 120901-03 is already present.
-- chk4patch 121334-04 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 41
--  Final return status: 1
  PATCHUTILS patch 121334-04 is already present.
-- chk4patch 119255-81 /tmp/.patchout_20110921203315.10679
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Exact match found at line 6
```

```
--  Final return status: 1
  PATCHUTILS patch 119255-81 is already present.
-- chk4patch 119255-73 /tmp/.patchout_20110921203315.10679
--  Newer version at line 2 found 119255-75
--  Final return status: 1
  PATCHUTILS patch 119255-73 is already present.
-- chk4patch 120273-06 /tmp/.patchout_20110921203315.10679
--  Newer version at line 192 found 120273-30
--  Final return status: 1
  SNMP patch 120273-06 is already present.
-- chk4patch 126869-05 /tmp/.patchout_20110921203315.10679
--  older version at lineno 190 found 126869-04 - not acceptable
--  Exact match found at line 193
--  Final return status: 1
  BZIP patch 126869-05 is already present.
-- chk4patch 137322-01 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 191
--  Final return status: 1
  BZIP patch 137322-01 is already present.
-- chk4patch 119255-81 /tmp/.patchout_20110921203315.10679
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Exact match found at line 6
--  Final return status: 1
  RECOMMENDED patch 119255-81 is already present.
-- chk4patch 118855-36 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 18
--  Final return status: 1
  RECOMMENDED patch 118855-36 is already present.
-- chk4patch 120012-14 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 39
--  Final return status: 1
  RECOMMENDED patch 120012-14 is already present.
-- chk4patch 120273-30 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 192
--  Final return status: 1
  RECOMMENDED patch 120273-30 is already present.
-- chk4patch 137138-09 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 46
--  Final return status: 1
  RECOMMENDED patch 137138-09 is already present.
-- chk4patch 141445-09 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 49
--  Final return status: 1
  RECOMMENDED patch 141445-09 is already present.
-- chk4patch 142910-17 /tmp/.patchout_20110921203315.10679
--  Exact match found at line 45
--  Final return status: 1
  RECOMMENDED patch 142910-17 is already present.
-- chk4patch 144489-17 /tmp/.patchout_20110921203315.10679
--  Final return status: 0
  RECOMMENDED patch 144489-17 is not present.
-- chk4patch 125359-14 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
-- Running patchadd -R /opt/altroot -p report...
--   Generating /tmp/.patchout_altroot_20110921203315.10679
```

```
patchadd -R /opt/altroot -p >
/tmp/.patchout_altroot_20110921203315.10679 2>>
/tmp/CommsInstaller_20110921203315.log
Cannot check name /opt/altroot/var/sadm/pkg.
Cannot open input /opt/altroot
-- Exit status: 0
--  Final return status: 0
  NSS patch 125359-14 is not present.
-- chk4patch 125359-13 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  NSS patch 125359-13 is not present.
-- chk4patch 119346-08 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  SASL patch 119346-08 is not present.
-- chk4patch 119346-07 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  SASL patch 119346-07 is not present.
-- chk4patch 136800-03 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  LDAPCSDK6_TOOLS patch 136800-03 is not present.
-- chk4patch 119811-05 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  ICU patch 119811-05 is not present.
-- chk4patch 125138-28 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  JDK patch 125138-28 is not present.
-- chk4patch 125139-28 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  JDK patch 125139-28 is not present.
-- chk4patch 125138-25 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  JDK patch 125138-25 is not present.
-- chk4patch 125139-25 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  JDK patch 125139-25 is not present.
-- chk4patch 119725-06 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  LDAPJDK patch 119725-06 is not present.
-- chk4patch 137205-23 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  MS64 patch 137205-23 is not present.
-- chk4patch 118243-03 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  DSSETUP patch 118243-03 is not present.
```

```
-- chk4patch 118246-23 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  DSSETUP patch 118246-23 is not present.
-- chk4patch 142786-04 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  DAV patch 142786-04 is not present.
-- chk4patch 145712-02 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  IWC patch 145712-02 is not present.
-- chk4patch 142823-08 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  JISS patch 142823-08 is not present.
-- chk4patch 124582-04 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  DA patch 124582-04 is not present.
-- chk4patch 137572-01 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  IM_SCHA patch 137572-01 is not present.
-- chk4patch 121658-46 /tmp/.patchout_altroot_20110921203315.10679
/opt/altroot -R /opt/altroot
--  Final return status: 0
  CS patch 121658-46 is not present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'NOT_PRESENT',
          '118855-36' => 'PRESENT',
          'DSSETUP' => {
                          '6.4' => 'NOT_PRESENT'
                        },
          '118246-23' => 'NOT_PRESENT',
          'MQ_L10N' => {
                          '4.3' => 'NOT_PRESENT',
                          '3.7' => 'NOT_PRESENT',
                          '4.1' => 'NOT_PRESENT',
                          '4.4' => 'NOT_PRESENT'
                        },
          'ICU' => {
                     'ICU2,ICU3' => 'NOT_PRESENT'
                   },
          '137572-01' => 'NOT_PRESENT',
          '137205-23' => 'NOT_PRESENT',
          '142786-04' => 'NOT_PRESENT',
          'MS64' => {
                      '7.4_32' => 'NOT_PRESENT',
                      '7.3_32' => 'NOT_PRESENT',
                      '7.2_32' => 'NOT_PRESENT',
                      '6.3' => 'NOT_PRESENT',
                      '6.3_32' => 'NOT_PRESENT',
```

```
            '7.4' => 'NOT_PRESENT'
          },
'DAV' => {
           '7.2' => 'NOT_PRESENT'
         },
'118243-03' => 'NOT_PRESENT',
'137138-09' => 'PRESENT',
'119255-81' => 'PRESENT',
'CE' => {
          '6.3' => 'NOT_PRESENT'
        },
'MYSQL' => {
             '5.1.36' => 'NOT_PRESENT',
             '5.5.8' => 'NOT_PRESENT'
           },
'PATCHUTILS' => {
                  'Unknown' => 'PRESENT'
                },
'MQ' => {
          '4.3' => 'NOT_PRESENT',
          '3.7' => 'NOT_PRESENT',
          '4.1' => 'NOT_PRESENT',
          '4.4' => 'NOT_PRESENT'
        },
'IMAPI' => {
             '8.0' => 'NOT_PRESENT',
             '7.0' => 'NOT_PRESENT',
             '9.0' => 'NOT_PRESENT',
             '7.3' => 'NOT_PRESENT'
           },
'124582-04' => 'NOT_PRESENT',
'LDAPCSDK6_TOOLS' => {
                       '6.0' => 'NOT_PRESENT'
                     },
'JISS' => {
            '0.9' => 'NOT_PRESENT',
            '1.3' => 'NOT_PRESENT'
          },
'119811-05' => 'NOT_PRESENT',
'137322-01' => 'PRESENT',
'ST' => {
          '1.1.4' => 'PRESENT'
        },
'141445-09' => 'PRESENT',
'120901-03' => 'PRESENT',
'IM_L10N' => {
               '7.2' => 'NOT_PRESENT',
               '7.0' => 'NOT_PRESENT'
             },
'125138-25' => 'NOT_PRESENT',
'121334-04' => 'PRESENT',
'LDAPJDK' => {
               '4.21' => 'NOT_PRESENT'
             },
'BZIP' => {
            '11.10' => 'PRESENT'
```

```
          },
'IM_SCHA' => {
               '7.0' => 'NOT_PRESENT',
               '7.3' => 'NOT_PRESENT'
             },
'SNMP' => {
            'Unknown' => 'PRESENT'
          },
'125139-25' => 'NOT_PRESENT',
'MS_SCHA' => {
               '6.0' => 'NOT_PRESENT',
               '7.0' => 'NOT_PRESENT'
             },
'119346-08' => 'NOT_PRESENT',
'JHRT' => {
            '2.0' => 'NOT_PRESENT'
          },
'CE_L10N' => {
               '6.2' => 'NOT_PRESENT',
               '6.3' => 'NOT_PRESENT'
             },
'125359-14' => 'NOT_PRESENT',
'145712-02' => 'NOT_PRESENT',
'SASL' => {
            '2.19' => 'NOT_PRESENT'
          },
'IWC' => {
           '2.0' => 'NOT_PRESENT',
           '1.0' => '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'
        },
'120012-14' => 'PRESENT',
'119346-07' => 'NOT_PRESENT',
'LDAPCSDK6' => {
                 '6.0' => 'NOT_PRESENT'
               },
'142910-17' => 'PRESENT',
'142823-08' => 'NOT_PRESENT',
'JDK' => {
           '1.6.0' => 'NOT_PRESENT',
           '1.5.0' => 'NOT_PRESENT'
         },
'121658-46' => 'NOT_PRESENT',
'136800-03' => 'NOT_PRESENT',
'CI' => {
          '7.2' => 'NOT_PRESENT'
        },
'119255-73' => 'PRESENT',
```

```
          '120273-06' => 'PRESENT',
          '125138-28' => 'NOT_PRESENT',
          'NSS' => {
                     '4.8.8' => 'NOT_PRESENT'
                   },
          'IM' => {
                    '8.3' => 'NOT_PRESENT',
                    '7.0' => 'NOT_PRESENT',
                    '9.0' => 'NOT_PRESENT',
                    '7.3' => 'NOT_PRESENT'
                  },
          'CS_L10N' => {
                         '6.2' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'RECOMMENDED' => {
                             '2011.06.17' => 'NOT_PRESENT'
                           },
          '119964-23' => 'PRESENT',
          '120273-30' => 'PRESENT',
          '144489-17' => 'NOT_PRESENT',
          '125139-28' => 'NOT_PRESENT',
          '125359-13' => 'NOT_PRESENT',
          'CS_SCHA' => {
                         '6.0' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'MYSQL_MARKER' => {
                              '1.1' => 'NOT_PRESENT',
                              '1.0' => 'NOT_PRESENT'
                            },
          'MS_L10N' => {
                         '6.2' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'LIBCPLUSPLUS' => {
                              '5.9' => 'PRESENT'
                            },
          '126869-05' => 'PRESENT',
          'CS' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          'DA' => {
                    '6.4' => 'NOT_PRESENT',
                    '7.0' => 'NOT_PRESENT'
                  }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {},
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                 '1.1.4,REV=2008.03.21.07.56' => [

'SUNWservicetagu',
```

```
                                                                    '/',
'1.1.4.1',
                                                                    ''
                                                                  ]
                              },
          'SUNWsmmgr' => {
                            '1.0,REV=2005.01.08.01.09' => [
                                                             'SUNWsmmgr',
                                                             '/',
                                                             '5.10/SunOS
Development',
                                                             ''
                                                           ]
                          },
          'SUNWjimid' => {},
          'SUNWdiquc' => {},
          'SUNWmsgko' => {},
          'SUNWics5' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {},
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {},
          'SUNWiqfs' => {},
          'SUNWfimid' => {},
          'SUNWcomds' => {},
          'SUNWjhdev' => {},
          'SUNWj6rtx' => {},
          'SUNWiqum' => {},
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {},
          'SUNWj5rt' => {},
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {},
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {},
          'SUNWiimgw' => {},
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {},
          'SUNWzhics' => {},
          'SUNWkiimd' => {},
          'SUNWiimfed' => {},
          'SUNWmsgmp' => {},
          'SUNWuwc' => {},
          'SUNWscics' => {},
          'SUNWiimc' => {},
          'SUNWhiimd' => {},
```

```
          'SUNWmessaging-server-scha' => {},
          'SUNWmsglb' => {},
          'SUNWtls' => {},
          'SUNWj6dvx' => {},
          'SUNWfuwc' => {},
          'SUNWlibC' => {
                         '5.10,REV=2004.12.20' => [
                                                   'SUNWlibC',
                                                   '/',
                                                   '5.10',
                                                   ''
                                                  ]
                       },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {},
          'SUNWscims' => {},
          'SUNWiimjd' => {},
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {},
          'SUNWiqlen' => {},
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {},
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWiimw' => {},
          'SUNWmessaging-server-64' => {},
          'SUNWeiquc' => {},
          'SUNWj5cfg' => {},
          'SUNWhiqu' => {},
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {},
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {},
          'SUNWiquc' => {},
          'SUNWiimid' => {},
          'SUNWmsgmt' => {},
          'SUNWljdk' => {},
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {},
          'SUNWservicetagr' => {
                                '1.1.4,REV=2008.03.21.07.56' => [

'SUNWservicetagr',
                                                                   '/',

'1.1.4.1',
                                                                   ''
                                                                  ]
                               },
          'SUNWciimc' => {},
          'SUNWjhrt' => {},
          'SUNWtlsd' => {},
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                         '11.10.0,REV=2005.01.21.16.34' => [
```

```
'SUNWdtrc',
                                                                '/',

'5.10/Generic Patch',
                                                                ''
                                                              ]
                        },
          'SUNWhuwc' => {},
          'mysql' => {},
          'SUNWiqdoc' => {},
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {},
          'SUNWsmcmd' => {
                          '1.0,REV=2005.01.08.01.09' => [
                                                            'SUNWsmcmd',
                                                            '/',
                                                            '5.10/SunOS
Development',
                                                            ''
                                                          ]
                         },
          'SUNWiqcrt' => {},
          'SUNWmsgzh' => {},
          'SUNWprd' => {},
          'SUNWdiimin' => {},
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {},
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {},
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {},
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.21.19' => [

'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' => {},
          'SUNWeiimc' => {},
          'SUNWmsgtw' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                              '11.11,REV=2005.01.09.21.19' => [

'SUNWpkgcmdsu',
                                                                  '/',
                                                                  'SNAG
Development',
                                                                  ''
                                                                ]
                            },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {},
          'SUNWjhdoc' => {},
          'SUNWj6dev' => {},
          'SUNWmsges' => {},
          'SUNWpr' => {},
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {},
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                          '11.10,REV=2005.01.10.15.35' => [
                                                              'SUNWswmt',
                                                              '/',
                                                              'SNAG
Development',
                                                              ''
                                                            ]
                        },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
```

```
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {},
          'SUNWstosreg' => {
                            '1.1.4,REV=2008.03.21.07.56' => [

'SUNWstosreg',
                                                                '/',

'1.1.4.1',
                                                                ''
                                                              ]
                          },
          'SUNWmsgde' => {},
          'SUNWsmagt' => {
                          '1.0,REV=2005.01.08.01.09' => [
                                                            'SUNWsmagt',
                                                            '/',
                                                            '5.10/SunOS
Development',
                                                            ''
                                                          ]
                        },
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                         '11.10.0,REV=2005.01.08.01.09' => [

'SUNWbzip',
                                                              '/',

'5.10/SunOS Development',
                                                              ''
                                                            ]
                       },
          'SUNWtlsu' => {},
          'SUNWfiqu' => {},
          'SUNWsasl' => {},
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                          '11.10.0,REV=2005.01.21.16.34' => [

'SUNWzoneu',
                                                                '/',

'5.10/Generic Patch',
                                                                ''
                                                              ]
                        },
          'SUNWcsr' => {
                        '11.10.0,REV=2005.01.21.16.34' => [
                                                              'SUNWcsr',
                                                              '/',

'5.10/Generic Patch',
```

```
                                                                  ''
                                                                ]
                        },
          'SUNWesics' => {},
          'SUNWiimm' => {}
        };
!!! installedprod
$VAR1 = {
          'PATCHUTILS' => {
                            'Unknown' => [
                                          '/',
                                          'SNAG Development',
                                          'none',
                                          'Unknown',
                                          'none',
                                          'none',
                                          'none',
                                          ''
                                        ]
                          },
          'ST' => {
                    '1.1.4' => [
                                '/',
                                '1.1.4.1',
                                'none',
                                '1.1.4',
                                'none',
                                'none',
                                'none',
                                ''
                              ]
                  },
          'LIBCPLUSPLUS' => {
                              '5.9' => [
                                        '/',
                                        '5.10',
                                        'none',
                                        '5.9',
                                        'none',
                                        'none',
                                        'none',
                                        ''
                                      ]
                            },
          'SNMP' => {
                      'Unknown' => [
                                    '/',
                                    '5.10/SunOS Development',
                                    'none',
                                    'Unknown',
                                    'none',
                                    'none',
                                    'none',
                                    ''
                                  ]
                    },
```

```
          'BZIP' => {
                      '11.10' => [
                                    '/',
                                    '5.10/SunOS Development',
                                    'none',
                                    '11.10',
                                    'none',
                                    'none',
                                    'none',
                                    ''
                                  ]
                    }
        };
====== End QQQ detectProducts ======
-- Checking for RECOMMENDED patch 119255-81
   patch is PRESENT
-- Checking for RECOMMENDED patch 118855-36
   patch is PRESENT
-- Checking for RECOMMENDED patch 120012-14
   patch is PRESENT
-- Checking for RECOMMENDED patch 120273-30
   patch is PRESENT
-- Checking for RECOMMENDED patch 137138-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 141445-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 142910-17
   patch is PRESENT
-- Checking for RECOMMENDED patch 144489-17
   patch 144489-17: NOT_PRESENT
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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 (7.4-23.01)
```

```
        2  Comms DSsetup 6.4 (6.4-23.01)
        3  Calendar Server 7u2 (7.2-4.19)
        4  Instant Messaging 9 (9.0-00.15)
        5  Convergence 2 (2.0-2.01)
        6  Indexing and Search Service 1u3 (1.3-8.6501)
        7  Comms Delegated Administrator 7 (7.0-4.00)
        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)


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]: =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: 0 MS64 0 DSSETUP 0 DAV 0 IM 0 IWC 0 JISS 0 DA 0 MS_SCHA
0 IM_SCHA
Generating list of things to install...
NOTICE: toInstall - MYSQL PATCHUTILS IMAPI LDAPJDK ICU SASL
LDAPCSDK6_TOOLS NSS LDAPCSDK6 ST JDK BZIP JHRT MQ MQ_L10N SNMP
LIBCPLUSPLUS MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CI
Checking for Shared Component Upgrade Requirements...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: MySQL 5.5.8
  Task:
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
WILL INSTALL: Instant Messaging API 9
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IMAF
-r /tmp/.response_IMAPI_20110921203315 SUNWiimdv
  WILL INSTALL: LDAPJDK 4.21
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAF
-r /tmp/.response_LDAPJDK_20110921203315 SUNWljdk
  WILL INSTALL: International Components for Unicode ICU2,ICU3
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ICU/
-r /tmp/.response_ICU_20110921203315 SUNWicu
  WILL INSTALL: Simple Authentication and Security Layer 2.19
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
-r /tmp/.response_SASL_20110921203315 SUNWsasl
  WILL INSTALL: LDAPCSDK6 Tools 6.0
```

```
                 to /opt/altroot/directory
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_TOOLS_20110921203315 SUNWldapcsdk-tools
  WILL INSTALL: NSS/NSPR/JSS 4.8.8
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWjss
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWpr
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWprd
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWtls
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWtlsd
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWtlsu
  WILL INSTALL: LDAPCSDK6 6.0
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_20110921203315 SUNWldapcsdk-libs
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_20110921203315 SUNWldapcsdk-dev
  WILL INSTALL: JDK 1.6.0
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6rt
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
```

```
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6rtx
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6dev
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6dvx
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6cfg
  WILL INSTALL: Java Help Runtime 2.0
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhrt
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhdev
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhdem
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhdoc
  WILL INSTALL: Message Queue 4.4
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqr
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqdoc
  Task: pkgadd -a
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiquc
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqum
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqjx
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqfs
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqcrt
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqcdv
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqlen
  WILL INSTALL: Message Queue Localization 4.4
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWfiqu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWfiquc
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWdiqu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWdiquc
  Task: pkgadd -a
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWjiqu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWjiquc
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWeiqu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWeiquc
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWkiqu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWkiquc
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWciqu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWciquc
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWhiqu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWhiquc
  WILL INSTALL: Messaging Server (64bit) 7u4 (7.4-23.01)
                to /opt/altroot/messaging64
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
-r /tmp/.response_MS64_20110921203315 SUNWmessaging-server-64
```

```
  WILL INSTALL: Comms DSsetup 6.4 (6.4-23.01)
                to /opt/altroot/dssetup
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
-r /tmp/.response_DSSETUP_20110921203315 SUNWcomds
  WILL INSTALL: Calendar Server 7u2 (7.2-4.19)
                to /opt/altroot/davserver
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV/
-r /tmp/.response_DAV_20110921203315 SUNWdavserver
  WILL INSTALL: Instant Messaging 9 (9.0-00.15)
                to /opt/altroot/im
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiim
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimin
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimm
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimjd
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimid
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimgw
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimw
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimfed
```

```
  WILL INSTALL: Convergence 2 (2.0-2.01)
                to /opt/altroot/iwc
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC/
-r /tmp/.response_IWC_20110921203315 SUNWiwc
  WILL INSTALL: Indexing and Search Service 1u3 (1.3-8.6501)
                to /opt/altroot/jiss
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JISS
-r /tmp/.response_JISS_20110921203315 SUNWjiss
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-4.00)
                to /opt/altroot/da
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/P
-r /tmp/.response_DA_20110921203315 SUNWcommda
  WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                to /opt/altroot/msg_scha
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_S
-r /tmp/.response_MS_SCHA_20110921203315 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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_S
-r /tmp/.response_IM_SCHA_20110921203315 SUNWiimsc
  WILL INSTALL: CommsInstaller 7u2 (7.2-0.36)
                to /opt/altroot/CommsInstaller
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921203315 SUNWcomms
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to install

Do you want to continue ? [yes] :

============================================================
Installing MySQL 5.5.8...
------ Executing Task 1 of 64 ...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSQ
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
2>&1
-- LOGFILE: /tmp/ci-mysql-installer_20110921203326.log
pkgadd -n -r /dev/null -d
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.

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 riot1 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!

pkgadd -n -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
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reserved.
Use is subject to license terms.
-- Exit status: 0
--
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
LOGFILE: /tmp/ci-mysql-installer_20110921203326.log
pkgadd -n -r /dev/null -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
mysql

Installation of <mysql> was successful.
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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 riot1 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!

pkgadd -n -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
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==========================================================
Installing Instant Messaging API 9...
------ Executing Task 2 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IMAP
-r /tmp/.response_IMAPI_20110921203315 SUNWiimdv 2>&1
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Installation of <SUNWiimdv> was successful.
-- Exit status: 0

==========================================================
Installing LDAPJDK 4.21...
------ Executing Task 3 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPJDK_20110921203315 SUNWljdk 2>&1

Installation of <SUNWljdk> was successful.
-- Exit status: 0

==========================================================
Installing International Components for Unicode ICU2,ICU3...
```

```
------ Executing Task 4 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ICU/
-r /tmp/.response_ICU_20110921203315 SUNWicu 2>&1
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ICU License - ICU 1.8.1 and later

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their respective owners.
95324 blocks

Installation of <SUNWicu> was successful.
-- Exit status: 0

==========================================================
Installing Simple Authentication and Security Layer 2.19...
------ Executing Task 5 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
```

```
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
-r /tmp/.response_SASL_20110921203315 SUNWsasl 2>&1
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Installation of <SUNWsasl> was successful.
-- Exit status: 0

============================================================
Installing LDAPCSDK6 Tools 6.0...
------ Executing Task 6 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_TOOLS_20110921203315 SUNWldapcsdk-tools 2>&1
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Installation of <SUNWldapcsdk-tools> was successful.
-- Exit status: 0

============================================================
Installing NSS/NSPR/JSS 4.8.8...
------ Executing Task 7 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWjss 2>&1
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Installation of <SUNWjss> was successful.
-- Exit status: 0
------ Executing Task 8 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWpr 2>&1
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Installation of <SUNWpr> was successful.
-- Exit status: 0
------ Executing Task 9 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWprd 2>&1
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Installation of <SUNWprd> was successful.
-- Exit status: 0
------ Executing Task 10 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWtls 2>&1
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Installation of <SUNWtls> was successful.
-- Exit status: 0
------ Executing Task 11 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWtlsd 2>&1
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Installation of <SUNWtlsd> was successful.
-- Exit status: 0
------ Executing Task 12 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWtlsu 2>&1
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Installation of <SUNWtlsu> was successful.
-- Exit status: 0

============================================================
Installing LDAPCSDK6 6.0...
------ Executing Task 13 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_20110921203315 SUNWldapcsdk-libs 2>&1
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Installation of <SUNWldapcsdk-libs> was successful.
-- Exit status: 0
------ Executing Task 14 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_20110921203315 SUNWldapcsdk-dev 2>&1
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Installation of <SUNWldapcsdk-dev> was successful.
-- Exit status: 0

============================================================
Installing JDK 1.6.0...
------ Executing Task 15 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6rt 2>&1
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WARNING: /usr/jdk/instances/jdk1.6.0/jre/lib/i386/client/classes.jsa <no
longer a regular file>

Installation of <SUNWj6rt> was successful.
-- Exit status: 0
------ Executing Task 16 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6rtx 2>&1
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Installation of <SUNWj6rtx> was successful.
-- Exit status: 0
------ Executing Task 17 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6dev 2>&1
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Installation of <SUNWj6dev> was successful.
-- Exit status: 0
------ Executing Task 18 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6dvx 2>&1
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Installation of <SUNWj6dvx> was successful.
-- Exit status: 0
------ Executing Task 19 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6cfg 2>&1
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Installation of <SUNWj6cfg> was successful.
-- Exit status: 0

============================================================
Installing Java Help Runtime 2.0...
------ Executing Task 20 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhrt 2>&1
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1127 blocks

Installation of <SUNWjhrt> was successful.
-- Exit status: 0
------ Executing Task 21 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
```

```
-r /tmp/.response_JHRT_20110921203315 SUNWjhdev 2>&1
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709 blocks

Installation of <SUNWjhdev> was successful.
-- Exit status: 0
------ Executing Task 22 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhdem 2>&1
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6466 blocks

Installation of <SUNWjhdem> was successful.
-- Exit status: 0
------ Executing Task 23 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhdoc 2>&1
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10385 blocks

Installation of <SUNWjhdoc> was successful.
-- Exit status: 0

============================================================
Installing Message Queue 4.4...
------ Executing Task 24 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqr 2>&1
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Installation of <SUNWiqr> was successful.
-- Exit status: 0
------ Executing Task 25 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqu 2>&1
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Installation of <SUNWiqu> was successful.
-- Exit status: 0
```

```
------ Executing Task 26 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqdoc 2>&1
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Installation of <SUNWiqdoc> was successful.
-- Exit status: 0
------ Executing Task 27 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiquc 2>&1
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Installation of <SUNWiquc> was successful.
-- Exit status: 0
------ Executing Task 28 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqum 2>&1
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Installation of <SUNWiqum> was successful.
-- Exit status: 0
------ Executing Task 29 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 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 64 ...
```

```
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWeiqu 2>&1
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Use is subject to license terms.

Installation of <SUNWeiqu> was successful.
-- Exit status: 0
```

```
------ Executing Task 41 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWkiquc 2>&1
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
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Installation of <SUNWkiquc> was successful.
-- Exit status: 0
------ Executing Task 44 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWciquc 2>&1
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Use is subject to license terms.

Installation of <SUNWciquc> was successful.
-- Exit status: 0
------ Executing Task 46 of 64 ...
```

```
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWhiqu 2>&1
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Installation of <SUNWhiqu> was successful.
-- Exit status: 0
------ Executing Task 47 of 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWhiquc 2>&1
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Installation of <SUNWhiquc> was successful.
-- Exit status: 0

============================================================
Installing Messaging Server (64bit) 7u4 (7.4-23.01)...
------ Executing Task 48 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
-r /tmp/.response_MS64_20110921203315 SUNWmessaging-server-64 2>&1
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Installation of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

============================================================
Installing Comms DSsetup 6.4 (6.4-23.01)...
------ Executing Task 49 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
-r /tmp/.response_DSSETUP_20110921203315 SUNWcomds 2>&1
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Installation of <SUNWcomds> was successful.
-- Exit status: 0

============================================================
Installing Calendar Server 7u2 (7.2-4.19)...
------ Executing Task 50 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV/
-r /tmp/.response_DAV_20110921203315 SUNWdavserver 2>&1
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Installation of <SUNWdavserver> was successful.
-- Exit status: 0

============================================================
Installing Instant Messaging 9 (9.0-00.15)...
------ Executing Task 51 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiim 2>&1
Copyright (c) 2010 Oracle and/or its affiliates.  All rights reserved.
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Installation of <SUNWiim> was successful.
-- Exit status: 0
------ Executing Task 52 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimin 2>&1
Copyright (c) 2010 Oracle and/or its affiliates.  All rights reserved.
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Installation of <SUNWiimin> was successful.
-- Exit status: 0
------ Executing Task 53 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimm 2>&1
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Installation of <SUNWiimm> was successful.
-- Exit status: 0
------ Executing Task 54 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimjd 2>&1
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Installation of <SUNWiimjd> was successful.
-- Exit status: 0
------ Executing Task 55 of 64 ...
```

```
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimid 2>&1
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Use is subject to license terms.

Installation of <SUNWiimid> was successful.
-- Exit status: 0
------ Executing Task 56 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimgw 2>&1
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Installation of <SUNWiimgw> was successful.
-- Exit status: 0
------ Executing Task 57 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimw 2>&1
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Installation of <SUNWiimw> was successful.
-- Exit status: 0
------ Executing Task 58 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimfed 2>&1
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Installation of <SUNWiimfed> was successful.
-- Exit status: 0

============================================================
Installing Convergence 2 (2.0-2.01)...
------ Executing Task 59 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC/
-r /tmp/.response_IWC_20110921203315 SUNWiwc 2>&1
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Installation of <SUNWiwc> was successful.
-- Exit status: 0
```

```
============================================================
Installing Indexing and Search Service 1u3 (1.3-8.6501)...
------ Executing Task 60 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JISS
-r /tmp/.response_JISS_20110921203315 SUNWjiss 2>&1
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Installation of <SUNWjiss> was successful.
-- Exit status: 0

============================================================
Installing Comms Delegated Administrator 7 (7.0-4.00)...
------ Executing Task 61 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/P
-r /tmp/.response_DA_20110921203315 SUNWcommda 2>&1
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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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_S
-r /tmp/.response_MS_SCHA_20110921203315 SUNWmessaging-server-scha 2>&1
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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 64 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_S
-r /tmp/.response_IM_SCHA_20110921203315 SUNWiimsc 2>&1
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Installation of <SUNWiimsc> was successful.
```

```
-- Exit status: 0

============================================================
Installing CommsInstaller 7u2 (7.2-0.36)...
------ Executing Task 64 of 64 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921203315 SUNWcomms 2>&1
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reserved.
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Installation of <SUNWcomms> was successful.
-- Exit status: 0
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: generic
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSQ
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
Output of Task 1: generic
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSQ
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
LOGFILE: /tmp/ci-mysql-installer_20110921203326.log
pkgadd -n -r /dev/null -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSQ
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
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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 riot1 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!
```

```
pkgadd -n -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
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reserved.
Use is subject to license terms.
-- End of command output--
PASSED: Task 2: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IMAP
-r /tmp/.response_IMAPI_20110921203315 SUNWiimdv
PASSED: Task 3: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPJDK_20110921203315 SUNWljdk
PASSED: Task 4: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ICU/
-r /tmp/.response_ICU_20110921203315 SUNWicu
PASSED: Task 5: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
-r /tmp/.response_SASL_20110921203315 SUNWsasl
PASSED: Task 6: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_TOOLS_20110921203315 SUNWldapcsdk-tools
PASSED: Task 7: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWjss
PASSED: Task 8: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWpr
PASSED: Task 9: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWprd
PASSED: Task 10: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
```

```
-r /tmp/.response_NSS_20110921203315 SUNWtls
PASSED: Task 11: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWtlsd
PASSED: Task 12: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
-r /tmp/.response_NSS_20110921203315 SUNWtlsu
PASSED: Task 13: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_20110921203315 SUNWldapcsdk-libs
PASSED: Task 14: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPCSDK6_20110921203315 SUNWldapcsdk-dev
PASSED: Task 15: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6rt
PASSED: Task 16: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6rtx
PASSED: Task 17: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6dev
PASSED: Task 18: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6dvx
PASSED: Task 19: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921203315 SUNWj6cfg
PASSED: Task 20: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhrt
PASSED: Task 21: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhdev
```

```
PASSED: Task 22: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhdem
PASSED: Task 23: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JHRT
-r /tmp/.response_JHRT_20110921203315 SUNWjhdoc
PASSED: Task 24: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqr
PASSED: Task 25: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqu
PASSED: Task 26: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqdoc
PASSED: Task 27: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiquc
PASSED: Task 28: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqum
PASSED: Task 29: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqjx
PASSED: Task 30: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqfs
PASSED: Task 31: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqcrt
PASSED: Task 32: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqcdv
PASSED: Task 33: pkgadd -a
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ/P
-r /tmp/.response_MQ_20110921203315 SUNWiqlen
PASSED: Task 34: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWfiqu
PASSED: Task 35: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWfiquc
PASSED: Task 36: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWdiqu
PASSED: Task 37: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWdiquc
PASSED: Task 38: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWjiqu
PASSED: Task 39: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWjiquc
PASSED: Task 40: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWeiqu
PASSED: Task 41: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWeiquc
PASSED: Task 42: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWkiqu
PASSED: Task 43: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWkiquc
PASSED: Task 44: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
```

```
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWciqu
PASSED: Task 45: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWciquc
PASSED: Task 46: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWhiqu
PASSED: Task 47: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MQ_L
-r /tmp/.response_MQ_L10N_20110921203315 SUNWhiquc
PASSED: Task 48: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
-r /tmp/.response_MS64_20110921203315 SUNWmessaging-server-64
PASSED: Task 49: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
-r /tmp/.response_DSSETUP_20110921203315 SUNWcomds
PASSED: Task 50: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV/
-r /tmp/.response_DAV_20110921203315 SUNWdavserver
PASSED: Task 51: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiim
PASSED: Task 52: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimin
PASSED: Task 53: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimm
PASSED: Task 54: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimjd
PASSED: Task 55: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimid
PASSED: Task 56: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimgw
PASSED: Task 57: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimw
PASSED: Task 58: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921203315 SUNWiimfed
PASSED: Task 59: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC/
-r /tmp/.response_IWC_20110921203315 SUNWiwc
PASSED: Task 60: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JISS
-r /tmp/.response_JISS_20110921203315 SUNWjiss
PASSED: Task 61: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/P
-r /tmp/.response_DA_20110921203315 SUNWcommda
PASSED: Task 62: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_S
-r /tmp/.response_MS_SCHA_20110921203315 SUNWmessaging-server-scha
PASSED: Task 63: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_S
-r /tmp/.response_IM_SCHA_20110921203315 SUNWiimsc
PASSED: Task 64: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n -R /opt/altroot -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921203315 SUNWcomms

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Sep 21 20:15 /usr/java ->
jdk/jdk1.6.0_26

/usr/jdk:
total 9
```

```
drwxr-xr-x   4 root     bin            4 Feb 17  2011 instances
lrwxrwxrwx   1 root     other          7 Feb 17  2011 j2sdk1.4.2_26 ->
../j2se
lrwxrwxrwx   1 root     other         18 Sep 21 20:15 jdk1.6.0_26 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Sep 21 20:15 latest ->
jdk1.6.0_26
drwxr-xr-x   8 root     bin            8 Feb 17  2011 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 Sep 21 20:15 /usr/jdk/latest ->
jdk1.6.0_26
-- 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 38078
-rw-r--r--   1 root     bin         3339 May  4 02:19 COPYRIGHT
-rw-r--r--   1 root     bin           40 May  4 02:19 LICENSE
-rw-r--r--   1 root     bin          115 May  4 02:19 README.html
-rw-r--r--   1 root     bin        20320 Nov 29  2006 README_ja.html
-rw-r--r--   1 root     bin        15160 Nov 29  2006 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 May  4 02:19
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Sep 21 20:15 bin
drwxr-xr-x  11 root     bin           12 Feb 17  2011 demo
drwxr-xr-x   3 root     bin            8 Sep 21 20:15 include
drwxr-xr-x   6 root     bin           11 Sep 21 20:15 jre
drwxr-xr-x   3 root     bin           11 Sep 21 20:15 lib
drwxr-xr-x   3 root     bin            3 Feb 17  2011 man
-r--r--r--   1 root     other       6609 Sep 21 20:15 register.html
-r--r--r--   1 root     other       8055 Sep 21 20:15 register_ja.html
-r--r--r--   1 root     other       6212 Sep 21 20:15
register_zh_CN.html
drwxr-xr-x  10 root     bin           10 Feb 17  2011 sample
-rw-r--r--   1 root     bin      19104157 May  4 02:17 src.zip
-- Exit status: 2
INFO: /etc/softlist.xml updated

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.response_IMAPI_20110921203315
-- unlink /tmp/.response_LDAPJDK_20110921203315
-- unlink /tmp/.response_ICU_20110921203315
-- unlink /tmp/.response_SASL_20110921203315
-- unlink /tmp/.response_LDAPCSDK6_TOOLS_20110921203315
-- unlink /tmp/.response_NSS_20110921203315
-- unlink /tmp/.response_LDAPCSDK6_20110921203315
-- unlink /tmp/.response_JDK_20110921203315
-- unlink /tmp/.response_JHRT_20110921203315
-- unlink /tmp/.response_MQ_20110921203315
-- unlink /tmp/.response_MQ_L10N_20110921203315
-- unlink /tmp/.response_MS64_20110921203315
-- unlink /tmp/.response_DSSETUP_20110921203315
-- unlink /tmp/.response_DAV_20110921203315
```

```
-- unlink /tmp/.response_IM_20110921203315
-- unlink /tmp/.response_IWC_20110921203315
-- unlink /tmp/.response_JISS_20110921203315
-- unlink /tmp/.response_DA_20110921203315
-- unlink /tmp/.response_MS_SCHA_20110921203315
-- unlink /tmp/.response_IM_SCHA_20110921203315
-- unlink /tmp/.response_CI_20110921203315
-- unlink /tmp/.patchout_20110921203315.10679
-- unlink /tmp/.patchout_altroot_20110921203315.10679
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_20110921203315

NOTICE: silent file created in:

/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201109212033
Closing the log at Wed Sep 21 20:34:08 2011
# ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20110921203442.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/messaging64
           Build Date: 20110810
  Product: Comms DSsetup 6.4
           Version: 6.4-23.01
```

```
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/dssetup
            Build Date: 20110713
  Product: Calendar Server 7u2
            Version: 7.2-4.19
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/davserver
            Build Date: 20110909
  Product: Instant Messaging 9
            Version: 9.0-00.15
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/im
            Build Date: 20110905
  Product: Convergence 2
            Version: 2.0-2.01
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/iwc
            Build Date: 20110817
  Product: Indexing and Search Service 1u3
            Version: 1.3-8.6501
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/jiss
            Build Date: 20110811
  Product: Comms Delegated Administrator 7
            Version: 7.0-4.00
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/da
            Build Date: 20110805
  Product: Messaging Server Sun Cluster HA agent 7.0
            Version: 7.0-0.03
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/msg_scha
            Build Date: 20080519
  Product: Instant Messaging Sun Cluster HA agent 7.3
            Version: 7.3-01.02
            ALTROOT: /opt/altroot
            Basedir: /opt/altroot/im_scha
            Build Date: 20080403

# ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20110921203451.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/messaging64
           Build Date: 20110810
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           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: 6.4-23.01
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/dssetup
           Build Date: 20110713
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWcomds        6.3,REV=2004.08.12
  Product: Calendar Server 7u2
           Version: 7.2-4.19
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/davserver
           Build Date: 20110909
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWdavserver    7.0,REV=2009.08.27
  Product: Instant Messaging 9
           Version: 9.0-00.15
           ALTROOT: /opt/altroot
           Basedir: /opt/altroot/im
           Build Date: 20110905
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
           Package Status/Name/Version:
             PRESENT  SUNWiim          9.0,REV=2011.09.05
```

```
            PRESENT  SUNWiimin        9.0,REV=2011.09.05
            PRESENT  SUNWiimm         9.0,REV=2011.09.05
            PRESENT  SUNWiimjd        9.0,REV=2011.09.05
            PRESENT  SUNWiimid        9.0,REV=2011.09.05
            PRESENT  SUNWiimgw        9.0,REV=2011.09.05
            PRESENT  SUNWiimw         9.0,REV=2011.09.05
            PRESENT  SUNWiimfed       9.0,REV=2011.09.05
Product: Convergence 2
         Version: 2.0-2.01
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/iwc
         Build Date: 20110817
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
            PRESENT  SUNWiwc          2.0,REV=2010.07.26
Product: Indexing and Search Service 1u3
         Version: 1.3-8.6501
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/jiss
         Build Date: 20110811
         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: 7.0-4.00
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/da
         Build Date: 20110805
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         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
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/msg_scha
         Build Date: 20080519
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         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
         ALTROOT: /opt/altroot
         Basedir: /opt/altroot/im_scha
         Build Date: 20080403
```

```
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.17

# ./commpkg uninstall /opt/altroot
-- LOGFILE: /tmp/CommsInstaller_20110921203504.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
Detecting Installed Products...
Detecting Installed Patches...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-23.01 64bit)
          Installed Version at /opt/altroot/messaging64
       2  Comms DSsetup 6.4 (6.4-23.01)
          Installed Version at /opt/altroot/dssetup
       3  Calendar Server 7u2 (7.2-4.19)
          Installed Version at /opt/altroot/davserver
       4  Instant Messaging 9 (9.0-00.15)
          Installed Version at /opt/altroot/im
       5  Convergence 2 (2.0-2.01)
          Installed Version at /opt/altroot/iwc
       6  Indexing and Search Service 1u3 (1.3-8.6501)
          Installed Version at /opt/altroot/jiss
       7  Comms Delegated Administrator 7 (7.0-4.00)
          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

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]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL UNINSTALL: Messaging Server (64bit) 7u4 (7.4-23.01)
                  at /opt/altroot/messaging64)
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-23.01)
                  at /opt/altroot/dssetup)
  WILL UNINSTALL: Calendar Server 7u2 (7.2-4.19)
                  at /opt/altroot/davserver)
  WILL UNINSTALL: Instant Messaging 9 (9.0-00.15)
                  at /opt/altroot/im)
  WILL UNINSTALL: Convergence 2 (2.0-2.01)
                  at /opt/altroot/iwc)
```

```
  WILL UNINSTALL: Indexing and Search Service 1u3 (1.3-8.6501)
                  at /opt/altroot/jiss)
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-4.00)
                  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)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to uninstall

Do you want to continue ? [yes] :

============================================================
Uninstalling Messaging Server (64bit) 7u4 (7.4-23.01 at
/opt/altroot/messaging64)...
------ Executing Task 1 of 16 ...

============================================================
Uninstalling Comms DSsetup 6.4 (6.4-23.01 at /opt/altroot/dssetup)...
------ Executing Task 2 of 16 ...

============================================================
Uninstalling Calendar Server 7u2 (7.2-4.19 at /opt/altroot/davserver)...
------ Executing Task 3 of 16 ...

============================================================
Uninstalling Instant Messaging 9 (9.0-00.15 at /opt/altroot/im)...
------ Executing Task 4 of 16 ...
------ Executing Task 5 of 16 ...
------ Executing Task 6 of 16 ...
------ Executing Task 7 of 16 ...
------ Executing Task 8 of 16 ...
------ Executing Task 9 of 16 ...
------ Executing Task 10 of 16 ...
------ Executing Task 11 of 16 ...

============================================================
Uninstalling Convergence 2 (2.0-2.01 at /opt/altroot/iwc)...
------ Executing Task 12 of 16 ...

============================================================
Uninstalling Indexing and Search Service 1u3 (1.3-8.6501 at
/opt/altroot/jiss)...
------ Executing Task 13 of 16 ...

============================================================
Uninstalling Comms Delegated Administrator 7 (7.0-4.00 at
/opt/altroot/da)...
------ Executing Task 14 of 16 ...

============================================================
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/altroot/msg_scha)...
------ Executing Task 15 of 16 ...
```

```
============================================================
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/altroot/im_scha)...
------ Executing Task 16 of 16 ...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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_201109212035
LOGFILE  created in:

/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20110921203504.log
cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_201109212035
Silent File for CommsInstaller 7.2-0.36 [7.0.2.0.0]
# Generated on 20110921203504
#

#
#
# 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
COMPONENT_VERSIONS= 7.4 6.4 7.2 9.0 2.0 1.3 7.0 7.0 7.3
# cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20110921203504.log
LOGFILE started Wed Sep 21 20:35:04 2011 ==========
LOGFILE = /tmp/CommsInstaller_20110921203504.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg uninstall /opt/altroot
-- perl version: 5.008004 pid: 12611
-- basetime: 1316662504 Wed Sep 21 20:35:04 2011
-- scriptDir:
/net/example.com/export/megan/wspace/dl111122/releases/ci72
-- LOGFILE: /tmp/CommsInstaller_20110921203504.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
```

```
13:45:27 PDT 2011
-- UNAME = SunOS ARCH = i386 OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS riot1 5.10 Generic_142910-17 i86pc i386 i86pc
-- Exit status: 0
!!! ENV
$VAR1 = {
          'HOME' => '/',
          'LOGNAME' => 'uadmin',
          'SHLVL' => '1',
          'OLDPWD' => '/home/dl111122/wspace/releases/ci71',
          'PS1' => '[\\! \\d \\t \\u@\\h% \\w\\$ ]
\\$ ',
          '_' => './commpkg',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc::~dl111122/bin:/usr/sbin:/usr/bin',
'CDPATH' => ':..:/home/dl111122',
          'SHELL' => '/sbin/sh',
          'HZ' => '',
          'MAIL' => '/var/mail/uadmin',
          'TERM' => 'dumb',
          'PWD' => '/home/dl111122/wspace/releases/ci72',
          'TZ' => 'US/Pacific',
          'LANG' => 'C'
        };
cat /etc/release 2>&1
                    Oracle Solaris 10 9/10 s10x_u9wos_14a X86
     Copyright (c) 2010, Oracle and/or its affiliates. All rights
reserved.
                            Assembled 11 August 2010
-- 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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC
'MS64_L10N' => 'none',
          'MS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS/
'DSSETUP' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSS
'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS6
'DAV' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CE/
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produ
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JIS
'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/
'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS_
'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_
```

```
'CS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS/
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/
};
!!! prod_getVers
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-2.01',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-23.01',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-23.01',
          'DAV' => '7.2-4.19',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.2-0.36',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.3-8.6501',
          'NSS' => 0,
          'CS_L10N' => 0,
          'IM' => '9.0-00.15',
          'ST' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'BZIP' => 0,
          'MYSQL_MARKER' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'SNMP' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-29.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-4.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20110817',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20110713',
          'MQ_L10N' => 'none',
```

```
          'ICU' => 'none',
          'MS64' => '20110810',
          'DAV' => '20110909',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20110909',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20110811',
          'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' => '20110905',
          'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20110527',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20110805'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.8
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) = 4.21
INFO: prod_mktVers{IMAPI} (w/ map) = 9
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{SNMP} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2011.06.17
INFO: prod_mktVers{MYSQL_MARKER} (w/ map) = 1.1
INFO: prod_mktVers{MYSQL} (w/ map) = 5.5.8
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u2
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
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INFO: prod_mktVers{DAV} (w/ map) = 7u2
INFO: prod_mktVers{IM} (w/ map) = 9
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u3
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
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 SNMP Unknown ...
  Checking pkg SUNWsmagt... present.
  Checking pkg SUNWsmcmd... present.
  Checking pkg SUNWsmmgr... present.
  SNMP Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2011.06.17 ...
  RECOMMENDED 2011.06.17 is not present.
Checking MYSQL_MARKER 1.1 ...
  Checking pkg SUNWcomms-mysql-marker... present.
  MYSQL_MARKER 1.1 is already present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... present but with a different
pkg VERSION.
    checking SUNWcomms-mysql-marker 1.0,REV=2009.09.09
  NOTICE: MySQL Marker is present with a different pkg VERSION.
Checking MYSQL 5.5.8 ...
  Checking pkg mysql... present.
  MYSQL 5.5.8 is already present.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... present but with a different pkg VERSION.
    checking mysql 5.1.36
  NOTICE: MySQL is present with a different pkg VERSION.
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 4.8.8 ...
  Checking pkg SUNWjss... present.
  Checking pkg SUNWpr... present.
  Checking pkg SUNWprd... present.
  Checking pkg SUNWtls... present.
  Checking pkg SUNWtlsd... present.
  Checking pkg SUNWtlsu... present.
```

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  NSS 4.8.8 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=2006.06.18.23.02
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 3.7,REV=2006.06.18.23.02
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  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 3.7,REV=2006.06.18.23.02
  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=2007.07.26.11.39
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.1,REV=2007.07.26.11.39
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.1,REV=2007.07.26.11.39
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.1,REV=2007.07.26.11.40
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.3 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 4.3,REV=2008.11.07.19.30
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ_L10N 4.4 ...
  Checking pkg SUNWfiqu... present.
  Checking pkg SUNWfiquc... present.
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  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=2006.09.28.01.19.58
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 3.7,REV=2006.09.28.01.19.58
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 3.7,REV=2006.09.02.01.24.16
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 3.7,REV=2006.09.02.01.24.17
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 3.7,REV=2006.09.28.01.19.58
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 3.7,REV=2006.09.02.01.24.16
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 3.7,REV=2006.09.02.01.24.17
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 3.7,REV=2006.10.28.02.17.39
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 3.7,REV=2006.10.28.02.17.39
  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=2007.08.02.02.12
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
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    checking SUNWjiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.1,REV=2007.08.02.02.12
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking MQ_L10N 4.3 ...
  Checking pkg SUNWfiqu... present but with a different pkg VERSION.
    checking SUNWfiqu 4.3,REV=2008.10.27.08.15.45
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.3,REV=2008.10.27.08.15.47
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.3,REV=2008.10.27.08.16.20
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.3,REV=2008.10.27.08.16.23
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.3,REV=2008.10.27.08.18.18
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.3,REV=2008.10.27.08.18.20
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.3,REV=2008.10.27.08.16.56
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.3,REV=2008.10.27.08.16.59
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.3,REV=2008.10.27.08.17.33
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.3,REV=2008.10.27.08.17.35
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.3,REV=2008.10.27.08.18.55
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.3,REV=2008.10.27.08.18.57
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.3,REV=2008.10.27.08.19.31
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.3,REV=2008.10.27.08.19.33
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking LDAPJDK 4.21 ...
  Checking pkg SUNWljdk... present.
  LDAPJDK 4.21 is already present.
Checking IMAPI 9.0 ...
  Checking pkg SUNWiimdv... present.
  IMAPI 9.0 is already present.
```

```
Checking IMAPI 7.0 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 7.0,REV=2004.11.24.05.19.40
  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=2008.01.14
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking IMAPI 8.0 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 8.0,REV=2008.12.04
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking CI 7.2 ...
  Checking pkg SUNWcomms...
/opt/altroot/CommsInstaller/lib/getVersion VERSION BUILDDATE UNAME ARCH
BITS 2>&1
7.2-0.36
20110909
SunOS
i386
32
-- Exit status: 0
 present.
  CI 7.2 is already present.
Checking MS64 7.4 ...
  Checking pkg SUNWmessaging-server-64...
/opt/altroot/messaging64/lib/getVersion VERSION BUILDDATE UNAME ARCH
BITS 2>&1
7.4-23.01
20110810
SunOS
i386
64
-- Exit status: 0
 present.
  MS64 7.4 is already present.
Checking MS64 6.3 ...
  Checking pkg SUNWmessaging-server-64... present but with a different
pkg VERSION.
    checking SUNWmessaging-server-64 6.3,REV=2007.02.26
  NOTICE: Messaging Server (64bit) is present with a different pkg
VERSION.
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
6.4-23.01
20110713
SunOS
i386
32
-- Exit status: 0
 present.
  DSSETUP 6.4 is already present.
Checking DAV 7.2 ...
  Checking pkg SUNWdavserver...
/opt/altroot/davserver/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
7.2-4.19
20110909
SunOS
i386
32
-- Exit status: 0
 present.
  DAV 7.2 is already present.
Checking IM 9.0 ...
  Checking pkg SUNWiim...
/opt/altroot/im/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
9.0-00.15
20110905
SunOS
i386
32
-- Exit status: 0
 present.
  Checking pkg SUNWiimin... present.
  Checking pkg SUNWiimm... present.
  Checking pkg SUNWiimjd... present.
  Checking pkg SUNWiimid... present.
  Checking pkg SUNWiimgw... present.
  Checking pkg SUNWiimw... present.
  Checking pkg SUNWiimfed... present.
  IM 9.0 is already present.
Checking IM 7.0 ...
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
```

```
    checking SUNWiimid 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  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=2008.01.14
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.3,REV=2008.01.14
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.3,REV=2008.01.14
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.3,REV=2008.01.14
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.3,REV=2008.01.14
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IM 8.3 ...
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 8.0,REV=2008.12.04
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 8.0,REV=2008.12.04
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 8.0,REV=2008.12.04
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 8.0,REV=2008.12.04
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 8.0,REV=2008.12.04
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  Checking pkg SUNWiimgw... present but with a different pkg VERSION.
    checking SUNWiimgw 8.0,REV=2008.12.04
  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
2.0-2.01
20110817
SunOS
i386
32
-- Exit status: 0
 present.
  IWC 2.0 is already present.
Checking IWC 1.0 ...
  Checking pkg SUNWiwc... present but with a different pkg VERSION.
    checking SUNWiwc 1.0,REV=2008.07.07
  NOTICE: Convergence is present with a different pkg VERSION.
Checking JISS 1.3 ...
  Checking pkg SUNWjiss...
/opt/altroot/jiss/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
1.3-8.6501
20110811
SunOS
all
```

```
32
-- Exit status: 0
 present.
  JISS 1.3 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
7.0-4.00
20110805
SunOS
i386
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
i386
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
i386
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=2005.08.03.09.35.41
  NOTICE: Instant Messaging 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 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 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 SUNWdiimin... 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.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  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 CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119964-23 /tmp/.patchout_20110921203504.12611
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20110921203504.12611
patchadd  -p > /tmp/.patchout_20110921203504.12611 2>>
/tmp/CommsInstaller_20110921203504.log
-- Exit status: 0
--  older version at lineno 218 found 119964-21 - not acceptable
--  Exact match found at line 219
--  Final return status: 1
  LIBCPLUSPLUS patch 119964-23 is already present.
-- chk4patch 120901-03 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 40
--  Final return status: 1
  PATCHUTILS patch 120901-03 is already present.
-- chk4patch 121334-04 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 41
--  Final return status: 1
  PATCHUTILS patch 121334-04 is already present.
-- chk4patch 119255-81 /tmp/.patchout_20110921203504.12611
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Exact match found at line 6
--  Final return status: 1
  PATCHUTILS patch 119255-81 is already present.
-- chk4patch 119255-73 /tmp/.patchout_20110921203504.12611
--  Newer version at line 2 found 119255-75
--  Final return status: 1
  PATCHUTILS patch 119255-73 is already present.
-- chk4patch 120273-06 /tmp/.patchout_20110921203504.12611
--  Newer version at line 192 found 120273-30
--  Final return status: 1
  SNMP patch 120273-06 is already present.
-- chk4patch 126869-05 /tmp/.patchout_20110921203504.12611
--  older version at lineno 190 found 126869-04 - not acceptable
--  Exact match found at line 193
--  Final return status: 1
  BZIP patch 126869-05 is already present.
-- chk4patch 137322-01 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 191
--  Final return status: 1
  BZIP patch 137322-01 is already present.
```

```
-- chk4patch 119255-81 /tmp/.patchout_20110921203504.12611
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Exact match found at line 6
--  Final return status: 1
  RECOMMENDED patch 119255-81 is already present.
-- chk4patch 118855-36 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 18
--  Final return status: 1
  RECOMMENDED patch 118855-36 is already present.
-- chk4patch 120012-14 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 39
--  Final return status: 1
  RECOMMENDED patch 120012-14 is already present.
-- chk4patch 120273-30 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 192
--  Final return status: 1
  RECOMMENDED patch 120273-30 is already present.
-- chk4patch 137138-09 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 46
--  Final return status: 1
  RECOMMENDED patch 137138-09 is already present.
-- chk4patch 141445-09 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 49
--  Final return status: 1
  RECOMMENDED patch 141445-09 is already present.
-- chk4patch 142910-17 /tmp/.patchout_20110921203504.12611
--  Exact match found at line 45
--  Final return status: 1
  RECOMMENDED patch 142910-17 is already present.
-- chk4patch 144489-17 /tmp/.patchout_20110921203504.12611
--  Final return status: 0
  RECOMMENDED patch 144489-17 is not present.
-- chk4patch 125359-14 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
-- Running patchadd -R /opt/altroot -p report...
--   Generating /tmp/.patchout_altroot_20110921203504.12611
patchadd -R /opt/altroot -p >
/tmp/.patchout_altroot_20110921203504.12611 2>>
/tmp/CommsInstaller_20110921203504.log
-- Exit status: 0
--  Exact match found at line 8
--  Final return status: 1
  NSS patch 125359-14 is already present.
-- chk4patch 125359-13 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Newer version at line 8 found 125359-14
--  Final return status: 1
  NSS patch 125359-13 is already present.
-- chk4patch 119346-08 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 19
--  Final return status: 1
  SASL patch 119346-08 is already present.
-- chk4patch 119346-07 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
```

```
--  Newer version at line 19 found 119346-08
--  Final return status: 1
  SASL patch 119346-07 is already present.
-- chk4patch 136800-03 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 6
--  Final return status: 1
  LDAPCSDK6_TOOLS patch 136800-03 is already present.
-- chk4patch 119811-05 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 14
--  Final return status: 1
  ICU patch 119811-05 is already present.
-- chk4patch 125138-28 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 10
--  Final return status: 1
  JDK patch 125138-28 is already present.
-- chk4patch 125139-28 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 3
--  Final return status: 1
  JDK patch 125139-28 is already present.
-- chk4patch 125138-25 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Newer version at line 10 found 125138-28
--  Final return status: 1
  JDK patch 125138-25 is already present.
-- chk4patch 125139-25 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Newer version at line 3 found 125139-28
--  Final return status: 1
  JDK patch 125139-25 is already present.
-- chk4patch 119725-06 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 4
--  Final return status: 1
  LDAPJDK patch 119725-06 is already present.
-- chk4patch 137205-23 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 9
--  Final return status: 1
  MS64 patch 137205-23 is already present.
-- chk4patch 118243-03 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 12
--  Final return status: 1
  DSSETUP patch 118243-03 is already present.
-- chk4patch 118246-23 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 13
--  Final return status: 1
  DSSETUP patch 118246-23 is already present.
-- chk4patch 142786-04 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 5
```

```
--  Final return status: 1
  DAV patch 142786-04 is already present.
-- chk4patch 145712-02 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 16
--  Final return status: 1
  IWC patch 145712-02 is already present.
-- chk4patch 142823-08 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 15
--  Final return status: 1
  JISS patch 142823-08 is already present.
-- chk4patch 124582-04 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 18
--  Final return status: 1
  DA patch 124582-04 is already present.
-- chk4patch 137572-01 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Exact match found at line 17
--  Final return status: 1
  IM_SCHA patch 137572-01 is already present.
-- chk4patch 121658-46 /tmp/.patchout_altroot_20110921203504.12611
/opt/altroot -R /opt/altroot
--  Final return status: 0
  CS patch 121658-46 is not present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'PRESENT',
          '118855-36' => 'PRESENT',
          'DSSETUP' => {
                          '6.4' => 'PRESENT'
                        },
          '118246-23' => 'PRESENT',
          'MQ_L10N' => {
                          '4.3' => 'DIFF_VERSION',
                          '3.7' => 'DIFF_VERSION',
                          '4.1' => 'DIFF_VERSION',
                          '4.4' => 'PRESENT'
                        },
          'ICU' => {
                      'ICU2,ICU3' => 'PRESENT'
                    },
          '137572-01' => 'PRESENT',
          '137205-23' => 'PRESENT',
          '142786-04' => 'PRESENT',
          'MS64' => {
                       '7.4_32' => 'NOT_PRESENT',
                       '7.3_32' => 'NOT_PRESENT',
                       '7.2_32' => 'NOT_PRESENT',
                       '6.3' => 'DIFF_VERSION',
                       '6.3_32' => 'NOT_PRESENT',
                       '7.4' => 'PRESENT'
                     },
```

```
          'DAV' => {
                     '7.2' => 'PRESENT'
                   },
          '118243-03' => 'PRESENT',
          '137138-09' => 'PRESENT',
          '119255-81' => 'PRESENT',
          'CE' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          'MYSQL' => {
                       '5.1.36' => 'DIFF_VERSION',
                       '5.5.8' => 'PRESENT'
                     },
          'PATCHUTILS' => {
                            'Unknown' => 'PRESENT'
                          },
          'MQ' => {
                    '4.3' => 'DIFF_VERSION',
                    '3.7' => 'DIFF_VERSION',
                    '4.1' => 'DIFF_VERSION',
                    '4.4' => 'PRESENT'
                  },
          'IMAPI' => {
                       '8.0' => 'DIFF_VERSION',
                       '7.0' => 'DIFF_VERSION',
                       '9.0' => 'PRESENT',
                       '7.3' => 'DIFF_VERSION'
                     },
          '124582-04' => 'PRESENT',
          'LDAPCSDK6_TOOLS' => {
                                 '6.0' => 'PRESENT'
                               },
          'JISS' => {
                      '0.9' => 'NOT_PRESENT',
                      '1.3' => 'PRESENT'
                    },
          '119811-05' => 'PRESENT',
          '137322-01' => 'PRESENT',
          'ST' => {
                    '1.1.4' => 'PRESENT'
                  },
          '141445-09' => 'PRESENT',
          '120901-03' => 'PRESENT',
          'IM_L10N' => {
                         '7.2' => 'NOT_PRESENT',
                         '7.0' => 'NOT_PRESENT'
                       },
          '125138-25' => 'PRESENT',
          '121334-04' => 'PRESENT',
          'LDAPJDK' => {
                         '4.21' => 'PRESENT'
                       },
          'BZIP' => {
                      '11.10' => 'PRESENT'
                    },
          'IM_SCHA' => {
```

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                '7.0' => 'DIFF_VERSION',
                '7.3' => 'PRESENT'
              },
'SNMP' => {
            'Unknown' => 'PRESENT'
          },
'125139-25' => 'PRESENT',
'MS_SCHA' => {
                '6.0' => 'NOT_PRESENT',
                '7.0' => 'PRESENT'
              },
'119346-08' => 'PRESENT',
'JHRT' => {
            '2.0' => 'PRESENT'
          },
'CE_L10N' => {
                '6.2' => 'NOT_PRESENT',
                '6.3' => 'NOT_PRESENT'
              },
'125359-14' => 'PRESENT',
'145712-02' => 'PRESENT',
'SASL' => {
            '2.19' => 'PRESENT'
          },
'IWC' => {
           '2.0' => 'PRESENT',
           '1.0' => 'DIFF_VERSION'
         },
'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'
        },
'120012-14' => 'PRESENT',
'119346-07' => 'PRESENT',
'LDAPCSDK6' => {
                  '6.0' => 'PRESENT'
                },
'142910-17' => 'PRESENT',
'142823-08' => 'PRESENT',
'JDK' => {
           '1.6.0' => 'PRESENT',
           '1.5.0' => 'NOT_PRESENT'
         },
'121658-46' => 'NOT_PRESENT',
'136800-03' => 'PRESENT',
'CI' => {
          '7.2' => 'PRESENT'
        },
'119255-73' => 'PRESENT',
'120273-06' => 'PRESENT',
'125138-28' => 'PRESENT',
```

```
          'NSS' => {
                    '4.8.8' => 'PRESENT'
                  },
          'IM' => {
                   '8.3' => 'DIFF_VERSION',
                   '7.0' => 'DIFF_VERSION',
                   '9.0' => 'PRESENT',
                   '7.3' => 'DIFF_VERSION'
                 },
          'CS_L10N' => {
                        '6.2' => 'NOT_PRESENT',
                        '6.3' => 'NOT_PRESENT'
                      },
          'RECOMMENDED' => {
                            '2011.06.17' => 'NOT_PRESENT'
                          },
          '119964-23' => 'PRESENT',
          '120273-30' => 'PRESENT',
          '144489-17' => 'NOT_PRESENT',
          '125139-28' => 'PRESENT',
          '125359-13' => 'PRESENT',
          'CS_SCHA' => {
                        '6.0' => 'NOT_PRESENT',
                        '6.3' => 'NOT_PRESENT'
                      },
          'MYSQL_MARKER' => {
                             '1.1' => 'PRESENT',
                             '1.0' => 'DIFF_VERSION'
                           },
          'MS_L10N' => {
                        '6.2' => 'NOT_PRESENT',
                        '6.3' => 'NOT_PRESENT'
                      },
          'LIBCPLUSPLUS' => {
                             '5.9' => 'PRESENT'
                           },
          '126869-05' => 'PRESENT',
          'CS' => {
                   '6.3' => 'NOT_PRESENT'
                 },
          'DA' => {
                   '6.4' => 'NOT_PRESENT',
                   '7.0' => 'PRESENT'
                 }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {},
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                '1.1.4,REV=2008.03.21.07.56' => [

'SUNWservicetagu',
                                                                  '/',
```

```
'1.1.4.1',
                                                                        ''
                                                                    ]
                                  },
          'SUNWsmmgr' => {
                            '1.0,REV=2005.01.08.01.09' => [
                                                             'SUNWsmmgr',
                                                             '/',
                                                             '5.10/SunOS
Development',
                                                             ''
                                                           ]
                          },
          'SUNWjimid' => {},
          'SUNWdiquc' => {
                            '4.4,REV=2009.10.01.09.34.32' => [

'SUNWdiquc',
                                                                '/',
                                                                '4.4.1.0',

'/opt/altroot'
                                                             ]
                          },
          'SUNWmsgko' => {},
          'SUNWics5' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {
                            '4.4,REV=2009.10.01.09.34.22' => [

'SUNWfiquc',
                                                                '/',
                                                                '4.4.1.0',

'/opt/altroot'
                                                             ]
                          },
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {
                            '2.0,REV=2006.10.04' => [
                                                       'SUNWjhdem',
                                                       '/usr',
                                                       '2.0/FCS',
                                                       '/opt/altroot'
                                                     ]
                          },
          'SUNWiqfs' => {
                             '4.4,REV=2009.08.27.09.46' => [
                                                              'SUNWiqfs',
                                                              '/',
                                                              '4.4.0.0',
                                                              '/opt/altroot'
                                                            ]
                         },
```

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          'SUNWfimid' => {},
          'SUNWcomds' => {
                          '6.3,REV=2004.08.12' => [
                                                    'SUNWcomds',
                                                    '/dssetup',
                                                    '6.4-23.01',
                                                    '/opt/altroot'
                                                  ]
                        },
          'SUNWjhdev' => {
                          '2.0,REV=2006.10.04' => [
                                                    'SUNWjhdev',
                                                    '/usr',
                                                    '2.0/FCS',
                                                    '/opt/altroot'
                                                  ]
                        },
          'SUNWj6rtx' => {
                          '1.6.0,REV=2006.11.29.02.51' => [

'SUNWj6rtx',
                                                              '/usr',

'1.6.0_26/1.6.0_26-b03',

'/opt/altroot'
                                                               ]
                        },
          'SUNWiqum' => {
                         '4.4,REV=2009.08.27.09.46' => [
                                                         'SUNWiqum',
                                                         '/',
                                                         '4.4.1.0',
                                                         '/opt/altroot'
                                                       ]
                       },
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {
                         '1.6.0,REV=2006.11.29.05.03' => [
                                                           'SUNWj6rt',
                                                           '/usr',

'1.6.0_26/1.6.0_26-b03',

'/opt/altroot'
                                                         ]
                       },
          'SUNWj5rt' => {},
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {
```

```
                          '4.4,REV=2009.10.01.09.35.07' => [
                                                              'SUNWciqu',
                                                              '/',
                                                              '4.4.1.0',

'/opt/altroot'
                                                            ]
                        },
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {
                            '4.4,REV=2009.10.01.09.34.58' => [

'SUNWjiquc',
                                                              '/',
                                                              '4.4.1.0',

'/opt/altroot'
                                                             ]
                        },
          'SUNWiimgw' => {
                            '9.0,REV=2011.09.05' => [
                                                       'SUNWiimgw',
                                                       '/im',
                                                       '9.0-00.15',
                                                       '/opt/altroot'
                                                     ]
                        },
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {
                            '4.4,REV=2009.10.01.09.35.15' => [

'SUNWhiquc',
                                                              '/',
                                                              '4.4.1.0',

'/opt/altroot'
                                                             ]
                        },
          'SUNWzhics' => {},
          'SUNWkiimd' => {},
          'SUNWiimfed' => {
                              '9.0,REV=2011.09.05' => [
                                                         'SUNWiimfed',
                                                         '/im',
                                                         '9.0-00.15',
                                                         '/opt/altroot'
                                                       ]
                         },
          'SUNWmsgmp' => {},
          'SUNWuwc' => {},
          'SUNWscics' => {},
          'SUNWiimc' => {},
          'SUNWhiimd' => {},
          'SUNWmessaging-server-scha' => {
                                            '7.0,REV=2008.05.19' => [
```

```
'SUNWmessaging-server-scha',

'/msg_scha',

'7.0-0.03',

'/opt/altroot'
                                                                    ]
                                        },
          'SUNWmsglb' => {},
          'SUNWtls' => {
                        '3.11.4,REV=2006.11.16.21.41' => [
                                                            'SUNWtls',
                                                            '/',
                                                            '3.12.10',

'/opt/altroot'
                                                          ]
                      },
          'SUNWj6dvx' => {
                          '1.6.0,REV=2006.11.29.02.51' => [

'SUNWj6dvx',
                                                             '/usr',

'1.6.0_26/1.6.0_26-b03',

'/opt/altroot'
                                                             ]
                        },
          'SUNWfuwc' => {},
          'SUNWlibC' => {
                         '5.10,REV=2004.12.20' => [
                                                     'SUNWlibC',
                                                     '/',
                                                     '5.10',
                                                     ''
                                                   ]
                       },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {
                                       '1.1,REV=2011.09.09' => [

'SUNWcomms-mysql-marker',

'/var/opt/CommsInstaller/Markers/MYSQL',

'1.1-0.01',
                                                                  ''
                                                                ]
                                     },
          'SUNWscims' => {},
          'SUNWiimjd' => {
                          '9.0,REV=2011.09.05' => [
```

```
                                                        'SUNWiimjd',
                                                        '/im',
                                                        '9.0-00.15',
                                                        '/opt/altroot'
                                                      ]
                          },
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {
                                  '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-dev',
                                                                        '/',

'6.03',

'/opt/altroot'
                                                                      ]
                                  },
          'SUNWiqlen' => {
                                    '4.4,REV=2009.08.27.09.46' => [
                                                                      'SUNWiqlen',
                                                                      '/',
                                                                      '4.4.1.0',

'/opt/altroot'
                                                                    ]
                          },
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {
                          '4.4,REV=2009.08.27.09.45' => [
                                                                    'SUNWiqr',
                                                                    '/',
                                                                    '4.4.1.0',
                                                                    '/opt/altroot'
                                                                  ]
                         },
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWiimw' => {
                           '9.0,REV=2011.09.05' => [
                                                        'SUNWiimw',
                                                        '/im',
                                                        '9.0-00.15',
                                                        '/opt/altroot'
                                                      ]
                          },
          'SUNWmessaging-server-64' => {
                                          '7.0,REV=2008.06.20' => [

'SUNWmessaging-server-64',

'/messaging64',

'7.4-23.01',

'/opt/altroot'
```

```
                                                                    ]
                                        },
          'SUNWeiquc' => {
                           '4.4,REV=2009.10.01.09.34.40' => [

'SUNWeiquc',
                                                                '/',
                                                                '4.4.1.0',

'/opt/altroot'
                                                              ]
                         },
          'SUNWj5cfg' => {},
          'SUNWhiqu' => {
                          '4.4,REV=2009.10.01.09.35.15' => [
                                                                'SUNWhiqu',
                                                                '/',
                                                                '4.4.1.0',

'/opt/altroot'
                                                              ]
                        },
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {
                           '9.0,REV=2011.09.05' => [
                                                      'SUNWiimdv',
                                                      '/',
                                                      '9.0-00.15',
                                                      '/opt/altroot'
                                                    ]
                         },
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {},
          'SUNWiquc' => {
                          '4.4,REV=2009.08.27.09.46' => [
                                                           'SUNWiquc',
                                                           '/',
                                                           '4.4.1.0',
                                                           '/opt/altroot'
                                                         ]
                        },
          'SUNWiimid' => {
                           '9.0,REV=2011.09.05' => [
                                                      'SUNWiimid',
                                                      '/im',
                                                      '9.0-00.15',
                                                      '/opt/altroot'
                                                    ]
                         },
          'SUNWmsgmt' => {},
          'SUNWljdk' => {
                          '1.0,REV=2004.10.11.06.02' => [
                                                           'SUNWljdk',
                                                           '/',
                                                           '4.21',
                                                           '/opt/altroot'
```

```
                                                                ]
                        },
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {
                                  '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-libs',
                                                                    '/',

'6.03',

'/opt/altroot'
                                                                     ]
                                  },
          'SUNWservicetagr' => {
                                  '1.1.4,REV=2008.03.21.07.56' => [

'SUNWservicetagr',
                                                                      '/',

'1.1.4.1',
                                                                      ''
                                                                    ]
                                },
          'SUNWciimc' => {},
          'SUNWjhrt' => {
                          '2.0,REV=2006.10.31' => [
                                                    'SUNWjhrt',
                                                    '/usr',
                                                    '2.0/FCS',
                                                    '/opt/altroot'
                                                  ]
                        },
          'SUNWtlsd' => {
                          '3.11.4,REV=2006.11.16.21.41' => [
                                                              'SUNWtlsd',
                                                              '/',
                                                              '3.12.10',

'/opt/altroot'
                                                            ]
                        },
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                          '11.10.0,REV=2005.01.21.16.34' => [

'SUNWdtrc',
                                                               '/',

'5.10/Generic Patch',
                                                               ''
                                                             ]
                        },
          'SUNWhuwc' => {},
          'mysql' => {
                        '5.5.8' => [
```

```
                                    'mysql',
                                    '/opt/mysql',
                                    '',
                                    ''
                                  ]
                      },
          'SUNWiqdoc' => {
                            '4.4,REV=2009.08.27.09.46' => [
                                                             'SUNWiqdoc',
                                                             '/',
                                                             '4.4.0.0',

'/opt/altroot'
                                                           ]
                        },
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {},
          'SUNWsmcmd' => {
                            '1.0,REV=2005.01.08.01.09' => [
                                                             'SUNWsmcmd',
                                                             '/',
                                                             '5.10/SunOS
Development',
                                                             ''
                                                           ]
                        },
          'SUNWiqcrt' => {
                            '4.4,REV=2009.08.27.09.46' => [
                                                             'SUNWiqcrt',
                                                             '/opt',
                                                             '4.4.1.0',

'/opt/altroot'
                                                           ]
                        },
          'SUNWmsgzh' => {},
          'SUNWprd' => {
                        '4.6.4,REV=2006.11.16.21.41' => [
                                                             'SUNWprd',
                                                             '/',
                                                             '4.8.8',

'/opt/altroot'
                                                           ]
                      },
          'SUNWdiimin' => {},
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {
                              '7.0,REV=2009.03.31' => [
                                                         'SUNWcommda',
                                                         '/da',
                                                         '7.0-4.00',
                                                         '/opt/altroot'
                                                       ]
                          },
```

```
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {
                        '2.0,REV=2010.07.26' => [
                                                  'SUNWiwc',
                                                  '/iwc',
                                                  '2.0-2.01',
                                                  '/opt/altroot'
                                                ]
                      },
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {
                          '7.3,REV=2008.01.07.20.24.17' => [

'SUNWiimsc',

'/im_scha',
                                                                '7.3-01',

'/opt/altroot'
                                                              ]
                        },
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.21.19' => [

'SUNWinstall-patch-utils-root',

'/',

'SNAG Development',

''

]
                                              },
          'SUNWiimin' => {
                          '9.0,REV=2011.09.05' => [
                                                    'SUNWiimin',
                                                    '/im',
                                                    '9.0-00.15',
                                                    '/opt/altroot'
                                                  ]
                        },
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {
                        '4.4,REV=2009.08.27.09.45' => [
                                                         'SUNWiqu',
                                                         '/',
                                                         '4.4.1.0',
                                                         '/opt/altroot'
                                                       ]
                      },
          'SUNWkiimc' => {},
```

```
          'SUNWiim' => {
                         '9.0,REV=2011.09.05' => [
                                                   'SUNWiim',
                                                   '/im',
                                                   '9.0-00.15',
                                                   '/opt/altroot'
                                                 ]
                       },
          'SUNWeiimin' => {},
          'SUNWcimid' => {},
          'SUNWiqcdv' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                           'SUNWiqcdv',
                                                           '/opt',
                                                           '4.4.1.0',

'/opt/altroot'
                                                         ]
                         },
          'SUNWldapcsdk-tools' => {
                                    '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-tools',

'/directory',

'6.03',

'/opt/altroot'
                                                                     ]
                                  },
          'SUNWjss' => {
                         '4.2.4,REV=2006.11.16.21.41' => [
                                                           'SUNWjss',
                                                           '/',
                                                           '4.3.2',

'/opt/altroot'
                                                         ]
                       },
          'SUNWdiqu' => {
                          '4.4,REV=2009.10.01.09.34.32' => [
                                                             'SUNWdiqu',
                                                             '/',
                                                             '4.4.1.0',

'/opt/altroot'
                                                           ]
                        },
          'SUNWjiss' => {
                          '1.0,REV=2009.09.09' => [
                                                    'SUNWjiss',
                                                    '/jiss',
                                                    '1.3-8.6501',
                                                    '/opt/altroot'
                                                  ]
```

```
                        },
          'SUNWj6cfg' => {
                          '1.6.0,REV=2006.11.29.05.03' => [

'SUNWj6cfg',
                                                              '/',

'1.6.0_26/1.6.0_26-b03',

'/opt/altroot'
                                                            ]
                        },
          'SUNWhimid' => {},
          'SUNWciquc' => {
                          '4.4,REV=2009.10.01.09.35.07' => [

'SUNWciquc',
                                                               '/',
                                                               '4.4.1.0',

'/opt/altroot'
                                                             ]
                        },
          'SUNWcomms' => {
                          '7.2,REV=2011.09.09' => [
                                                    'SUNWcomms',
                                                    '/CommsInstaller',
                                                    '7.2-0.36',
                                                    '/opt/altroot'
                                                  ]
                        },
          'SUNWjiqu' => {
                         '4.4,REV=2009.10.01.09.34.58' => [
                                                              'SUNWjiqu',
                                                              '/',
                                                              '4.4.1.0',

'/opt/altroot'
                                                            ]
                        },
          'SUNWkiqu' => {
                         '4.4,REV=2009.10.01.09.34.50' => [
                                                              'SUNWkiqu',
                                                              '/',
                                                              '4.4.1.0',

'/opt/altroot'
                                                            ]
                        },
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {
                         '4.4,REV=2009.10.01.09.34.40' => [
                                                              'SUNWeiqu',
                                                              '/',
                                                              '4.4.1.0',
```

```
'/opt/altroot'
                                                                ]
                        },
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {
                              '7.0,REV=2009.08.27' => [

'SUNWdavserver',
                                                          '/davserver',
                                                          '7.2-4.19',
                                                          '/opt/altroot'
                                                        ]
                            },
          'SUNWeiimc' => {},
          'SUNWmsgtw' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                               '11.11,REV=2005.01.09.21.19' => [

'SUNWpkgcmdsu',
                                                                    '/',
                                                                    'SNAG
Development',
                                                                    ''
                                                                  ]
                           },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {
                          '4.4,REV=2009.08.27.09.46' => [
                                                            'SUNWiqjx',
                                                            '/',
                                                            '4.4.1.0',
                                                            '/opt/altroot'
                                                           ]
                        },
          'SUNWjhdoc' => {
                            '2.0,REV=2006.10.04' => [
                                                       'SUNWjhdoc',
                                                       '/usr',
                                                       '2.0/FCS',
                                                       '/opt/altroot'
                                                     ]
                         },
          'SUNWj6dev' => {
                            '1.6.0,REV=2006.11.29.05.03' => [

'SUNWj6dev',
                                                                  '/usr',

'1.6.0_26/1.6.0_26-b03',

'/opt/altroot'
                                                                ]
                         },
```

```
          'SUNWmsges' => {},
          'SUNWpr' => {
                       '4.6.4,REV=2006.11.16.21.41' => [
                                                         'SUNWpr',
                                                         '/',
                                                         '4.8.8',
                                                         '/opt/altroot'
                                                       ]
                     },
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {
                        '1.2,REV=2005.01.06.14.13' => [
                                                        'SUNWicu',
                                                        '/usr',
                                                        '10/Generic',
                                                        '/opt/altroot'
                                                      ]
                      },
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                         '11.10,REV=2005.01.10.15.35' => [
                                                           'SUNWswmt',
                                                           '/',
                                                           'SNAG
Development',
                                                           ''
                                                         ]
                       },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {
                          '4.4,REV=2009.10.01.09.34.50' => [

'SUNWkiquc',
                                                             '/',
                                                             '4.4.1.0',

'/opt/altroot'
                                                           ]
                        },
          'SUNWstosreg' => {
                            '1.1.4,REV=2008.03.21.07.56' => [

'SUNWstosreg',
                                                               '/',

'1.1.4.1',
                                                               ''
```

```
                                                                ]
                            },
          'SUNWmsgde' => {},
          'SUNWsmagt' => {
                            '1.0,REV=2005.01.08.01.09' => [
                                                                'SUNWsmagt',
                                                                '/',
                                                                '5.10/SunOS
Development',
                                                                ''
                                                              ]
                          },
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                            '11.10.0,REV=2005.01.08.01.09' => [

'SUNWbzip',
                                                                  '/',

'5.10/SunOS Development',
                                                                  ''
                                                                ]
                        },
          'SUNWtlsu' => {
                            '3.11.4,REV=2006.11.16.21.41' => [
                                                                  'SUNWtlsu',
                                                                  '/',
                                                                  '3.12.10',

'/opt/altroot'
                                                                ]
                        },
          'SUNWfiqu' => {
                            '4.4,REV=2009.10.01.09.34.22' => [
                                                                  'SUNWfiqu',
                                                                  '/',
                                                                  '4.4.1.0',

'/opt/altroot'
                                                                ]
                        },
          'SUNWsasl' => {
                            '2.17,REV=2003.07.18.13.13' => [
                                                                'SUNWsasl',
                                                                '/',
                                                                '2.19',

'/opt/altroot'
                                                              ]
                        },
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                             '11.10.0,REV=2005.01.21.16.34' => [

'SUNWzoneu',
```

```
                                                                    '/',

'5.10/Generic Patch',
                                                                    ''
                                                                  ]
                          },
          'SUNWcsr' => {
                          '11.10.0,REV=2005.01.21.16.34' => [
                                                                  'SUNWcsr',
                                                                  '/',

'5.10/Generic Patch',
                                                                  ''
                                                                ]
                        },
          'SUNWesics' => {},
          'SUNWiimm' => {
                           '9.0,REV=2011.09.05' => [
                                                        'SUNWiimm',
                                                        '/im',
                                                        '9.0-00.15',
                                                        '/opt/altroot'
                                                      ]
                         }
        };
!!! installedprod
$VAR1 = {
          'IWC' => {
                     '2.0' => [
                                '/opt/altroot/iwc',
                                '2.0-2.01',
                                '20110817',
                                '2',
                                'SunOS',
                                'i386',
                                '32',
                                '/opt/altroot'
                              ]
                    },
          'IM' => {
                    '9.0' => [
                               '/opt/altroot/im',
                               '9.0-00.15',
                               '20110905',
                               '9',
                               'SunOS',
                               'i386',
                               '32',
                               '/opt/altroot'
                             ]
                   },
          'SASL' => {
                      '2.19' => [
                                  '/opt/altroot/',
                                  '2.19',
                                  'none',
```

```
                                '2.19',
                                'none',
                                'none',
                                'none',
                                '/opt/altroot'
                              ]
                    },
          'ST' => {
                    '1.1.4' => [
                                '/',
                                '1.1.4.1',
                                'none',
                                '1.1.4',
                                'none',
                                'none',
                                'none',
                                ''
                              ]
                  },
          'DSSETUP' => {
                        '6.4' => [
                                  '/opt/altroot/dssetup',
                                  '6.4-23.01',
                                  '20110713',
                                  '6.4',
                                  'SunOS',
                                  'i386',
                                  '32',
                                  '/opt/altroot'
                                ]
                      },
          'LDAPJDK' => {
                        '4.21' => [
                                   '/opt/altroot/',
                                   '4.21',
                                   'none',
                                   '4.21',
                                   'none',
                                   'none',
                                   'none',
                                   '/opt/altroot'
                                 ]
                      },
          'MQ_L10N' => {
                        '4.4' => [
                                  '/opt/altroot/',
                                  '4.4.1.0',
                                  'none',
                                  '4.4',
                                  'none',
                                  'none',
                                  'none',
                                  '/opt/altroot'
                                ]
                      },
          'BZIP' => {
```

```
                        '11.10' => [
                                      '/',
                                      '5.10/SunOS Development',
                                      'none',
                                      '11.10',
                                      'none',
                                      'none',
                                      'none',
                                      ''
                                    ]
                      },
          'MYSQL_MARKER' => {
                              '1.1' => [

'/var/opt/CommsInstaller/Markers/MYSQL',
                                          '1.1-0.01',
                                          'none',
                                          '1.1',
                                          'none',
                                          'none',
                                          'none',
                                          ''
                                        ]
                            },
          'IM_SCHA' => {
                          '7.3' => [
                                      '/opt/altroot/im_scha',
                                      '7.3-01.02',
                                      '20080403',
                                      '7.3',
                                      'SunOS',
                                      'i386',
                                      '32',
                                      '/opt/altroot'
                                    ]
                        },
          'ICU' => {
                      'ICU2,ICU3' => [
                                        '/opt/altroot/usr',
                                        '10/Generic',
                                        'none',
                                        'ICU2,ICU3',
                                        'none',
                                        'none',
                                        'none',
                                        '/opt/altroot'
                                      ]
                    },
          'MS64' => {
                       '7.4' => [
                                   '/opt/altroot/messaging64',
                                   '7.4-23.01',
                                   '20110810',
                                   '7u4',
                                   'SunOS',
                                   'i386',
```

```
                                '64',
                                '/opt/altroot'
                              ]
                    },
          'DAV' => {
                    '7.2' => [
                                '/opt/altroot/davserver',
                                '7.2-4.19',
                                '20110909',
                                '7u2',
                                'SunOS',
                                'i386',
                                '32',
                                '/opt/altroot'
                              ]
                  },
          'LIBCPLUSPLUS' => {
                              '5.9' => [
                                          '/',
                                          '5.10',
                                          'none',
                                          '5.9',
                                          'none',
                                          'none',
                                          'none',
                                          ''
                                        ]
                            },
          'LDAPCSDK6' => {
                           '6.0' => [
                                       '/opt/altroot/',
                                       '6.03',
                                       'none',
                                       '6.0',
                                       'none',
                                       'none',
                                       'none',
                                       '/opt/altroot'
                                     ]
                         },
          'SNMP' => {
                      'Unknown' => [
                                      '/',
                                      '5.10/SunOS Development',
                                      'none',
                                      'Unknown',
                                      'none',
                                      'none',
                                      'none',
                                      ''
                                    ]
                    },
          'JDK' => {
                    '1.6.0' => [
                                  '/opt/altroot/usr',
                                  '1.6.0_26/1.6.0_26-b03',
```

```
                                'none',
                                '1.6.0',
                                'none',
                                'none',
                                'none',
                                '/opt/altroot'
                              ]
                    },
          'MS_SCHA' => {
                        '7.0' => [
                                  '/opt/altroot/msg_scha',
                                  '7.0-0.03',
                                  '20080519',
                                  '7.0',
                                  'SunOS',
                                  'i386',
                                  '32',
                                  '/opt/altroot'
                                ]
                      },
          'MYSQL' => {
                      '5.5.8' => [
                                  '/opt/mysql',
                                  'none',
                                  'none',
                                  '5.5.8',
                                  'none',
                                  'none',
                                  'none',
                                  ''
                                ]
                    },
          'PATCHUTILS' => {
                           'Unknown' => [
                                         '/',
                                         'SNAG Development',
                                         'none',
                                         'Unknown',
                                         'none',
                                         'none',
                                         'none',
                                         ''
                                       ]
                         },
          'MQ' => {
                   '4.4' => [
                             '/opt/altroot/',
                             '4.4.1.0',
                             'none',
                             '4.4',
                             'none',
                             'none',
                             'none',
                             '/opt/altroot'
                           ]
                 },
```

```
            'JHRT' => {
                        '2.0' => [
                                    '/opt/altroot/usr',
                                    '2.0/FCS',
                                    'none',
                                    '2.0',
                                    'none',
                                    'none',
                                    'none',
                                    '/opt/altroot'
                                  ]
                      },
            'CI' => {
                      '7.2' => [
                                  '/opt/altroot/CommsInstaller',
                                  '7.2-0.36',
                                  '20110909',
                                  '7u2',
                                  'SunOS',
                                  'i386',
                                  '32',
                                  '/opt/altroot'
                                ]
                    },
            'IMAPI' => {
                         '9.0' => [
                                    '/opt/altroot/',
                                    '9.0-00.15',
                                    'none',
                                    '9',
                                    'none',
                                    'none',
                                    'none',
                                    '/opt/altroot'
                                   ]
                        },
            'DA' => {
                      '7.0' => [
                                  '/opt/altroot/da',
                                  '7.0-4.00',
                                  '20110805',
                                  '7',
                                  'SunOS',
                                  'i386',
                                  '32',
                                  '/opt/altroot'
                                ]
                    },
            'LDAPCSDK6_TOOLS' => {
                                    '6.0' => [
                                                '/opt/altroot/directory',
                                                '6.03',
                                                'none',
                                                '6.0',
                                                'none',
                                                'none',
```

```
                                         'none',
                                         '/opt/altroot'
                                       ]
                              },
          'JISS' => {
                      '1.3' => [
                                 '/opt/altroot/jiss',
                                 '1.3-8.6501',
                                 '20110811',
                                 '1u3',
                                 'SunOS',
                                 'all',
                                 '32',
                                 '/opt/altroot'
                               ]
                    },
          'NSS' => {
                     '4.8.8' => [
                                  '/opt/altroot/',
                                  '4.3.2',
                                  'none',
                                  '4.8.8',
                                  'none',
                                  'none',
                                  'none',
                                  '/opt/altroot'
                                ]
                   }
        };
====== End QQQ detectProducts ======
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-23.01 64bit)
          Installed Version at /opt/altroot/messaging64
       2  Comms DSsetup 6.4 (6.4-23.01)
          Installed Version at /opt/altroot/dssetup
       3  Calendar Server 7u2 (7.2-4.19)
          Installed Version at /opt/altroot/davserver
       4  Instant Messaging 9 (9.0-00.15)
          Installed Version at /opt/altroot/im
       5  Convergence 2 (2.0-2.01)
          Installed Version at /opt/altroot/iwc
       6  Indexing and Search Service 1u3 (1.3-8.6501)
          Installed Version at /opt/altroot/jiss
       7  Comms Delegated Administrator 7 (7.0-4.00)
          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
```

```
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]: =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: MS64 7.4 DSSETUP 6.4 DAV 7.2 IM 9.0 IWC 2.0 JISS 1.3 DA
7.0 MS_SCHA 7.0 IM_SCHA 7.3
  WILL UNINSTALL: Messaging Server (64bit) 7u4 (7.4-23.01)
                  at /opt/altroot/messaging64)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWmessaging-server-64
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-23.01)
                  at /opt/altroot/dssetup)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWcomds
  WILL UNINSTALL: Calendar Server 7u2 (7.2-4.19)
                  at /opt/altroot/davserver)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWdavserver
  WILL UNINSTALL: Instant Messaging 9 (9.0-00.15)
                  at /opt/altroot/im)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimfed
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimw
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimgw
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimid
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimjd
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimm
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimin
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiim
  WILL UNINSTALL: Convergence 2 (2.0-2.01)
                  at /opt/altroot/iwc)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiwc
  WILL UNINSTALL: Indexing and Search Service 1u3 (1.3-8.6501)
                  at /opt/altroot/jiss)
```

```
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWjiss
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-4.00)
                  at /opt/altroot/da)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimsc
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to uninstall

Do you want to continue ? [yes] :

============================================================
Uninstalling Messaging Server (64bit) 7u4 (7.4-23.01 at
/opt/altroot/messaging64)...
------ Executing Task 1 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWmessaging-server-64 2>&1

Removal of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

============================================================
Uninstalling Comms DSsetup 6.4 (6.4-23.01 at /opt/altroot/dssetup)...
------ Executing Task 2 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWcomds 2>&1

Removal of <SUNWcomds> was successful.
-- Exit status: 0

============================================================
Uninstalling Calendar Server 7u2 (7.2-4.19 at /opt/altroot/davserver)...
------ Executing Task 3 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWdavserver 2>&1

Removal of <SUNWdavserver> was successful.
-- Exit status: 0

============================================================
Uninstalling Instant Messaging 9 (9.0-00.15 at /opt/altroot/im)...
```

```
------ Executing Task 4 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimfed 2>&1

Removal of <SUNWiimfed> was successful.
-- Exit status: 0
------ Executing Task 5 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimw 2>&1

Removal of <SUNWiimw> was successful.
-- Exit status: 0
------ Executing Task 6 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimgw 2>&1

Removal of <SUNWiimgw> was successful.
-- Exit status: 0
------ Executing Task 7 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimid 2>&1

Removal of <SUNWiimid> was successful.
-- Exit status: 0
------ Executing Task 8 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimjd 2>&1

Removal of <SUNWiimjd> was successful.
-- Exit status: 0
------ Executing Task 9 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimm 2>&1

Removal of <SUNWiimm> was successful.
-- Exit status: 0
------ Executing Task 10 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimin 2>&1

Removal of <SUNWiimin> was successful.
-- Exit status: 0
------ Executing Task 11 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiim 2>&1
Configuration file /opt/altroot/im/sbin/../config/iim.conf is missing,
exiting
Shutting down IM services..
```

```
Configuration file /opt/altroot/im/sbin/../config/iim.conf is missing,
exiting

Removal of <SUNWiim> was successful.
-- Exit status: 0

============================================================
Uninstalling Convergence 2 (2.0-2.01 at /opt/altroot/iwc)...
------ Executing Task 12 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiwc 2>&1

Removal of <SUNWiwc> was successful.
-- Exit status: 0

============================================================
Uninstalling Indexing and Search Service 1u3 (1.3-8.6501 at
/opt/altroot/jiss)...
------ Executing Task 13 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWjiss 2>&1

Removal of <SUNWjiss> was successful.
-- Exit status: 0

============================================================
Uninstalling Comms Delegated Administrator 7 (7.0-4.00 at
/opt/altroot/da)...
------ Executing Task 14 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-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 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-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 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimsc 2>&1
```

```
Removal of <SUNWiimsc> was successful.
-- Exit status: 0
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWmessaging-server-64
PASSED: Task 2: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWcomds
PASSED: Task 3: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWdavserver
PASSED: Task 4: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimfed
PASSED: Task 5: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimw
PASSED: Task 6: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimgw
PASSED: Task 7: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimid
PASSED: Task 8: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimjd
PASSED: Task 9: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimm
PASSED: Task 10: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimin
PASSED: Task 11: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiim
PASSED: Task 12: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiwc
PASSED: Task 13: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWjiss
PASSED: Task 14: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWcommda
PASSED: Task 15: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWmessaging-server-scha
PASSED: Task 16: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-R /opt/altroot SUNWiimsc

All tasks PASSED
```

```
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Sep 21 20:15 /usr/java ->
jdk/jdk1.6.0_26

/usr/jdk:
total 9
drwxr-xr-x   4 root     bin            4 Feb 17  2011 instances
lrwxrwxrwx   1 root     other          7 Feb 17  2011 j2sdk1.4.2_26 ->
../j2se
lrwxrwxrwx   1 root     other         18 Sep 21 20:15 jdk1.6.0_26 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Sep 21 20:15 latest ->
jdk1.6.0_26
drwxr-xr-x   8 root     bin            8 Feb 17  2011 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 Sep 21 20:15 /usr/jdk/latest ->
jdk1.6.0_26
-- 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 38078
-rw-r--r--   1 root     bin         3339 May  4 02:19 COPYRIGHT
-rw-r--r--   1 root     bin           40 May  4 02:19 LICENSE
-rw-r--r--   1 root     bin          115 May  4 02:19 README.html
-rw-r--r--   1 root     bin        20320 Nov 29  2006 README_ja.html
-rw-r--r--   1 root     bin        15160 Nov 29  2006 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 May  4 02:19
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Sep 21 20:15 bin
drwxr-xr-x  11 root     bin           12 Feb 17  2011 demo
drwxr-xr-x   3 root     bin            8 Sep 21 20:15 include
drwxr-xr-x   6 root     bin           11 Sep 21 20:15 jre
drwxr-xr-x   3 root     bin           11 Sep 21 20:15 lib
drwxr-xr-x   3 root     bin            3 Feb 17  2011 man
-r--r--r--   1 root     other       6609 Sep 21 20:15 register.html
-r--r--r--   1 root     other       8055 Sep 21 20:15 register_ja.html
-r--r--r--   1 root     other       6212 Sep 21 20:15
register_zh_CN.html
drwxr-xr-x  10 root     bin           10 Feb 17  2011 sample
-rw-r--r--   1 root     bin      19104157 May  4 02:17 src.zip
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.patchout_20110921203504.12611
-- unlink /tmp/.patchout_altroot_20110921203504.12611
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_201109212035
Closing the log at Wed Sep 21 20:35:15 2011
# ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20110921203617.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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>

# cat /etc/softlist.xml
<?xml version="1.0" encoding="utf-8"?>
<!-- Do not edit! This file is automatically generated. -->
<!-- Last Update: Wed Sep 21 20:34:06 PDT 2011 -->
<!-- By: /net/example.com/export/megan/wspace/dl111122/releases/ci72
./commpkg -->

<multi-inst-list>
  <install name="" root="/" suite="comms" />
  <install root="/opt/altroot" suite="comms" />
</multi-inst-list>
# ls /opt/altroot
total 45
   3 CommsInstaller/     3 im/                 3 opt/
   3 da/                 3 im_scha/            3 usr/
   3 davserver/          3 iwc/                3 var/
   3 directory/          3 jiss/
   3 dssetup/            3 messaging64/
   3 etc/                3 msg_scha/
# ls -l /opt/altroot
total 45
   3 drwxr-xr-x   6 root     other          6 Sep 21 20:34
CommsInstaller/
   3 drwxr-xr-x   3 root     other          3 Sep 21 20:35 da/
```

```
   3 drwxr-xr-x   2 root     other          2 Sep 21 20:35 davserver/
   3 drwxr-xr-x   3 root     other          3 Sep 21 20:33 directory/
   3 drwxr-xr-x   2 root     other          2 Sep 21 20:35 dssetup/
   3 drwxr-xr-x  10 root     sys           12 Sep 21 20:33 etc/
   3 drwxr-xr-x   3 root     other          3 Sep 21 20:35 im/
   3 drwxr-xr-x   4 root     other          4 Sep 21 20:35 im_scha/
   3 drwxr-xr-x   2 root     other          2 Sep 21 20:35 iwc/
   3 drwxr-xr-x   2 root     other          2 Sep 21 20:35 jiss/
   3 drwxr-xr-x   2 root     other          2 Sep 21 20:35 messaging64/
   3 drwxr-xr-x   2 root     other          2 Sep 21 20:35 msg_scha/
   3 drwxr-xr-x   3 root     other          3 Sep 21 20:33 opt/
   3 drwxr-xr-x   9 root     sys           10 Sep 21 20:33 usr/
   3 drwxr-xr-x   7 root     sys            7 Sep 21 20:34 var/
# \rm -rf /opt/altroot
# ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20110921203646.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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
# cat /etc/softlist.xml
<?xml version="1.0" encoding="utf-8"?>
<!-- Do not edit! This file is automatically generated. -->
<!-- Last Update: Wed Sep 21 20:36:49 PDT 2011 -->
<!-- By: /net/example.com/export/megan/wspace/dl111122/releases/ci72
./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 2

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

```
* JDK upgrade is now applied via pkgrm/pkgadd - the user is prompted
* Shared components and OS patches are applied without prompting. This
  is because patches can be backed out. e.g. in the sample session
  below 119255-81 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 is installed without prompting
* CI itself will be installed without prompting. Note the message in
  the CI task list:
  WILL INSTALL: CommsInstaller 7u2 (7.2-0.36)
                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 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

```
542  pwd
  543  uname -a
  544  ./commpkg info
  545  ./commpkg install
  546  cat /var/opt/CommsInstaller/logs/undoCommsInstall_20110921181458
  547  cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921181458
  548  ls -l
/var/opt/CommsInstaller/logs/CommsInstaller_20110921181458.log
  549  ./commpkg info
  550  ./commpkg info --verbose
  551  ls -l /opt/sun/comms
  552  ./commpkg uninstall
  553  cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921194839
  554  cat
/var/opt/CommsInstaller/logs/CommsInstaller_20110921181458.log
  555  cat
/var/opt/CommsInstaller/logs/CommsInstaller_20110921194839.log
  556  history
```

Session

```
# \rm -rf /opt/sun/comms
# pwd
/home/dl111122/wspace/releases/ci72
# uname -a
SunOS riot1 5.10 Generic_142910-17 i86pc i386 i86pc
# ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20110921181455.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          119255-81 144489-17
  NOTICE: It is highly recommended that you apply the
          latest OS Recommended Patch Cluster. commpkg will
          not do this automatically.
ALTROOT: /
  NAME: ""
```

```
# ./commpkg install
-- LOGFILE: /tmp/CommsInstaller_20110921181458.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011

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.

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=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          119255-81 144489-17
  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 (7.4-23.01)
       2  Comms DSsetup 6.4 (6.4-23.01)
       3  Calendar Server 7u2 (7.2-4.19)
       4  Instant Messaging 9 (9.0-00.15)
```

```
       5  Convergence 2 (2.0-2.01)
       6  Indexing and Search Service 1u3 (1.3-8.6501)
       7  Comms Delegated Administrator 7 (7.0-4.00)
       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)


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]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Generating list of things to install...
Checking for Shared Component Upgrade Requirements...

JDK requires an upgrade for patches 125138-28 125139-28 125138-25
125139-25
Description: Java Development Kit
  Product Version: 1.6.0
Note that this will be done by uninstalling the
current version and installing the new one.
This is an irreversible process
On the other hand, if you do not upgrade,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to upgrade JDK [n] : y
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: MySQL 5.5.8
  WILL INSTALL: patch 119255-81 for PATCHUTILS
  WILL INSTALL: Instant Messaging API 9
  WILL INSTALL: LDAPJDK 4.21
  WILL INSTALL: patch 119346-08 for Simple Authentication and Security
Layer
  WILL INSTALL: patch 136800-03 for LDAPCSDK6 Tools
  WILL INSTALL: patch 125359-14 for NSS/NSPR/JSS
  WILL INSTALL: Service Tags 1.1.4
  NOTICE: JDK will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: JDK 1.6.0 (1.6.0_20/1.6.0_20-b02)
  WILL INSTALL: JDK 1.6.0
  WILL check JES java symlink
  WILL INSTALL: patch 126869-05 for BZIP OS Component
  WILL INSTALL: patch 119964-23 for LIBCPLUSPLUS
  WILL INSTALL: Messaging Server (64bit) 7u4 (7.4-23.01)
                to /opt/sun/comms/messaging64
  WILL INSTALL: Comms DSsetup 6.4 (6.4-23.01)
                to /opt/sun/comms/dssetup
  WILL INSTALL: Calendar Server 7u2 (7.2-4.19)
                to /opt/sun/comms/davserver
  WILL INSTALL: Instant Messaging 9 (9.0-00.15)
                to /opt/sun/comms/im
```

```
  WILL INSTALL: Convergence 2 (2.0-2.01)
                to /opt/sun/comms/iwc
  WILL INSTALL: Indexing and Search Service 1u3 (1.3-8.6501)
                to /opt/sun/comms/jiss
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-4.00)
                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: CommsInstaller 7u2 (7.2-0.36)
                to /opt/sun/comms/CommsInstaller
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to install

Do you want to continue ? [yes] :

============================================================
Installing MySQL 5.5.8...
------ Executing Task 1 of 40 ...

============================================================
Installing patch 119255-81 for PATCHUTILS...
------ Executing Task 2 of 40 ...

============================================================
Installing Instant Messaging API 9...
------ Executing Task 3 of 40 ...

============================================================
Installing LDAPJDK 4.21...
------ Executing Task 4 of 40 ...

============================================================
Installing patch 119346-08 for Simple Authentication and Security
Layer...
------ Executing Task 5 of 40 ...

============================================================
Installing patch 136800-03 for LDAPCSDK6 Tools...
------ Executing Task 6 of 40 ...

============================================================
Installing patch 125359-14 for NSS/NSPR/JSS...
------ Executing Task 7 of 40 ...

============================================================
Installing Service Tags 1.1.4...
------ Executing Task 8 of 40 ...
------ Executing Task 9 of 40 ...
------ Executing Task 10 of 40 ...

============================================================
Removing existing JDK 1.6.0 (1.6.0_20/1.6.0_20-b02)...
------ Executing Task 11 of 40 ...
------ Executing Task 12 of 40 ...
```

```
------ Executing Task 13 of 40 ...
------ Executing Task 14 of 40 ...
------ Executing Task 15 of 40 ...

============================================================
Installing JDK 1.6.0...
------ Executing Task 16 of 40 ...
------ Executing Task 17 of 40 ...
------ Executing Task 18 of 40 ...
------ Executing Task 19 of 40 ...
------ Executing Task 20 of 40 ...

============================================================
Checking JES java symlink...
------ Executing Task 21 of 40 ...

============================================================
Installing patch 126869-05 for BZIP OS Component...
------ Executing Task 22 of 40 ...

============================================================
Installing patch 119964-23 for LIBCPLUSPLUS...
------ Executing Task 23 of 40 ...

============================================================
Installing Messaging Server (64bit) 7u4 (7.4-23.01)...
------ Executing Task 24 of 40 ...

============================================================
Installing Comms DSsetup 6.4 (6.4-23.01)...
------ Executing Task 25 of 40 ...

============================================================
Installing Calendar Server 7u2 (7.2-4.19)...
------ Executing Task 26 of 40 ...

============================================================
Installing Instant Messaging 9 (9.0-00.15)...
------ Executing Task 27 of 40 ...
------ Executing Task 28 of 40 ...
------ Executing Task 29 of 40 ...
------ Executing Task 30 of 40 ...
------ Executing Task 31 of 40 ...
------ Executing Task 32 of 40 ...
------ Executing Task 33 of 40 ...
------ Executing Task 34 of 40 ...

============================================================
Installing Convergence 2 (2.0-2.01)...
------ Executing Task 35 of 40 ...

============================================================
Installing Indexing and Search Service 1u3 (1.3-8.6501)...
------ Executing Task 36 of 40 ...

============================================================
```

```
Installing Comms Delegated Administrator 7 (7.0-4.00)...
------ Executing Task 37 of 40 ...

============================================================
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
------ Executing Task 38 of 40 ...

============================================================
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
------ Executing Task 39 of 40 ...

============================================================
Installing CommsInstaller 7u2 (7.2-0.36)...
------ Executing Task 40 of 40 ...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

-- Output of Task 1: generic
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
LOGFILE: /tmp/ci-mysql-installer_20110921181510.log
pkgadd -n -r /dev/null -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.

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 riot1 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!

pkgadd -n -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms-mysql-marker
```

```
Installation of <SUNWcomms-mysql-marker> was successful.
Copyright (c) 2009, 2011, Oracle and/or its affiliates. All rights
reserved.
Use is subject to license terms.
-- End of command output--

All tasks PASSED
Checking JES java symlink...
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

NOTICE: To undo the installation, run the commands in:
        /var/opt/CommsInstaller/logs/undoCommsInstall_20110921181458

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921181458
NOTICE: LOGFILE  created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20110921181458.log
# cat /var/opt/CommsInstaller/logs/undoCommsInstall_20110921181458
#! /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 SUNWiimfed
#######################################################
# Finished Undo of: Installing CommsInstaller 7u2 (7.2-0.36)...
#######################################################
pkgrm  -n -a $ADMIN SUNWiimw
#######################################################
# Finished Undo of: Installing Instant Messaging Sun Cluster HA agent
7.3 (7.3-01.02)...
#######################################################
pkgrm  -n -a $ADMIN SUNWiimgw
#######################################################
# Finished Undo of: Installing Messaging Server Sun Cluster HA agent 7.0
(7.0-0.03)...
#######################################################
pkgrm  -n -a $ADMIN SUNWiimid
#######################################################
# Finished Undo of: Installing Comms Delegated Administrator 7
(7.0-4.00)...
#######################################################
pkgrm  -n -a $ADMIN SUNWiimjd
#######################################################
# Finished Undo of: Installing Indexing and Search Service 1u3
(1.3-8.6501)...
#######################################################
pkgrm  -n -a $ADMIN SUNWiimm
#######################################################
```

```
# Finished Undo of: Installing Convergence 2 (2.0-2.01)...
#######################################################
pkgrm  -n -a $ADMIN SUNWiimin
pkgrm  -n -a $ADMIN SUNWiim
pkgrm  -n -a $ADMIN SUNWdavserver
pkgrm  -n -a $ADMIN SUNWcomds
pkgrm  -n -a $ADMIN SUNWmessaging-server-64
patchrm  119964-23
patchrm  126869-05
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6cfg
#######################################################
# Finished Undo of: Installing Instant Messaging 9 (9.0-00.15)...
#######################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6dvx
#######################################################
# Finished Undo of: Installing Calendar Server 7u2 (7.2-4.19)...
#######################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6dev
#######################################################
# Finished Undo of: Installing Comms DSsetup 6.4 (6.4-23.01)...
#######################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6rtx
#######################################################
# Finished Undo of: Installing Messaging Server (64bit) 7u4
(7.4-23.01)...
#######################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWj6rt
#######################################################
# Finished Undo of: Installing patch 119964-23 for LIBCPLUSPLUS...
#######################################################
# no undo for removal of SUNWj6rt
#######################################################
# Finished Undo of: Installing patch 126869-05 for BZIP OS Component...
#######################################################
#######################################################
# Finished Undo of: Checking JES java symlink...
#######################################################
# no undo for removal of SUNWj6rtx
# no undo for removal of SUNWj6dev
# no undo for removal of SUNWj6dvx
# no undo for removal of SUNWj6cfg
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWstosreg
#######################################################
# Finished Undo of: Installing JDK 1.6.0...
#######################################################
#######################################################
# Finished Undo of: Removing existing JDK 1.6.0
(1.6.0_20/1.6.0_20-b02)...
#######################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWservicetagu
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWservicetagr
patchrm  125359-14
#######################################################
# Finished Undo of: Installing Service Tags 1.1.4...
#######################################################
patchrm  136800-03
```

```
#######################################################
# Finished Undo of: Installing patch 125359-14 for NSS/NSPR/JSS...
#######################################################
patchrm  119346-08
#######################################################
# Finished Undo of: Installing patch 136800-03 for LDAPCSDK6 Tools...
#######################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWljdk
#######################################################
# Finished Undo of: Installing patch 119346-08 for Simple Authentication
and Security Layer...
#######################################################
# IRREVERSIBLE: pkgrm  -n -a $ADMIN SUNWiimdv
#######################################################
# Finished Undo of: Installing LDAPJDK 4.21...
#######################################################
patchrm  119255-81
#######################################################
# Finished Undo of: Installing Instant Messaging API 9...
#######################################################
# IRREVERSIBLE:
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a $ADMIN
#######################################################
# Finished Undo of: Installing patch 119255-81 for PATCHUTILS...
#######################################################
#######################################################
# Finished Undo of: Installing MySQL 5.5.8...
#######################################################
# cat /var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921181458
#
# Silent File for CommsInstaller 7.2-0.36 [7.0.2.0.0]
# Generated on 20110921181458
#

#
# 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/example.com/export/megan/wspace/dl111122/releases/ci72
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 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
COMPONENT_VERSIONS=
# ls -l /var/opt/CommsInstaller/logs/CommsInstaller_20110921181458.log
 517 -rw-r--r--   1 root     other     148684 Sep 21 19:47
/var/opt/CommsInstaller/logs/CommsInstaller_20110921181458.log
# ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20110921194823.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20110810
```

```
  Product: Comms DSsetup 6.4
           Version: 6.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20110713
  Product: Calendar Server 7u2
           Version: 7.2-4.19
           ALTROOT: /
           Basedir: /opt/sun/comms/davserver
           Build Date: 20110909
  Product: Instant Messaging 9
           Version: 9.0-00.15
           ALTROOT: /
           Basedir: /opt/sun/comms/im
           Build Date: 20110905
  Product: Convergence 2
           Version: 2.0-2.01
           ALTROOT: /
           Basedir: /opt/sun/comms/iwc
           Build Date: 20110817
  Product: Indexing and Search Service 1u3
           Version: 1.3-8.6501
           ALTROOT: /
           Basedir: /opt/sun/comms/jiss
           Build Date: 20110811
  Product: Comms Delegated Administrator 7
           Version: 7.0-4.00
           ALTROOT: /
           Basedir: /opt/sun/comms/da
           Build Date: 20110805
  Product: Messaging Server Sun Cluster HA agent 7.0
           Version: 7.0-0.03
           ALTROOT: /
           Basedir: /opt/sun/comms/msg_scha
           Build Date: 20080519
  Product: Instant Messaging Sun Cluster HA agent 7.3
           Version: 7.3-01.02
           ALTROOT: /
           Basedir: /opt/sun/comms/im_scha
           Build Date: 20080403

# ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20110921194827.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
         ALTROOT: /
         Basedir: /opt/sun/comms/messaging64
         Build Date: 20110810
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         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: 6.4-23.01
         ALTROOT: /
         Basedir: /opt/sun/comms/dssetup
         Build Date: 20110713
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWcomds        6.3,REV=2004.08.12
Product: Calendar Server 7u2
         Version: 7.2-4.19
         ALTROOT: /
         Basedir: /opt/sun/comms/davserver
         Build Date: 20110909
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWdavserver    7.0,REV=2009.08.27
Product: Instant Messaging 9
         Version: 9.0-00.15
         ALTROOT: /
         Basedir: /opt/sun/comms/im
         Build Date: 20110905
         getVersion UNAME: SunOS
         getVersion ARCH: i386
         getVersion BITS: 32
         Product Installation Status: PRESENT
         Package Status/Name/Version:
           PRESENT  SUNWiim          9.0,REV=2011.09.05
           PRESENT  SUNWiimin        9.0,REV=2011.09.05
           PRESENT  SUNWiimm         9.0,REV=2011.09.05
           PRESENT  SUNWiimjd        9.0,REV=2011.09.05
           PRESENT  SUNWiimid        9.0,REV=2011.09.05
           PRESENT  SUNWiimgw        9.0,REV=2011.09.05
           PRESENT  SUNWiimw         9.0,REV=2011.09.05
           PRESENT  SUNWiimfed       9.0,REV=2011.09.05
Product: Convergence 2
         Version: 2.0-2.01
         ALTROOT: /
         Basedir: /opt/sun/comms/iwc
```

```
            Build Date: 20110817
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiwc          2.0,REV=2010.07.26
  Product: Indexing and Search Service 1u3
            Version: 1.3-8.6501
            ALTROOT: /
            Basedir: /opt/sun/comms/jiss
            Build Date: 20110811
            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: 7.0-4.00
            ALTROOT: /
            Basedir: /opt/sun/comms/da
            Build Date: 20110805
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            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
            ALTROOT: /
            Basedir: /opt/sun/comms/msg_scha
            Build Date: 20080519
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            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
            ALTROOT: /
            Basedir: /opt/sun/comms/im_scha
            Build Date: 20080403
            getVersion UNAME: SunOS
            getVersion ARCH: i386
            getVersion BITS: 32
            Product Installation Status: PRESENT
            Package Status/Name/Version:
              PRESENT  SUNWiimsc        7.3,REV=2008.01.07.20.24.17

# ls -l /opt/sun/comms
total 30
   3 drwxr-xr-x   6 root     other          6 Sep 21 18:17
CommsInstaller/
```

```
   3 drwxr-xr-x   6 root     other          6 Sep 21 18:17 da/
   3 drwxr-xr-x   8 root     other          8 Sep 21 18:16 davserver/
   3 drwxr-xr-x   5 root     other          5 Sep 21 18:16 dssetup/
   3 drwxr-xr-x   7 root     other          7 Sep 21 18:17 im/
   3 drwxr-xr-x   5 root     other          5 Sep 21 18:17 im_scha/
   3 drwxr-xr-x   6 root     other          6 Sep 21 18:17 iwc/
   3 drwxr-xr-x  19 root     other         20 Sep 21 18:17 jiss/
   3 drwxr-xr-x   9 root     other         11 Sep 21 18:16 messaging64/
   3 drwxr-xr-x   4 root     other          4 Sep 21 18:17 msg_scha/
# ./commpkg uninstall
-- LOGFILE: /tmp/CommsInstaller_20110921194839.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
Detecting Installed Products...
Detecting Installed Patches...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-23.01 64bit)
          Installed Version at /opt/sun/comms/messaging64
       2  Comms DSsetup 6.4 (6.4-23.01)
          Installed Version at /opt/sun/comms/dssetup
       3  Calendar Server 7u2 (7.2-4.19)
          Installed Version at /opt/sun/comms/davserver
       4  Instant Messaging 9 (9.0-00.15)
          Installed Version at /opt/sun/comms/im
       5  Convergence 2 (2.0-2.01)
          Installed Version at /opt/sun/comms/iwc
       6  Indexing and Search Service 1u3 (1.3-8.6501)
          Installed Version at /opt/sun/comms/jiss
       7  Comms Delegated Administrator 7 (7.0-4.00)
          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

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]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL UNINSTALL: Messaging Server (64bit) 7u4 (7.4-23.01)
                  at /opt/sun/comms/messaging64)
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-23.01)
                  at /opt/sun/comms/dssetup)
  WILL UNINSTALL: Calendar Server 7u2 (7.2-4.19)
                  at /opt/sun/comms/davserver)
  WILL UNINSTALL: Instant Messaging 9 (9.0-00.15)
                  at /opt/sun/comms/im)
```

```
  WILL UNINSTALL: Convergence 2 (2.0-2.01)
                  at /opt/sun/comms/iwc)
  WILL UNINSTALL: Indexing and Search Service 1u3 (1.3-8.6501)
                  at /opt/sun/comms/jiss)
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-4.00)
                  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)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to uninstall

Do you want to continue ? [yes] :

============================================================
Uninstalling Messaging Server (64bit) 7u4 (7.4-23.01 at
/opt/sun/comms/messaging64)...
------ Executing Task 1 of 16 ...

============================================================
Uninstalling Comms DSsetup 6.4 (6.4-23.01 at /opt/sun/comms/dssetup)...
------ Executing Task 2 of 16 ...

============================================================
Uninstalling Calendar Server 7u2 (7.2-4.19 at
/opt/sun/comms/davserver)...
------ Executing Task 3 of 16 ...

============================================================
Uninstalling Instant Messaging 9 (9.0-00.15 at /opt/sun/comms/im)...
------ Executing Task 4 of 16 ...
------ Executing Task 5 of 16 ...
------ Executing Task 6 of 16 ...
------ Executing Task 7 of 16 ...
------ Executing Task 8 of 16 ...
------ Executing Task 9 of 16 ...
------ Executing Task 10 of 16 ...
------ Executing Task 11 of 16 ...

============================================================
Uninstalling Convergence 2 (2.0-2.01 at /opt/sun/comms/iwc)...
------ Executing Task 12 of 16 ...

============================================================
Uninstalling Indexing and Search Service 1u3 (1.3-8.6501 at
/opt/sun/comms/jiss)...
------ Executing Task 13 of 16 ...

============================================================
Uninstalling Comms Delegated Administrator 7 (7.0-4.00 at
/opt/sun/comms/da)...
------ Executing Task 14 of 16 ...

============================================================
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
```

```
/opt/sun/comms/msg_scha)...
------ Executing Task 15 of 16 ...

============================================================
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/sun/comms/im_scha)...
------ Executing Task 16 of 16 ...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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_20110921194839
NOTICE: LOGFILE  created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20110921194839.log
# cat /var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921194839
#
# Silent File for CommsInstaller 7.2-0.36 [7.0.2.0.0]
# Generated on 20110921194839
#

#
#
# 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
COMPONENT_VERSIONS= 7.4 6.4 7.2 9.0 2.0 1.3 7.0 7.0 7.3
# cat /var/opt/CommsInstaller/logs/CommsInstaller_20110921181458.log
============ LOGFILE started Wed Sep 21 18:14:58 2011 ==========
LOGFILE = /tmp/CommsInstaller_20110921181458.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg install
-- perl version: 5.008004 pid: 17851
-- basetime: 1316654098 Wed Sep 21 18:14:58 2011
-- scriptDir:
/net/example.com/export/megan/wspace/dl111122/releases/ci72
-- LOGFILE: /tmp/CommsInstaller_20110921181458.log
```

```
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
-- UNAME = SunOS ARCH = i386 OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS riot1 5.10 Generic_142910-17 i86pc i386 i86pc
-- Exit status: 0
!!! ENV
$VAR1 = {
          'HOME' => '/',
          'LOGNAME' => 'uadmin',
          'SHLVL' => '1',
          'OLDPWD' => '/home/dl111122/wspace/releases/ci71',
          'PS1' => '[\\! \\d \\t \\u@\\h% \\w\\$ ]
\\$ ',
          '_' => './commpkg',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc::~dl111122/bin:/usr/sbin:/usr/bin',
'CDPATH' => ':..:/home/dl111122',
          'SHELL' => '/sbin/sh',
          'HZ' => '',
          'MAIL' => '/var/mail/uadmin',
          'TERM' => 'dumb',
          'PWD' => '/home/dl111122/wspace/releases/ci72',
          'TZ' => 'US/Pacific',
          'LANG' => 'C'
        };
cat /etc/release 2>&1
                    Oracle Solaris 10 9/10 s10x_u9wos_14a X86
     Copyright (c) 2010, Oracle and/or its affiliates. All rights
reserved.
                            Assembled 11 August 2010
-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
          'MS64',
          'DSSETUP',
          'DAV',
          'IM',
          'IWC',
          'JISS',
          'DA',
          'MS_SCHA',
          'IM_SCHA'
        ];
!!! products found in distro, distrProds
$VAR1 = {
          'SASL' => 1,
          'IWC' => 1,
          'MS' => 1,
          'DSSETUP' => 1,
          'MQ_L10N' => 1,
          'ICU' => 1,
          'MS64' => 1,
          'DAV' => 1,
          'LDAPCSDK6' => 1,
```

```
          'JDK' => 1,
          'CE' => 1,
          'MYSQL' => 1,
          'PATCHUTILS' => 1,
          'MQ' => 1,
          'CI' => 1,
          'IMAPI' => 1,
          'LDAPCSDK6_TOOLS' => 1,
          'JISS' => 1,
          'NSS' => 1,
          'IM' => 1,
          'ST' => 1,
          'CS_SCHA' => 1,
          'LDAPJDK' => 1,
          'BZIP' => 1,
          'MYSQL_MARKER' => 1,
          'IM_SCHA' => 1,
          'LIBCPLUSPLUS' => 1,
          'SNMP' => 1,
          'MS_SCHA' => 1,
          'CS' => 1,
          'JHRT' => 1,
          'DA' => 1
        };
/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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
```

```
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
QQQ findGetVersion ======
```

```
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC
'MS64_L10N' => 'none',
          'MS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS/
'DSSETUP' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSS
'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS6
'DAV' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CE/
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produ
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JIS
'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/
'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS_
'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_
'CS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS/
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/
};
!!! prod_getVers
```

```
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-2.01',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-23.01',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-23.01',
          'DAV' => '7.2-4.19',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.2-0.36',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.3-8.6501',
          'NSS' => 0,
          'CS_L10N' => 0,
          'IM' => '9.0-00.15',
          'ST' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'BZIP' => 0,
          'MYSQL_MARKER' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'SNMP' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-29.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-4.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20110817',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20110713',
          'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' => '20110810',
          'DAV' => '20110909',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
```

```
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20110909',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20110811',
          'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' => '20110905',
          'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20110527',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20110805'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.8
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) = 4.21
INFO: prod_mktVers{IMAPI} (w/ map) = 9
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{SNMP} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2011.06.17
INFO: prod_mktVers{MYSQL_MARKER} (w/ map) = 1.1
INFO: prod_mktVers{MYSQL} (w/ map) = 5.5.8
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u2
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u2
INFO: prod_mktVers{IM} (w/ map) = 9
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u3
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
```

```
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.

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=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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 SNMP Unknown ...
  Checking pkg SUNWsmagt... present.
  Checking pkg SUNWsmcmd... present.
  Checking pkg SUNWsmmgr... present.
  SNMP Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2011.06.17 ...
  RECOMMENDED 2011.06.17 is not present.
Checking MYSQL_MARKER 1.1 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.1 is not present.
Checking MYSQL_MARKER 1.0 ...
```

```
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.0 is not present.
Checking MYSQL 5.5.8 ...
  Checking pkg mysql... not present.
  MYSQL 5.5.8 is not present.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... not present.
  MYSQL 5.1.36 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... not present.
  Checking pkg SUNWservicetagu... not present.
  Checking pkg SUNWstosreg... not present.
  ST 1.1.4 is not present.
Checking NSS 4.8.8 ...
  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 4.8.8 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=2006.06.18.23.02
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 3.7,REV=2006.06.18.23.02
  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=2007.07.26.11.39
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.1,REV=2007.07.26.11.39
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.1,REV=2007.07.26.11.39
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.1,REV=2007.07.26.11.40
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.3 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.3,REV=2008.11.07.19.29
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  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 4.3,REV=2008.11.07.19.30
  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=2006.09.28.01.19.58
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 3.7,REV=2006.09.28.01.19.58
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 3.7,REV=2006.09.02.01.24.16
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 3.7,REV=2006.09.02.01.24.17
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 3.7,REV=2006.09.28.01.19.58
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 3.7,REV=2006.09.02.01.24.16
```

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  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 3.7,REV=2006.09.02.01.24.17
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 3.7,REV=2006.10.28.02.17.39
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 3.7,REV=2006.10.28.02.17.39
  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=2007.08.02.02.12
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.1,REV=2007.08.02.02.12
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking MQ_L10N 4.3 ...
  Checking pkg SUNWfiqu... present but with a different pkg VERSION.
    checking SUNWfiqu 4.3,REV=2008.10.27.08.15.45
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.3,REV=2008.10.27.08.15.47
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.3,REV=2008.10.27.08.16.20
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.3,REV=2008.10.27.08.16.23
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.3,REV=2008.10.27.08.18.18
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.3,REV=2008.10.27.08.18.20
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.3,REV=2008.10.27.08.16.56
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.3,REV=2008.10.27.08.16.59
```

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  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.3,REV=2008.10.27.08.17.33
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.3,REV=2008.10.27.08.17.35
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.3,REV=2008.10.27.08.18.55
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.3,REV=2008.10.27.08.18.57
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.3,REV=2008.10.27.08.19.31
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.3,REV=2008.10.27.08.19.33
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking LDAPJDK 4.21 ...
  Checking pkg SUNWljdk... not present.
  LDAPJDK 4.21 is not present.
Checking IMAPI 9.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 9.0 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 IMAPI 8.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 8.0 is not present.
Checking CI 7.2 ...
  Checking pkg SUNWcomms... not present.
  CI 7.2 is not present.
Checking MS64 7.4 ...
  Checking pkg SUNWmessaging-server-64... not present.
  MS64 7.4 is not present.
Checking MS64 6.3 ...
  Checking pkg SUNWmessaging-server-64... not present.
  MS64 6.3 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.
```

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Checking DSSETUP 6.4 ...
  Checking pkg SUNWcomds... not present.
  DSSETUP 6.4 is not present.
Checking DAV 7.2 ...
  Checking pkg SUNWdavserver... not present.
  DAV 7.2 is not present.
Checking IM 9.0 ...
  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 SUNWiimgw... not present.
  Checking pkg SUNWiimw... not present.
  Checking pkg SUNWiimfed... not present.
  IM 9.0 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 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 IWC 2.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 2.0 is not present.
Checking IWC 1.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 1.0 is not present.
Checking JISS 1.3 ...
  Checking pkg SUNWjiss... not present.
  JISS 1.3 is not present.
Checking JISS 0.9 ...
  Checking pkg SUNWjiss-common... not present.
  Checking pkg SUNWjiss-conf... not present.
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  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 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 ...
```

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  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 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 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 SUNWdiimin... 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.
```

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  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.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  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 CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119964-23 /tmp/.patchout_20110921181458.17851
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20110921181458.17851
patchadd  -p > /tmp/.patchout_20110921181458.17851 2>>
/tmp/CommsInstaller_20110921181458.log
-- Exit status: 0
--  older version at lineno 214 found 119964-21 - not acceptable
--  Final return status: 0
  LIBCPLUSPLUS patch 119964-23 is not present.
-- chk4patch 120901-03 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 39
--  Final return status: 1
  PATCHUTILS patch 120901-03 is already present.
-- chk4patch 121334-04 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 40
--  Final return status: 1
  PATCHUTILS patch 121334-04 is already present.
-- chk4patch 119255-81 /tmp/.patchout_20110921181458.17851
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
```

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--  Final return status: 0
  PATCHUTILS patch 119255-81 is not present.
-- chk4patch 119255-73 /tmp/.patchout_20110921181458.17851
--  Newer version at line 2 found 119255-75
--  Final return status: 1
  PATCHUTILS patch 119255-73 is already present.
-- chk4patch 120273-06 /tmp/.patchout_20110921181458.17851
--  Newer version at line 189 found 120273-30
--  Final return status: 1
  SNMP patch 120273-06 is already present.
-- chk4patch 126869-05 /tmp/.patchout_20110921181458.17851
--  older version at lineno 187 found 126869-04 - not acceptable
--  Final return status: 0
  BZIP patch 126869-05 is not present.
-- chk4patch 137322-01 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 188
--  Final return status: 1
  BZIP patch 137322-01 is already present.
-- chk4patch 119255-81 /tmp/.patchout_20110921181458.17851
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 119255-81 is not present.
-- chk4patch 118855-36 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 17
--  Final return status: 1
  RECOMMENDED patch 118855-36 is already present.
-- chk4patch 120012-14 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 38
--  Final return status: 1
  RECOMMENDED patch 120012-14 is already present.
-- chk4patch 120273-30 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 189
--  Final return status: 1
  RECOMMENDED patch 120273-30 is already present.
-- chk4patch 137138-09 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 45
--  Final return status: 1
  RECOMMENDED patch 137138-09 is already present.
-- chk4patch 141445-09 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 48
--  Final return status: 1
  RECOMMENDED patch 141445-09 is already present.
-- chk4patch 142910-17 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 44
--  Final return status: 1
  RECOMMENDED patch 142910-17 is already present.
-- chk4patch 144489-17 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  RECOMMENDED patch 144489-17 is not present.
-- chk4patch 125359-14 /tmp/.patchout_20110921181458.17851
--  older version at lineno 127 found 125359-13 - not acceptable
--  Final return status: 0
  NSS patch 125359-14 is not present.
-- chk4patch 125359-13 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 127
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--  Final return status: 1
  NSS patch 125359-13 is already present.
-- chk4patch 119346-08 /tmp/.patchout_20110921181458.17851
--  older version at lineno 565 found 119346-07 - not acceptable
--  Final return status: 0
  SASL patch 119346-08 is not present.
-- chk4patch 119346-07 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 565
--  Final return status: 1
  SASL patch 119346-07 is already present.
-- chk4patch 136800-03 /tmp/.patchout_20110921181458.17851
--  older version at lineno 233 found 136800-02 - not acceptable
--  Final return status: 0
  LDAPCSDK6_TOOLS patch 136800-03 is not present.
-- chk4patch 119811-05 /tmp/.patchout_20110921181458.17851
--  Exact match found at line 379
--  Final return status: 1
  ICU patch 119811-05 is already present.
-- chk4patch 125138-28 /tmp/.patchout_20110921181458.17851
--  older version at lineno 306 found 125138-22 - not acceptable
--  older version at lineno 307 found 125138-19 - not acceptable
--  older version at lineno 522 found 125138-23 - not acceptable
--  Final return status: 0
  JDK patch 125138-28 is not present.
-- chk4patch 125139-28 /tmp/.patchout_20110921181458.17851
--  older version at lineno 238 found 125139-22 - not acceptable
--  older version at lineno 239 found 125139-19 - not acceptable
--  older version at lineno 370 found 125139-23 - not acceptable
--  Final return status: 0
  JDK patch 125139-28 is not present.
-- chk4patch 125138-25 /tmp/.patchout_20110921181458.17851
--  older version at lineno 306 found 125138-22 - not acceptable
--  older version at lineno 307 found 125138-19 - not acceptable
--  older version at lineno 522 found 125138-23 - not acceptable
--  Final return status: 0
  JDK patch 125138-25 is not present.
-- chk4patch 125139-25 /tmp/.patchout_20110921181458.17851
--  older version at lineno 238 found 125139-22 - not acceptable
--  older version at lineno 239 found 125139-19 - not acceptable
--  older version at lineno 370 found 125139-23 - not acceptable
--  Final return status: 0
  JDK patch 125139-25 is not present.
-- chk4patch 119725-06 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  LDAPJDK patch 119725-06 is not present.
-- chk4patch 137205-23 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  MS64 patch 137205-23 is not present.
-- chk4patch 118243-03 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  DSSETUP patch 118243-03 is not present.
-- chk4patch 118246-23 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  DSSETUP patch 118246-23 is not present.
-- chk4patch 142786-04 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
```

```
  DAV patch 142786-04 is not present.
-- chk4patch 145712-02 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  IWC patch 145712-02 is not present.
-- chk4patch 142823-08 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  JISS patch 142823-08 is not present.
-- chk4patch 124582-04 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  DA patch 124582-04 is not present.
-- chk4patch 137572-01 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  IM_SCHA patch 137572-01 is not present.
-- chk4patch 121658-46 /tmp/.patchout_20110921181458.17851
--  Final return status: 0
  CS patch 121658-46 is not present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'NOT_PRESENT',
          '118855-36' => 'PRESENT',
          'DSSETUP' => {
                         '6.4' => 'NOT_PRESENT'
                       },
          '118246-23' => 'NOT_PRESENT',
          'MQ_L10N' => {
                         '4.3' => 'DIFF_VERSION',
                         '3.7' => 'DIFF_VERSION',
                         '4.1' => 'DIFF_VERSION',
                         '4.4' => 'PRESENT'
                       },
          'ICU' => {
                     'ICU2,ICU3' => 'PRESENT'
                   },
          '137572-01' => 'NOT_PRESENT',
          '137205-23' => 'NOT_PRESENT',
          '142786-04' => 'NOT_PRESENT',
          'MS64' => {
                      '7.4_32' => 'NOT_PRESENT',
                      '7.3_32' => 'NOT_PRESENT',
                      '7.2_32' => 'NOT_PRESENT',
                      '6.3' => 'NOT_PRESENT',
                      '6.3_32' => 'NOT_PRESENT',
                      '7.4' => 'NOT_PRESENT'
                    },
          'DAV' => {
                     '7.2' => 'NOT_PRESENT'
                   },
          '118243-03' => 'NOT_PRESENT',
          '137138-09' => 'PRESENT',
          '119255-81' => 'NOT_PRESENT',
          'CE' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          'MYSQL' => {
```

```
                '5.1.36' => 'NOT_PRESENT',
                '5.5.8' => 'NOT_PRESENT'
              },
'PATCHUTILS' => {
                  'Unknown' => 'PRESENT'
                },
'MQ' => {
          '4.3' => 'DIFF_VERSION',
          '3.7' => 'DIFF_VERSION',
          '4.1' => 'DIFF_VERSION',
          '4.4' => 'PRESENT'
        },
'IMAPI' => {
                '8.0' => 'NOT_PRESENT',
                '7.0' => 'NOT_PRESENT',
                '9.0' => 'NOT_PRESENT',
                '7.3' => 'NOT_PRESENT'
              },
'124582-04' => 'NOT_PRESENT',
'LDAPCSDK6_TOOLS' => {
                        '6.0' => 'PRESENT'
                      },
'JISS' => {
            '0.9' => 'NOT_PRESENT',
            '1.3' => 'NOT_PRESENT'
          },
'119811-05' => 'PRESENT',
'137322-01' => 'PRESENT',
'ST' => {
          '1.1.4' => 'NOT_PRESENT'
        },
'141445-09' => 'PRESENT',
'120901-03' => 'PRESENT',
'IM_L10N' => {
                '7.2' => 'NOT_PRESENT',
                '7.0' => 'NOT_PRESENT'
              },
'125138-25' => 'NOT_PRESENT',
'121334-04' => 'PRESENT',
'LDAPJDK' => {
                '4.21' => 'NOT_PRESENT'
              },
'BZIP' => {
            '11.10' => 'PRESENT'
          },
'IM_SCHA' => {
                '7.0' => 'NOT_PRESENT',
                '7.3' => 'NOT_PRESENT'
              },
'SNMP' => {
            'Unknown' => 'PRESENT'
          },
'125139-25' => 'NOT_PRESENT',
'MS_SCHA' => {
                '6.0' => 'NOT_PRESENT',
                '7.0' => 'NOT_PRESENT'
```

```
                },
'119346-08' => 'NOT_PRESENT',
'JHRT' => {
            '2.0' => 'PRESENT'
          },
'CE_L10N' => {
               '6.2' => 'NOT_PRESENT',
               '6.3' => 'NOT_PRESENT'
                },
'125359-14' => 'NOT_PRESENT',
'145712-02' => 'NOT_PRESENT',
'SASL' => {
            '2.19' => 'PRESENT'
          },
'IWC' => {
           '2.0' => 'NOT_PRESENT',
           '1.0' => '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'
        },
'120012-14' => 'PRESENT',
'119346-07' => 'PRESENT',
'LDAPCSDK6' => {
                 '6.0' => 'PRESENT'
               },
'142910-17' => 'PRESENT',
'142823-08' => 'NOT_PRESENT',
'JDK' => {
           '1.6.0' => 'PRESENT',
           '1.5.0' => 'NOT_PRESENT'
         },
'121658-46' => 'NOT_PRESENT',
'136800-03' => 'NOT_PRESENT',
'CI' => {
          '7.2' => 'NOT_PRESENT'
        },
'119255-73' => 'PRESENT',
'120273-06' => 'PRESENT',
'125138-28' => 'NOT_PRESENT',
'NSS' => {
           '4.8.8' => 'PRESENT'
         },
'IM' => {
          '8.3' => 'NOT_PRESENT',
          '7.0' => 'NOT_PRESENT',
          '9.0' => 'NOT_PRESENT',
          '7.3' => 'NOT_PRESENT'
        },
'CS_L10N' => {
```

```
                        '6.2' => 'NOT_PRESENT',
                        '6.3' => 'NOT_PRESENT'
                      },
          'RECOMMENDED' => {
                            '2011.06.17' => 'NOT_PRESENT'
                          },
          '119964-23' => 'NOT_PRESENT',
          '120273-30' => 'PRESENT',
          '144489-17' => 'NOT_PRESENT',
          '125139-28' => 'NOT_PRESENT',
          '125359-13' => 'PRESENT',
          'CS_SCHA' => {
                        '6.0' => 'NOT_PRESENT',
                        '6.3' => 'NOT_PRESENT'
                      },
          'MYSQL_MARKER' => {
                             '1.1' => 'NOT_PRESENT',
                             '1.0' => 'NOT_PRESENT'
                           },
          'MS_L10N' => {
                        '6.2' => 'NOT_PRESENT',
                        '6.3' => 'NOT_PRESENT'
                      },
          'LIBCPLUSPLUS' => {
                             '5.9' => 'PRESENT'
                           },
          '126869-05' => 'NOT_PRESENT',
          'CS' => {
                   '6.3' => 'NOT_PRESENT'
                 },
          'DA' => {
                   '6.4' => 'NOT_PRESENT',
                   '7.0' => 'NOT_PRESENT'
                 }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {},
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {},
          'SUNWsmmgr' => {
                          '1.0,REV=2005.01.08.01.09' => [
                                                          'SUNWsmmgr',
                                                          '/',
                                                          '5.10/SunOS
Development',
                                                          ''
                                                        ]
                        },
          'SUNWjimid' => {},
          'SUNWdiquc' => {
                          '4.4,REV=2009.10.01.09.34.32' => [

'SUNWdiquc',
                                                                '/',
```

```
                                                                    '4.4.1.0',
                                                                    ''
                                                                  ]
                          },
          'SUNWmsgko' => {},
          'SUNWics5' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {
                            '4.4,REV=2009.10.01.09.34.22' => [

'SUNWfiquc',
                                                                    '/',
                                                                    '4.4.1.0',
                                                                    ''
                                                                  ]
                          },
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {
                            '2.0,REV=2006.10.04' => [
                                                        'SUNWjhdem',
                                                        '/usr',
                                                        '2.0/FCS',
                                                        ''
                                                      ]
                          },
          'SUNWiqfs' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                             'SUNWiqfs',
                                                             '/',
                                                             '4.4.0.0',
                                                             ''
                                                           ]
                         },
          'SUNWfimid' => {},
          'SUNWcomds' => {},
          'SUNWjhdev' => {
                            '2.0,REV=2006.10.04' => [
                                                        'SUNWjhdev',
                                                        '/usr',
                                                        '2.0/FCS',
                                                        ''
                                                      ]
                          },
          'SUNWj6rtx' => {
                            '1.6.0,REV=2006.11.29.02.51' => [

'SUNWj6rtx',
                                                                     '/usr',

'1.6.0_20/1.6.0_20-b02',
                                                                     ''
                                                                   ]
                          },
          'SUNWiqum' => {
```

```
                          '4.4,REV=2009.08.27.09.46' => [
                                                          'SUNWiqum',
                                                          '/',
                                                          '4.4.1.0',
                                                          ''
                                                        ]
                        },
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {
                          '1.6.0,REV=2006.11.29.05.03' => [
                                                            'SUNWj6rt',
                                                            '/usr',

'1.6.0_20/1.6.0_20-b02',
                                                            ''
                                                          ]
                        },
          'SUNWj5rt' => {},
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {
                          '4.4,REV=2009.10.01.09.35.07' => [
                                                             'SUNWciqu',
                                                             '/',
                                                             '4.4.1.0',
                                                             ''
                                                            ]
                        },
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {
                           '4.4,REV=2009.10.01.09.34.58' => [

'SUNWjiquc',
                                                              '/',
                                                              '4.4.1.0',
                                                              ''
                                                            ]
                         },
          'SUNWiimgw' => {},
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {
                           '4.4,REV=2009.10.01.09.35.15' => [

'SUNWhiquc',
                                                              '/',
                                                              '4.4.1.0',
                                                              ''
                                                            ]
                         },
          'SUNWzhics' => {},
```

```
          'SUNWkiimd' => {},
          'SUNWiimfed' => {},
          'SUNWmsgmp' => {},
          'SUNWuwc' => {},
          'SUNWscics' => {},
          'SUNWiimc' => {},
          'SUNWhiimd' => {},
          'SUNWmessaging-server-scha' => {},
          'SUNWmsglb' => {},
          'SUNWtls' => {
                        '3.11.4,REV=2006.11.16.21.41' => [
                                                            'SUNWtls',
                                                            '/',
                                                            '3.12.8',
                                                            ''
                                                          ]
                      },
          'SUNWj6dvx' => {
                          '1.6.0,REV=2006.11.29.02.51' => [

'SUNWj6dvx',
                                                             '/usr',

'1.6.0_20/1.6.0_20-b02',
                                                             ''
                                                           ]
                        },
          'SUNWfuwc' => {},
          'SUNWlibC' => {
                         '5.10,REV=2004.12.20' => [
                                                     'SUNWlibC',
                                                     '/',
                                                     '5.10',
                                                     ''
                                                   ]
                       },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {},
          'SUNWscims' => {},
          'SUNWiimjd' => {},
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {
                                 '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-dev',
                                                                  '/',

'6.00',
                                                                  ''
                                                                ]
                                },
          'SUNWiqlen' => {
                          '4.4,REV=2009.08.27.09.46' => [
                                                          'SUNWiqlen',
                                                          '/',
```

```
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                          },
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {
                          '4.4,REV=2009.08.27.09.45' => [
                                                              'SUNWiqr',
                                                              '/',
                                                              '4.4.1.0',
                                                              ''
                                                            ]
                        },
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWiimw' => {},
          'SUNWmessaging-server-64' => {},
          'SUNWeiquc' => {
                            '4.4,REV=2009.10.01.09.34.40' => [

'SUNWeiquc',
                                                                  '/',
                                                                  '4.4.1.0',
                                                                  ''
                                                                ]
                          },
          'SUNWj5cfg' => {},
          'SUNWhiqu' => {
                           '4.4,REV=2009.10.01.09.35.15' => [
                                                                  'SUNWhiqu',
                                                                  '/',
                                                                  '4.4.1.0',
                                                                  ''
                                                                ]
                         },
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {},
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {},
          'SUNWiquc' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                                'SUNWiquc',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                         },
          'SUNWiimid' => {},
          'SUNWmsgmt' => {},
          'SUNWljdk' => {},
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {
                                    '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-libs',
                                                                          '/',
```

```
'6.02',
                                                                        ''
                                                                    ]
                                 },
          'SUNWservicetagr' => {},
          'SUNWciimc' => {},
          'SUNWjhrt' => {
                          '2.0,REV=2006.10.31' => [
                                                     'SUNWjhrt',
                                                     '/usr',
                                                     '2.0/FCS',
                                                     ''
                                                   ]
                        },
          'SUNWtlsd' => {
                          '3.11.4,REV=2006.11.16.21.41' => [
                                                              'SUNWtlsd',
                                                              '/',
                                                              '3.12.8',
                                                              ''
                                                            ]
                        },
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                          '11.10.0,REV=2005.01.21.16.34' => [

'SUNWdtrc',
                                                               '/',

'5.10/Generic Patch',
                                                               ''
                                                             ]
                        },
          'SUNWhuwc' => {},
          'mysql' => {},
          'SUNWiqdoc' => {
                            '4.4,REV=2009.08.27.09.46' => [
                                                             'SUNWiqdoc',
                                                             '/',
                                                             '4.4.0.0',
                                                             ''
                                                           ]
                          },
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {},
          'SUNWsmcmd' => {
                            '1.0,REV=2005.01.08.01.09' => [
                                                             'SUNWsmcmd',
                                                             '/',
                                                             '5.10/SunOS
Development',
                                                             ''
                                                           ]
                          },
```

```
          'SUNWiqcrt' => {
                            '4.4,REV=2009.08.27.09.46' => [
                                                            'SUNWiqcrt',
                                                            '/opt',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                          },
          'SUNWmsgzh' => {},
          'SUNWprd' => {
                          '4.6.4,REV=2006.11.16.21.41' => [
                                                            'SUNWprd',
                                                            '/',
                                                            '4.8.6',
                                                            ''
                                                          ]
                        },
          'SUNWdiimin' => {},
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {},
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {},
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {},
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.21.19' => [

'SUNWinstall-patch-utils-root',

'/',

'SNAG Development',

''

]
                                            },
          'SUNWiimin' => {},
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {
                          '4.4,REV=2009.08.27.09.45' => [
                                                          'SUNWiqu',
                                                          '/',
                                                          '4.4.1.0',
                                                          ''
                                                        ]
                        },
          'SUNWkiimc' => {},
          'SUNWiim' => {},
          'SUNWeiimin' => {},
          'SUNWcimid' => {},
          'SUNWiqcdv' => {
```

```
                          '4.4,REV=2009.08.27.09.46' => [
                                                          'SUNWiqcdv',
                                                          '/opt',
                                                          '4.4.1.0',
                                                          ''
                                                        ]
                        },
          'SUNWldapcsdk-tools' => {
                                   '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-tools',

'/opt/SUNWdsee',

'6.02',
                                                                      ''
                                                                    ]
                                 },
          'SUNWjss' => {
                        '4.2.4,REV=2006.11.16.21.41' => [
                                                          'SUNWjss',
                                                          '/',
                                                          '4.3.2',
                                                          ''
                                                        ]
                      },
          'SUNWdiqu' => {
                         '4.4,REV=2009.10.01.09.34.32' => [
                                                            'SUNWdiqu',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                       },
          'SUNWjiss' => {},
          'SUNWj6cfg' => {
                          '1.6.0,REV=2006.11.29.05.03' => [

'SUNWj6cfg',
                                                            '/',

'1.6.0_20/1.6.0_20-b02',
                                                            ''
                                                          ]
                        },
          'SUNWhimid' => {},
          'SUNWciquc' => {
                          '4.4,REV=2009.10.01.09.35.07' => [

'SUNWciquc',
                                                             '/',
                                                             '4.4.1.0',
                                                             ''
                                                           ]
                        },
          'SUNWcomms' => {},
```

```
          'SUNWjiqu' => {
                          '4.4,REV=2009.10.01.09.34.58' => [
                                                            'SUNWjiqu',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                        },
          'SUNWkiqu' => {
                          '4.4,REV=2009.10.01.09.34.50' => [
                                                            'SUNWkiqu',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                        },
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {
                          '4.4,REV=2009.10.01.09.34.40' => [
                                                            'SUNWeiqu',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                        },
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {},
          'SUNWeiimc' => {},
          'SUNWmsgtw' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                              '11.11,REV=2005.01.09.21.19' => [

'SUNWpkgcmdsu',
                                                                '/',
                                                                'SNAG
Development',
                                                                ''
                                                              ]
                            },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {
                          '4.4,REV=2009.08.27.09.46' => [
                                                          'SUNWiqjx',
                                                          '/',
                                                          '4.4.1.0',
                                                          ''
                                                        ]
                        },
          'SUNWjhdoc' => {
                           '2.0,REV=2006.10.04' => [
                                                    'SUNWjhdoc',
                                                    '/usr',
                                                    '2.0/FCS',
```

```
                                                        ''
                                                      ]
                          },
          'SUNWj6dev' => {
                            '1.6.0,REV=2006.11.29.05.03' => [

'SUNWj6dev',
                                                                '/usr',

'1.6.0_20/1.6.0_20-b02',
                                                                ''
                                                              ]
                          },
          'SUNWmsges' => {},
          'SUNWpr' => {
                        '4.6.4,REV=2006.11.16.21.41' => [
                                                            'SUNWpr',
                                                            '/',
                                                            '4.8.6',
                                                            ''
                                                          ]
                      },
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {
                         '1.2,REV=2005.01.06.14.13' => [
                                                           'SUNWicu',
                                                           '/usr',
                                                           '10/Generic',
                                                           ''
                                                         ]
                       },
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                          '11.10,REV=2005.01.10.15.35' => [
                                                              'SUNWswmt',
                                                              '/',
                                                              'SNAG
Development',
                                                              ''
                                                            ]
                        },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {
                            '4.4,REV=2009.10.01.09.34.50' => [

'SUNWkiquc',
                                                                  '/',
```

```
                                                                    '4.4.1.0',
                                                                    ''
                                                                  ]
                          },
          'SUNWstosreg' => {},
          'SUNWmsgde' => {},
          'SUNWsmagt' => {
                            '1.0,REV=2005.01.08.01.09' => [
                                                                  'SUNWsmagt',
                                                                  '/',
                                                                  '5.10/SunOS
Development',
                                                                  ''
                                                                ]
                          },
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                            '11.10.0,REV=2005.01.08.01.09' => [

'SUNWbzip',
                                                                    '/',

'5.10/SunOS Development',
                                                                    ''
                                                                  ]
                        },
          'SUNWtlsu' => {
                            '3.11.4,REV=2006.11.16.21.41' => [
                                                                    'SUNWtlsu',
                                                                    '/',
                                                                    '3.12.8',
                                                                    ''
                                                                  ]
                        },
          'SUNWfiqu' => {
                            '4.4,REV=2009.10.01.09.34.22' => [
                                                                    'SUNWfiqu',
                                                                    '/',
                                                                    '4.4.1.0',
                                                                    ''
                                                                  ]
                        },
          'SUNWsasl' => {
                            '2.17,REV=2003.07.18.13.13' => [
                                                                  'SUNWsasl',
                                                                  '/',
                                                                  '2.19',
                                                                  ''
                                                                ]
                        },
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                             '11.10.0,REV=2005.01.21.16.34' => [

'SUNWzoneu',
```

```
                                                                    '/',

'5.10/Generic Patch',
                                                                    ''
                                                                  ]
                          },
          'SUNWcsr' => {
                          '11.10.0,REV=2005.01.21.16.34' => [
                                                                  'SUNWcsr',
                                                                  '/',

'5.10/Generic Patch',
                                                                  ''
                                                                ]
                        },
          'SUNWesics' => {},
          'SUNWiimm' => {}
        };
!!! installedprod
$VAR1 = {
          'SASL' => {
                      '2.19' => [
                                  '/',
                                  '2.19',
                                  'none',
                                  '2.19',
                                  'none',
                                  'none',
                                  'none',
                                  ''
                                ]
                    },
          'LDAPCSDK6' => {
                            '6.0' => [
                                        '/',
                                        '6.02',
                                        'none',
                                        '6.0',
                                        'none',
                                        'none',
                                        'none',
                                        ''
                                      ]
                          },
          'LIBCPLUSPLUS' => {
                               '5.9' => [
                                          '/',
                                          '5.10',
                                          'none',
                                          '5.9',
                                          'none',
                                          'none',
                                          'none',
                                          ''
                                        ]
                             },
```

```
'SNMP' => {
            'Unknown' => [
                            '/',
                            '5.10/SunOS Development',
                            'none',
                            'Unknown',
                            'none',
                            'none',
                            'none',
                            ''
                          ]
           },
'JDK' => {
           '1.6.0' => [
                        '/usr',
                        '1.6.0_20/1.6.0_20-b02',
                        'none',
                        '1.6.0',
                        'none',
                        'none',
                        'none',
                        ''
                      ]
          },
'MQ' => {
          '4.4' => [
                     '/',
                     '4.4.1.0',
                     'none',
                     '4.4',
                     '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',
                        ''
                      ]
                },
        'MQ_L10N' => {
                    '4.4' => [
                              '/',
                              '4.4.1.0',
                              'none',
                              '4.4',
                              'none',
                              'none',
                              'none',
                              ''
                             ]
                  },
        'BZIP' => {
                '11.10' => [
                            '/',
                            '5.10/SunOS Development',
                            'none',
                            '11.10',
                            'none',
                            'none',
                            'none',
                            ''
                           ]
                },
        'LDAPCSDK6_TOOLS' => {
                        '6.0' => [
                                  '/opt/SUNWdsee',
                                  '6.02',
                                  'none',
                                  '6.0',
                                  'none',
                                  'none',
                                  'none',
                                  ''
                                 ]
                      },
        'ICU' => {
                'ICU2,ICU3' => [
                                '/usr',
                                '10/Generic',
                                'none',
                                'ICU2,ICU3',
                                'none',
                                'none',
                                'none',
                                ''
                               ]
                },
        'NSS' => {
                '4.8.8' => [
                            '/',
                            '4.3.2',
```

```
                                    'none',
                                    '4.8.8',
                                    'none',
                                    'none',
                                    'none',
                                    ''
                                  ]
                    }
         };
====== End QQQ detectProducts ======
-- Checking for RECOMMENDED patch 119255-81
   patch 119255-81: NOT_PRESENT
-- Checking for RECOMMENDED patch 118855-36
   patch is PRESENT
-- Checking for RECOMMENDED patch 120012-14
   patch is PRESENT
-- Checking for RECOMMENDED patch 120273-30
   patch is PRESENT
-- Checking for RECOMMENDED patch 137138-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 141445-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 142910-17
   patch is PRESENT
-- Checking for RECOMMENDED patch 144489-17
   patch 144489-17: NOT_PRESENT
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          119255-81 144489-17
  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 (7.4-23.01)
       2  Comms DSsetup 6.4 (6.4-23.01)
       3  Calendar Server 7u2 (7.2-4.19)
       4  Instant Messaging 9 (9.0-00.15)
       5  Convergence 2 (2.0-2.01)
```

```
       6  Indexing and Search Service 1u3 (1.3-8.6501)
       7  Comms Delegated Administrator 7 (7.0-4.00)
       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)


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]: =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: 0 MS64 0 DSSETUP 0 DAV 0 IM 0 IWC 0 JISS 0 DA 0 MS_SCHA
0 IM_SCHA
Generating list of things to install...
NOTICE: toInstall - MYSQL PATCHUTILS IMAPI LDAPJDK ICU SASL
LDAPCSDK6_TOOLS NSS LDAPCSDK6 ST JDK BZIP JHRT MQ MQ_L10N SNMP
LIBCPLUSPLUS MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CI
Checking for Shared Component Upgrade Requirements...

JDK requires an upgrade for patches 125138-28 125139-28 125138-25
125139-25
Description: Java Development Kit
  Product Version: 1.6.0
Note that this will be done by uninstalling the
current version and installing the new one.
This is an irreversible process
On the other hand, if you do not upgrade,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to upgrade JDK [n] : y
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: MySQL 5.5.8
  Task:
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
WILL INSTALL: patch 119255-81 for PATCHUTILS
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/PATC
WILL INSTALL: Instant Messaging API 9
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IMAP
-r /tmp/.response_IMAPI_20110921181458 SUNWiimdv
  WILL INSTALL: LDAPJDK 4.21
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPJDK_20110921181458 SUNWljdk
  WILL INSTALL: patch 119346-08 for Simple Authentication and Security
```

```
Layer
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
WILL INSTALL: patch 136800-03 for LDAPCSDK6 Tools
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
WILL INSTALL: patch 125359-14 for NSS/NSPR/JSS
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
WILL INSTALL: Service Tags 1.1.4
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 SUNWservicetagr
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 SUNWservicetagu
  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 SUNWstosreg
  NOTICE: JDK will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: JDK 1.6.0 (1.6.0_20/1.6.0_20-b02)
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6cfg
1.6.0,REV=2006.11.29.05.03 i=8: realpkg=SUNWj6cfg base=/
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6cfg
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6dvx
1.6.0,REV=2006.11.29.02.51 i=6: realpkg=SUNWj6dvx base=/usr
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dvx
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6dev
1.6.0,REV=2006.11.29.05.03 i=4: realpkg=SUNWj6dev base=/usr
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dev
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6rtx
1.6.0,REV=2006.11.29.02.51 i=2: realpkg=SUNWj6rtx base=/usr
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rtx
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6rt
1.6.0,REV=2006.11.29.05.03 i=0: realpkg=SUNWj6rt base=/usr
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rt
  WILL INSTALL: JDK 1.6.0
WARNING: SUNWj6rt 1.6.0,REV=2006.11.29.05.03 already exists.
pkgparams=SUNWj6rt,/usr  Task: pkgadd -a
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6rt
WARNING: SUNWj6rtx 1.6.0,REV=2006.11.29.02.51 already exists.
pkgparams=SUNWj6rtx,/usr  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6rtx
WARNING: SUNWj6dev 1.6.0,REV=2006.11.29.05.03 already exists.
pkgparams=SUNWj6dev,/usr  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6dev
WARNING: SUNWj6dvx 1.6.0,REV=2006.11.29.02.51 already exists.
pkgparams=SUNWj6dvx,/usr  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6dvx
WARNING: SUNWj6cfg 1.6.0,REV=2006.11.29.05.03 already exists.
pkgparams=SUNWj6cfg,/  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6cfg
  WILL check JES java symlink
  WILL INSTALL: patch 126869-05 for BZIP OS Component
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/BZIP
WILL INSTALL: patch 119964-23 for LIBCPLUSPLUS
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LIBC
WILL INSTALL: Messaging Server (64bit) 7u4 (7.4-23.01)
                to /opt/sun/comms/messaging64
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
-r /tmp/.response_MS64_20110921181458 SUNWmessaging-server-64
  WILL INSTALL: Comms DSsetup 6.4 (6.4-23.01)
                to /opt/sun/comms/dssetup
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
-r /tmp/.response_DSSETUP_20110921181458 SUNWcomds
  WILL INSTALL: Calendar Server 7u2 (7.2-4.19)
                to /opt/sun/comms/davserver
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV/
-r /tmp/.response_DAV_20110921181458 SUNWdavserver
```

```
  WILL INSTALL: Instant Messaging 9 (9.0-00.15)
                to /opt/sun/comms/im
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiim
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimin
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimm
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimjd
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimid
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimgw
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimw
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimfed
  WILL INSTALL: Convergence 2 (2.0-2.01)
                to /opt/sun/comms/iwc
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC/
-r /tmp/.response_IWC_20110921181458 SUNWiwc
  WILL INSTALL: Indexing and Search Service 1u3 (1.3-8.6501)
                to /opt/sun/comms/jiss
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JISS
-r /tmp/.response_JISS_20110921181458 SUNWjiss
```

```
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-4.00)
                to /opt/sun/comms/da
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/P
-r /tmp/.response_DA_20110921181458 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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_S
-r /tmp/.response_MS_SCHA_20110921181458 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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_S
-r /tmp/.response_IM_SCHA_20110921181458 SUNWiimsc
  WILL INSTALL: CommsInstaller 7u2 (7.2-0.36)
                to /opt/sun/comms/CommsInstaller
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921181458 SUNWcomms
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to install

Do you want to continue ? [yes] :

============================================================
Installing MySQL 5.5.8...
------ Executing Task 1 of 40 ...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
2>&1
-- LOGFILE: /tmp/ci-mysql-installer_20110921181510.log
pkgadd -n -r /dev/null -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
mysql

Installation of <mysql> was successful.
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reserved.
Use is subject to license terms.

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 riot1 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!

pkgadd -n -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright (c) 2009, 2011, Oracle and/or its affiliates. All rights
reserved.
Use is subject to license terms.
-- Exit status: 0
--
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
LOGFILE: /tmp/ci-mysql-installer_20110921181510.log
pkgadd -n -r /dev/null -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.

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 riot1 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!

pkgadd -n -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
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==========================================================
Installing patch 119255-81 for PATCHUTILS...
------ Executing Task 2 of 40 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/PATC
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:

119255-81


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 119255-81 has been successfully installed.
See /var/sadm/patch/119255-81/log for details
Executing postpatch script...

Patch packages installed:
  SUNWinstall-patch-utils-root
  SUNWpkgcmdsr
  SUNWpkgcmdsu
  SUNWswmt

-- Exit status: 0
```

```
============================================================
Installing Instant Messaging API 9...
------ Executing Task 3 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IMAP
-r /tmp/.response_IMAPI_20110921181458 SUNWiimdv 2>&1
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Use is subject to license terms.

Installation of <SUNWiimdv> was successful.
-- Exit status: 0

============================================================
Installing LDAPJDK 4.21...
------ Executing Task 4 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPJDK_20110921181458 SUNWljdk 2>&1

Installation of <SUNWljdk> was successful.
-- Exit status: 0

============================================================
Installing patch 119346-08 for Simple Authentication and Security
Layer...
------ Executing Task 5 of 40 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
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:

119346-08


Checking installed patches...
Executing prepatch script...
Installing patch packages...
```

```
Patch 119346-08 has been successfully installed.
See /var/sadm/patch/119346-08/log for details
Executing postpatch script...

Patch packages installed:
  SUNWsasl

-- Exit status: 0

============================================================
Installing patch 136800-03 for LDAPCSDK6 Tools...
------ Executing Task 6 of 40 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
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:

136800-03


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 136800-03 has been successfully installed.
See /var/sadm/patch/136800-03/log for details
Executing postpatch script...

Patch packages installed:
  SUNWldapcsdk-dev
  SUNWldapcsdk-libs
  SUNWldapcsdk-tools

-- Exit status: 0

============================================================
Installing patch 125359-14 for NSS/NSPR/JSS...
------ Executing Task 7 of 40 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
```

```
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:

125359-14


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 125359-14 has been successfully installed.
See /var/sadm/patch/125359-14/log for details
Executing postpatch script...

Patch packages installed:
  SUNWjss
  SUNWpr
  SUNWprd
  SUNWtls
  SUNWtlsd
  SUNWtlsu

-- Exit status: 0

============================================================
Installing Service Tags 1.1.4...
------ Executing Task 8 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 SUNWservicetagr 2>&1
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Installation of <SUNWservicetagr> was successful.
-- Exit status: 0
------ Executing Task 9 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 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 10 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 SUNWstosreg 2>&1
Copyright 2008 Sun Microsystems, Inc.  All rights reserved.
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Installation of <SUNWstosreg> was successful.
-- Exit status: 0

============================================================
Removing existing JDK 1.6.0 (1.6.0_20/1.6.0_20-b02)...
------ Executing Task 11 of 40 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6cfg 2>&1

Removal of <SUNWj6cfg> was successful.
-- Exit status: 0
------ Executing Task 12 of 40 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dvx 2>&1

Removal of <SUNWj6dvx> was successful.
-- Exit status: 0
------ Executing Task 13 of 40 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dev 2>&1

Removal of <SUNWj6dev> was successful.
-- Exit status: 0
------ Executing Task 14 of 40 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rtx 2>&1

Removal of <SUNWj6rtx> was successful.
-- Exit status: 0
------ Executing Task 15 of 40 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rt 2>&1
/var/sadm/pkg/SUNWj6rt/install/postremove: UpdateMimedatabase: not found

Removal of <SUNWj6rt> was successful.
```

```
-- Exit status: 0

============================================================
Installing JDK 1.6.0...
------ Executing Task 16 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6rt 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.
WARNING: /usr/jdk/instances/jdk1.6.0/jre/lib/i386/client/classes.jsa <no
longer a regular file>

Installation of <SUNWj6rt> was successful.
-- Exit status: 0
------ Executing Task 17 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6rtx 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWj6rtx> was successful.
-- Exit status: 0
------ Executing Task 18 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6dev 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWj6dev> was successful.
-- Exit status: 0
------ Executing Task 19 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6dvx 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWj6dvx> was successful.
-- Exit status: 0
------ Executing Task 20 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6cfg 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWj6cfg> was successful.
-- Exit status: 0
```

```
============================================================
Checking JES java symlink...
------ Executing Task 21 of 40 ...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Sep 21 18:16 /usr/java ->
jdk/jdk1.6.0_26

/usr/jdk:
total 9
drwxr-xr-x   4 root     bin            4 Feb 17  2011 instances
lrwxrwxrwx   1 root     other          7 Feb 17  2011 j2sdk1.4.2_26 ->
../j2se
lrwxrwxrwx   1 root     other         18 Sep 21 18:16 jdk1.6.0_26 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Sep 21 18:16 latest ->
jdk1.6.0_26
drwxr-xr-x   8 root     bin            8 Feb 17  2011 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 Sep 21 18:16 /usr/jdk/latest ->
jdk1.6.0_26
-- 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 34
-rw-r--r--   1 root     bin         3339 May  4 02:19 COPYRIGHT
-rw-r--r--   1 root     bin           40 May  4 02:19 LICENSE
-rw-r--r--   1 root     bin          115 May  4 02:19 README.html
-rw-r--r--   1 root     bin        20320 Nov 29  2006 README_ja.html
-rw-r--r--   1 root     bin        15160 Nov 29  2006 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 May  4 02:19
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Sep 21 18:16 bin
drwxr-xr-x  11 root     bin           12 Feb 17  2011 demo
drwxr-xr-x   3 root     bin            8 Sep 21 18:16 include
drwxr-xr-x   6 root     bin           11 Sep 21 18:16 jre
drwxr-xr-x   3 root     bin           11 Sep 21 18:16 lib
drwxr-xr-x   3 root     bin            3 Feb 17  2011 man
-r--r--r--   1 root     other       6609 Sep 21 18:16 register.html
-r--r--r--   1 root     other       8055 Sep 21 18:16 register_ja.html
-r--r--r--   1 root     other       6212 Sep 21 18:16
register_zh_CN.html
drwxr-xr-x  10 root     bin           10 Feb 17  2011 sample
-rw-r--r--   1 root     bin      19104157 May  4 02:17 src.zip
-- Exit status: 2
checkEntsy(0) returned 0

============================================================
Installing patch 126869-05 for BZIP OS Component...
------ Executing Task 22 of 40 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/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 126869-05 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:

126869-05


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 126869-05 has been successfully installed.
See /var/sadm/patch/126869-05/log for details
Executing postpatch script...

Patch packages installed:
  SUNWbzip
  SUNWsfman

-- Exit status: 0

============================================================
Installing patch 119964-23 for LIBCPLUSPLUS...
------ Executing Task 23 of 40 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LIBC
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:

119964-23


Checking installed patches...
Installing patch packages...

Patch 119964-23 has been successfully installed.
See /var/sadm/patch/119964-23/log for details

Patch packages installed:
  SUNWlibC

-- Exit status: 0

============================================================
Installing Messaging Server (64bit) 7u4 (7.4-23.01)...
------ Executing Task 24 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
-r /tmp/.response_MS64_20110921181458 SUNWmessaging-server-64 2>&1
Copyright 2003-2008 Sun Microsystems, Inc.  All rights reserved.
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Installation of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

============================================================
Installing Comms DSsetup 6.4 (6.4-23.01)...
------ Executing Task 25 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
-r /tmp/.response_DSSETUP_20110921181458 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 7u2 (7.2-4.19)...
------ Executing Task 26 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV/
```

```
-r /tmp/.response_DAV_20110921181458 SUNWdavserver 2>&1
Copyright ¬© 2009 Sun Microsystems, Inc. All rights reserved. SUN
PROPRIETARY/CONFIDENTIAL.
Use is subject to license terms.

Installation of <SUNWdavserver> was successful.
-- Exit status: 0

============================================================
Installing Instant Messaging 9 (9.0-00.15)...
------ Executing Task 27 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiim 2>&1
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Use is subject to license terms.

Installation of <SUNWiim> was successful.
-- Exit status: 0
------ Executing Task 28 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimin 2>&1
Copyright (c) 2010 Oracle and/or its affiliates.  All rights reserved.
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Installation of <SUNWiimin> was successful.
-- Exit status: 0
------ Executing Task 29 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimm 2>&1
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Installation of <SUNWiimm> was successful.
-- Exit status: 0
------ Executing Task 30 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimjd 2>&1
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Installation of <SUNWiimjd> was successful.
-- Exit status: 0
------ Executing Task 31 of 40 ...
pkgadd -G -a
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimid 2>&1
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Installation of <SUNWiimid> was successful.
-- Exit status: 0
------ Executing Task 32 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimgw 2>&1
Copyright (c) 2010 Oracle and/or its affiliates.  All rights reserved.
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Installation of <SUNWiimgw> was successful.
-- Exit status: 0
------ Executing Task 33 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimw 2>&1
Copyright (c) 2010 Oracle and/or its affiliates.  All rights reserved.
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Installation of <SUNWiimw> was successful.
-- Exit status: 0
------ Executing Task 34 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimfed 2>&1
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Installation of <SUNWiimfed> was successful.
-- Exit status: 0

============================================================
Installing Convergence 2 (2.0-2.01)...
------ Executing Task 35 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC/
-r /tmp/.response_IWC_20110921181458 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 1u3 (1.3-8.6501)...
------ Executing Task 36 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JISS
-r /tmp/.response_JISS_20110921181458 SUNWjiss 2>&1
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Installation of <SUNWjiss> was successful.
-- Exit status: 0

============================================================
Installing Comms Delegated Administrator 7 (7.0-4.00)...
------ Executing Task 37 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/P
-r /tmp/.response_DA_20110921181458 SUNWcommda 2>&1
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Installation of <SUNWcommda> was successful.
-- Exit status: 0

============================================================
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
------ Executing Task 38 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_S
-r /tmp/.response_MS_SCHA_20110921181458 SUNWmessaging-server-scha 2>&1
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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 39 of 40 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_S
-r /tmp/.response_IM_SCHA_20110921181458 SUNWiimsc 2>&1
Copyright (c) 2006 Sun Microsystems, Inc.  All rights reserved.
PROPRIETARY/CONFIDENTIAL
Use is subject to license terms.

Installation of <SUNWiimsc> was successful.
-- Exit status: 0
```

```
============================================================
Installing CommsInstaller 7u2 (7.2-0.36)...
------ Executing Task 40 of 40 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921181458 SUNWcomms 2>&1
Copyright (c) 2007, 2011, 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/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSQ
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
Output of Task 1: generic
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSQ
--pkgcmd '-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
LOGFILE: /tmp/ci-mysql-installer_20110921181510.log
pkgadd -n -r /dev/null -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSQ
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc.  All rights
reserved.
Use is subject to license terms.

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 riot1 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!
```

```
pkgadd -n -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MYSC
-a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright (c) 2009, 2011, Oracle and/or its affiliates. All rights
reserved.
Use is subject to license terms.
-- End of command output--
PASSED: Task 2: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/PATC
Task 3: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IMAP
-r /tmp/.response_IMAPI_20110921181458 SUNWiimdv
PASSED: Task 4: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
-r /tmp/.response_LDAPJDK_20110921181458 SUNWljdk
PASSED: Task 5: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
Task 6: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
Task 7: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
Task 8: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 SUNWservicetagr
PASSED: Task 9: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 SUNWservicetagu
PASSED: Task 10: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/ST/P
-r /tmp/.response_ST_20110921181458 SUNWstosreg
PASSED: Task 11: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6cfg
PASSED: Task 12: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dvx
PASSED: Task 13: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dev
PASSED: Task 14: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rtx
```

```
PASSED: Task 15: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rt
PASSED: Task 16: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6rt
PASSED: Task 17: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6rtx
PASSED: Task 18: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6dev
PASSED: Task 19: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6dvx
PASSED: Task 20: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921181458 SUNWj6cfg
PASSED: Task 21: checkEntSys
PASSED: Task 22: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/BZIP
Task 23: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LIBC
Task 24: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
-r /tmp/.response_MS64_20110921181458 SUNWmessaging-server-64
PASSED: Task 25: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
-r /tmp/.response_DSSETUP_20110921181458 SUNWcomds
PASSED: Task 26: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV/
-r /tmp/.response_DAV_20110921181458 SUNWdavserver
PASSED: Task 27: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiim
PASSED: Task 28: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimin
PASSED: Task 29: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimm
PASSED: Task 30: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimjd
PASSED: Task 31: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimid
PASSED: Task 32: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimgw
PASSED: Task 33: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimw
PASSED: Task 34: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/P
-r /tmp/.response_IM_20110921181458 SUNWiimfed
PASSED: Task 35: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC/
-r /tmp/.response_IWC_20110921181458 SUNWiwc
PASSED: Task 36: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JISS
-r /tmp/.response_JISS_20110921181458 SUNWjiss
PASSED: Task 37: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/P
-r /tmp/.response_DA_20110921181458 SUNWcommda
PASSED: Task 38: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_S
-r /tmp/.response_MS_SCHA_20110921181458 SUNWmessaging-server-scha
PASSED: Task 39: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_S
```

```
-r /tmp/.response_IM_SCHA_20110921181458 SUNWiimsc
PASSED: Task 40: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921181458 SUNWcomms

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Sep 21 18:16 /usr/java ->
jdk/jdk1.6.0_26

/usr/jdk:
total 9
drwxr-xr-x   4 root     bin            4 Feb 17  2011 instances
lrwxrwxrwx   1 root     other          7 Feb 17  2011 j2sdk1.4.2_26 ->
../j2se
lrwxrwxrwx   1 root     other         18 Sep 21 18:16 jdk1.6.0_26 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Sep 21 18:16 latest ->
jdk1.6.0_26
drwxr-xr-x   8 root     bin            8 Feb 17  2011 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 Sep 21 18:16 /usr/jdk/latest ->
jdk1.6.0_26
-- 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 38078
-rw-r--r--   1 root     bin         3339 May  4 02:19 COPYRIGHT
-rw-r--r--   1 root     bin           40 May  4 02:19 LICENSE
-rw-r--r--   1 root     bin          115 May  4 02:19 README.html
-rw-r--r--   1 root     bin        20320 Nov 29  2006 README_ja.html
-rw-r--r--   1 root     bin        15160 Nov 29  2006 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 May  4 02:19
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Sep 21 18:16 bin
drwxr-xr-x  11 root     bin           12 Feb 17  2011 demo
drwxr-xr-x   3 root     bin            8 Sep 21 18:16 include
drwxr-xr-x   6 root     bin           11 Sep 21 18:16 jre
drwxr-xr-x   3 root     bin           11 Sep 21 18:16 lib
drwxr-xr-x   3 root     bin            3 Feb 17  2011 man
-r--r--r--   1 root     other       6609 Sep 21 18:16 register.html
-r--r--r--   1 root     other       8055 Sep 21 18:16 register_ja.html
-r--r--r--   1 root     other       6212 Sep 21 18:16
register_zh_CN.html
drwxr-xr-x  10 root     bin           10 Feb 17  2011 sample
-rw-r--r--   1 root     bin      19104157 May  4 02:17 src.zip
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
```

```
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.response_IMAPI_20110921181458
-- unlink /tmp/.response_LDAPJDK_20110921181458
-- unlink /tmp/.response_ST_20110921181458
-- unlink /tmp/.response_JDK_20110921181458
-- unlink /tmp/.response_MS64_20110921181458
-- unlink /tmp/.response_DSSETUP_20110921181458
-- unlink /tmp/.response_DAV_20110921181458
-- unlink /tmp/.response_IM_20110921181458
-- unlink /tmp/.response_IWC_20110921181458
-- unlink /tmp/.response_JISS_20110921181458
-- unlink /tmp/.response_DA_20110921181458
-- unlink /tmp/.response_MS_SCHA_20110921181458
-- unlink /tmp/.response_IM_SCHA_20110921181458
-- unlink /tmp/.response_CI_20110921181458
-- unlink /tmp/.patchout_20110921181458.17851
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_20110921181458

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921181458
-- Closing the log at Wed Sep 21 19:47:15 2011
# cat /var/opt/CommsInstaller/logs/CommsInstaller_20110921194839.log
============ LOGFILE started Wed Sep 21 19:48:39 2011 ==========
LOGFILE = /tmp/CommsInstaller_20110921194839.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg uninstall
-- perl version: 5.008004 pid: 1445
-- basetime: 1316659719 Wed Sep 21 19:48:39 2011
-- scriptDir:
/net/example.com/export/megan/wspace/dl111122/releases/ci72
-- LOGFILE: /tmp/CommsInstaller_20110921194839.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
-- UNAME = SunOS ARCH = i386 OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS riot1 5.10 Generic_142910-17 i86pc i386 i86pc
-- Exit status: 0
!!! ENV
$VAR1 = {
          'HOME' => '/',
          'LOGNAME' => 'uadmin',
          'SHLVL' => '1',
          'OLDPWD' => '/home/dl111122/wspace/releases/ci71',
          'PS1' => '[\\! \\d \\t \\u@\\h% \\w\\$ ]
\\$ ',
          '_' => './commpkg',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc::~dl111122/bin:/usr/sbin:/usr/bin',
'CDPATH' => ':..:/home/dl111122',
          'SHELL' => '/sbin/sh',
          'HZ' => '',
```

```
          'MAIL' => '/var/mail/uadmin',
          'TERM' => 'dumb',
          'PWD' => '/home/dl111122/wspace/releases/ci72',
          'TZ' => 'US/Pacific',
          'LANG' => 'C'
        };
cat /etc/release 2>&1
                    Oracle Solaris 10 9/10 s10x_u9wos_14a X86
     Copyright (c) 2010, Oracle and/or its affiliates. All rights
reserved.
                            Assembled 11 August 2010
-- 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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
```

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OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC
'MS64_L10N' => 'none',
          'MS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS/
'DSSETUP' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSS
'MQ_L10N' => 'none',
```

```
          'ICU' => 'none',
          'MS64' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS6
'DAV' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CE/
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produ
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JIS
'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/
'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS_
'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_
'CS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS/
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/
};
!!! prod_getVers
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-2.01',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-23.01',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-23.01',
          'DAV' => '7.2-4.19',
          'LDAPCSDK6' => 0,
```

```
          'CE' => '6.3-13.01',
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.2-0.36',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.3-8.6501',
          'NSS' => 0,
          'CS_L10N' => 0,
          'IM' => '9.0-00.15',
          'ST' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'BZIP' => 0,
          'MYSQL_MARKER' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'SNMP' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-29.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-4.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20110817',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20110713',
          'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' => '20110810',
          'DAV' => '20110909',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20110909',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20110811',
          'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' => '20110905',
          'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
```

```
          'CS_SCHA' => '20080331',
          'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20110527',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20110805'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.8
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) = 4.21
INFO: prod_mktVers{IMAPI} (w/ map) = 9
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{SNMP} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2011.06.17
INFO: prod_mktVers{MYSQL_MARKER} (w/ map) = 1.1
INFO: prod_mktVers{MYSQL} (w/ map) = 5.5.8
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u2
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u2
INFO: prod_mktVers{IM} (w/ map) = 9
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u3
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
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 SNMP Unknown ...
  Checking pkg SUNWsmagt... present.
  Checking pkg SUNWsmcmd... present.
  Checking pkg SUNWsmmgr... present.
  SNMP Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2011.06.17 ...
  RECOMMENDED 2011.06.17 is not present.
Checking MYSQL_MARKER 1.1 ...
  Checking pkg SUNWcomms-mysql-marker... present.
  MYSQL_MARKER 1.1 is already present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... present but with a different
pkg VERSION.
    checking SUNWcomms-mysql-marker 1.0,REV=2009.09.09
  NOTICE: MySQL Marker is present with a different pkg VERSION.
Checking MYSQL 5.5.8 ...
  Checking pkg mysql... present.
  MYSQL 5.5.8 is already present.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... present but with a different pkg VERSION.
    checking mysql 5.1.36
  NOTICE: MySQL is present with a different pkg VERSION.
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 4.8.8 ...
  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 4.8.8 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=2006.06.18.23.02
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 3.7,REV=2006.06.18.23.02
  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=2007.07.26.11.39
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.1,REV=2007.07.26.11.39
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.1,REV=2007.07.26.11.39
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
```

```
    checking SUNWiquc 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.1,REV=2007.07.26.11.40
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.3 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 4.3,REV=2008.11.07.19.30
  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=2006.09.28.01.19.58
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
```

```
    checking SUNWdiqu 3.7,REV=2006.09.28.01.19.58
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 3.7,REV=2006.09.02.01.24.16
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 3.7,REV=2006.09.02.01.24.17
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 3.7,REV=2006.09.28.01.19.58
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 3.7,REV=2006.09.02.01.24.16
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 3.7,REV=2006.09.02.01.24.17
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 3.7,REV=2006.10.28.02.17.39
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 3.7,REV=2006.10.28.02.17.39
  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=2007.08.02.02.12
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.1,REV=2007.08.02.02.12
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
```

```
Checking MQ_L10N 4.3 ...
  Checking pkg SUNWfiqu... present but with a different pkg VERSION.
    checking SUNWfiqu 4.3,REV=2008.10.27.08.15.45
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.3,REV=2008.10.27.08.15.47
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.3,REV=2008.10.27.08.16.20
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.3,REV=2008.10.27.08.16.23
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.3,REV=2008.10.27.08.18.18
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.3,REV=2008.10.27.08.18.20
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.3,REV=2008.10.27.08.16.56
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.3,REV=2008.10.27.08.16.59
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.3,REV=2008.10.27.08.17.33
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.3,REV=2008.10.27.08.17.35
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.3,REV=2008.10.27.08.18.55
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.3,REV=2008.10.27.08.18.57
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.3,REV=2008.10.27.08.19.31
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.3,REV=2008.10.27.08.19.33
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking LDAPJDK 4.21 ...
  Checking pkg SUNWljdk... present.
  LDAPJDK 4.21 is already present.
Checking IMAPI 9.0 ...
  Checking pkg SUNWiimdv... present.
  IMAPI 9.0 is already present.
Checking IMAPI 7.0 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 7.0,REV=2004.11.24.05.19.40
  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=2008.01.14
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking IMAPI 8.0 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
    checking SUNWiimdv 8.0,REV=2008.12.04
  NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking CI 7.2 ...
  Checking pkg SUNWcomms...
/opt/sun/comms/CommsInstaller/lib/getVersion VERSION BUILDDATE UNAME
ARCH BITS 2>&1
7.2-0.36
20110909
SunOS
```

```
i386
32
-- Exit status: 0
 present.
  CI 7.2 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
7.4-23.01
20110810
SunOS
i386
64
-- Exit status: 0
 present.
  MS64 7.4 is already present.
Checking MS64 6.3 ...
  Checking pkg SUNWmessaging-server-64... present but with a different
pkg VERSION.
    checking SUNWmessaging-server-64 6.3,REV=2007.02.26
  NOTICE: Messaging Server (64bit) is present with a different pkg
VERSION.
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
6.4-23.01
20110713
SunOS
i386
32
-- Exit status: 0
 present.
  DSSETUP 6.4 is already present.
Checking DAV 7.2 ...
  Checking pkg SUNWdavserver...
/opt/sun/comms/davserver/lib/getVersion VERSION BUILDDATE UNAME ARCH
```

```
BITS 2>&1
7.2-4.19
20110909
SunOS
i386
32
-- Exit status: 0
 present.
  DAV 7.2 is already present.
Checking IM 9.0 ...
  Checking pkg SUNWiim...
/opt/sun/comms/im/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS 2>&1
9.0-00.15
20110905
SunOS
i386
32
-- Exit status: 0
 present.
  Checking pkg SUNWiimin... present.
  Checking pkg SUNWiimm... present.
  Checking pkg SUNWiimjd... present.
  Checking pkg SUNWiimid... present.
  Checking pkg SUNWiimgw... present.
  Checking pkg SUNWiimw... present.
  Checking pkg SUNWiimfed... present.
  IM 9.0 is already present.
Checking IM 7.0 ...
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.0,REV=2004.11.24.05.19.40
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  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=2008.01.14
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.3,REV=2008.01.14
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.3,REV=2008.01.14
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.3,REV=2008.01.14
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.3,REV=2008.01.14
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IM 8.3 ...
```

```
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 8.0,REV=2008.12.04
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 8.0,REV=2008.12.04
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 8.0,REV=2008.12.04
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 8.0,REV=2008.12.04
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 8.0,REV=2008.12.04
  Checking pkg SUNWiimc... not present.
  Checking pkg SUNWiimd... not present.
  Checking pkg SUNWiimgw... present but with a different pkg VERSION.
    checking SUNWiimgw 8.0,REV=2008.12.04
  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
2.0-2.01
20110817
SunOS
i386
32
-- Exit status: 0
 present.
  IWC 2.0 is already present.
Checking IWC 1.0 ...
  Checking pkg SUNWiwc... present but with a different pkg VERSION.
    checking SUNWiwc 1.0,REV=2008.07.07
  NOTICE: Convergence is present with a different pkg VERSION.
Checking JISS 1.3 ...
  Checking pkg SUNWjiss...
/opt/sun/comms/jiss/lib/getVersion VERSION BUILDDATE UNAME ARCH BITS
2>&1
1.3-8.6501
20110811
SunOS
all
32
-- Exit status: 0
 present.
  JISS 1.3 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
7.0-4.00
20110805
SunOS
i386
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
i386
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
i386
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=2005.08.03.09.35.41
  NOTICE: Instant Messaging 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 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 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 SUNWdiimin... 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.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  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 CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119964-23 /tmp/.patchout_20110921194839.1445
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20110921194839.1445
```

```
patchadd  -p > /tmp/.patchout_20110921194839.1445 2>>
/tmp/CommsInstaller_20110921194839.log
-- Exit status: 0
--  older version at lineno 219 found 119964-21 - not acceptable
--  Exact match found at line 220
--  Final return status: 1
  LIBCPLUSPLUS patch 119964-23 is already present.
-- chk4patch 120901-03 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 40
--  Final return status: 1
  PATCHUTILS patch 120901-03 is already present.
-- chk4patch 121334-04 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 41
--  Final return status: 1
  PATCHUTILS patch 121334-04 is already present.
-- chk4patch 119255-81 /tmp/.patchout_20110921194839.1445
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Exact match found at line 6
--  Final return status: 1
  PATCHUTILS patch 119255-81 is already present.
-- chk4patch 119255-73 /tmp/.patchout_20110921194839.1445
--  Newer version at line 2 found 119255-75
--  Final return status: 1
  PATCHUTILS patch 119255-73 is already present.
-- chk4patch 120273-06 /tmp/.patchout_20110921194839.1445
--  Newer version at line 193 found 120273-30
--  Final return status: 1
  SNMP patch 120273-06 is already present.
-- chk4patch 126869-05 /tmp/.patchout_20110921194839.1445
--  older version at lineno 191 found 126869-04 - not acceptable
--  Exact match found at line 194
--  Final return status: 1
  BZIP patch 126869-05 is already present.
-- chk4patch 137322-01 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 192
--  Final return status: 1
  BZIP patch 137322-01 is already present.
-- chk4patch 119255-81 /tmp/.patchout_20110921194839.1445
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Exact match found at line 6
--  Final return status: 1
  RECOMMENDED patch 119255-81 is already present.
-- chk4patch 118855-36 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 18
--  Final return status: 1
  RECOMMENDED patch 118855-36 is already present.
-- chk4patch 120012-14 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 39
--  Final return status: 1
  RECOMMENDED patch 120012-14 is already present.
-- chk4patch 120273-30 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 193
--  Final return status: 1
  RECOMMENDED patch 120273-30 is already present.
```

```
-- chk4patch 137138-09 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 46
--  Final return status: 1
  RECOMMENDED patch 137138-09 is already present.
-- chk4patch 141445-09 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 49
--  Final return status: 1
  RECOMMENDED patch 141445-09 is already present.
-- chk4patch 142910-17 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 45
--  Final return status: 1
  RECOMMENDED patch 142910-17 is already present.
-- chk4patch 144489-17 /tmp/.patchout_20110921194839.1445
--  Final return status: 0
  RECOMMENDED patch 144489-17 is not present.
-- chk4patch 125359-14 /tmp/.patchout_20110921194839.1445
--  older version at lineno 129 found 125359-13 - not acceptable
--  Exact match found at line 130
--  Final return status: 1
  NSS patch 125359-14 is already present.
-- chk4patch 125359-13 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 129
--  Final return status: 1
  NSS patch 125359-13 is already present.
-- chk4patch 119346-08 /tmp/.patchout_20110921194839.1445
--  older version at lineno 577 found 119346-07 - not acceptable
--  Exact match found at line 578
--  Final return status: 1
  SASL patch 119346-08 is already present.
-- chk4patch 119346-07 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 577
--  Final return status: 1
  SASL patch 119346-07 is already present.
-- chk4patch 136800-03 /tmp/.patchout_20110921194839.1445
--  older version at lineno 241 found 136800-02 - not acceptable
--  Exact match found at line 242
--  Final return status: 1
  LDAPCSDK6_TOOLS patch 136800-03 is already present.
-- chk4patch 119811-05 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 391
--  Final return status: 1
  ICU patch 119811-05 is already present.
-- chk4patch 125138-28 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 317
--  Final return status: 1
  JDK patch 125138-28 is already present.
-- chk4patch 125139-28 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 247
--  Final return status: 1
  JDK patch 125139-28 is already present.
-- chk4patch 125138-25 /tmp/.patchout_20110921194839.1445
--  Newer version at line 317 found 125138-28
--  Final return status: 1
  JDK patch 125138-25 is already present.
-- chk4patch 125139-25 /tmp/.patchout_20110921194839.1445
--  Newer version at line 247 found 125139-28
```

```
--  Final return status: 1
  JDK patch 125139-25 is already present.
-- chk4patch 119725-06 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 118
--  Final return status: 1
  LDAPJDK patch 119725-06 is already present.
-- chk4patch 137205-23 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 618
--  Final return status: 1
  MS64 patch 137205-23 is already present.
-- chk4patch 118243-03 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 222
--  Final return status: 1
  DSSETUP patch 118243-03 is already present.
-- chk4patch 118246-23 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 223
--  Final return status: 1
  DSSETUP patch 118246-23 is already present.
-- chk4patch 142786-04 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 284
--  Final return status: 1
  DAV patch 142786-04 is already present.
-- chk4patch 145712-02 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 557
--  Final return status: 1
  IWC patch 145712-02 is already present.
-- chk4patch 142823-08 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 374
--  Final return status: 1
  JISS patch 142823-08 is already present.
-- chk4patch 124582-04 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 164
--  Final return status: 1
  DA patch 124582-04 is already present.
-- chk4patch 137572-01 /tmp/.patchout_20110921194839.1445
--  Exact match found at line 617
--  Final return status: 1
  IM_SCHA patch 137572-01 is already present.
-- chk4patch 121658-46 /tmp/.patchout_20110921194839.1445
--  Final return status: 0
  CS patch 121658-46 is not present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'PRESENT',
          '118855-36' => 'PRESENT',
          'DSSETUP' => {
                         '6.4' => 'PRESENT'
                       },
          '118246-23' => 'PRESENT',
          'MQ_L10N' => {
                         '4.3' => 'DIFF_VERSION',
                         '3.7' => 'DIFF_VERSION',
                         '4.1' => 'DIFF_VERSION',
                         '4.4' => 'PRESENT'
```

```
                 },
'ICU' => {
           'ICU2,ICU3' => 'PRESENT'
         },
'137572-01' => 'PRESENT',
'137205-23' => 'PRESENT',
'142786-04' => 'PRESENT',
'MS64' => {
            '7.4_32' => 'NOT_PRESENT',
            '7.3_32' => 'NOT_PRESENT',
            '7.2_32' => 'NOT_PRESENT',
            '6.3' => 'DIFF_VERSION',
            '6.3_32' => 'NOT_PRESENT',
            '7.4' => 'PRESENT'
          },
'DAV' => {
           '7.2' => 'PRESENT'
         },
'118243-03' => 'PRESENT',
'137138-09' => 'PRESENT',
'119255-81' => 'PRESENT',
'CE' => {
          '6.3' => 'NOT_PRESENT'
        },
'MYSQL' => {
             '5.1.36' => 'DIFF_VERSION',
             '5.5.8' => 'PRESENT'
           },
'PATCHUTILS' => {
                  'Unknown' => 'PRESENT'
                },
'MQ' => {
          '4.3' => 'DIFF_VERSION',
          '3.7' => 'DIFF_VERSION',
          '4.1' => 'DIFF_VERSION',
          '4.4' => 'PRESENT'
        },
'IMAPI' => {
             '8.0' => 'DIFF_VERSION',
             '7.0' => 'DIFF_VERSION',
             '9.0' => 'PRESENT',
             '7.3' => 'DIFF_VERSION'
           },
'124582-04' => 'PRESENT',
'LDAPCSDK6_TOOLS' => {
                       '6.0' => 'PRESENT'
                     },
'JISS' => {
            '0.9' => 'NOT_PRESENT',
            '1.3' => 'PRESENT'
          },
'119811-05' => 'PRESENT',
'137322-01' => 'PRESENT',
'ST' => {
          '1.1.4' => 'PRESENT'
        },
```

```
'141445-09' => 'PRESENT',
'120901-03' => 'PRESENT',
'IM_L10N' => {
               '7.2' => 'NOT_PRESENT',
               '7.0' => 'NOT_PRESENT'
             },
'125138-25' => 'PRESENT',
'121334-04' => 'PRESENT',
'LDAPJDK' => {
               '4.21' => 'PRESENT'
             },
'BZIP' => {
            '11.10' => 'PRESENT'
          },
'IM_SCHA' => {
               '7.0' => 'DIFF_VERSION',
               '7.3' => 'PRESENT'
             },
'SNMP' => {
            'Unknown' => 'PRESENT'
          },
'125139-25' => 'PRESENT',
'MS_SCHA' => {
               '6.0' => 'NOT_PRESENT',
               '7.0' => 'PRESENT'
             },
'119346-08' => 'PRESENT',
'JHRT' => {
            '2.0' => 'PRESENT'
          },
'CE_L10N' => {
               '6.2' => 'NOT_PRESENT',
               '6.3' => 'NOT_PRESENT'
             },
'125359-14' => 'PRESENT',
'145712-02' => 'PRESENT',
'SASL' => {
            '2.19' => 'PRESENT'
          },
'IWC' => {
           '2.0' => 'PRESENT',
           '1.0' => 'DIFF_VERSION'
         },
'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'
        },
'120012-14' => 'PRESENT',
'119346-07' => 'PRESENT',
'LDAPCSDK6' => {
                 '6.0' => 'PRESENT'
```

```
                 },
'142910-17' => 'PRESENT',
'142823-08' => 'PRESENT',
'JDK' => {
           '1.6.0' => 'PRESENT',
           '1.5.0' => 'NOT_PRESENT'
         },
'121658-46' => 'NOT_PRESENT',
'136800-03' => 'PRESENT',
'CI' => {
          '7.2' => 'PRESENT'
        },
'119255-73' => 'PRESENT',
'120273-06' => 'PRESENT',
'125138-28' => 'PRESENT',
'NSS' => {
           '4.8.8' => 'PRESENT'
         },
'IM' => {
          '8.3' => 'DIFF_VERSION',
          '7.0' => 'DIFF_VERSION',
          '9.0' => 'PRESENT',
          '7.3' => 'DIFF_VERSION'
        },
'CS_L10N' => {
                '6.2' => 'NOT_PRESENT',
                '6.3' => 'NOT_PRESENT'
              },
'RECOMMENDED' => {
                    '2011.06.17' => 'NOT_PRESENT'
                  },
'119964-23' => 'PRESENT',
'120273-30' => 'PRESENT',
'144489-17' => 'NOT_PRESENT',
'125139-28' => 'PRESENT',
'125359-13' => 'PRESENT',
'CS_SCHA' => {
                '6.0' => 'NOT_PRESENT',
                '6.3' => 'NOT_PRESENT'
              },
'MYSQL_MARKER' => {
                     '1.1' => 'PRESENT',
                     '1.0' => 'DIFF_VERSION'
                   },
'MS_L10N' => {
                '6.2' => 'NOT_PRESENT',
                '6.3' => 'NOT_PRESENT'
              },
'LIBCPLUSPLUS' => {
                     '5.9' => 'PRESENT'
                   },
'126869-05' => 'PRESENT',
'CS' => {
          '6.3' => 'NOT_PRESENT'
        },
'DA' => {
```

```
                    '6.4' => 'NOT_PRESENT',
                    '7.0' => 'PRESENT'
                  }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {},
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                  '1.1.4,REV=2008.03.21.07.56' => [

'SUNWservicetagu',
                                                                     '/',

'1.1.4.1',
                                                                     ''
                                                                   ]
                                 },
          'SUNWsmmgr' => {
                            '1.0,REV=2005.01.08.01.09' => [
                                                             'SUNWsmmgr',
                                                             '/',
                                                             '5.10/SunOS
Development',
                                                             ''
                                                           ]
                          },
          'SUNWjimid' => {},
          'SUNWdiquc' => {
                            '4.4,REV=2009.10.01.09.34.32' => [

'SUNWdiquc',
                                                               '/',
                                                               '4.4.1.0',
                                                               ''
                                                             ]
                          },
          'SUNWmsgko' => {},
          'SUNWics5' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {
                            '4.4,REV=2009.10.01.09.34.22' => [

'SUNWfiquc',
                                                               '/',
                                                               '4.4.1.0',
                                                               ''
                                                             ]
                          },
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {
                            '2.0,REV=2006.10.04' => [
                                                       'SUNWjhdem',
```

```
                                                        '/usr',
                                                        '2.0/FCS',
                                                        ''
                                                      ]
                          },
          'SUNWiqfs' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                            'SUNWiqfs',
                                                            '/',
                                                            '4.4.0.0',
                                                            ''
                                                          ]
                         },
          'SUNWfimid' => {},
          'SUNWcomds' => {
                            '6.3,REV=2004.08.12' => [
                                                        'SUNWcomds',

'/opt/sun/comms/dssetup',
                                                        '6.4-23.01',
                                                        ''
                                                      ]
                          },
          'SUNWjhdev' => {
                            '2.0,REV=2006.10.04' => [
                                                        'SUNWjhdev',
                                                        '/usr',
                                                        '2.0/FCS',
                                                        ''
                                                      ]
                          },
          'SUNWj6rtx' => {
                            '1.6.0,REV=2006.11.29.02.51' => [

'SUNWj6rtx',
                                                                '/usr',

'1.6.0_26/1.6.0_26-b03',
                                                                ''
                                                              ]
                          },
          'SUNWiqum' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                            'SUNWiqum',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                         },
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {
                           '1.6.0,REV=2006.11.29.05.03' => [
                                                              'SUNWj6rt',
```

```
                                                                '/usr',

'1.6.0_26/1.6.0_26-b03',
                                                                ''
                                                              ]
                        },
          'SUNWj5rt' => {},
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {
                          '4.4,REV=2009.10.01.09.35.07' => [
                                                                'SUNWciqu',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                        },
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {
                            '4.4,REV=2009.10.01.09.34.58' => [

'SUNWjiquc',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                          },
          'SUNWiimgw' => {
                            '9.0,REV=2011.09.05' => [
                                                          'SUNWiimgw',

'/opt/sun/comms/im',
                                                          '9.0-00.15',
                                                          ''
                                                        ]
                          },
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {
                            '4.4,REV=2009.10.01.09.35.15' => [

'SUNWhiquc',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                          },
          'SUNWzhics' => {},
          'SUNWkiimd' => {},
          'SUNWiimfed' => {
                             '9.0,REV=2011.09.05' => [
                                                            'SUNWiimfed',

'/opt/sun/comms/im',
```

```
                                                        '9.0-00.15',
                                                        ''
                                                      ]
                          },
          'SUNWmsgmp' => {},
          'SUNWuwc' => {},
          'SUNWscics' => {},
          'SUNWiimc' => {},
          '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=2006.11.16.21.41' => [
                                                            'SUNWtls',
                                                            '/',
                                                            '3.12.10',
                                                            ''
                                                          ]
                      },
          'SUNWj6dvx' => {
                          '1.6.0,REV=2006.11.29.02.51' => [

'SUNWj6dvx',
                                                             '/usr',

'1.6.0_26/1.6.0_26-b03',
                                                             ''
                                                           ]
                        },
          'SUNWfuwc' => {},
          'SUNWlibC' => {
                          '5.10,REV=2004.12.20' => [
                                                      'SUNWlibC',
                                                      '/',
                                                      '5.10',
                                                      ''
                                                    ]
                        },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {
                                         '1.1,REV=2011.09.09' => [

'SUNWcomms-mysql-marker',

'/var/opt/CommsInstaller/Markers/MYSQL',
```

```
'1.1-0.01',
                                                                    ''
                                                                  ]
                                        },
          'SUNWscims' => {},
          'SUNWiimjd' => {
                          '9.0,REV=2011.09.05' => [
                                                     'SUNWiimjd',

'/opt/sun/comms/im',
                                                     '9.0-00.15',
                                                     ''
                                                   ]
                        },
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {
                                 '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-dev',
                                                                    '/',

'6.03',
                                                                    ''
                                                                  ]
                               },
          'SUNWiqlen' => {
                          '4.4,REV=2009.08.27.09.46' => [
                                                           'SUNWiqlen',
                                                           '/',
                                                           '4.4.1.0',
                                                           ''
                                                         ]
                        },
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {
                        '4.4,REV=2009.08.27.09.45' => [
                                                         'SUNWiqr',
                                                         '/',
                                                         '4.4.1.0',
                                                         ''
                                                       ]
                      },
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWiimw' => {
                         '9.0,REV=2011.09.05' => [
                                                    'SUNWiimw',
                                                    '/opt/sun/comms/im',
                                                    '9.0-00.15',
                                                    ''
                                                  ]
                       },
          'SUNWmessaging-server-64' => {
                                        '7.0,REV=2008.06.20' => [
```

```
'SUNWmessaging-server-64',

'/opt/sun/comms/messaging64',

'7.4-23.01',
                                                                        ''
                                                                     ]
                                        },
          'SUNWeiquc' => {
                            '4.4,REV=2009.10.01.09.34.40' => [

'SUNWeiquc',
                                                                 '/',
                                                                 '4.4.1.0',
                                                                 ''
                                                               ]
                          },
          'SUNWj5cfg' => {},
          'SUNWhiqu' => {
                           '4.4,REV=2009.10.01.09.35.15' => [
                                                                 'SUNWhiqu',
                                                                 '/',
                                                                 '4.4.1.0',
                                                                 ''
                                                               ]
                        },
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {
                            '9.0,REV=2011.09.05' => [
                                                       'SUNWiimdv',
                                                       '/',
                                                       '9.0-00.15',
                                                       ''
                                                     ]
                          },
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {},
          'SUNWiquc' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                            'SUNWiquc',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                        },
          'SUNWiimid' => {
                            '9.0,REV=2011.09.05' => [
                                                       'SUNWiimid',

'/opt/sun/comms/im',
                                                       '9.0-00.15',
                                                       ''
                                                     ]
                          },
          'SUNWmsgmt' => {},
          'SUNWljdk' => {
```

```
                          '1.0,REV=2004.10.11.06.02' => [
                                                          'SUNWljdk',
                                                          '/',
                                                          '4.21',
                                                          ''
                                                        ]
                        },
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {
                                  '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-libs',
                                                                    '/',

'6.03',
                                                                    ''
                                                                  ]
                                },
          'SUNWservicetagr' => {
                                  '1.1.4,REV=2008.03.21.07.56' => [

'SUNWservicetagr',
                                                                     '/',

'1.1.4.1',
                                                                     ''
                                                                   ]
                                },
          'SUNWciimc' => {},
          'SUNWjhrt' => {
                          '2.0,REV=2006.10.31' => [
                                                    'SUNWjhrt',
                                                    '/usr',
                                                    '2.0/FCS',
                                                    ''
                                                  ]
                        },
          'SUNWtlsd' => {
                          '3.11.4,REV=2006.11.16.21.41' => [
                                                             'SUNWtlsd',
                                                             '/',
                                                             '3.12.10',
                                                             ''
                                                           ]
                        },
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                          '11.10.0,REV=2005.01.21.16.34' => [

'SUNWdtrc',
                                                               '/',

'5.10/Generic Patch',
                                                               ''
                                                             ]
                        },
```

```
          'SUNWhuwc' => {},
          'mysql' => {
                      '5.5.8' => [
                                  'mysql',
                                  '/opt/mysql',
                                  '',
                                  ''
                                ]
                    },
          'SUNWiqdoc' => {
                          '4.4,REV=2009.08.27.09.46' => [
                                                         'SUNWiqdoc',
                                                         '/',
                                                         '4.4.0.0',
                                                         ''
                                                        ]
                        },
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {},
          'SUNWsmcmd' => {
                          '1.0,REV=2005.01.08.01.09' => [
                                                         'SUNWsmcmd',
                                                         '/',
                                                         '5.10/SunOS
Development',
                                                         ''
                                                        ]
                        },
          'SUNWiqcrt' => {
                          '4.4,REV=2009.08.27.09.46' => [
                                                         'SUNWiqcrt',
                                                         '/opt',
                                                         '4.4.1.0',
                                                         ''
                                                        ]
                        },
          'SUNWmsgzh' => {},
          'SUNWprd' => {
                        '4.6.4,REV=2006.11.16.21.41' => [
                                                         'SUNWprd',
                                                         '/',
                                                         '4.8.8',
                                                         ''
                                                        ]
                      },
          'SUNWdiimin' => {},
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {
                           '7.0,REV=2009.03.31' => [
                                                    'SUNWcommda',

'/opt/sun/comms/da',
                                                    '7.0-4.00',
                                                    ''
                                                   ]
```

```
                          },
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {
                        '2.0,REV=2010.07.26' => [
                                                  'SUNWiwc',
                                                  '/opt/sun/comms/iwc',
                                                  '2.0-2.01',
                                                  ''
                                                ]
                      },
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {
                          '7.3,REV=2008.01.07.20.24.17' => [

'SUNWiimsc',

'/opt/sun/comms/im_scha',
                                                              '7.3-01',
                                                              ''
                                                            ]
                        },
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.21.19' => [

'SUNWinstall-patch-utils-root',

'/',

'SNAG Development',

''

]
                                            },
          'SUNWiimin' => {
                          '9.0,REV=2011.09.05' => [
                                                    'SUNWiimin',

'/opt/sun/comms/im',
                                                    '9.0-00.15',
                                                    ''
                                                  ]
                        },
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {
                        '4.4,REV=2009.08.27.09.45' => [
                                                        'SUNWiqu',
                                                        '/',
                                                        '4.4.1.0',
                                                        ''
                                                      ]
                      },
```

```
          'SUNWkiimc' => {},
          'SUNWiim' => {
                        '9.0,REV=2011.09.05' => [
                                                  'SUNWiim',
                                                  '/opt/sun/comms/im',
                                                  '9.0-00.15',
                                                  ''
                                                ]
                      },
          'SUNWeiimin' => {},
          'SUNWcimid' => {},
          'SUNWiqcdv' => {
                          '4.4,REV=2009.08.27.09.46' => [
                                                          'SUNWiqcdv',
                                                          '/opt',
                                                          '4.4.1.0',
                                                          ''
                                                        ]
                        },
          'SUNWldapcsdk-tools' => {
                                   '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-tools',

'/opt/SUNWdsee',

'6.03',
                                                                    ''
                                                                  ]
                                  },
          'SUNWjss' => {
                        '4.2.4,REV=2006.11.16.21.41' => [
                                                          'SUNWjss',
                                                          '/',
                                                          '4.3.2',
                                                          ''
                                                        ]
                      },
          'SUNWdiqu' => {
                         '4.4,REV=2009.10.01.09.34.32' => [
                                                            'SUNWdiqu',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                       },
          'SUNWjiss' => {
                         '1.0,REV=2009.09.09' => [
                                                   'SUNWjiss',

'/opt/sun/comms/jiss',
                                                   '1.3-8.6501',
                                                   ''
                                                 ]
                       },
          'SUNWj6cfg' => {
```

```
                          '1.6.0,REV=2006.11.29.05.03' => [

'SUNWj6cfg',
                                                                '/',

'1.6.0_26/1.6.0_26-b03',
                                                                ''
                                                              ]
                        },
          'SUNWhimid' => {},
          'SUNWciquc' => {
                          '4.4,REV=2009.10.01.09.35.07' => [

'SUNWciquc',
                                                                 '/',
                                                                 '4.4.1.0',
                                                                 ''
                                                               ]
                        },
          'SUNWcomms' => {
                          '7.2,REV=2011.09.09' => [
                                                          'SUNWcomms',

'/opt/sun/comms/CommsInstaller',
                                                          '7.2-0.36',
                                                          ''
                                                        ]
                        },
          'SUNWjiqu' => {
                          '4.4,REV=2009.10.01.09.34.58' => [
                                                                'SUNWjiqu',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                        },
          'SUNWkiqu' => {
                          '4.4,REV=2009.10.01.09.34.50' => [
                                                                'SUNWkiqu',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                        },
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {
                          '4.4,REV=2009.10.01.09.34.40' => [
                                                                'SUNWeiqu',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                        },
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {
```

```
                                '7.0,REV=2009.08.27' => [

'SUNWdavserver',

'/opt/sun/comms/davserver',
                                                          '7.2-4.19',
                                                          ''
                                                        ]
                              },
          'SUNWeiimc' => {},
          'SUNWmsgtw' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                                '11.11,REV=2005.01.09.21.19' => [

'SUNWpkgcmdsu',
                                                                '/',
                                                                'SNAG
Development',
                                                                ''
                                                              ]
                              },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {
                                '4.4,REV=2009.08.27.09.46' => [
                                                          'SUNWiqjx',
                                                          '/',
                                                          '4.4.1.0',
                                                          ''
                                                        ]
                            },
          'SUNWjhdoc' => {
                                '2.0,REV=2006.10.04' => [
                                                        'SUNWjhdoc',
                                                        '/usr',
                                                        '2.0/FCS',
                                                        ''
                                                      ]
                            },
          'SUNWj6dev' => {
                                '1.6.0,REV=2006.11.29.05.03' => [

'SUNWj6dev',
                                                              '/usr',

'1.6.0_26/1.6.0_26-b03',
                                                              ''
                                                            ]
                            },
          'SUNWmsges' => {},
          'SUNWpr' => {
                                '4.6.4,REV=2006.11.16.21.41' => [
                                                          'SUNWpr',
                                                          '/',
                                                          '4.8.8',
```

```
                                                        ''
                                                      ]
                      },
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {
                        '1.2,REV=2005.01.06.14.13' => [
                                                        'SUNWicu',
                                                        '/usr',
                                                        '10/Generic',
                                                        ''
                                                      ]
                      },
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                         '11.10,REV=2005.01.10.15.35' => [
                                                           'SUNWswmt',
                                                           '/',
                                                           'SNAG
Development',
                                                           ''
                                                         ]
                       },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {
                          '4.4,REV=2009.10.01.09.34.50' => [

'SUNWkiquc',
                                                             '/',
                                                             '4.4.1.0',
                                                             ''
                                                           ]
                        },
          'SUNWstosreg' => {
                            '1.1.4,REV=2008.03.21.07.56' => [

'SUNWstosreg',
                                                               '/',

'1.1.4.1',
                                                               ''
                                                              ]
                          },
          'SUNWmsgde' => {},
          'SUNWsmagt' => {
                          '1.0,REV=2005.01.08.01.09' => [
                                                          'SUNWsmagt',
                                                          '/',
```

```
                                                                    '5.10/SunOS
Development',
                                                                    ''
                                                                  ]
                          },
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                           '11.10.0,REV=2005.01.08.01.09' => [

'SUNWbzip',
                                                                      '/',

'5.10/SunOS Development',
                                                                      ''
                                                                    ]
                         },
          'SUNWtlsu' => {
                           '3.11.4,REV=2006.11.16.21.41' => [
                                                                      'SUNWtlsu',
                                                                      '/',
                                                                      '3.12.10',
                                                                      ''
                                                                    ]
                         },
          'SUNWfiqu' => {
                           '4.4,REV=2009.10.01.09.34.22' => [
                                                                      'SUNWfiqu',
                                                                      '/',
                                                                      '4.4.1.0',
                                                                      ''
                                                                    ]
                         },
          'SUNWsasl' => {
                           '2.17,REV=2003.07.18.13.13' => [
                                                                    'SUNWsasl',
                                                                    '/',
                                                                    '2.19',
                                                                    ''
                                                                  ]
                         },
          'SUNWfiimc' => {},
          'SUNWzoneu' => {
                            '11.10.0,REV=2005.01.21.16.34' => [

'SUNWzoneu',
                                                                        '/',

'5.10/Generic Patch',
                                                                        ''
                                                                      ]
                          },
          'SUNWcsr' => {
                          '11.10.0,REV=2005.01.21.16.34' => [
                                                                      'SUNWcsr',
                                                                      '/',
```

```
'5.10/Generic Patch',
                                                                  ''
                                                                ]
                        },
          'SUNWesics' => {},
          'SUNWiimm' => {
                          '9.0,REV=2011.09.05' => [
                                                     'SUNWiimm',
                                                     '/opt/sun/comms/im',
                                                     '9.0-00.15',
                                                     ''
                                                   ]
                         }
        };
!!! installedprod
$VAR1 = {
          'IWC' => {
                     '2.0' => [
                               '/opt/sun/comms/iwc',
                               '2.0-2.01',
                               '20110817',
                               '2',
                               'SunOS',
                               'i386',
                               '32',
                               ''
                              ]
                    },
          'IM' => {
                    '9.0' => [
                              '/opt/sun/comms/im',
                              '9.0-00.15',
                              '20110905',
                              '9',
                              'SunOS',
                              'i386',
                              '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',
                                      '6.4-23.01',
                                      '20110713',
                                      '6.4',
                                      'SunOS',
                                      'i386',
                                      '32',
                                      ''
                                     ]
                          },
              'LDAPJDK' => {
                            '4.21' => [
                                       '/',
                                       '4.21',
                                       'none',
                                       '4.21',
                                       'none',
                                       'none',
                                       'none',
                                       ''
                                      ]
                          },
              'MQ_L10N' => {
                            '4.4' => [
                                      '/',
                                      '4.4.1.0',
                                      'none',
                                      '4.4',
                                      'none',
                                      'none',
                                      'none',
                                      ''
                                     ]
                          },
              'BZIP' => {
                         '11.10' => [
                                     '/',
                                     '5.10/SunOS Development',
                                     'none',
                                     '11.10',
                                     'none',
                                     'none',
                                     'none',
                                     ''
                                    ]
```

```
                    },
          'MYSQL_MARKER' => {
                              '1.1' => [

'/var/opt/CommsInstaller/Markers/MYSQL',
                                          '1.1-0.01',
                                          'none',
                                          '1.1',
                                          'none',
                                          'none',
                                          'none',
                                          ''
                                        ]
                            },
          'IM_SCHA' => {
                          '7.3' => [
                                     '/opt/sun/comms/im_scha',
                                     '7.3-01.02',
                                     '20080403',
                                     '7.3',
                                     'SunOS',
                                     'i386',
                                     '32',
                                     ''
                                   ]
                        },
          'ICU' => {
                      'ICU2,ICU3' => [
                                        '/usr',
                                        '10/Generic',
                                        'none',
                                        'ICU2,ICU3',
                                        'none',
                                        'none',
                                        'none',
                                        ''
                                      ]
                    },
          'MS64' => {
                       '7.4' => [
                                  '/opt/sun/comms/messaging64',
                                  '7.4-23.01',
                                  '20110810',
                                  '7u4',
                                  'SunOS',
                                  'i386',
                                  '64',
                                  ''
                                ]
                    },
          'DAV' => {
                      '7.2' => [
                                 '/opt/sun/comms/davserver',
                                 '7.2-4.19',
                                 '20110909',
                                 '7u2',
```

```
                        'SunOS',
                        'i386',
                        '32',
                        ''
                      ]
                },
        'LIBCPLUSPLUS' => {
                      '5.9' => [
                                '/',
                                '5.10',
                                'none',
                                '5.9',
                                'none',
                                'none',
                                'none',
                                ''
                              ]
                    },
        'LDAPCSDK6' => {
                    '6.0' => [
                              '/',
                              '6.03',
                              'none',
                              '6.0',
                              'none',
                              'none',
                              'none',
                              ''
                            ]
                  },
        'SNMP' => {
              'Unknown' => [
                            '/',
                            '5.10/SunOS Development',
                            'none',
                            'Unknown',
                            'none',
                            'none',
                            'none',
                            ''
                          ]
            },
        'JDK' => {
             '1.6.0' => [
                         '/usr',
                         '1.6.0_26/1.6.0_26-b03',
                         'none',
                         '1.6.0',
                         'none',
                         'none',
                         'none',
                         ''
                       ]
                },
        'MS_SCHA' => {
                  '7.0' => [
```

```
                                '/opt/sun/comms/msg_scha',
                                '7.0-0.03',
                                '20080519',
                                '7.0',
                                'SunOS',
                                'i386',
                                '32',
                                ''
                              ]
                  },
'MYSQL' => {
                  '5.5.8' => [
                                '/opt/mysql',
                                'none',
                                'none',
                                '5.5.8',
                                'none',
                                'none',
                                'none',
                                ''
                              ]
                },
'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',
                          ''
```

```
                        ]
                },
        'CI' => {
                '7.2' => [
                        '/opt/sun/comms/CommsInstaller',
                        '7.2-0.36',
                        '20110909',
                        '7u2',
                        'SunOS',
                        'i386',
                        '32',
                        ''
                      ]
                },
        'IMAPI' => {
                  '9.0' => [
                            '/',
                            '9.0-00.15',
                            'none',
                            '9',
                            'none',
                            'none',
                            'none',
                            ''
                           ]
                 },
        'DA' => {
                '7.0' => [
                        '/opt/sun/comms/da',
                        '7.0-4.00',
                        '20110805',
                        '7',
                        'SunOS',
                        'i386',
                        '32',
                        ''
                      ]
                },
        'LDAPCSDK6_TOOLS' => {
                          '6.0' => [
                                    '/opt/SUNWdsee',
                                    '6.03',
                                    'none',
                                    '6.0',
                                    'none',
                                    'none',
                                    'none',
                                    ''
                                  ]
                        },
        'JISS' => {
                '1.3' => [
                          '/opt/sun/comms/jiss',
                          '1.3-8.6501',
                          '20110811',
                          '1u3',
```

```
                                 'SunOS',
                                 'all',
                                 '32',
                                 ''
                               ]
                     },
          'NSS' => {
                       '4.8.8' => [
                                    '/',
                                    '4.3.2',
                                    'none',
                                    '4.8.8',
                                    'none',
                                    'none',
                                    'none',
                                    ''
                                  ]
                    }
        };
====== End QQQ detectProducts ======
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Messaging Server (64bit) 7u4 (7.4-23.01 64bit)
          Installed Version at /opt/sun/comms/messaging64
       2  Comms DSsetup 6.4 (6.4-23.01)
          Installed Version at /opt/sun/comms/dssetup
       3  Calendar Server 7u2 (7.2-4.19)
          Installed Version at /opt/sun/comms/davserver
       4  Instant Messaging 9 (9.0-00.15)
          Installed Version at /opt/sun/comms/im
       5  Convergence 2 (2.0-2.01)
          Installed Version at /opt/sun/comms/iwc
       6  Indexing and Search Service 1u3 (1.3-8.6501)
          Installed Version at /opt/sun/comms/jiss
       7  Comms Delegated Administrator 7 (7.0-4.00)
          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

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]: =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
QQQ selections: MS64 7.4 DSSETUP 6.4 DAV 7.2 IM 9.0 IWC 2.0 JISS 1.3 DA
7.0 MS_SCHA 7.0 IM_SCHA 7.3
  WILL UNINSTALL: Messaging Server (64bit) 7u4 (7.4-23.01)
                  at /opt/sun/comms/messaging64)
```

```
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWmessaging-server-64
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-23.01)
                  at /opt/sun/comms/dssetup)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomds
  WILL UNINSTALL: Calendar Server 7u2 (7.2-4.19)
                  at /opt/sun/comms/davserver)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWdavserver
  WILL UNINSTALL: Instant Messaging 9 (9.0-00.15)
                  at /opt/sun/comms/im)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimfed
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimw
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimgw
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimid
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimjd
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimm
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimin
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiim
  WILL UNINSTALL: Convergence 2 (2.0-2.01)
                  at /opt/sun/comms/iwc)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiwc
  WILL UNINSTALL: Indexing and Search Service 1u3 (1.3-8.6501)
                  at /opt/sun/comms/jiss)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWjiss
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-4.00)
                  at /opt/sun/comms/da)
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimsc
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to uninstall

Do you want to continue ? [yes] :

============================================================
Uninstalling Messaging Server (64bit) 7u4 (7.4-23.01 at
/opt/sun/comms/messaging64)...
------ Executing Task 1 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWmessaging-server-64 2>&1

Removal of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

============================================================
Uninstalling Comms DSsetup 6.4 (6.4-23.01 at /opt/sun/comms/dssetup)...
------ Executing Task 2 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomds 2>&1

Removal of <SUNWcomds> was successful.
-- Exit status: 0

============================================================
Uninstalling Calendar Server 7u2 (7.2-4.19 at
/opt/sun/comms/davserver)...
------ Executing Task 3 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWdavserver 2>&1

Removal of <SUNWdavserver> was successful.
-- Exit status: 0

============================================================
Uninstalling Instant Messaging 9 (9.0-00.15 at /opt/sun/comms/im)...
------ Executing Task 4 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimfed 2>&1

Removal of <SUNWiimfed> was successful.
-- Exit status: 0
------ Executing Task 5 of 16 ...
pkgrm -n -a
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimw 2>&1

Removal of <SUNWiimw> was successful.
-- Exit status: 0
------ Executing Task 6 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimgw 2>&1

Removal of <SUNWiimgw> was successful.
-- Exit status: 0
------ Executing Task 7 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimid 2>&1

Removal of <SUNWiimid> was successful.
-- Exit status: 0
------ Executing Task 8 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimjd 2>&1

Removal of <SUNWiimjd> was successful.
-- Exit status: 0
------ Executing Task 9 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimm 2>&1

Removal of <SUNWiimm> was successful.
-- Exit status: 0
------ Executing Task 10 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimin 2>&1

Removal of <SUNWiimin> was successful.
-- Exit status: 0
------ Executing Task 11 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiim 2>&1
Configuration file /opt/sun/comms/im/sbin/../config/iim.conf is missing,
exiting
Shutting down IM services..
Configuration file /opt/sun/comms/im/sbin/../config/iim.conf is missing,
exiting

Removal of <SUNWiim> was successful.
-- Exit status: 0

============================================================
Uninstalling Convergence 2 (2.0-2.01 at /opt/sun/comms/iwc)...
------ Executing Task 12 of 16 ...
```

```
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiwc 2>&1

Removal of <SUNWiwc> was successful.
-- Exit status: 0

============================================================
Uninstalling Indexing and Search Service 1u3 (1.3-8.6501 at
/opt/sun/comms/jiss)...
------ Executing Task 13 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWjiss 2>&1

Removal of <SUNWjiss> was successful.
-- Exit status: 0

============================================================
Uninstalling Comms Delegated Administrator 7 (7.0-4.00 at
/opt/sun/comms/da)...
------ Executing Task 14 of 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
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 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
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 16 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimsc 2>&1

Removal of <SUNWiimsc> was successful.
-- Exit status: 0
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWmessaging-server-64
```

```
PASSED: Task 2: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomds
PASSED: Task 3: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWdavserver
PASSED: Task 4: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimfed
PASSED: Task 5: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimw
PASSED: Task 6: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimgw
PASSED: Task 7: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimid
PASSED: Task 8: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimjd
PASSED: Task 9: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimm
PASSED: Task 10: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimin
PASSED: Task 11: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiim
PASSED: Task 12: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiwc
PASSED: Task 13: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWjiss
PASSED: Task 14: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcommda
PASSED: Task 15: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWmessaging-server-scha
PASSED: Task 16: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWiimsc

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Sep 21 18:16 /usr/java ->
jdk/jdk1.6.0_26

/usr/jdk:
total 9
drwxr-xr-x   4 root     bin            4 Feb 17  2011 instances
lrwxrwxrwx   1 root     other          7 Feb 17  2011 j2sdk1.4.2_26 ->
```

```
../j2se
lrwxrwxrwx   1 root     other         18 Sep 21 18:16 jdk1.6.0_26 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Sep 21 18:16 latest ->
jdk1.6.0_26
drwxr-xr-x   8 root     bin            8 Feb 17  2011 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 Sep 21 18:16 /usr/jdk/latest ->
jdk1.6.0_26
-- 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 38078
-rw-r--r--   1 root     bin         3339 May  4 02:19 COPYRIGHT
-rw-r--r--   1 root     bin           40 May  4 02:19 LICENSE
-rw-r--r--   1 root     bin          115 May  4 02:19 README.html
-rw-r--r--   1 root     bin        20320 Nov 29  2006 README_ja.html
-rw-r--r--   1 root     bin        15160 Nov 29  2006 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 May  4 02:19
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Sep 21 18:16 bin
drwxr-xr-x  11 root     bin           12 Feb 17  2011 demo
drwxr-xr-x   3 root     bin            8 Sep 21 18:16 include
drwxr-xr-x   6 root     bin           11 Sep 21 18:16 jre
drwxr-xr-x   3 root     bin           11 Sep 21 18:16 lib
drwxr-xr-x   3 root     bin            3 Feb 17  2011 man
-r--r--r--   1 root     other       6609 Sep 21 18:16 register.html
-r--r--r--   1 root     other       8055 Sep 21 18:16 register_ja.html
-r--r--r--   1 root     other       6212 Sep 21 18:16
register_zh_CN.html
drwxr-xr-x  10 root     bin           10 Feb 17  2011 sample
-rw-r--r--   1 root     bin      19104157 May  4 02:17 src.zip
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.patchout_20110921194839.1445
mkdir -p /var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0

NOTICE: silent file created in:
```

```
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921194839
-- Closing the log at Wed Sep 21 19:48:52 2011
```

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 x86
- listPackages for Red Hat Linux 4, 32-bit
- listPackages for Red Hat Linux 5, 64-bit

listPackages for Red Hat Linux 4, 32-bit

listPackages for Red Hat Linux 4, 32-bit

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 2 on Red Hat Linux 4, 32-bit.

```
$ ./commpkg -V
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
$ uname -a
Linux host1.example.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_20110921173706.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
Package list per product

Product: Messaging Server (32bit)
Product Group: Comms
Description: Messaging Server 32bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-23.01
Build Date: 20110810
Mnemonic: MS
Installation directory: <INSTALLROOT>/messaging
Patches:
Dependencies:
  MQ
  MQ_L10N
  ICU
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-messaging-server           7.4-23.01.i386

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-23.01
Build Date: 20110713
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches:
Dependencies:
  LDAPCSDK6_TOOLS
```

```
Package Name/Version:
  sun-comms-dssetup              6.4-23.01.i386

Product: Comms Delegated Administrator
Product Group: Comms
Description: Comms Delegated Administrator
Version: 7.0
Marketing Version: 7
Full Version: 7.0-4.00
Build Date: 20110805
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
Patches:
Dependencies:
  ST
  JDK
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-commda                     7.0-4.00.i386

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.8
Marketing Version: 4.8.8
Mnemonic: NSS
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-nspr                       4.8.8-1.i386
  sun-nss                        3.12.10-1.i386
  sun-jss                        4.3.2-3.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_26-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: 4.21
Marketing Version: 4.21
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: 9.0
Marketing Version: 9
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-im-dev                     9.0-00.15.i386

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: 7.2
Marketing Version: 7u2
Full Version: 7.2-0.36
Build Date: 20110909
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
```

```
Package Name/Version:
  sun-comms-installer            7.2-0.36.i386
```

listPackages for Red Hat Linux 5, 64-bit

listPackages for Red Hat Linux 5, 64-bit

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 2 on Red Hat Linux 5 64-bit.

```
$ ./commpkg -V
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
$ uname -a
Linux host2.example.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_20110921173855.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
Package list per product

Product: Messaging Server (32bit)
Product Group: Comms
Description: Messaging Server 32bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-23.01
Build Date: 20110810
Mnemonic: MS
Installation directory: <INSTALLROOT>/messaging
Patches:
Dependencies:
  MQ
  MQ_L10N
  ICU
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-messaging-server           7.4-23.01.i386

Product: Messaging Server (64bit)
Product Group: Comms
Description: Messaging Server 64bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-23.01
Build Date: 20110810
Mnemonic: MS64
Installation directory: <INSTALLROOT>/messaging64
Patches:
Dependencies:
  MQ
```

```
  MQ_L10N
  ICU
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-messaging-server64         7.4-23.01.x86_64

Product: Comms DSsetup
Product Group: Comms
Description: Comms Directory Server Setup
Version: 6.4
Marketing Version: 6.4
Full Version: 6.4-23.01
Build Date: 20110713
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches:
Dependencies:
  LDAPCSDK6_TOOLS
Package Name/Version:
  sun-comms-dssetup              6.4-23.01.i386

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 7.2
Marketing Version: 7u2
Full Version: 7.2-4.19
Build Date: 20110909
Mnemonic: DAV
Installation directory: <INSTALLROOT>/davserver
Patches:
Dependencies:
  ST
  JDK
  LDAPCSDK6_TOOLS
  MYSQL
Package Name/Version:
  sun-davserver                  7.2-4.19.i386

Product: Instant Messaging
Product Group: Comms
Description: Instant Messaging
Version: 9.0
Marketing Version: 9
Full Version: 9.0-00.15
Build Date: 20110905
Mnemonic: IM
Installation directory: <INSTALLROOT>/im
Patches:
Dependencies:
  MQ
  LDAPJDK
  ST
  IMAPI
  MQ_L10N
```

```
  JDK
  NSS
Package Name/Version:
  sun-im-server                  9.0-00.15.i386
  sun-im-install                 9.0-00.15.i386
  sun-im-mux                     9.0-00.15.i386
  sun-im-apidoc                  9.0-00.15.i386
  sun-im-ident                   9.0-00.15.i386
  sun-im-gateways                9.0-00.15.i386
  sun-im-webapps                 9.0-00.15.i386
  sun-im-fed                     9.0-00.15.i386

Product: Convergence
Product Group: Comms
Description: Integrated Web Client
Version: 2.0
Marketing Version: 2
Full Version: 2.0-2.01
Build Date: 20110817
Mnemonic: IWC
Installation directory: <INSTALLROOT>/iwc
Patches:
Dependencies:
  ST
  JDK
Package Name/Version:
  sun-iwc                        2.0-2.01.i386

Product: Indexing and Search Service
Product Group: Comms
Description: Indexing Search Services
Version: 1.3
Marketing Version: 1u3
Full Version: 1.3-8.6501
Build Date: 20110811
Mnemonic: JISS
Installation directory: <INSTALLROOT>/jiss
Patches:
Dependencies:
  MQ
  ST
  MQ_L10N
  JDK
  LDAPCSDK6_TOOLS
Package Name/Version:
  sun-jiss                       1.3-8.6501.noarch

Product: Comms Delegated Administrator
Product Group: Comms
Description: Comms Delegated Administrator
Version: 7.0
Marketing Version: 7
Full Version: 7.0-4.00
Build Date: 20110805
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
```

```
Patches:
Dependencies:
  ST
  JDK
  LDAPCSDK6_TOOLS
  NSS
Package Name/Version:
  sun-commda                      7.0-4.00.i386

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.8
Marketing Version: 4.8.8
Mnemonic: NSS
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-nspr                        4.8.8-1.x86_64
  sun-nspr                        4.8.8-1.i386
  sun-nss                         3.12.10-1.x86_64
  sun-nss                         3.12.10-1.i386
  sun-jss                         4.3.2-3.x86_64
  sun-jss                         4.3.2-3.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_26-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: 4.21
Marketing Version: 4.21
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: 9.0
Marketing Version: 9
Mnemonic: IMAPI
Installation directory: <package default>
```

```
Patches:
Dependencies:
Package Name/Version:
  sun-im-dev                      9.0-00.15.i386

Product: MySQL Marker
Product Group: OS Auxiliary
Description: MySQL Marker
Version: 1.1
Marketing Version: 1.1
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  sun-comms-mysql-marker          1.1-0.01.i386

Product: MySQL
Product Group: OS Auxiliary
Description: MySQL
Version: 5.5.8
Marketing Version: 5.5.8
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  MySQL-server-advanced           5.5.8-1.rhel5.x86_64
  MySQL-client-advanced           5.5.8-1.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: 7.2
Marketing Version: 7u2
Full Version: 7.2-0.36
Build Date: 20110909
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
Package Name/Version:
```

```
sun-comms-installer            7.2-0.36.i386
```

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 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 2 on Solaris 10 OS SPARC.

```
$ ./commpkg -V
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
$ uname -a
SunOS host2 5.10 Generic_147440-01 sun4v sparc SUNW,Sun-Fire-T1000
$ cat /etc/release
                    Oracle Solaris 10 8/11 s10s_u10wos_17b SPARC
  Copyright (c) 1983, 2011, Oracle and/or its affiliates. All rights
reserved.
                             Assembled 23 August 2011
$ isainfo -b
64
$ ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20110921171024.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
Package list per product

Product: Messaging Server (64bit)
Product Group: Comms
Description: Messaging Server 64bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-23.01
Build Date: 20110810
Mnemonic: MS64
Installation directory: <INSTALLROOT>/messaging64
Patches: 137204-23
Dependencies:
  MQ
  PATCHUTILS (120900-04 121133-02 119254-81)
  LIBCPLUSPLUS (119963-23)
  MQ_L10N
  BZIP (126868-04 137321-01)
  ICU (119810-05)
  LDAPCSDK6_TOOLS (136798-03)
  NSS (125358-14)
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: 6.4-23.01
Build Date: 20110713
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches: 118242-03 118245-23
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
  LDAPCSDK6_TOOLS (136798-03)
Package Name/Version:
  SUNWcomds                      6.3,REV=2004.08.12

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 7.2
Marketing Version: 7u2
Full Version: 7.2-4.19
Build Date: 20110909
Mnemonic: DAV
Installation directory: <INSTALLROOT>/davserver
Patches: 142785-04
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
  ST
  JDK (125136-28 125137-28)
  LDAPCSDK6_TOOLS (136798-03)
  MYSQL
Package Name/Version:
  SUNWdavserver                  7.0,REV=2009.08.27

Product: Instant Messaging
Product Group: Comms
Description: Instant Messaging
Version: 9.0
Marketing Version: 9
Full Version: 9.0-00.15
Build Date: 20110905
Mnemonic: IM
Installation directory: <INSTALLROOT>/im
Patches:
Dependencies:
  ST
  JDK (125136-28 125137-28)
  PATCHUTILS (120900-04 121133-02 119254-81)
  MQ
  LDAPJDK (119725-06)
  MQ_L10N
  IMAPI
  NSS (125358-14)
Package Name/Version:
  SUNWiim                        9.0,REV=2011.09.05
  SUNWiimin                      9.0,REV=2011.09.05
  SUNWiimm                       9.0,REV=2011.09.05
  SUNWiimjd                      9.0,REV=2011.09.05
  SUNWiimid                      9.0,REV=2011.09.05
  SUNWiimgw                      9.0,REV=2011.09.05
```

```
  SUNWiimw                        9.0,REV=2011.09.05
  SUNWiimfed                      9.0,REV=2011.09.05

Product: Convergence
Product Group: Comms
Description: Integrated Web Client
Version: 2.0
Marketing Version: 2
Full Version: 2.0-2.01
Build Date: 20110817
Mnemonic: IWC
Installation directory: <INSTALLROOT>/iwc
Patches: 145711-02
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
  ST
  JDK (125136-28 125137-28)
Package Name/Version:
  SUNWiwc                         2.0,REV=2010.07.26

Product: Indexing and Search Service
Product Group: Comms
Description: Indexing Search Services
Version: 1.3
Marketing Version: 1u3
Full Version: 1.3-8.6501
Build Date: 20110811
Mnemonic: JISS
Installation directory: <INSTALLROOT>/jiss
Patches: 142824-08
Dependencies:
  MQ
  PATCHUTILS (120900-04 121133-02 119254-81)
  ST
  MQ_L10N
  JDK (125136-28 125137-28)
  LDAPCSDK6_TOOLS (136798-03)
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: 7.0-4.00
Build Date: 20110805
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
Patches: 124581-04
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
  ST
  JDK (125136-28 125137-28)
  LDAPCSDK6_TOOLS (136798-03)
  NSS (125358-14)
```

```
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 119254-81)
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 119254-81)
Package Name/Version:
  SUNWiimsc                       7.3,REV=2008.01.07.20.24.34

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.8
Marketing Version: 4.8.8
Mnemonic: NSS
Installation directory: <package default>
Patches: 125358-14 125358-13
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
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: 119345-08 119345-07
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
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 (119345-08)
  ICU (119810-05)
  NSS (125358-14)
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: 136798-03
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
  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 119254-81)
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: 125136-28 125137-28 125136-25 125137-25
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
  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 119254-81)
  BZIP (126868-04 137321-01)
  JDK (125136-28 125137-28)
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 119254-81)
  JHRT
  JDK (125136-28 125137-28)
  NSS (125358-14)
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 119254-81)
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: 4.21
Marketing Version: 4.21
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches: 119725-06
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
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: 9.0
Marketing Version: 9
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
Package Name/Version:
  SUNWiimdv                     9.0,REV=2011.09.05

Product: MySQL Marker
Product Group: OS Auxiliary
Description: MySQL Marker
```

```
Version: 1.1
Marketing Version: 1.1
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  SUNWcomms-mysql-marker         1.1,REV=2011.09.09

Product: MySQL
Product Group: OS Auxiliary
Description: MySQL
Version: 5.5.8
Marketing Version: 5.5.8
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  mysql                          5.5.8

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 119254-81)
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: 119963-23
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
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 119254-81 119254-73
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: 126868-04 137321-01
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
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: 2011.06.17
Marketing Version: 2011.06.17
Mnemonic: RECOMMENDED
Installation directory: <package default>
Patches: 119254-81 118833-36 120011-14 120272-28 137137-09 141444-09
142909-17 144488-17
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: 7.2
Marketing Version: 7u2
Full Version: 7.2-0.36
Build Date: 20110909
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
  PATCHUTILS (120900-04 121133-02 119254-81)
```

```
Package Name/Version:
  SUNWcomms                        7.2,REV=2011.09.09
```

listPackages for Solaris OS 10 x86

listPackages for Solaris OS 10 x86

This sample session shows the output of `commpkg info --listPackages` in Communications Suite 7 Update 2 on Solaris 10 OS x86.

```
$ ./commpkg -V
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
$ uname -a
SunOS host1 5.10 Generic_142910-17 i86pc i386 i86pc
$ cat /etc/release
                    Oracle Solaris 10 9/10 s10x_u9wos_14a X86
     Copyright (c) 2010, Oracle and/or its affiliates. All rights
reserved.
                            Assembled 11 August 2010
$ isainfo -b
64
$ ./commpkg info --listPackages
-- LOGFILE: /tmp/CommsInstaller_20110921172420.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
Package list per product

Product: Messaging Server (64bit)
Product Group: Comms
Description: Messaging Server 64bit Edition
Version: 7.4
Marketing Version: 7u4
Full Version: 7.4-23.01
Build Date: 20110810
Mnemonic: MS64
Installation directory: <INSTALLROOT>/messaging64
Patches: 137205-23
Dependencies:
  LIBCPLUSPLUS (119964-23)
  SNMP (120273-06)
  PATCHUTILS (120901-03 121334-04 119255-81)
  MQ
  MQ_L10N
  BZIP (126869-05 137322-01)
  LDAPCSDK6_TOOLS (136800-03)
  ICU (119811-05)
  NSS (125359-14)
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: 6.4-23.01
Build Date: 20110713
Mnemonic: DSSETUP
Installation directory: <INSTALLROOT>/dssetup
Patches: 118243-03 118246-23
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
  LDAPCSDK6_TOOLS (136800-03)
Package Name/Version:
  SUNWcomds                      6.3,REV=2004.08.12

Product: Calendar Server
Product Group: Comms
Description: Calendar Server
Version: 7.2
Marketing Version: 7u2
Full Version: 7.2-4.19
Build Date: 20110909
Mnemonic: DAV
Installation directory: <INSTALLROOT>/davserver
Patches: 142786-04
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
  ST
  JDK (125138-28 125139-28)
  LDAPCSDK6_TOOLS (136800-03)
  MYSQL
Package Name/Version:
  SUNWdavserver                  7.0,REV=2009.08.27

Product: Instant Messaging
Product Group: Comms
Description: Instant Messaging
Version: 9.0
Marketing Version: 9
Full Version: 9.0-00.15
Build Date: 20110905
Mnemonic: IM
Installation directory: <INSTALLROOT>/im
Patches:
Dependencies:
  ST
  JDK (125138-28 125139-28)
  PATCHUTILS (120901-03 121334-04 119255-81)
  MQ
  LDAPJDK (119725-06)
  MQ_L10N
  IMAPI
  NSS (125359-14)
Package Name/Version:
  SUNWiim                        9.0,REV=2011.09.05
  SUNWiimin                      9.0,REV=2011.09.05
  SUNWiimm                       9.0,REV=2011.09.05
  SUNWiimjd                      9.0,REV=2011.09.05
  SUNWiimid                      9.0,REV=2011.09.05
```

```
  SUNWiimgw                       9.0,REV=2011.09.05
  SUNWiimw                        9.0,REV=2011.09.05
  SUNWiimfed                      9.0,REV=2011.09.05

Product: Convergence
Product Group: Comms
Description: Integrated Web Client
Version: 2.0
Marketing Version: 2
Full Version: 2.0-2.01
Build Date: 20110817
Mnemonic: IWC
Installation directory: <INSTALLROOT>/iwc
Patches: 145712-02
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
  ST
  JDK (125138-28 125139-28)
Package Name/Version:
  SUNWiwc                         2.0,REV=2010.07.26

Product: Indexing and Search Service
Product Group: Comms
Description: Indexing Search Services
Version: 1.3
Marketing Version: 1u3
Full Version: 1.3-8.6501
Build Date: 20110811
Mnemonic: JISS
Installation directory: <INSTALLROOT>/jiss
Patches: 142823-08
Dependencies:
  MQ
  PATCHUTILS (120901-03 121334-04 119255-81)
  ST
  MQ_L10N
  JDK (125138-28 125139-28)
  LDAPCSDK6_TOOLS (136800-03)
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: 7.0-4.00
Build Date: 20110805
Mnemonic: DA
Installation directory: <INSTALLROOT>/da
Patches: 124582-04
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
  ST
  JDK (125138-28 125139-28)
  LDAPCSDK6_TOOLS (136800-03)
```

```
  NSS (125359-14)
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 119255-81)
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 119255-81)
Package Name/Version:
  SUNWiimsc                       7.3,REV=2008.01.07.20.24.17

Product: NSS/NSPR/JSS
Product Group: Shared Component
Description: Network Security Services,Netscape Portable Runtime
Version: 4.8.8
Marketing Version: 4.8.8
Mnemonic: NSS
Installation directory: <package default>
Patches: 125359-14 125359-13
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
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: 119346-08 119346-07
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
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 (119346-08)
  ICU (119811-05)
  NSS (125359-14)
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: 136800-03
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
  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 119255-81)
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: 125138-28 125139-28 125138-25 125139-25
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
  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 119255-81)
  BZIP (126869-05 137322-01)
  JDK (125138-28 125139-28)
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 119255-81)
  JHRT
  JDK (125138-28 125139-28)
  NSS (125359-14)
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 119255-81)
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: 4.21
Marketing Version: 4.21
Mnemonic: LDAPJDK
Installation directory: <package default>
Patches: 119725-06
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
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: 9.0
Marketing Version: 9
Mnemonic: IMAPI
Installation directory: <package default>
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
Package Name/Version:
  SUNWiimdv                      9.0,REV=2011.09.05

Product: MySQL Marker
Product Group: OS Auxiliary
```

```
Description: MySQL Marker
Version: 1.1
Marketing Version: 1.1
Mnemonic: MYSQL_MARKER
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  SUNWcomms-mysql-marker         1.1,REV=2011.09.09

Product: MySQL
Product Group: OS Auxiliary
Description: MySQL
Version: 5.5.8
Marketing Version: 5.5.8
Mnemonic: MYSQL
Installation directory: <package default>
Patches:
Dependencies:
Package Name/Version:
  mysql                          5.5.8

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 119255-81)
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: 119964-23
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
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 119255-81 119255-73
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 119255-81)
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: 126869-05 137322-01
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
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: 2011.06.17
Marketing Version: 2011.06.17
Mnemonic: RECOMMENDED
Installation directory: <package default>
Patches: 119255-81 118855-36 120012-14 120273-30 137138-09 141445-09
142910-17 144489-17
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: 7.2
Marketing Version: 7u2
Full Version: 7.2-0.36
Build Date: 20110909
Mnemonic: CI
Installation directory: <INSTALLROOT>/CommsInstaller
Patches:
Dependencies:
  PATCHUTILS (120901-03 121334-04 119255-81)
```

```
Package Name/Version:
  SUNWcomms                        7.2,REV=2011.09.09
```

Uninstalling Communications Suite in Silent Mode

Uninstalling Oracle Communications Unified Communications Suite in Silent Mode
Version 7 Update 2

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 7.2-0.36 [7.0.2.0.0]
# Generated on 20110921194839
#

#
#
# 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
COMPONENT_VERSIONS= 7.4 6.4 7.2 9.0 2.0 1.3 7.0 7.0 7.3
```

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.

Verifying the GlassFish Server Version

Verifying the Sun 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 Patch12
```

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_26"
Java(TM) SE Runtime Environment (build 1.6.0_26-b03)
Java HotSpot(TM) Server VM (build 20.1-b02, mixed mode)
```

Chapter 4. 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?

> **Note**
> Support for Access Manager is deprecated. For more information, see: Access Manager Support Deprecation.

Assumptions

This scenario shows how to install Sun Java System Access Manager on a separate host. 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

For details on downloading this software, 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 5. Installation Scenario - Calendar Server

Installation Scenario - Oracle Communications Calendar Server Version 7 Update 2

Topics:

- Overview of This Scenario
- Assumptions
- Which Software Components and Downloads Do You Need?
- Installing and Configuring a Calendar Server 7 Update 2 Deployment
- Configuring Calendar Server 7 Update 2
- Configuring Calendar Server With Multiple Hosts
- Verifying the Calendar Server Configuration
- Configuring the Calendar Server Document Store
- Running Calendar Server 7 Update 2 Post-Installation Tasks
- Troubleshooting Calendar Server

Overview of This Scenario

The following installation information describes how to install and configure Oracle Communications Calendar Server 7 Update 2. 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 2 on a separate host. 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.
- A Messaging Server host is available for notification mail delivery.

Which Software Components and Downloads Do You Need?

- Communications Suite: Calendar Server
- Back-end database: Either MySQL Server (installed through the Communications Suite Installer), or Oracle Database (which you download and install separately; see Oracle Database Online Documentation for Oracle Database installation documentation)
- Application server web container for Calendar Server: GlassFish Server
- LDAP server: Directory Server

For information on how Calendar Server uses Directory Server, see Calendar Server and Directory

Server Integration.

Installing and Configuring a Calendar Server 7 Update 2 Deployment

The tasks to install a Calendar Server 7 Update 2 deployment are as follows:

- To Check Requirements for Calendar Server 7 Update 2
- To Get the Software
- To Install Directory Server
- To Install and Configure Sun GlassFish Enterprise Server 2.1.1
- To Install Calendar Server and the Database Back End
- To Install the Calendar Server and MySQL Server Software
- To Prepare MySQL Server for Use with Calendar Server
- To Install and Create Oracle Database Instance for Calendar Server
- To Install the Calendar Server Software
- To Prepare Oracle Database for Use with Calendar Server

Note
If you are installing a Calendar Server 7 Update 2 front end on one host and a Calendar Server 7 Update 2 back end on a separate host, note the following installation differences:

- MySQL Server
  - If you don't have an existing MySQL server, install one by running the `commpkg install` command and prefixing the Calendar Server 7 Update 2 option with a tilde (~) to indicate that you only want to install the shared component dependencies of that product.
  - Then, when you install the Calendar Server 7 Update 2 software (again by running `commpkg install`), uncheck the dependency of MySQL Server.
  - Configure MySQL Server for Calendar Server 7 Update 2 (`config-mysql`).
  - Configure Calendar Server 7 Update 2 (`init-config`).
- Oracle Database:
  - If you don't have an existing Oracle Database to use with Calendar Server 7 Update 2, install one.
  - Configure Oracle Database for Calendar Server 7 Update 2 (`config-oracle`).
  - Configure Calendar Server 7 Update 2 (`init-config`).

To Check Requirements for Calendar Server 7 Update 2

See Requirements for Calendar Server 7 Update 2.

To Get the Software

1. Go to Get the Software.
   From this site, download Communications Suite 7 Update 2. Also download Sun GlassFish Enterprise Server 2.1.1 for use as the Calendar Server web container. If you need to install a directory service, download Directory Server 11g. If you choose to use Oracle Database 11g2 as the calendar store, you need to download that product as well, though you can use an existing Oracle Database 11g2 installation if you want. MySQL Server is included with the Communications Suite distribution, if you choose to use it for the calendar store.
2. Continue with the next task.

To Install Directory Server

1. If you need to install Directory Server (that is, your site does not currently have Directory Server deployed), see Installation Scenario - Directory Server.
2. When you are done installing Directory Server, continue with the next task.

For more information on how Calendar Server uses Directory Server, see Calendar Server and Directory Server Integration.

To Install and Configure Sun GlassFish Enterprise Server 2.1.1

1. See Installation Scenario - GlassFish Server.
2. When you are done installing GlassFish Server, continue with the next task.

To Install Calendar Server and the Database Back End

Starting with Calendar Server 7 Update 2, you can use either Oracle Database or MySQL Server as the Calendar Server back end (calendar store).

Depending on your database choice, go to one of the following two tasks:

- To Install the Calendar Server and MySQL Server Software
- To Install and Create Oracle Database Instance for Calendar Server

To Install the Calendar Server and MySQL Server Software

1. Make sure you have met the pre-installation requirements.
2. To install the Calendar Server software, 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 (CALDAV) 7u2 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 2 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 Prepare MySQL Server for Use with Calendar Server.

To Prepare MySQL Server for Use with Calendar Server

You can either perform 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 2. 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 7 Update 2. 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 or Oracle 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:
      - Solaris OS:

```
# /opt/mysql/mysql/scripts/mysql_install_db --user=mysql
--ldata=/var/mysql
```

      - Red Hat Linux or Oracle 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.
   - Solaris OS:

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

   - Red Hat Linux or Oracle Linux:

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

3. Install startup script.
   - Solaris OS:

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

   - Red Hat Linux or Oracle 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.
   - Solaris OS:

     ```
     # /opt/mysql/mysql/bin/mysqladmin -u root password
     '<password>'
     ```

   - Red Hat Linux or Oracle 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).
   - Solaris OS:

     ```
     # /opt/mysql/mysql/bin/mysql_secure_installation
     ```

   - Red Hat Linux or Oracle Linux:

     ```
     /usr/bin/mysql_secure_installation
     ```

7. Create the MySQL user, and caldav and iSchedule databases based on the sample session that follows.
   The following example uses `'caldav'` as the MySQL user name, `'caldav'` as the database name, and `ischedule` as the iSchedule 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> GRANT ALL ON caldav.* TO 'caldav'@'localhost';
mysql> CREATE DATABASE ischedule CHARACTER SET = UTF8;
mysql> GRANT ALL ON ischedule.* TO 'caldav'@'localhost';
mysql> exit
```

Note
The iSchedule protocol (currently in draft) defines how to handle scheduling between two different calendar servers. In general, the architecture accounts for a global calendar inbox/outbox for invitations. However, because iSchedule is still in draft form and not a standard, general adoption of the protocol has not yet taken place. Calendar Server currently handles invitations through the iMIP protocol (that is, by email). You need to configure the iSchedule database even though it is not currently used. If you remove the iSchedule database configuration, Calendar Server 7 Update 2 does not function correctly without it.

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.oracle.com/technetwork/systems/articles/smf-example-jsp-136458.html
      - http://blogs.sun.com/smenon/entry/how_to_configure_mysql_to
9. Continue with the section, Configuring Calendar Server 7 Update 2.

To Install and Create Oracle Database Instance for Calendar Server

Note
The Oracle Database instance must be a Unicode database, that is, the database character set must be AL32UTF8. Calendar Server does not support non-Unicode database character sets.

You can install an Oracle Database for Calendar Server use in one of the following three ways:

- Install a new database
- Create new database from an existing Oracle installation

- Create the Calendar Server schema on an existing database

To Install a New Database

The following procedure installs and creates the Oracle Database instance by using Oracle Universal Installer.

1. Start `runInstaller` to install the Oracle Database.
2. When the Oracle Universal Installer Welcome window appears click Next.
   The Specify Inventory directory and credentials windows appears.
3. Type the full path of the directory in which to install the Oracle software or accept the default directory.
   On UNIX and Linux installations, make sure that the directory owner, group, and permissions are set correctly.
4. Click OK.
   A dialog appears, for performing the root privileges before installing run the script in the command terminal.
5. Click Continue.
   The Specify File Locations window appears.
6. Type the Oracle home and directory path in which to install the Oracle Software or accept the default, and click Next.
   The Select Installation Type window appears.
7. Select Enterprise Edition or Standard Edition as appropriate for you environment and click Next.
   The Oracle Universal Installer verifies that your system meets minimum system requirements for installing and configuring the chosen products.
8. Correct any reported issues before continuing then click Next.
   The Select Database Configuration windows appears.
9. Select the starter database type of General Purpose, Transaction Processing or Data Warehouse and click Next.
   The Specify Database Configuration Options windows appears.
10. Type the the Global Database Name and SID in the Database Naming section.
11. Select the 'Unicode standard UTF-8 AL32UTF8' character set in the Database Character Set section and uncheck the 'Create database with sample schema' under the Database Example section, then click Next.
    The Select Database Management Options window appears.
12. Select Use Database Control for Database Management and click Next.
    The Specify Database File Storage Option window appears.
13. Select File System, Automatic Storage Management or Raw Devices as appropriate, or default File System and click Next.
    The Specify Backup and Recovery Options window appears.
14. Select the appropriate backup storage (the default is Do not enable Automated backups) and lick Next.
    The Specify Database Schema Passwords window appears.
15. Select Use different passwords for these accounts and type passwords or select Use the same password or all the accounts and click Next.
    The Summary window appears.
16. Click Install to begin the installation, proceed with the dialog privileges and run `root.sh` as `root`.
17. When the Exit Installation window appears, click Exit then click Yes on the dialog.

To Create a New Database From an Existing Oracle Installation

The following procedure creates the Oracle Database instance by using Oracle Database Configuration Assistant (DBCA).

1. Log in to the host where Oracle Database is installed.
2. Launch the DBCA in a terminal window.
   The Welcome window appears
3. Click Next.
   The Operations window appears.

4. Select Create a Database and click Next.
   The Database Templates window appears.
5. Select the default General Purpose under the template and click Next.
   The Database Identification window appears.
6. Type the Global Database Name and SID, and click Next.
   The Management Options window appears.
7. Select the Use Database Control for Database Management and click Next.
   The Database Credentials window appears.
8. Type the password for All Accounts and click Next.
   The Storage Options window appears.
9. Select the File System and click Next.
   The Database File Locations window appears.
10. Select the appropriate location Use Database File Locations from Template or Use Common Location for All Database Files or Use Oracle-Managed Files. Click Next.
    The Flash Recovery Area window appears.
11. Select the appropriate Archiving and click Next.
    The Database Content window appears.
12. Uncheck the sample schema and click Next.
    The Initialization Parameters window appears.
13. Click the Character Sets tab.
14. Select the Use Unicode (AL32UTF8) in the Database Character Set section from the drop-down menu and click Next.
    The Database Storage window appears.
15. Click Next.
    The Creation Options window appears.
16. Select Create Database and click Finish.
17. When the Confirmation window appears, click OK to confirm the creation.
18. After the database is created, the Database Configuration Assistant appears for password management.
19. Click Password Management to change the passwords or Click Exit.

To Create the Calendar Server Schema on an Existing Database

The following procedure extends the Calendar Schema on an Oracle Database instance.

1. Verify that the Oracle Database instance is running in AL32UTF8 database character set by running the following query in Oracle SQL*Plus SQL Plus:

```
SELECT * FROM NLS_DATABASE_PARAMETERS WHERE PARAMETER LIKE
'NLS_CHARACTERSET';
```

2. Examine the results.
   a. If the query returns `AL32UTF8`, the database can be used for creating Calendar Server schema. Continue to To Install the Calendar Server Software.
   b. If the query does not return `AL32UTF8`, you must either create a new database in AL32UTF8 or migrate the database character set to AL32UTF8. Database character set migration is in most cases an intricate process that requires careful planning and execution strategies. For details, consult Oracle Database Globalization Support Guide for the character set migration chapter, and documentation for Oracle Database Migration Assistant for Unicode. To create a new database instance, follow the instructions provided in To Create a New Database From an Existing Oracle Installation.

To Install the Calendar Server Software

1. To install the Calendar Server software, run the Communications Suite 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. Run the following command:

```
./commpkg install
```

For more information, see commpkg install Usage.

2. Select Calendar Server (CALDAV) 7u2 and proceed with the installation.

> **Note**
> This step also automatically installs MySQL Server software, even though you are using Oracle Database. If you choose, you can remove MySQL Server after you complete the Calendar Server installation.

The default installation directory for Calendar Server 7 Update 2 is `/opt/sun/comms/davserver`.

3. 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
```

4. Continue with the next section, To Prepare Oracle Database for Use with Calendar Server.

To Prepare Oracle Database for Use with Calendar Server

1. If your Oracle Database resides on a different host from where you installed the Calendar Server software, copy the `config-oracle` script and the `Util.pm` module, located in the *cal-svr-base*

/tools/unsupported/bin directory, to the Oracle Database host.

2. Make sure that the Oracle environment has been configured after installing the software by running the /usr/local/bin/oraenv script (or corenv for C Shell) to set up the environment.
3. Run the config-oracle script.

```
cd <cal-svr-base>tools/unsupported/bin
./config-oracle -c -i
```

4. Respond to the following prompts.

```
Enter the Oracle SYS user password:
Enter the name of the Calendar db user (caldav):
Enter the password for Calendar db user <user>:
Please enter password again:
Enter the name of the iSchedule db user (ischedule):
Enter the password for iSchedule db user <user_ischedule>:
Please enter password again:
```

The script starts to configure the Oracle Database for use with Calendar Server. For more information on this script, see Running the Oracle Communications Calendar Server config-oracle Script.

> **Note**
> The iSchedule protocol (currently in draft) defines how to handle scheduling between two different calendar servers. In general, the architecture accounts for a global calendar inbox/outbox for invitations. However, because iSchedule is still in draft form and not a standard, general adoption of the protocol has not yet taken place. Calendar Server currently handles invitations through the iMIP protocol (that is, by email). You need to configure the iSchedule database even though it is not currently used. If you remove the iSchedule database configuration, Calendar Server 7 Update 2 does not function correctly without it.

5. When the script is finished, proceed to Configuring Calendar Server 7 Update 2.

Configuring Calendar Server 7 Update 2

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.

See Calendar Server Initial Configuration.

Configuring Calendar Server With Multiple Hosts

If you have multiple back-end hosts in your Calendar Server deployment, additional steps are necessary. See Configuring Multiple Calendar Server Back-end Hosts.

Verifying the Calendar Server Configuration

To verify the Calendar Server configuration, you configure a client to connect to the server. See Configuring CalDAV Clients for Calendar Server 7.

Configuring the Calendar Server Document Store

The document store is used to store large data in the Calendar Server, such as calendar events and todos with large attachments. CalDAV and Convergence clients are able to retrieve these attachments over HTTP.

See Configuring the Calendar Server Document Store.

Running Calendar Server 7 Update 2 Post-Installation Tasks

After installing and configuring configuring Calendar Server 7 Update 2, 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 Post Configuration for more information.

Troubleshooting Calendar Server

See Calendar Server 7 Troubleshooting.

For More Information
See Calendar Server 7 Configuration Parameters for configuration parameters and values. See `davadmin config` for how to set configuration parameters by using the `davadmin` command. See Administering Calendar Server 7 Logging for how to enable logging.

Calendar Server Initial Configuration

< Back to Installation Scenario - Calendar Server

Oracle Communications Calendar Server Initial Configuration Version 7 Update 2

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 LDAP Directory Server.
   See Communications Suite Directory Server Setup Script (comm_dssetup.pl).

   > **Note**
   > You can use either LDAP Schema 2 or Schema 1. For information on how Calendar Server uses Directory Server, see Calendar Server and Directory Server Integration .

2. Configure Calendar Server by running the `init-config` command and responding to the prompts.
   Running the `init-config` command completes the Calendar Server software installation.
   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 screen.

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

      i. Screen 1: Select the Directory to Store Configuration and Data Files.
         The default directory is `/var/opt/sun/comms/davserver`.
      ii. Screen 2: Select Components to be Configured.

Currently, there is only the Calendar Server component.

iii. Screen 3: Network Connection.
Type your host name then DNS domain name.

iv. Screen 4: Select type of database for back end.
Choose MySQL database or Oracle database.

v. Screen 5: MySQL Server Configuration Details or Oracle Database Server Configuration Details
Type the following information, depending on whether you chose MySQL database or Oracle database:

- MySQL Server Details
  - Server Host (default: localhost)
  - Server Port (default: 3306)
  - Database User (default: `caldav`)
  - Password
  - Calendar DB Name (default: `caldav`)
  - iSchedule DB Name (default: `ischedule`)

> **Note**
> The iSchedule protocol (currently in draft) defines how to handle scheduling between two different calendar servers. In general, the architecture accounts for a global calendar inbox/outbox for invitations. However, because iSchedule is still in draft form and not a standard, general adoption of the protocol has not yet taken place. Calendar Server currently handles invitations through the iMIP protocol (that is, by email). You need to configure the iSchedule database even though it is not currently used. If you remove the iSchedule database configuration, Calendar Server 7 Update 2 does not function correctly without it.

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. Then continue with Screen 6 to configure the document store.

- Oracle Database Server Details
  - Server Host (default: localhost)
  - Server Port (default: 1521)
  - Service Name (default: `orcl.`*domain*)
  - Calendar DB User (default: `caldav`)
  - Password
  - iSchedule DB User (default: `ischedule`)
  - Password
    A pop-up message appears if you do not have the correct value entered for the Oracle Database:

```
Unable to connect to the Oracle Database Server:
<hostname>:1521. This may result in an incomplete
configuration, if you accept the current Oracle
Database 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. Then continue with Screen 6 to configure the document store.

vi. Screen 6: Select the Document Store Directory.
The default is `/var/opt/sun/comms/davserver/db`.

> **Note**
> You configure the document store as part of the Calendar Server post-configuration steps. See Configuring the Calendar Server Document Store for more information.

vii. Screen 7: Application Server Configuration Details.
Type the following information:
- Install 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)

viii. Screen 8: 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 (yes selected by default)
  This setting specifies if the specified administration server port is setup for HTTPS access.

ix. Screen 9: URI Path.
The default URI path is `/`. You should use `/` (root) as the default context URI for deployment. The purpose of this recommendation is for better client compatibility and ease of client configuration. If the base URI is not `/`, users are more likely to have to use their advanced client configuration and type a long cumbersome URL versus just being able to enter a host name. Using `/` as the URI path replaces the GlassFish Server's main `index.html`, thus, the GlassFish welcome page is no longer displayed at `http://`*host*`:`*port*.

> **Note**
> For information about using a .well-known URI, such that access to `/` (root) or `/.well-known/caldav/` is redirected to the `/dav/principals/` URI, see Support for CalDAV and CardDAV Autodiscovery.

x. Screen 10: 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 minimum required version

of `comm_dssetup` installed. You must use at least `comm_dssetup` 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.

xi. Screen 11: DC Tree Suffix.
The default value results from when you ran `comms_dssetup.pl` against the Directory Server.

xii. Screen 12: LDAP Unique ID attribute.
Type the LDAP attribute whose value serves as the unique identifier for each calendar account in the calendar database. The default is `nsuniqueid` if you are installing Calendar Server 7 Update 2, but has changed to `davUniqueId` for Calendar Server 7 Update 3.

> **Caution**
> This attribute defines the unique value used as the database identifier for each account. This value is used internally to identify a user in other user's access control entries, subscription entries, and so on. The attribute chosen as the unique ID attribute must be present in all user, group, and resource LDAP entries for the deployment. Do not use the default value of `nsuniqueid` in a production deployment. See Changing User uuid for more information on choosing a production-ready value.

xiii. Screen 13: Default Domain Name.
Type the Domain Name for the LDAP users in the deployment.

xiv. Screen 14: Organization DN for the Default Domain
Type the organization DN under which all users and groups that belong to the default domain are located in the LDAP tree.

xv. Screen 15: Notification Mail Server Configuration Details.
Type the following information:
- Mail Server Host Name (default: *hostname*`.`*domainname*)
- Mail Server Port Number (default: 25)

xvi. Screen 16: Calendar 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 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 screen provides a running update of all tasks if they have passed or failed. When the message "All Tasks Passed" is displayed, the configuration has finished. Check the specified log files for 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. In GlassFish Server, enable Connection Validation for the connection pools (both CalDav back-end and iSchedule pools) to enable Calendar Server to automatically reconnect to the back-end database if it goes down.
   a. In the Admin Console, choose Resources, then JDBC, then Connection Pools.
   b. Select the pool.
   c. Check the Required box for Connection Validation.
   d. Choose table for the Validation Method.
   e. Type DUAL for Table Name.
   f. Click Save.
   g. Click the Advanced tab.
   h. Type 60 for Validate Atmost Once.
   i. Click Save.
      This configuration then issues the command "select count(*) from DUAL;" on every connection, at most one time every 60 seconds. (If the connection is not being used, it is not checked.)

      Note

      Use these settings as a starting point and adjust where necessary. For example, if validation is not important, you can turn it off. Additionally, you might want to adjust the "Validate At Most Once" time duration or validate each time a connection is requested (by setting the value to 0). HA deployments might also use different values.

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.

Configuring the Calendar Server Document Store

Configuring the Oracle Communications Calendar Server Document Store Version 7 Update 2

This information explains how to configure either a local or remote document store for Calendar Server 7 Update 2. You set up one document store per configured Calendar Server back end. For conceptual information, see Document Store and Planning the Document Store.

> **Note**
> Every logically configured database, including the iSchedule database, must have its own unique document store to manage its large data.

Topics:

- To Configure a Local Document Store
- To Configure a Remote Document Store
- To Configure Oracle Database for Both Calendar Data and Large Data
- Remote Document Store Authentication
- To Configure the Document Store for High Availability
- 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 document store user only.

   ```
   mkdir </path/to/docstore>
   chmod 700 </path/to/docstore>
   ```

2. Configure Calendar Server to use the document store directory.

   ```
   davadmin config modify -u admin -o store.dav.defaultbackend.dbdir
   -v </path/to/docstore>
   ```

3. Restart Calendar Server by restarting the GlassFish Server instance, for example:

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

To Configure a Remote Document Store

Prerequisite: Install the Oracle Communications Calendar Server software. See Installation Scenario - Oracle Communications Calendar Server.

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 document store user only.

2. Run the `configure-as` command, which is located in the document store `sbin` directory.

```
<cal-svr-base>/sbin/configure-as
```

3. Start the document store server.

```
<cal-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.*.attachstorehost` and `store.dav.*.attachstoreport` parameters on each Calendar Server front-end host to specify the host name and port number of the document store hosts for both the back-end database and iSchedule database.
For example:

```
davadmin config modify -u admin -o
store.dav.defaultbackend.attachstorehost -v ahost.example.com
davadmin config modify -u admin -o
store.dav.defaultbackend.attachstoreport -v 8008
davadmin config modify -u admin -o
store.dav.ischedulebackend.attachstorehost -v ahost.example.com
davadmin config modify -u admin -o
store.dav.ischedulebackend.attachstoreport -v 8008
```

Each back-end database and iSchedule database have their own document stores. See `davadmin` command for more information on how to change the `store.dav.*.attachstorehost` and `store.dav.*.attachstoreport` parameters.

5. Restart Calendar Server by restarting the GlassFish Server instance, for example:

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

To Configure Oracle Database for Both Calendar Data and Large Data

In the case of Oracle Database, you can configure it to contain both the calendar data and the data that otherwise would need to be stored in the separate document store. That is, you would use a single "large" Oracle database for both calendar data and the document store. This type of configuration is not possible with a MySQL database, because it has a storage size limit of 64 KB. Oracle Database does not have this limitation.

1. Set the `store.dav.`*`backend-name`*`.attachstorehost` parameter for a value of `dbdocstore`.
For example:

```
davadmin config modify -o store.dav.defaultbackend.attachstorehost
-v dbdocstore
davadmin config modify -o
store.dav.ischedulebackend.attachstorehost -v dbdocstore
```

You need to do this on all back ends, including the iSchedule back-end database.

2. Restart Calendar Server by restarting the GlassFish Server instance, for example:

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

Remote Document Store Authentication

This feature is available starting in **Calendar Server 7 Update 3**.

The remote document store mechanism provides storage of calendar data on remote hosts. Starting in Calendar Server 7 Update 3, you must configure password authentication of the connection between the the remote document store server (which runs on the remote host where the store is located). and the document store client (which runs in the local Calendar Server instance). The password needs to be known by both the document store client and the remote document store server. The password is stored in a password file (called a *wallet*) on each host where it is needed.

Note
If you have multiple remote document stores, they must all use the same password.

To Configure Remote Document Store Authentication

This feature is available starting in **Calendar Server 7 Update 3**.

Prerequisite: The remote document store must exist and be running. If necessary, see To Configure a Remote Document Store.

1. On the local Calendar Server host, use the `davadmin passfile modify` command to set the document store password.
   For example:

```
cd <cal-svr-base>/sbin
./davadmin passfile modify
Enter Password File password:
Do you want to add/modify the app server admin user password? [y/n]
n

Do you want to add/modify the migration server user password? [y/n]
n

Do you want to add/modify the database password? [y/n] n

Do you want to add/modify the document store password? [y/n] y
Enter the password:
Reenter the password:
```

   Setting the document store password updates the `store.document.password` configuration parameter.

2. On each remote document store host, use the `configure-as` command to set the password.
   For example:

```
cd <cal-svr-base>/sbin
./configure-as
Enter Password File password:
Enter the Document Store password:
Reenter the password:

Please check the values in
/var/opt/sun/comms/davserver/config/ashttpd.properties
are correct before starting the server with start-as
To stop the server, run stop-as
Document Store server is now configured
```

The `configure-as` script runs the `davadmin passfile create -O` command to create the wallet that is used by the remote document store server. The `-O` option instructs the `davadmin` command to set the password locally (on the remote document store host) and that it does not need to contact Calendar Server.

> After setting the initial password, if you use the `davadmin config modify` command to modify the `store.document.password` configuration parameter (instead of rerunning the `davadmin passfile modify` command), the document store password in the "davadmin" wallet may not be up-to-date.

To Configure the Document Store for High Availability

- Use the `store.dav.`*backendid*`.attachstorehost` configuration parameter to specify a comma-separated list of document store hosts. When the current document store host fails, the back end fails over to the next document store host on the list.

A shared file system, or some kind of replication for the data, is required. In addition, you must keep the data on the document stores in sync at all times.

See Calendar Server 7 Command-Line Utilities and Calendar Server 7 Configuration Parameters for more information.

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 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. Reconfigure the document store server.

- Remote store: Reconfigure the `store.datadir` parameter in the `ashttpd.properties` file.
- Local store: Reconfigure the `store.dav.defaultbackend.dbdir` parameter.
  For more information on these parameters, see Calendar Server 7 Configuration Parameters.

5. If the document store is remote, restart it.

```
<doc-svr-base>/sbin/start-as
```

6. Restart Calendar Server 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 init-config Syntax

Oracle Communications Calendar Server init-config Syntax Version 7 Update 2

The `init-config` script enables you to perform an initial configuration of your Oracle Communications Calendar Server deployment.

The following table provides the `init-config` options.

init-config Options

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.
`-relaxugcheck` This option is available starting in Calendar Server 7 Update 3 Patch 9.	Bypasses checking for the organization RDN to be the same as the organization tree suffix.

Oracle Communications Calendar Server Post Configuration

Oracle Communications Calendar Server Post Configuration Version 7 Update 2

This information contains procedures that you might need to run after installing and configuring Oracle Communications Calendar Server 7 Update 2.

Topics:

- Configuring Calendar Server for a Secure Deployment
- Changing User uuid
- Adding LDAP Access Control for Calendar Server Features

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
- Enabling Secure Notification Mail Submission

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
- Enabling Secure Notification Mail Submission

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 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 -o
  davcore.uriinfo.fulluriprefix -v https://www.example.com:8181
  ```

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 2 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 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
```

Enabling Secure Notification Mail Submission

The Calendar Server notification mechanism relies on Messaging Server to deliver iMIP messages, and email notifications and reminders. By default, message submission is in the clear. You can secure this communication by using TLS/SSL transport. To use TLS/SSL, you need to install a CA-signed SSL certificate for Messaging Server. If you choose to use a self-signed certificate, you need to import the certificate into the Java `truststore` file by using the Java `keytool` command, then define the `javax.net.ssl.trustStore` and `javax.net.ssl.trustStorePassword` variables to the GlassFish Server JVM. To use TLS, set the `notification.dav.smtpstarttls` configuration parameter to `true`. To use SSL, set the `notification.dav.smtpusessl` configuration parameter to `true` and the `notification.dav.smtpport` configuration parameter to the SMTP SSL port, typically 465.

To further enhance security, you can employ SMTP authentication by setting the `notification.dav.smtpauth` configuration parameter to `true` and specifying the user and password of a valid mail user in your deployment by using the `notification.dav.smtpuser` and `notification.dav.smtppassword` configuration parameters, respectively.

Changing User uuid

Calendar Server requires a unique identifier in the form of an LDAP attribute whose value is used to map each calendar account to a unique account in the database. In Calendar Server 7 Update 2, the default attribute is `nsuniqueid`. Directory Server auto-generates this attribute, which is guaranteed to be unique. A problem arises when the LDAP entry is deleted and recreated, or moved to another server by using an `ldapadd` command: the `nsuniqueid` value of the new entry is different, losing the mapping between the Directory Server entry and its related contents in the database. Currently, you cannot assign the changed `nsuniqueid` value to the old one. You can try to fix the database contents to switch the unique id value but the process is difficult and prone to errors. Also, it does not fix all data, such as ACLs and subscription lists.

Unfortunately, you cannot choose an attribute that is guaranteed to have unique values in the Directory Server and that avoids the preceding issue. Thus, your best option is to **not use the default value** and instead define your own unique attribute for the deployment and use that. A globally unique id such as `entryUUID` (RFC 4530) is the best candidate.

If `nsuniqueid` has to be used, make sure you have an export of your entire LDAP directory that can be re-imported when required. Importing the entire database data, unlike reading a single entry, preserves the value of the `nsuniqueid` attribute.

> Starting with **Calendar Server 7 Update 3**, if you chose to use `nsUniqueId` attribute when you installed Calendar Server 7 Update 2, you should switch to using the new `davUniqueId` attribute when you upgrade to Calendar Server 7 Update 3. See Upgrading to Oracle Communications Calendar Server 7 Update 3 for details.

To change the unique identifier:

- Run the `davadmin config` command to modify the `davcore.uriinfo.permanentuniqueid` configuration parameter, which specifies the unique valued LDAP attribute present in the LDAP entry of all subjects (users, groups, and resources).
  For more information on the `davadmin` command, see Calendar Server 7 Command-Line Utilities .

> **Caution**
> Changing this option after any user data is created in the database leads to data loss.

Be sure to also index the attribute used for `davcore.uriinfo.permanentuniqueid`, as Calendar Server performs searches on it. The chosen attribute needs to be indexed for presence and equality ([pres.eq]) in Directory Server. For more information on working with Directory Server indexes, refer to the Directory Server documentation. For example, for Directory Server 7, see Directory Server Indexing. Add the attribute to the list of LDAP attributes fetched by Calendar Server by using the `davadmin config modify` command on the `davcore.uriinfo.subjectattributes` configuration parameter. Make sure to add on to the existing list and pass the entire value when doing the modification.

For information on how Calendar Server uses Directory Server, see Calendar Server and Directory Server Integration.

Adding LDAP Access Control for Calendar Server Features

This section provides sample ACIs that show the attributes that Calendar Server needs for granting permission to users to search the LDAP directory for other users and resources whose calendars they can subscribe to. Tailor these samples to your individual site's security needs. Add an ACI to the user/group suffix in Directory Server by using the `ldapmodify` tool. For more information on creating ACIs, see Creating, Viewing, and Modifying ACIs.

- The following sample ACI enables users to search for all other users and resources in the same domain for all domains hosted in the Directory Server, assuming a suffix of `o=isp`.

```
dn: o=isp
changetype: modify
add: aci
aci: (target="ldap:///($dn),o=isp")
 (targetattr!="userPassword")
 (targetfilter=(|(objectClass=icscalendaruser)(objectclass=icscalendarresource
(version 3.0; acl "CS User search access to all users and resources in own
domain - product=davserver,class=install,num=3,version=1";
 allow (read,search)
 userdn="ldap:///[$dn],o=isp??sub?(objectclass=icscalendaruser)";)
```

- To control domain access at a finer level, add individual ACIs instead of using the `$dn` macro. For example, to allow search for only one domain, set the following ACI on the domain organization entry.

```
dn: <domainA.orgdn>
changetype: modify
add: aci
aci: (targetattr!="userPassword")
 (targetfilter=(|(objectClass=icscalendaruser)(objectclass=icscalendarresource
(version 3.0; acl "CS User search access to all users and resources in domain
A - product=davserver,class=install,num=3,version=1";
 allow (read,search)
 userdn="ldap:///<domainA.orgdn>??sub?(objectclass=icscalendaruser)";)
```

Replace *domainA.orgdn* with your organization DN.

When adding ACIs to enable users to search other domains, that is, cross-domain searches, keep the following in mind:

- For `domain A` users to be able to search for users in `domain B`, you would add an ACI on `domain B`'s node to allow the search from users in `domain A`. For example, to enable users in `example.com` to search users in `varrius.com`, add the following ACI to the domain entry for `varrius.com` domain `o=varrius.com,o=isp` by using the `ldapmodify` command:

```
dn: o=varrius.com,o=isp
changetype: modify
add: aci
aci: (targetattr!="userPassword")
 (targetfilter=(|(objectClass=icscalendaruser)(objectclass=icscalendarresource
(version 3.0; acl "example.com users access in varrius.com -
product=davserver,class=install,num=3,version=1";
 allow (read,search)
 userdn="ldap:///o=example.com,o=isp??sub?(objectclass=icscalendaruser)";)
```

- You might also need to set Domain Access Control Lists (ACLs) to control calendar operations that span multiple domains. Oracle Communications Calendar Server 7 combines domain ACLs with the calendar and scheduling ACLs to grant or deny levels of access to these operations. All operations within a single domain rely strictly on the calendar and scheduling ACLs. For more information, see Managing Domain Access Controls.

Running the Oracle Communications Calendar Server config-mysql Script

< Back to Calendar Server Installation Scenario

Running the Oracle Communications Calendar Server config-mysql Script
Version 7 Update 2

The `config-mysql` Perl script prepares a new MySQL installation for use with Oracle Communications Calendar Server 7 Update 2. 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.

> 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 *cal-svr-base*`/tools/unsupported/bin` directory.

Topics:

- Syntax and Examples
- To Run the config-mysql Script

Syntax and Examples

`config-mysql` [*options*]

where the *options* are:

Option	Description
`--help` | `-?`	Prints help
`--calendar` | `-c`	Configures the calendar database
`--ischedule` | `-i`	Configures the ischedule database
`--server` | `-s`	Configures the MySQL server instance
`--user` | `-u`	Creates the MySQL database user

- To set up a new MySQL Server instance, and the default back end and iSchedule back end:

```
config-mysql -s -u -c -i
```

- To set up a MySQL Server instance on an additional host, and a new calendar back end:

```
config-mysql -s -u -c
```

- To set up just a new calendar back end on any existing instance:

```
config-mysql -c
```

To Run the config-mysql Script

1. As root, launch the `config-mysql` script with option -s -u -c -i.
   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. 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.
4. Type the MySQL root user password, and type again to confirm.
5. Type the db user, password (once more to confirm), calendar db name, and iSchedule database name.
6. The script will then output the list of tasks to be performed and asked the user to confirm before proceeding. Below is a sample output:

```
A MySQL instance configuration /etc/my.cnf already exists
Are you sure to overwrite? (Y/N) y
Enter the MySQL data directory (/var/mysql): /var/mysql
Enter the MySQL root user password:
Please enter password again:
Enter the db user name: caldav
Enter the db user password:
Please enter password again:
Enter the name of the Calendar db (caldav):
Enter the name of the iSchedule db (ischedule):

====================================================
Here are the tasks to configure the MySQL instance:
  1. Attempt to stop MySQL server /etc/init.d/mysql stop
  2. Run mysql_install_db script to prepare a new database
directory
     in /var/tmp/mysql
  3. Create MySQL server configuration /etc/my.cnf
  4. Install mysql.server script to system startup and shutdown
  5. Attempt to start MySQL server /etc/init.d/mysql start
  6. Run mysqladmin to change the MySQL root password
  7. Run mysql_secure_installation to lock down the MySQL
installation

=======================================
Here is the SQL script to be performed:
CREATE USER 'caldav'@'localhost' IDENTIFIED BY 'password';
CREATE USER 'caldav'@'%' IDENTIFIED BY 'password';
CREATE DATABASE IF NOT EXISTS caldav CHARACTER SET = UTF8;
GRANT ALL ON caldav.* TO 'caldav'@'localhost';
GRANT ALL ON caldav.* TO 'caldav'@'%';
CREATE DATABASE IF NOT EXISTS ischedule CHARACTER SET = UTF8;
GRANT ALL ON ischedule.* TO 'caldav'@'localhost';
GRANT ALL ON ischedule.* TO 'caldav'@'%';

Do you want to proceed? (Y/N)
```

7. If user chooses to proceed, the script performs the following steps:
   - 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 server PID file could not be found!." You can safely ignore this message.
   - Runs `mysql_install_db` to create the instance data directory specified in Step 3.
   - 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 4.
   - 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 4 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 database, iSchedule database, and database user by using the mysql tool.

Running the Oracle Communications Calendar Server config-oracle Script

Running the Oracle Communications Calendar Server config-oracle Script

The `config-oracle` Perl script prepares a running Oracle Database instance for use with Oracle Communications Calendar Server 7 Update 2. Before running this script, make sure that you have run the `oraenv` or `coraenv` script. The script creates a log file in the `/tmp` directory with a name such as `config-oracle_`*YYYYMMDDHHMMSS*`.log`.

> Beginning with **Oracle Communications Calendar Server 7 Update 2,** the `config-oracle` and `Util.pm` scripts are bundled in the product distribution in the *cal-svr-base*`/tools/unsupported/bin` directory.

Requirements: Must be `root`.

Location: *cal-svr-base*`/tools/unsupported/bin/config-oracle`

Syntax

`config-oracle` [*options*]

Options

The following table provides the options to the `config-oracle` script.

config-oracle Script Options

Option	Description
`--help` or `-?`	Prints the help.
`--calendar` or `-c`	Configures the calendar database.
`--ischedule` or `-i`	Configures the iSchedule database.

Examples

- To set up the default back end and iSchedule back end:

```
config-oracle -c -i
```

- To set up an additional calendar back end:

```
config-oracle -c
```

Sample config-oracle Session

1. As `root`, type:

```
config-oracle -c -i
```

2. Type the Oracle SYS user password.
3. Type the calendar db user name and password, and iSchedule database user name and password.
4. The script outputs the list of tasks to be performed and ask for confirmation before proceeding. The following provides a sample `config-oracle` session:

```
Enter the Oracle SYS user password:
Enter the name of the Calendar db user (caldav):
Enter the password for Calendar db user caldav:
Please enter password again:
Enter the name of the iSchedule db user (ischedule):
Enter the password for iSchedule db user ischedule:
Please enter password again:

========================================
Here is the SQL script to be performed:
WHENEVER SQLERROR EXIT SQL.SQLCODE;

CREATE USER caldav IDENTIFIED BY password;
GRANT CONNECT, RESOURCE TO caldav;
GRANT CREATE VIEW to caldav;
GRANT UNLIMITED TABLESPACE to caldav;
GRANT EXECUTE ON DBMS_LOCK to caldav;

WHENEVER SQLERROR EXIT SQL.SQLCODE;

CREATE USER ischedule IDENTIFIED BY password;
GRANT CONNECT, RESOURCE TO ischedule;
GRANT CREATE VIEW to ischedule;
GRANT UNLIMITED TABLESPACE to ischedule;
GRANT EXECUTE ON DBMS_LOCK to ischedule;


Do you want to proceed? (Y/N)
```

5. If you answer **Y**, the script creates the calendar and iSchedule database users and schemas.

Chapter 6. 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. 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 Post-Installation 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.

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.xml` 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.xml`) file must have three instances of `httpbind` component configuration:

Use the `imconfigutil add-component` to add the unique `httpbind` and `avatar.jid` values for each instance of Convergence.

```
<component id="httpbind1">
<jid>convergence1-jid.httpbind.example.com</jid>
<password>secret</password>
</component>

<component id="httpbind2">
<jid>convergence2-jid.httpbind.example.com</jid>
<password>secret</password>
</component>

<component id="httpbind3">
<jid>convergence3-jid.httpbind.example.com</jid>
<password>secret</password>
</component>
```

Similarly, in this example, the Instant Messaging server configuration (`iim.conf.xml`) file must have three instances of avatar component configuration:

```
<component id="avatar1">
<jid>convergence1-jid.avatar.example.com</jid>
<password>secret</password>
</component>

<component id="avatar2">
<jid>convergence2-jid.avatar.example.com</jid>
<password>secret</password>
</component>

<component id="avatar3">
<jid>convergence3-jid.avatar.example.com</jid>
<password>secret</password>
</component>
```

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.xml` 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. Add **`c2s`** to `iim.conf.xml`:

   ```
   /opt/sun/comms/im/sbin/imconfutil -u set-listener-prop  s2s
   protocols="s2s,component,c2s" -c
   /opt/sun/comms/im/config/iim.conf.xml
   ```

3. Using the `imsconfutil` command, set the `iim_agent.enable` property to `true`.
4. Set the Httpbind JID and password by using the `imconfutil add-component` command. For example:

```
/opt/sun/comms/im/sbin/imconfutil add-component id=httpbind1
jid=convergence1-jid.httpbind.example.com
password=secret -c /opt/sun/comms/im/config/iim.conf.xml
```

5. Set the avatar JID and password by using the `imconfutil add-component` command. For example:

```
/opt/sun/comms/im/sbin/imconfutil add-component id=avatar1
jid=avatar1-jid.avatar.example.com
password=secret -c /opt/sun/comms/im/config/iim.conf.xml
```

   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.

6. 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

> **A Note About Directory Server**
> The Convergence configuration program does not change any information in Directory Server. It only connects to Directory Server to verify the Directory Manager user and password and collects `dcroot` and domain values.

- 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 welcome 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.

    > **Note**
    > Only choose CS 6.3 if you must configure Convergence with an existing version of Calendar Server 6.3. See: Removed Features for Communications Suite: Calendar Server 6.3.

    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 the 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.xml` 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.xml` 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.xml` 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 7. 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. 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 8. 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. 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`

For details on downloading these components, 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`.

Chapter 9. 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 2 component products. For complete installation instructions, see Sun GlassFish Enterprise Server 2.1.1 Installation Guide. The following procedures summarize the process.

For details on downloading the software, see Get the Software.

> **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-b03)
   Java HotSpot(TM) Server VM (build 20.1-b02, 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

1. At the Ready to Install prompt, type `1` (to Install Now).
   The installation begins.
2. At the Installation Successful screen, press Enter to exit the installation program.
3. Verify the GlassFish Server version.
4. 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 2), 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. To restrict viewing the listing of the `iwc_static/layout` directory in Convergence, change the value of the `init-param` listings to `false` for `DefaultServlet` in `default-web.xml`, located in: `/opt/SUNWappserver/domains/domain1/config/`. For example:

```
<servlet>
     <servlet-name>default</servlet-name>

<servlet-class>org.apache.catalina.servlets.DefaultServlet</servlet-c
.
     <init-param>
       <param-name>debug</param-name>
       <param-value>0</param-value>
     </init-param>
     <init-param>
       <param-name>listings</param-name>
       <param-value>false</param-value>
     </init-param>
     <load-on-startup>1</load-on-startup>
   </servlet>
```

4. 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 10. Installation Scenario - Indexing and Search Service

Installation Scenario - Indexing and Search Service for Oracle Communications Unified Communications Suite Version 1 Update 3

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.

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 2
- 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 2 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.

> **Note**
> You currently "patch up" to Indexing and Search Service 1 Update 4.

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.
   For more information, see Indexing and Search Service Initial Configuration.
4. Restart GlassFish Server.

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

5. Run Post Configuration Procedures.
   See Indexing and Search Service Post 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. This parameter is refreshable, so a refresh of the configuration is sufficient to enable the change.

   ```
   ./refresh imap
   ```

11. (Optional) Configure Convergence to Use ISS

See Enabling Convergence and 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 3 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 and Oracle Linux:** You need to install the RPM `httpd` from the respective Linux media. For instructions, refer to the appropriate product's 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
No type defined (jmq, ldap, web) default to all
Hostname match found
test3.example.com:4848 (tcp) => Active
test3.example.com:80 (tcp) => Active
checking test3.example.com 389
checking test3.example.com 7676
Version string matched in headers: 101 imqbroker 4.[2-9]
test3.example.com:143 (tcp) => Active
checking test3.example.com 7676
checking test3.example.com 389
```

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 information from the *iss_base*`/etc/jiss.conf.template` file 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 ] [ -S <FILE> ] [ -R <FILE> ] [ -C <FILE> ]
```

Options

These are the options for this command:

configure_etc.pl Options

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 `cluster`: Configures a cluster
`-s`	Optional. Skips validation steps.
`-S` *FILE*	Saves information to state file.
`-R` *FILE*	Preserves all data and regenerates comments in file (requires `-f` *file* option).
`-C` *FILE*	Creates a cluster configuration file based on the `jiss.conf` and `jiss_passwd.conf` files.

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
```

Indexing and Search Service Post Configuration

Indexing and Search Service for Oracle Communications Unified Communications Suite Post Configuration Version 1 Update 4

This information contains procedures that you might need to run after installing and configuring Indexing and Search Service for Oracle Communications Unified Communications Suite 1 Update 4.

Topics:

- Enabling Autoprovisioning
- Enabling Periodic Auto-sync
- Enabling Autobootstrapping of Accounts
- Enabling the Watcher Service

Enabling Autoprovisioning

Autoprovisioning enables you to add new accounts to the ISS store automatically. By using autoprovisioning, you make account creation less prone to error than when manually bootstrapping accounts. However, unlike the `issadmin.sh` command, which gives you control over the group or singleton status for an account, autoprovisioning simply creates the account in the next available index group in the ISS store by using the default allocation policy See ISS Store Instance Overview and Concepts for more information about the default allocation policy.

To Enable ISS Autoprovisioning

1. Edit the `jiss.conf` file and set the `iss.autoprovision.enabled` configuration parameter to `true`.
2. Refresh the ISS configuration for the change to take place.

```
issadmin.sh --refresh
```

For more information on autoprovisioning, see Autoprovisioning ISS Accounts.

Enabling Periodic Auto-sync

This feature checks every ISS account against Messaging Server accounts at regular intervals to detect differences, for example, from a reconstructed folder or lost event notifications, that ISS can then automatically correct.

To Enable Periodic Autosync

1. Edit the `jiss.conf` file and set the `iss.indexsvc.periodic.autosync.enabled` configuration parameter to `true`.
2. (Optional) Set the `iss.indexsvc.periodic.autosync.interval` configuration parameter to specify the number of seconds to wait from the start of one period until the start of the next autosync period.
   The default is 300 seconds.
3. (Optional) Set the `iss.indexsvc.periodic.autosync.count` configuration parameter to specify the number of accounts to process from the list of accounts yet to be synced during each period.

The default is 1000.
4. Refresh the ISS configuration for the change to take place.

```
issadmin.sh --refresh
```

5. For tuning suggestions, see Other Tuning Controls of Periodic Autosync.

For more information on periodic autosync, see Enabling Periodic Autosync.

Enabling Autobootstrapping of Accounts

Similar to the situation for active accounts described in Overview of Periodic Automatic Synchronization, accounts which have not been bootstrapped or autoprovisioned may cause event notifications of changes to such accounts to fail. To correct these accounts, you can use the *autobootstrapping* feature, which is useful if you want your deployment to index uninitialized accounts under such conditions.

To Enable Periodic Autobootstrap

1. Edit the `jiss.conf` file and set the `iss.indexsvc.periodic.autobootstrap.enabled` configuration parameter to `true`.
2. (Optional) Set the `iss.indexsvc.periodic.autobootstrap.interval` configuration parameter to specify the number of seconds to wait from the start of one period until the start of the next autobootstrap period.
   The default is 300 seconds.
3. (Optional) Set the `iss.indexsvc.periodic.autobootstrap.count` configuration parameter to specify the number of accounts to process from the list of accounts yet to be bootstrapped during each period.
   The default is 500.
4. Refresh the ISS configuration for the change to take place.

```
issadmin.sh --refresh
```

For more information, see Enabling Periodic Autobootstrap.

Enabling the Watcher Service

This feature is designed for the implementation of highly available (HA) ISS nodes, however the service itself is useful even when you do not use HA. The watcher service provides local host monitoring of ISS services and alerts you, with log file messages and email warnings, when it detects a service outage. Once alerted, you can take the appropriate corrective action, such as restarting a service.

To Enable the ISS Watcher Service

To enable the watcher service on an ISS node, configure the appropriate `iss.cluster` and `iss.watcher` parameters in the `jiss.conf` file as described in Administering the ISS Watcher Service .

postpatch_restart.sh

postpatch_restart.sh

The `postpatch_restart.sh` utility updates the system after an Indexing and Search Service patch has been applied. The utility script performs five basic operations:

- Stopping all ISS services
- Merging the configuration file
- Updating the configuration with new parameters
- Starting all ISS services
- Deploying the ISS war files to GlassFish Server

Location:*iss-base*`/bin/postpatch_restart.sh`

Syntax

```
postpatch_restart.sh [ -h ] [ -v ] [ -S <FILE> ] -f [ <FILE> ] [-b
<BASEDIR> | <BASEDIR> ]
```

Options

These are the options for this command:

Option	Description
`-b` *BASEDIR* | *BASEDIR* **The `-b` option is available starting in Indexing and Search Service 1 Update 4 Patch 14.**	Sets the base directory of the ISS installation.
`-S` *FILE*	Generates state file for silent install based on this run. A state file is generated only if you are prompted for new information that has changed between releases.
`-f` *FILE*	Specifies the file containing configuration information for silent install.
`-v`	Uses verbose output.
`-h`	Prints out the usage summary.

Example run

```
# /opt/sun/comms/jiss/bin/postpatch_restart.sh -S /tmp/new.state
/opt/sun/comms/jiss
```

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.overquota.enable -v 0
./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.underquota.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 multiple ISS backends to connect to the same INDEXMS destination, set the `local.store.notifyplugin.index.destinationtype` parameter to **`topic`** rather than queue.

> **Note**
> The `local.store.notifyplugin.index.overquota.enable` and `local.store.notifyplugin.index.underquota.enable` parameters are "newer" parameters that older versions of the `configutil` command do not support. If this is the case, you see a warning about setting an unknown parameter. This only means that the over and under quota events have not been disabled. These events are still sent to ISS but are ignored.

> **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
```

Messaging Server 7 Update 4 and later may require that the NSS shared component be updated before JMQ notifications will work properly. If the *msg-srv-base*`/log/imap` log contains an error at start up similar to the following:

```
[26/Jun/2012:18:55:00 +0000] bco44 imapd[5471]: General Error:
jmqNotify JMQ initialization error The library is incompatible
```

Then consult the patch README for Messaging Server to determine the corresponding required patch level for the NSS/NSPR/JSS patch. For example, Messaging Server 7 Update 4 Patch 25 requires the 3.12.8 version of NSS shared component.

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 some IMAP SEARCH queries to ISS.

Note
In this step, you send some IMAP search and sort commands to ISS. The `service.imap.indexer.hostname` `configutil` parameter must also be set to function correctly. ISS processes search operations based on words rather than substrings; consequently, results might not follow IMAP standards and might differ from a search performed by the IMAP server.

ISS is not used in any of the following scenarios:

- ESEARCH extension features are present
- KEYWORD, HEADER, OLDER, YOUNGER, MODSEQ, ANNOTATION, or RECENT appears
- SUBJECT, FROM, TO, CC, BCC, TEXT or BODY is not present

If an error occurs from ISS, then the search might fall back to processing by the IMAP server. See the ISS documentation for details on what searches ISS supports, because it might not support all combinations of AND, OR and NOT operations that IMAP supports.

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`	Redirects some IMAP SEARCH queries to ISS for fulfillment	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
# ./refresh imap
```

5. Return to 4. Prepare Messaging Server for ISS.

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 conf ]
    [ -l logfile ] [ -t web,index,jmq,ldap,cluster,all ]
    [ -i isshost ] [ -L ] [ -S save_state ] [ -s ]
```

> The `-s` option was 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.
`-l` *LOGFILE*	Optional. Defaults to `/var/tmp/jiss-install.`*pid*.
`-i` *ISSHOST*	Optional. Fully qualified domain name to use for host name.
`-c` *CONF_FILE*	Optional. Specifies a file from which to read configuration information for the `jiss.conf` file.
`-f` *CONF_FILE*	Optional. Specifies a file from which to read configuration information for the `jiss.conf` file.
`-L`	Optional. Use `/bin/hostname` for the ISS machine name, `/bin/hostname` must return a FQDN.
`-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 take options from a configuration file:

```
# /opt/sun/comms/jiss/bin/setup -c my.conf
```

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
```

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 11. Installation Scenario - Instant Messaging Server

Installation Scenario - Oracle Communications Instant Messaging Server Version 9

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 and multiplexor on the same host. 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 9

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 12. Installation Scenario - Instant Messaging Server Multiplexor

Installation Scenario - Oracle Communications Instant Messaging Server Multiplexor Version 9

Topics:

- Assumptions
- Deploying an Instant Messaging Server and Multiplexor on Different Hosts
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

Assumptions

This scenario shows how to deploy an Instant Messaging Server and Multiplexor on different hosts. 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 an Instant Messaging Server and Multiplexor on Different Hosts

What if you intend to deploy a single-server instance of Instant Messaging (that is, an Instant Messaging deployment with a multiplexor and Instant Messaging server running on different hosts)?

Use the following procedure. However, when you run the Instant Messaging configuration program, 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 9

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 selected. That is, server functionality must be disabled on this host.

Chapter 13. 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. 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.
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 service.http.enable -v 0
```

5. If you are configuring LMTP, see To Configure LMTP Deliver.

Chapter 14. 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. 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.
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 15. 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. 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.
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 16. 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.

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.
   Make sure that the other components are not selected.
2. Use the following worksheet to gather configuration information for the Webmail Server: Configuration Worksheets - Messaging Server.
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.proxy.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 17. What's New

What's New in Oracle Communications Unified Communications Suite Version 7 Update 2

This document summarizes the features in Oracle Communications Unified Communications Suite 7 Update 2 that are new or have been enhanced since Oracle Communications Suite Unified Communications Suite 7 Update 1 for the following components:

Oracle Communications Unified Communications Suite Products and Components Version 7 Update 2

Product	Version
Oracle Communications Messaging Server	7 Update 4 (Patch 23)
Oracle Communications Instant Messaging Server	9
Convergence	2 (Patch 2)
Oracle Communications Calendar Server	7 Update 2
Delegated Administrator for Oracle Communications Unified Communications Suite	7 (Patch 4)
Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite	7.3 Update 1 (Patch 13)
Indexing and Search Service for Oracle Communications Unified Communications Suite	1 Update 3
Messaging Server HA Agent (MS_SCHA)	7
Instant Messaging HA Agent (IM_SCHA)	7.3
Dssetup for Oracle Communications Unified Communications Suite (`comm_dssetup`)	6.4 (Patch 23)

Check Communications Suite Component Patches for current patches that have shipped since the initial Communications Suite 7 Update 2 release.

> **Note**
> Where appropriate, What's New information for those patches is also included in this document.

This document contains the following sections:

- What's New in Communications Suite 7 Update 2
- What's New in Convergence 2
- What's New in Messaging Server 7 Update 4
- What's New in Calendar Server 7 Update 2 and Update 3
- What's New in Indexing and Search Service 1 Update 3 and Update 4

- What's New in Instant Messaging 9
- What's New in Delegated Administrator 7
- What's New in Connector for Outlook 7.3 Update 1
- What's New in DSsetup 6.4

What's New in Communications Suite 7 Update 2

Communications Suite 7 Update 2 includes the following new feature:

Support for Oracle Linux

Support for Oracle Linux 64-bit version 5.5 and greater has been added to Communications Suite 7 Update 2. Only Redhat compact kernel version is supported at this time.

What's New in Convergence 2

Convergence 2 includes the following new features:

- Convergence 2 Patch 2 New Features
- Convergence 2 Patch 3 New Features
- Convergence 2 Patch 4 New Features
- Convergence 2 Patch 5 New Features

Convergence 2 Patch 2 New Features

The following new features were introduced in Convergence 2 Patch 2:

- Search Attribute Customization
- New Configuration Reference Parameter

Search Attribute Customization

Customizing Address Book Search Capability contains instructions on customizing search attributes in Address Book.

New Configuration Reference Parameter

A new configuration parameter has been introduced: `IgnoreURLDomain (true/false)`, which prevents using the URL domain for resolving the user.

Default setting in configuration parameter:

```
base.ignoreurldomain = false
```

Convergence 2 Patch 3 New Features

The following new features were introduced in Convergence 2 Patch 3:

- S/MIME Support for Use with Firefox Browsers
- Calendar Server 7 Update 2 Patch 5 Integration
- Display Name Enhancement
- Customizing Font Display
- Japanese Yen (¥) Printing and Display Enhancements

S/MIME Support for Use with Firefox Browsers

Beginning with Convergence 2 Patch 3, S/MIME support for use with Firefox is available. Specifically, S/MIME is supported on:

- Firefox 8 on Windows 7 platforms
- Firefox 7 on Windows XP platforms

Calendar Server 7 Update 2 Patch 5 Integration

With Calendar Server 7 Update 2 Patch 5 integrated with Convergence 2 Patch 3, the following new privacy setting options are available to users in the Convergence UI:

- Users have the ability to manage and to grant privileges to other users
- Users can only add invitees to an invitee list if those invitees have granted scheduling privileges
- Users have the ability to check scheduling privileges before inviting other users

Specifically, in setting Privacy Settings, a user is able to select the **Manage** option to grant other users Manage permissions for privacy settings. From the corporate address book, a user can select the user who has granted privileges to manage privacy settings. If a user attempts to add another user to an invitee list who has not granted scheduling privileges, or if a user views the privacy settings of a user who has not authorized Manage permissions for privacy settings, the following error is displayed: "You do not have permission from this user to perform this action."

For more information, see: Managing Calendar Permissions and Calendar Privacy Settings in Convergence.

Display Name Enhancement

This display name enhancement changes the mapping of the Convergence Display Name from the `cn` attribute to the LDAP `displayName` attribute.

- With the new mapping, Convergence uses the LDAP `displayName` value in the Welcome screen, in the Compose Mail panel, and so on.
- If the LDAP `displayName` is not populated with a value, Convergence uses the `cn` attribute as a fall back. When a user modifies the Convergence display name, the LDAP `displayName` attribute is populated.
- The Convergence UI Address Book search field includes the Display Name while performing a search.
- Users are able to change their display names in the Options -> Mail -> Identities -> Local Account panel of the Convergence UI.

To configure Convergence display name and to configure Address Book display name search see Administering Convergence Display Name to Map to LDAP displayName.

Customizing Font Display

The following customization examples were added to customize font and symbol display:

Adding and Removing Fonts in the Editor Menu

To add and remove fonts in the Editor menu, see: Customization Example - Adding and Removing Fonts in the Editor Menu.

Japanese Yen (¥) Printing and Display Enhancements

While the the ASCII equivalent of the backslash keyboard entry () in a Japanese environment should

display the Japanese Yen (¥) symbol, on some fields in the Convergence UI (such as the Subject or Body of a Mail message), the backslash () is mistakenly displayed. The following customization examples explain how to customize the Convergence UI so that the Japanese Yen symbol (ASCII equivalent of the backslash keyboard entry () in a Japanese environment) is printed properly.

See: Printing the Japanese Yen (¥) Symbol and Displaying the Japanese Yen (¥) Symbol.

Convergence 2 Patch 4 New Features

The following new features were introduced in Convergence 2 Patch 4:

- Firefox 9 Support
- Displaying Attachment Progress Indicator
- New Customization Examples
- Updated Convergence Configuration Reference

Firefox 9 Support

Beginning with Patch 4, Convergence is supported on Firefox 9 on Windows Vista and on Windows 7 platforms. See: Convergence Browser Requirements.

Displaying Attachment Progress Indicator

For web browsers that support HTML 5 file objects, you can enable or disable the attachment progress indicator for mail attachments. A calendar attachment progress indicator is not available at this time. HTML5 web browsers include most web browsers except for Internet Explorer 8 and 9. For information on enabling the attachment progress indicator, see `client.uploadfilemethod` in Convergence Configuration Properties Reference.

New Customization Examples

Beginning with Convergence 2 Patch 4, use the following customization examples to:

- Disable Quick Parsing Calendar Capability
- Hide User-created Folder Names

Additional customization examples have been added, but they are not specific to Convergence 2 Patch 4. See Convergence Customization Guide for recently added customization examples.

Updated Convergence Configuration Reference

Default values have been added or updated in the Convergence Configuration Properties Reference.

The remaining changes to Convergence 2 are bug fixes only.

Convergence 2 Patch 5 New Features

The following new features were introduced in Convergence 2 Patch 5:

Chrome Support

Convergence supports Google Chrome browsers, starting with Convergence 2 Patch 5.

cal.autoprovision change in behavior: off by default

The Convergence `cal.autoprovision` configuration parameter is now off by default, beginning with Convergence 2 Patch 5.

Corporate Address Book Search Filters

Convergence treats any entered search string as a 'starts with' search in the Corporate Address Book. For example, if a user enters `foo`, results beginning with `foo` are listed.

In addition, an asterisk (`'*'`) in a search string acts as a wildcard and allows you to perform a "contains search" or a "substring-any" search. For example, `*foo` matches strings ending in 'foo'.

What's New in Messaging Server 7 Update 4

SSL/TLS Numeric Error Codes

To look up numeric error codes related to SSL/TLS, see: http://www.mozilla.org/projects/security/pki/nss/ref/ssl/sslerr.html. For more information, see: Certificate Based Authentication for Messaging Server.

This remaining changes to Messaging Server 7 Update 4 are bug fixes only.

What's New in Calendar Server 7 Update 2 and Update 3

> **Note**
> Calendar Server 7 Update 2 shipped as part of Communications Suite 7 Update 2. Calendar Server 7 Update 3 is a patch (patch 8) that shipped after the Communications Suite 7 Update 2 release.

Calendar Server 7 Update 2 includes the following changes and new features:

- Support for Oracle Database
- Apple iCal Delegation
- Apple iCal Private/Confidential Reconciliation
- Certificate Authentication Support
- Virus Scanning Capability
- Connector for Outlook Support
- davadmin Security Enhancements
- Enhanced Error Logging for Calendar Data Import
- Log File Name Change
- Notifications for Calendar Sharing
- Notification Templates Customization
- Domain ACLs
- Disabling Attachments
- Purging Collections
- Blocking Certain Clients
- Tool to Support Email Address Change
- Scheduling Logging for Specific Users

Support for Oracle Database

Calendar Server 7 Update 2 provides support for the Oracle Database as the calendar server back end (calendar store). This release of Calendar Server has been certified with Oracle Database 11g Release 2.

Apple iCal Delegation

Calendar Server 7 Update 2 adds support for Apple iCal style delegation. Using this feature, users grant read or write access to their calendar directly from Apple iCal (by using the Accounts pane of iCal Preferences). Unlike with WCAP-based clients (such as Convergence and Connector for Microsoft Outlook), where privileges can be granted at each individual calendar level, Apple iCal delegation works at the account level. Thus, when you grant a user delegation privilege you give that user access to all of your calendars.

See Calendar User Proxy Functionality in CalDAV and Shared and Published Calendars in CalDAV for more information on the Apple model for calendar delegation and sharing.

Apple iCal Private/Confidential Reconciliation

Calendar Server 7 Update 2 enables a form of per-calendar event access control by using the `PUBLIC/PRIVATE/CONFIDENTIAL` classification properties. Apple iCal exposes a similar functionality but uses a proprietary mechanism. Starting with Calendar Server 7 Update 2, the server supports both types of classifications.

The Apple caldav-privateevents extension is equivalent except for the following differences:

- It offers four levels of granularity.
- The classification information is not stored in the iCalendar `CLASS` property, but rather in the `X-CALENDARSERVER-ACCESS` private property, located at the `VCALENDAR` component level.

> **Note**
> While the private events extension allows for four values (`PUBLIC/CONFIDENTIAL/RESTRICTED/PRIVATE`), only the `PUBLIC` and `CONFIDENTIAL` values are currently used and set by Apple iCal.

The following table shows the mappings from the `CLASS` to the `X-CALENDARSERVER-ACCESS` property.

CLASS to X-CALENDARSERVER-ACCESS Mapping

CLASS	X-CALENDARSERVER-ACCESS	Description
`PUBLIC`	`PUBLIC`	All of the calendar data is visible.
`PRIVATE`	`CONFIDENTIAL`	None of the calendar data is visible.
`CONFIDENTIAL`	`CONFIDENTIAL`	Only the start and end times of each instance is visible.

Because Apple iCal only uses `PUBLIC` and `CONFIDENTIAL`, the reverse mapping from `X-CALENDARSERVER-ACCESS` to `CLASS` is a direct mapping.

Certificate Authentication Support

Calendar Server 7 Update 2 supports certificate-based authentication. In certificate-based authentication, clients request access to a protected resource, such as the Calendar Server. The server presents its certificate to the client, which the client verifies. If the verification succeeds, the client then sends its certificate to the server and the server verifies the client's credentials. As long as the client's credentials are verified, the server grants access to the protected resource.

Currently, only Connector for Microsoft Outlook supports certificate authentication. For more information, see How to Configure Oracle Communications Sun Calendar Server Client Authentication.

Virus Scanning Capability

Calendar Server 7 Update 2 enables attachments virus scanning by making use of the Messaging Server MTA and its capability to interface to many different AVS systems. Calendar Server packages the calendar event and attachment and sends it by using SMTP to the Messaging Server MTA, where the scanning takes place on the configured AVS system. Messaging Server relays the result of the scan to Calendar Server. Calendar Server can be configured to test and optionally reject incoming data, as well as scan (and optionally delete) existing data by using the `davadmin vscan` utility. For more information, see Configuring and Administering Virus Scanning in Calendar Server.

Connector for Outlook Support

Calendar Server 7 Update 2 supports Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite as a calendar client. End users can use Connector for Microsoft Outlook to view and update their Calendar Server 7 calendars. For more information, refer to the Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite online help. You must use at least Connector for Microsoft Outlook 7.3 Update 1 patch 13.

davadmin Security Enhancements

The `davadmin` command has been made more secure in Calendar Server 7 Update 2 by the removal of the capability to "pass in" passwords by using a password file. All `davadmin` passwords must now be entered by typing in to a no-echo prompt.

Enhanced Error Logging for Calendar Data Import

Calendar Server 7 Update 2 provides enhancements to calendar data import through the `davadmin import` command and the `import.wcap` command to log errors for incorrect data then continue processing.

Log File Name Change

The Calendar Servers 7 Update 2 error log file name has been changed from `calendar.*` to `errors.*`.

Notifications for Calendar Sharing

How do you know if users have shared their calendars with you? Email notifications let you know.

Calendar Server 7 Update 2 generates email notifications when users share their calendar or account with another user or users. After receiving the email notification, the shared-with user can then subscribe to the sharer's calendar or account.

> **Note**
> Sharing at the account level is also referred to as "delegation." Apple iCal implements delegation or sharing at the account level.

Calendar ACLs range from no permission, to read, write, and all. When users modify their calendar ACLs, and add at least read permission to another user or a group, Calendar Server sends an email notification to the user or the group. Calendar Server sends the notification to the email address that is associated with the user or group that is being granted sharing permission in the ACL list.

A share notification email is sent only if a user changes an ACL from a privilege of none to the granting of a read, write, or all privilege. A share notification email is not sent if a user later changes ACL permissions to allow more privileges, for example, from read to all.

Email Notification Examples

Shared calendar to a user:

```
Subject: Share Notification
From: cj@example.com
To: aq@example.com
MIME-Version: 1.0
Content-Type: text/plain; charset=utf-8
Content-Transfer-Encoding: 7BIT

User cj@example.com is sharing their calendar with the URI of
/davserver/dav/home/cj@example.com/calendar/ with you.
```

Shared calendar to a group:

```
Subject: Share Notification
From: cj@example.com
To: davgroup@example.com
MIME-Version: 1.0
Content-Type: text/plain; charset=utf-8
Content-Transfer-Encoding: 7BIT

User cj@example.com is sharing their calendar with the URI of
/davserver/dav/home/cj@example.com/calendar/ with you.
```

Shared account to a user:

```
Subject: Share Notification
From: cj@example.com
To: aq@example.com
MIME-Version: 1.0
Content-Type: text/plain; charset=utf-8
Content-Transfer-Encoding: 7BIT

User cj@example.com is sharing their account with the URI of
/davserver/dav/home/cj@example.com/calendar/ with you.
```

Notification Templates Customization

Calendar Server 7 Update 2 provides preformatted notification messages to be sent to calendar owners when changes occur in calendar resources and properties. You can customize these files for your own deployment. Calendar Server 7 Update 2 contains a number of these preformatted message files. For example, the `request.fmt` file is for scheduling request notification email messages, and the `sms.fmt` file is for alarm SMS messages.

For more information, see Using Calendar Server 7 Notifications.

Domain ACLs

Starting with Calendar Server 7 Update 2, domain ACLs control calendar operations that span multiple domains. Calendar Server 7 combines domain ACLs with the calendar and scheduling ACLs to grant or

deny levels of access to any calendaring or scheduling operation. All operations within a single domain rely strictly on the calendar and scheduling ACLs.

For more information, see Managing Domain Access Controls.

Disabling Attachments

Calendar Server 7 Update 2 enables you to globally disable storage of attachments in the document store by using the `davcore.attachment.enable` parameter. When set to `false`, the `davcore.attachment.enable` turns off attachment storing. You do not need to restart Calendar Server for this parameter to take effect.

Purging Collections

Calendar Server 7 Update 2 enables you to purge events and todos that are older than a certain date in all calendar collections of a given user. This utility is useful for reclaiming disk space.

To run the utility, use the `davadmin account delcomponent` command. For more information, see `davadmin account`.

Blocking Certain Clients

Calendar Server 7 Update 2 includes the capability to block requests from certain versions of CalDAV clients and WCAP clients that are known to be problematic. The HTTP 403 status is returned for such clients that are blocked. This capability helps to prevent denial of service attacks by blocking rogue clients that can inundate the server with requests. For more information, see the `service.dav.blacklist` and `service.wcap.blacklist` configuration parameters.

Tool to Support Email Address Change

Calendar Server 7 Update 2 includes a new `davadmin account repair -a` *account* command for email address changes. When a change in a user's email address occurs, run this command to fix notification addresses, organizer addresses, attendee addresses, and alarm addresses.

Scheduling Logging for Specific Users

Tracking calendar scheduling issues can be a complex task. To ease debugging of such issues, Calendar Server 7 Update 2 offers the ability to turn on scheduling logging on a per user basis.

In Calendar Server 7 Update 2, for scheduling, `FINE` level logging is done to the `errors.0` file for all scheduling actions of a specific user if that user's email address is in the `davcore.scheduling.schedulinglogfilter` configuration parameter. Of course, if the log level is set to `FINE` or higher, all scheduling logging is done regardless of the value of the `schedulinglogfilter`

What's New in Calendar Server 7 Update 2 Patch 5

Calendar Server 7 Update 2 Patch 5 includes the following features:

- Allow Double Booking by Resource Calendar Owners
- List and Manage Resource Accounts of a User
- Support for gzip Compression
- Improved Command Logging
- Support for Mac OS 10.7 and Apple iOS 5
- Ability to Define an LDAP Entry as a Valid Calendar Account Based on Custom Provisioning

Allow Double Booking by Resource Calendar Owners

Patch 5 has special privileges for resource owners to double book a resource even if the resource calendar attendant flag is set to prevent it. This is controlled by the `davcore.scheduling.allowownerdoublebooking` configuration parameter. If set to `true`, `davcore.scheduling.allowownerdoublebooking` enables double booking.

List and Manage Resource Accounts of a User

In Patch 5, the `list.wcap` command has been modified to list a user's owned resource account calendars in addition to the user's calendars. The `davadmin` command has also been updated to list calendars belonging to resource accounts owned by a user.

Support for gzip Compression

Patch 5 implements gzip content-encoding in Calendar Server on HTTP responses.

Improved Command Logging

The Calendar Server `commands` log file contains entries that help monitor requests to the server to diagnose problems. In Patch 5, `commands` logging is enhanced to pass additional information, including the principal account that authenticated and what operations were performed from that account.

Support for Mac OS 10.7 and Apple iOS 5

Patch 5 provides support for devices running Mac OS 10.7 and Apple iOS 5.

Ability to Define an LDAP Entry as a Valid Calendar Account Based on Custom Provisioning

Patch 5 enables you to define what LDAP object class is required to consider an entry as a valid calendar user entry by using the `davcore.ldapattr.userobject` configuration parameter. By default the value is empty, which means all users are considered valid calendar users. If you want to restrict calendar access to users decorated with a certain object class, typically `icsCalendarUser`, set the `davcore.ldapattr.userobject` parameter to `icsCalendarUser`. You can set it to your own object class if you use custom provisioning.

What's New in Calendar Server 7 Update 3 (Patch 8)

Calendar Server 7 Update 3 includes the following changes and new features:

- Authenticating Against a Directory External to the Calendar Server Environment
- Booking Window for Calendars
- Changes to the davadmin Command
- Enable and Disable Account Autocreation
- LDAP Pools
- New Configuration Parameters
- New Languages
- New populate-davuniqueid Utility
- New Schema Objects
- Non-active Calendar Accounts Are No Longer Searched or Fetched
- Remote Document Store Authentication

Authenticating Against a Directory External to the Calendar Server Environment

Calendar Server 7 Update 3 enables authentication against a separate, LDAP directory external to the Calendar server environment. Such a configuration is useful in hosted environments for delegating one administrative aspect to a provider (managing the Calendar Server front- and back-end hosts and LDAP

directory with non-sensitive data), while maintaining control over the LDAP user passwords in the internal, corporate network. In this setup, Calendar Server would use the external directory for authentication.

For more conceptual information on Calendar Server and external authentication, see Calendar Server and Directory Server Integration. To configure Calendar Server for authentication against an external Directory Server, see Configuring External Authentication.

Booking Window for Calendars

Calendar Server 7 Update 3 supports the use of a system-wide minimum booking window for calendars through the use of the new `davcore.scheduling.minbookingwindow` configuration parameter. This new parameter compliments the existing maximum booking window support (`davcore.scheduling.maxbookingwindow`) parameter. In addition, starting in Calendar 7 Update 3, you can set account-level minimum and maximum booking window properties through the `davadmin account` command or clients that use the WCAP `set_accountprops` command. The minimum and maximum booking window values define a window of time relative to current time, between which Calendar Server allows the account to be scheduled. Calendar Server enforces the booking window by returning a busy response to the freebusy check done by the scheduling agent if the requested time is outside the booking window. In addition to setting the booking window, you should also set the account's scheduling flag to "decline on conflict" for the window to take effect. The booking window setting also affects calendars configured to auto accept invitations. In the case where auto decline is also configured, it takes precedence over auto accept.

To configure both the minimum and maximum booking windows for accounts, you can use either the `davadmin` command or the `set_accountprops.wcap` interface. In absence of an account property, Calendar Server defaults to using the corresponding system-wide booking window configuration.

Upfront Freebusy Check for Control of Doublebooking and Booking Window During Scheduling

A scheduling attempt requested for an account that has its attendance flag set to "decline on conflict" (the attendance flag is set either by a `set_accountprops.wcap` command or `davadmin account` command), triggers Calendar Server to perform a special freebusy check. This check happens as part of the scheduling process for both CalDAV and WCAP clients. Because scheduling is an asynchronous process, the event organizers are made aware of an error only after they have made the booking. However, for clients that use the WCAP protocol, the same check is performed upfront if the scheduled attendee is a resource. This enables the organizer to get an immediate error if the event request results in a conflict for the resource.

Changes to the davadmin Command

In Calendar Server 7 Update 3, the `davadmin` command has been updated with the following changes:

- The `passfile` option has been updated to accommodate setting a password on the remote document store and corresponding password entry in Calendar server front end that needs to communicate with the document store.
- A new command, `davadmin ldappool`, has been added to support LDAP pools, which are used in configuring external Directory Server authentication.
- The `davadmin account list` command now displays a list of all users in the database and their details.

For more information, see Calendar Server 7 Command-Line Utilities.

Enable and Disable Account Autocreation

Calendar Server 7 Update 3 provides the capability to enable or disable, on a system-wide basis, the calendar account autocreation, either on login or invite. For more information, see the `davcore.autocreate.enableautocreate` parameter in Calendar Server 7 Configuration

Parameters.

LDAP Pools

Starting with Calendar Server 7 Update 3, you can create LDAP pools for use in authenticating against an external directory. For more information, see the `davadmin ldappool` command and also Configuring External Authentication.

New Configuration Parameters

Calendar Server 7 Update 3 introduces the following configuration parameters:

- `davcore.autocreate.rescalcomponents`: Assigns the default autocreation setting for supported calendar components for a new resource calendar

> **Note**
> This parameter enables migrated resource calendars to allow the `VEVENT` and `VTODO` components that were permitted in Calendar Server 6. (The default value for this parameter is `VEVENT`.) To ensure that Calendar Server 6 resource calendars correctly have all their `VEVENT` and `VTODO` information migrated to Calendar Server 7, set this parameter to VEVENT VTODO before doing the migration, if your deployment has resource calendars that contain more than just events. For more information, see Calendar Server 7 Configuration Parameters.

- `davcore.scheduling.allowownerdoublebooking`: If set, owners of resource calendars can double book even if the resource account prevents doublebooking
- `davcore.scheduling.minbookingwindow`: Specifies the start of a booking window, in days, from the time of scheduling, from which a calendar can be booked in advance

For more information, see Calendar Server 7 Configuration Parameters.

Calendar Server 7 Update 3 also includes the `service.host` parameter for the document store `ashttpd.properties` file.

New Languages

For Calendar Server 7 Update 3, the product configuration program and all notifications that are sent by the server have been localized into the following additional languages: German, Spanish, Korean, Simplified Chinese, and Traditional Chinese.

New populate-davuniqueid Utility

Calendar Server 7 Update 3 introduces a new LDAP attribute named `davUniqueId`. This attribute replaces the problematic `nsUniqueId` attribute, whose value is lost when an LDAP entry is deleted and then recreated. (See Changing User uuid for more information about the issues with the `nsUniqueId` attribute.)

To set the value of the `davUniqueId` attribute to the current value of the `nsUniqueId` attribute for existing LDAP entries, use the new `populate-davuniqueid` utility.

For more information, see Calendar Server Unique Identifier.

New Schema Objects

The following LDAP schema objects are added to Calendar Server 7 Update 3 to support authentication against an external Directory Server:

- `externalAuthPreUrlTemplate`: This attribute is used for authentication by using external Directory Servers. Its value is an LDAP URL that defines how users must be searched for in the external Directory Server against which authentication is performed.
- `externalAuthPostUrlTemplate`: This attribute is used for finding the internal Directory Server entry for a user who authenticated by using external Directory Servers. Its value is an LDAP URL that must be used to map the external Directory Server authenticated user to a user in the internal Directory.

The following LDAP schema attribute is also added:

- `davUniqueId`: This attribute can be used to define a unique ID for any `davEntity` user, group, and resource object, much like the operational attribute `nsUniqueId`. It is recommended that `davUniqueId` be used as the value of the `davcore.uriinfo.permanentuniqueid` configuration parameter.

> **Note**
> These new elements are required by Calendar Server 7 Update 3. Schema changes are applied to Directory Server when you run the `comm_dssetup` script. When upgrading to Calendar Server 7 Update 3, you need to first apply the `comm_dssetup` 6.4 patch (at least 6.4-24.02) and run the updated `comm_dssetup` script against your Directory Server instances. See Upgrading to Oracle Communications Calendar Server 7 Update 3 for more information.

Non-active Calendar Accounts Are No Longer Searched or Fetched

Starting with Calendar Server 7 Update 3, if a calendar account's LDAP `icsStatus` attribute is populated and is not set to `active`, the account is not searched nor are any results fetched for that account when running Calendar Server `davadmin` or WCAP commands. That is, Calendar Server returns search results only for active accounts and does not return unusable data such as inactive calendars.

Remote Document Store Authentication

Calendar Server 7 Update 3 provides enhanced security for remote document stores. A remote document store now requires password authentication for the connection between the Calendar Server and the remote document store server. The password needs to be known by both the document store client (which runs in the Calendar Server itself) and the remote document store server (which runs on the remote host where the store is located). The password is stored in a password file (called a *wallet*) on each of the hosts.

For information on configuring the remote store password, see To Configure Remote Document Store Authentication.

What's New in Indexing and Search Service 1 Update 3 and Update 4

Indexing and Search Service 1 Update 3 brings performance improvements including increased indexing speed and more efficient memory utilization of the Index Service.

The following features, first made available in the ISS 1 Update 2 patch, are also part of ISS 1 Update 3:

- Refreshing the Configuration
- New and Extended Command Options
- Cluster Search Service and High Availability
- Recovery After Service Outage
- Reduction in IndexSvc Memory Footprint and Other Scalability Improvements
- New Tools

- setup.sh Name Change
- Tools Moved to the examples Directory
- What's New in Indexing and Search Service 1 Update 4

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 Availability

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.

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.

What's New in Indexing and Search Service 1 Update 4

Indexing and Search Service 1 Update 4 is available as a patch (delivered after the release of Communications Suite 7 Update 2), and includes the following features:

- Periodic ISS Account Check and Synchronization with Messaging Server
- Recovery after Messaging Server reconstruct Command
- Watcher Service and High Availability Improvements
- Performance Improvements
- Java 7 Support

Periodic ISS Account Check and Synchronization with Messaging Server

This feature checks every ISS account against Messaging Server accounts at regular intervals to detect differences, for example, from a reconstructed folder or lost event notifications, that ISS can then automatically correct.

Two items control this periodic check:

- Periodic auto-sync: A periodic scan to check that all active ISS accounts are in sync.
- Periodic auto-bootstrap: A scan for accounts unknown to ISS and adding these accounts to a list to be automatically bootstrapped. It is the bootstrap action that is periodic, not the error scanning. The scanning for accounts that need to be bootstrapped occurs continuously as new events arrive and errors are detected. ISS adds the unknown accounts to the auto-bootstrap "to-do" list whenever trigger conditions are met. The periodic nature of the auto-bootstrap prevents too many accounts from being bootstrapped simultaneously, should many errors show up at once. This process enables the workload to be spread out among the Messaging Server and ISS hosts, instead of trying to correct every such error immediately.

For more information, see Administering Periodic Automatic Synchronization for Indexing and Search Service Accounts.

Recovery after Messaging Server reconstruct Command

This feature fixes an issue where ISS becomes out-of-sync when a folder has been reconstructed on Messaging Server. When the `reconstruct` command runs, it may cause the UID validity value and/or UIDs assigned to emails in a folder to change, but does not trigger event notifications to notify ISS of the change. ISS now detects the UID validity mismatch while processing events and re-bootstraps the folder to get it back in sync.

Watcher Service and High Availability Improvements

This feature is designed for the implementation of highly available (HA) ISS nodes, however the service itself is useful even when you do not use HA (which is why it is included in this release). The watcher service provides local host monitoring of ISS services and alerts you, with log file messages and email warnings, when it detects a service outage. Once alerted, you can take the appropriate corrective action, such as restarting a service. The services that are monitored are dependent on the type of ISS installation on which the watcher is running. The `iss.cluster.install` parameter in the `jiss.conf` configuration file defines the ISS installation type:

- `standalone`
- `multi-machine`
- `cluster`
- `clusterv2`

For more information, see Administering the ISS Watcher Service.

Additionally, one of the HA improvements is to enable the cluster search service to run on the back-end nodes, making exposing NFS to the web tier unnecessary. For more information, see Configuring Indexing and Search Service for clusterv2.

Performance Improvements

The following performance improvements for this release are targeted at both general memory and time reductions, and to speed up specific styles of search queries:

- Search service: Email folder manager optimization reduces the number of `indexReaders` opened during search
- `jmqconsumer` process: Candidate file write optimization reduces the IO overhead during event processing of candidate file writing
- Index service: `folderflag` optimization reduces the average size of flag records for folders containing a large number of emails

Java 7 Support

Starting with this release of Indexing and Search Service, Java 7 is recommended, as Java 6 is entering end of life. If you generated your ISS indexes while on Java 6, once you upgrade to Java 7, you should

regenerate the indexes. See Upgrading Indexing and Search Service for more information.

What's New in Instant Messaging 9

Instant Messaging 9 includes the following changes and new features:

- XML Configuration
- Facebook Gateway
- SIP/SIMPLE Support
- Notification System Using XMPP Pub-Sub
- IPv6 Support
- Calendar Server 7 Support
- MySQL Server Database
- Cluster Support for External Gateways
- What's New in Instant Messaging 9 Patch 1

XML Configuration

Beginning with this release, Instant Messaging uses an XML-based configuration. Instant Messaging stores configuration settings in the `iim.conf.xml` file (located by default in the `/opt/sun/comms/im/config` directory). Beginning with Instant Messaging 9, you use the `imconfutil` command to make configuration changes. You no longer edit the `iim.conf` file in a text editor. Using an XML-based configuration reduces configuration errors caused due to manual edits and simplifies the overall system configuration.

Note the following:

- Instant Messaging 9 merges its multiple configuration files into one file, the `iim.conf.xml` file.
- A set of "common" properties is used across the Instant Messaging deployment or instance, including `instancedir`, `installdir`, and so on.
- Each component has its own configuration section in the file, for example, a server section, mux section, and so on.
- Some configuration properties are "complex," in the sense that they have more than one instance, and each instance has one or more keys.
- When you run the `imconfutil` command, the `iim.conf.xml` file is updated. You must refresh the Instant Messaging server for the new configuration settings to take effect.

Facebook Gateway

Instant Messaging 9 users are now able to interact with the Facebook Instant Messaging Service. The Instant Messaging 9 Facebook Gateway enables Instant Messaging 9 users, who have a Facebook Instant Messaging account, to chat with their buddies on that network and share presence updates.

At a high-level, Instant Messaging 9 communicates with Facebook as follows:

1. Facebook gateway is exposed to users as a service.
2. Users register with the service by providing their Facebook Instant Messaging service credentials.
3. Facebook gateway logs in users to their Facebook Instant Messaging account.
4. The Facebook gateway performs the necessary work to transfer packets to and from the Facebook Instant Messaging Server.

SIP/SIMPLE Support

Instant Messaging 9 implements SIP/SIMPLE federation and translation between the two protocols, and interoperation between XMPP and SIP/SIMPLE servers (for example, OpenSER and Microsoft Lync). SIP/SIMPLE provides presence subscriptions, basic roster management, text chat (pager mode),

whitelist and blacklist federation, and privacy preferences. SIMPLE, the Session Initiation Protocol for Instant Messaging and Presence Leveraging Extensions, is based on Session Initiation Protocol (SIP). Like XMPP, SIMPLE is an open standard.

Specifically, Instant Messaging 9:

- Provides a way for Instant Messaging server users to subscribe to the presence of contacts on an external SIP/SIMPLE network
- Enables messaging between users on the Instant Messaging server and their contacts on an external SIP/SIMPLE network
- Enforces the privacy preferences of the XMPP Instant Messaging Server users

Notification System Using XMPP Pub-Sub

Instant Messaging 9 supports XMPP Pub-Sub, which is a building block for applications that require real-time push notifications and data services. publish-subscribe activities. XMPP defines a protocol extension for generic Publish-Subscribe (Pub-Sub) functionality (see XEP-0060). Pub-Sub serves as a transport for applications that require event notifications such as newsfeeds, content-syndication, rich presence, and the like. Instant Messaging Server has included support for an early version of this protocol, which was used for the News feature of the now deprecated Instant Messaging client.

Specifically, Instant Messaging 9 provides a rewritten pub-sub implementation, which brings it up-to-date with the current specification

IPv6 Support

Instant Messaging 9 supports Internet Protocol Version 6 (IPv6), a version of the Internet Protocol that is designed to succeed Internet Protocol version 4 (IPv4).

Calendar Server 7 Support

Instant Messaging 9 provides support for event alarms in Calendar Server 7. See Configuring Instant Messaging 9.0.1.4.0 Calendar Agent with Calendar Server 7.

MySQL Server Database

Instant Messaging 9 supports MySQL Server database as a data store for external gateways.

Cluster Support for External Gateways

Starting with Instant Messaging Server 9, you can configure cluster support for gateways along with a shared storage support by using MySQL Server. By using gateway clusters, you provide for the ability to better scale the external gateways. Users no longer have to connect to a specific gateway in a pool of gateways. The client session remains "sticky" in the event of being disconnected.

What's New in Instant Messaging 9 Patch 1

Instant Messaging 9 Patch 1 includes the following changes and new features:

- Group Messaging
- Offline Messaging
- Default Password Changed
- Manually Configuring httpbind
- Protecting Deployed Instant Messaging Components
- New Configuration Parameter

Group Messaging

Group Messaging in Instant Messaging is primarily related to You can configure Instant Messaging so that end users can send a message to an LDAP group, which can be either dynamic or static.

- LDAP dynamic group: Membership, rather than being maintained explicitly in a list, is determined by search criteria using an LDAP URL. Dynamic groups use the groupOfURLs object class and the memberURL attribute to define LDAP URLs with the criteria (search base, scope, and filter) to be used for determining members of the group.
- LDAP static group: A static group is one whose entry contains a membership list of explicit DNs. You can define a static group by using the groupOfUniqueNames object class and by explicitly specifying the member DNs using the member attribute.

To enable end users to view dynamic and static LDAP groups in search results and add them to their instant messaging client contact list, you need to include groupOfUrls objects in search results.

For more information about Group Messaging, see Managing Instant Messaging's LDAP Access Configuration.

Offline Messaging

When the offline chat message delivery feature is enabled on the Instant Messaging Server, regular instant messages (chat messages) that are sent to offline users are not discarded. They are available on the Instant Messaging Server, and delivered to the user when the user comes online. This feature can be enabled at deployment level or at domain level using the whitelisting facility. This feature can be disabled using the blacklisting facility.

However, Instant Messaging alerts are managed differently. The feature is enabled or disabled at the user level. Similar to offline chat messages, the Instant Messaging Server stores the alerts for the offline recipient, and delivers them when the user logs in next time. This is, if the user has configured to receive offline alerts during the next login.

> **Note**
> If you install Calendar Server with Instant Messaging, you can configure your deployment such that you receive Instant Messaging alerts about your calendar todos and events, as pop-up messages. As long as you are logged in to Instant Messaging (you are online), you receive Calendar Server HTML pop-up reminders on your desktop. If you are offline, you receive the alerts the next time you login, if you have configured to receive offline alerts during the next login.

For more information about Offline Messaging, see Managing Instant Messaging Messages for Offline Users.

Default Password Changed

Starting with Instant Messaging 9 Patch 1, the default value for password configuration properties is `random`.

Manually Configuring httpbind

Starting in Instant Messaging Server 9 Patch 1, you can manually configure httpbind connections to "follow through" by using this command:

```
<im-svr-base>/sbin/imconfutil -u set-listener-prop -c
<im-svr-base>/config/iim.conf.xml s2s protocols=s2s,component,c2s
```

Protecting Deployed Instant Messaging Components

Starting with version 9 Patch 1, Instant Messaging deployments are more secure. In previous versions of Instant Messaging, the server listened to connections on the port defined by the `iim_server.port` parameter (the default value is port 5269) in various situations. These situations include a peer in a server pool, components such as external gateways, `cal-agent`, `sms-agent`, `httpbind`, and so on. In Instant Messaging 9 Patch 1, the server now listens to this port only when at least one of these options is configured.

New Configuration Parameter

The `gwdomain-id.multihosting` parameter in the `httpbind.conf` file, if set to `true`, allows a packet destined to a domain, which is not pre-configured in `httpbind.conf`, to be sent to Instant Messaging Server. You use this parameter for a hosted domain setup. The default value for this parameter is `true`. For more information, see Gateway Domain ID Key Parameters for httpbind.

What's New in Delegated Administrator 7

`commadmin` Security Enhancements

The `commadmin` command has been made more secure by the removal of ability to specify the administrative password on the command line or to use a password file. All `commadmin` passwords must now be typed by using a no-echo prompt.

What's New in Connector for Outlook 7.3 Update 1

Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite 7.3 Update 1 Patch 13 enables end users to view and update their Calendar Server 7 Update 2 calendars. For more information, refer to the Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite online help.

Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite 7.3 Update 1 Patch 17

Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite 7.3 Update 1 Patch 17 supports the following feature:

Connector for Microsoft Outlook Profile Conversion and Upgrade Support

In Connector for Microsoft Outlook 7.3 and earlier versions, it was required to create a new profile to modify or upgrade user profiles linked to Connector for Microsoft Outlook 7.1 and later versions.

Solution: A new hidden configuration parameter, `ModifySun71PlusProfile`, has been created in the *setupfilename*`.ini` file to enable or disable the conversion of Connector for Microsoft Outlook 7.1 (and later versions) user profiles. To not modify the Connector for Microsoft Outlook 7.1 (or later version) user profile, set the `ModifySun71PlusProfile` parameter equal to **`0`**. To modify the user profile with the configured values, set the `ModifySun71PlusProfile` parameter equal to **`1`**

> **Note:**
> The `ModifySun71PlusProfile=0/1` parameter is not enabled if the Create new user profile without conversion/upgrade option is chosen in the user profile settings of the Connector for Microsoft Outlook configuration program.

What's New in DSsetup 6.4

In this release of DSsetup new attributes and object classes have been added.

The following attributes were added for Calendar Server to authenticate against an external Directory Server:

- `externalAuthPreUrlTemplate` and `externalAuthPostUrlTemplate`, added to the `inetDomainAuthInfo` object class

The following object class was added for Calendar Server unique identifier:

- `davUniqueId`, added to the `davEntity` object class

New attributes and object classes have been assigned for future use with Network Address Book:

- attributes: `nabStatus`, `nabDomainAcl`, `nabDomainNames`, and `nabStore`
- objectclasses: `nabUser` and `nabDomain`

In addition, Dssetup no longer automatically removes `71sun-am.ldif` if Access Manager schema is found in `99user.ldif.`

Chapter 18. Messaging Server Installation Scenarios

Oracle Communications Messaging Server Installation Scenarios
Version 7 Update 4

The following Messaging Server 7 Update 4 installation information is automatically generated from this wiki:

Page: Installation Scenario - Message Store
Page: Installation Scenario - Message Transfer Agent
Page: Installation Scenario - Messaging Multiplexor
Page: Installation Scenario - Messaging Server Webmail Server
Page: Messaging Server Installation Scenarios

Chapter 19. commpkg upgrade Usage

commpkg upgrade Usage
Version 7 Update 2

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.
`--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. 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 2 products:

- Messaging Server, from version 7 Update 3 to version 7 Update 4 (latest patch)
- Comms Directory Server Setup Script, from version 6.4-6.03 to 6.4-23.01.

The session uses the `commpkg upgrade` command to perform the upgrade.

Topics:

- Upgrade Comments
- Summary of Commands Run
- Session

Upgrade Comments

```
* JDK upgrade is done via {{pkgrm/pkgadd}}, so the user is prompted.
* Only products that are upgradable are listed. For example, if
Messaging Server 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 Directory Server. This isn't shown in the sample session.
* For Messaging Server, there are no additional steps required unless
you are in a cluster.
* For Delegated Administrator, you typically have to upgrade DSsetup
first prior to upgrading Delegated Administrator, entailing that you
have to run {{commpkg upgrade}} twice
* Shared components (SCs) will be upgraded as required.
* If you don't want SCs upgraded use the {{--excludeSC}} switch.
* Upgrade either performs {{pkgrm/pkgadd}} or a {{patchadd}} for the
upgrade depending on what is installed. In the case of Messaging Server
for this session, {{patchadd}} is done. If the original Messaging Server
installation was 6.3, a {{pkgrm/pkgadd}} would have been done. For
Dssetup, the new version is a  patch, so {{patchadd}} is used. 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 (for example, using zfs
snapshot).
```

Summary of Commands Run

```
575  pwd
  576  uname -a
  577  ./commpkg upgrade
  578  cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921201416
  579  cat
/var/opt/CommsInstaller/logs/CommsInstaller_20110921201416.log
  580  ./commpkg info
  581  ./commpkg info --verbose
```

Session

```
# uname -a
SunOS riot1 5.10 Generic_142910-17 i86pc i386 i86pc
# ./commpkg upgrade
-- LOGFILE: /tmp/CommsInstaller_20110921201416.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011

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.

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=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
  NOTICE: CommsInstaller is present with a different pkg VERSION.
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          119255-81 144489-17
  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 (7.4-23.01)
          Installed Version 7u4 (7.4-18.01) at
/opt/sun/comms/messaging64
```

```
       2  Comms DSsetup 6.4 (6.4-23.01)
          Installed Version 6.4 (6.4-6.03) 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...

JDK requires an upgrade for patches 125138-28 125139-28 125138-25
125139-25
Description: Java Development Kit
  Product Version: 1.6.0
Note that this will be done by uninstalling the
current version and installing the new one.
This is an irreversible process
On the other hand, if you do not upgrade,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to upgrade JDK [n] : y
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: patch 119255-81 for PATCHUTILS
  WILL INSTALL: patch 119346-08 for Simple Authentication and Security
Layer
  WILL INSTALL: patch 136800-03 for LDAPCSDK6 Tools
  WILL INSTALL: patch 125359-14 for NSS/NSPR/JSS
  NOTICE: JDK will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: JDK 1.6.0 (1.6.0_20/1.6.0_20-b02)
  WILL INSTALL: JDK 1.6.0
  WILL check JES java symlink
  WILL INSTALL: patch 126869-05 for BZIP OS Component
  WILL INSTALL: patch 119964-23 for LIBCPLUSPLUS
  NOTICE: CommsInstaller will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: CommsInstaller 7u1 (7.1-0.06)
  WILL INSTALL: CommsInstaller 7u2 (7.2-0.36)
                to /opt/sun/comms/CommsInstaller
  NOTICE: Upgrading Messaging Server (64bit) 7u4 (7.4-18.01)
          to 7u4 (7.4-23.01 at /opt/sun/comms/messaging64)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 137205-23 for Messaging Server (64bit)
  NOTICE: Upgrading Comms DSsetup 6.4 (6.4-6.03)
          to 6.4 (6.4-23.01 at /opt/sun/comms/dssetup)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 118246-23 for Comms DSsetup
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to upgrade

Do you want to continue ? [yes] :

============================================================
Installing patch 119255-81 for PATCHUTILS...
```

```
------ Executing Task 1 of 23 ...

============================================================
Installing patch 119346-08 for Simple Authentication and Security
Layer...
------ Executing Task 2 of 23 ...

============================================================
Installing patch 136800-03 for LDAPCSDK6 Tools...
------ Executing Task 3 of 23 ...

============================================================
Installing patch 125359-14 for NSS/NSPR/JSS...
------ Executing Task 4 of 23 ...

============================================================
Removing existing JDK 1.6.0 (1.6.0_20/1.6.0_20-b02)...
------ Executing Task 5 of 23 ...
------ Executing Task 6 of 23 ...
------ Executing Task 7 of 23 ...
------ Executing Task 8 of 23 ...
------ Executing Task 9 of 23 ...

============================================================
Installing JDK 1.6.0...
------ Executing Task 10 of 23 ...
------ Executing Task 11 of 23 ...
------ Executing Task 12 of 23 ...
------ Executing Task 13 of 23 ...
------ Executing Task 14 of 23 ...

============================================================
Checking JES java symlink...
------ Executing Task 15 of 23 ...

============================================================
Installing patch 126869-05 for BZIP OS Component...
------ Executing Task 16 of 23 ...

============================================================
Installing patch 119964-23 for LIBCPLUSPLUS...
------ Executing Task 17 of 23 ...

============================================================
Removing existing CommsInstaller 7u1 (7.1-0.06)...
------ Executing Task 18 of 23 ...

============================================================
Installing CommsInstaller 7u2 (7.2-0.36)...
------ Executing Task 19 of 23 ...

============================================================
Upgrading Messaging Server (64bit) 7u4 (7.4-18.01 at
/opt/sun/comms/messaging64)...
------ Executing Task 20 of 23 ...
--
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0 "137205-23"

============================================================
Installing patch 137205-23 for Messaging Server (64bit)...
------ Executing Task 21 of 23 ...
------ Executing Task 22 of 23 ...
--
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0 "137205-23"
============================================================
Done Upgrading Messaging Server (64bit) to 7u4 (7.4-23.01 at
/opt/sun/comms/messaging64)

============================================================
Upgrading Comms DSsetup 6.4 (6.4-6.03 at /opt/sun/comms/dssetup)...

============================================================
Installing patch 118246-23 for Comms DSsetup...
------ Executing Task 23 of 23 ...
============================================================
Done Upgrading Comms DSsetup to 6.4 (6.4-23.01 at
/opt/sun/comms/dssetup)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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_20110921201416
NOTICE: LOGFILE  created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20110921201416.log
# cat /var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921201416
#
# Silent File for CommsInstaller 7.2-0.36 [7.0.2.0.0]
# Generated on 20110921201416
#

#
# verb used to create this silent file
VERB=upgrade

#
# alternate distro path if not found where commpkg resides
#    and no --distro switch specified is
#
ALTDISTROPATH=/net/example.com/export/megan/wspace/dl111122/releases/ci72
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 that all SC should or should not be upgraded without
prompting
#
UPGRADESC=no

#
# 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
# cat /var/opt/CommsInstaller/logs/CommsInstaller_20110921201416.log
============ LOGFILE started Wed Sep 21 20:14:16 2011 ==========
LOGFILE = /tmp/CommsInstaller_20110921201416.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg upgrade
-- perl version: 5.008004 pid: 15608
-- basetime: 1316661256 Wed Sep 21 20:14:16 2011
-- scriptDir:
/net/example.com/export/megan/wspace/dl111122/releases/ci72
-- LOGFILE: /tmp/CommsInstaller_20110921201416.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
-- UNAME = SunOS ARCH = i386 OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS riot1 5.10 Generic_142910-17 i86pc i386 i86pc
-- Exit status: 0
!!! ENV
$VAR1 = {
          'HOME' => '/',
          'LOGNAME' => 'uadmin',
          'SHLVL' => '1',
          'OLDPWD' => '/home/dl111122/wspace/releases/ci71',
```

```
          'PS1' => '[\\! \\d \\t \\u@\\h% \\w\\$ ]
\\$ ',
          '_' => './commpkg',
          'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc::~dl111122/bin:/usr/sbin:/usr/bin',
'CDPATH' => ':..:/home/dl111122',
          'SHELL' => '/sbin/sh',
          'HZ' => '',
          'MAIL' => '/var/mail/uadmin',
          'TERM' => 'dumb',
          'PWD' => '/home/dl111122/wspace/releases/ci72',
          'TZ' => 'US/Pacific',
          'LANG' => 'C'
        };
cat /etc/release 2>&1
                    Oracle Solaris 10 9/10 s10x_u9wos_14a X86
     Copyright (c) 2010, Oracle and/or its affiliates. All rights
reserved.
                            Assembled 11 August 2010
-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
          'MS64',
          'DSSETUP',
          'DAV',
          'IM',
          'IWC',
          'JISS',
          'DA',
          'MS_SCHA',
          'IM_SCHA'
        ];
!!! products found in distro, distrProds
$VAR1 = {
          'SASL' => 1,
          'IWC' => 1,
          'MS' => 1,
          'DSSETUP' => 1,
          'MQ_L10N' => 1,
          'ICU' => 1,
          'MS64' => 1,
          'DAV' => 1,
          'LDAPCSDK6' => 1,
          'JDK' => 1,
          'CE' => 1,
          'MYSQL' => 1,
          'PATCHUTILS' => 1,
          'MQ' => 1,
          'CI' => 1,
          'IMAPI' => 1,
          'LDAPCSDK6_TOOLS' => 1,
          'JISS' => 1,
          'NSS' => 1,
          'IM' => 1,
          'ST' => 1,
```

```
          'CS_SCHA' => 1,
          'LDAPJDK' => 1,
          'BZIP' => 1,
          'MYSQL_MARKER' => 1,
          'IM_SCHA' => 1,
          'LIBCPLUSPLUS' => 1,
          'SNMP' => 1,
          'MS_SCHA' => 1,
          'CS' => 1,
          'JHRT' => 1,
          'DA' => 1
        };
/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/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
no mapFile
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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no mapFile
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no mapFile
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no mapFile
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no mapFile
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no mapFile
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
Reading
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
not found, skipping...
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not found, skipping...
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not found, skipping...
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
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/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
OLD
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produc
QQQ findGetVersion ======
!!! getVersion
$VAR1 = {
          'SASL' => 'none',
          'IWC' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IWC
'MS64_L10N' => 'none',
          'MS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS/
'DSSETUP' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSS
'MQ_L10N' => 'none',
          'ICU' => 'none',
```

```
          'MS64' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS6
'DAV' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DAV
'LDAPCSDK6' => 'none',
          'CE' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CE/
'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Produ
'LDAPCSDK6_TOOLS' => 'none',
          'JISS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JIS
'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM/
'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS_
'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/IM_
'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS_
'CS' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CS/
'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' =>
'/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DA/
};
!!! prod_getVers
$VAR1 = {
          'SASL' => 0,
          'IWC' => '2.0-2.01',
          'MS64_L10N' => 0,
          'MS' => '7.2-7.02',
          'DSSETUP' => '6.4-23.01',
          'MQ_L10N' => 0,
          'ICU' => 0,
          'MS64' => '7.4-23.01',
          'DAV' => '7.2-4.19',
          'LDAPCSDK6' => 0,
          'CE' => '6.3-13.01',
```

```
          'JDK' => 0,
          'MYSQL' => 0,
          'PATCHUTILS' => 0,
          'MQ' => 0,
          'IMAPI' => 0,
          'CI' => '7.2-0.36',
          'LDAPCSDK6_TOOLS' => 0,
          'JISS' => '1.3-8.6501',
          'NSS' => 0,
          'CS_L10N' => 0,
          'IM' => '9.0-00.15',
          'ST' => 0,
          'RECOMMENDED' => 0,
          'IM_L10N' => 0,
          'CS_SCHA' => '6.3-1.01',
          'LDAPJDK' => 0,
          'BZIP' => 0,
          'MYSQL_MARKER' => 0,
          'IM_SCHA' => '7.3-01.02',
          'MS_L10N' => 0,
          'LIBCPLUSPLUS' => 0,
          'SNMP' => 0,
          'MS_SCHA' => '7.0-0.03',
          'CS' => '6.3-29.01',
          'JHRT' => 0,
          'CE_L10N' => 0,
          'DA' => '7.0-4.00'
        };
!!! prod_builddate
$VAR1 = {
          'SASL' => 'none',
          'IWC' => '20110817',
          'MS64_L10N' => 'none',
          'MS' => '20090416',
          'DSSETUP' => '20110713',
          'MQ_L10N' => 'none',
          'ICU' => 'none',
          'MS64' => '20110810',
          'DAV' => '20110909',
          'LDAPCSDK6' => 'none',
          'CE' => '20090327',
          'JDK' => 'none',
          'MYSQL' => 'none',
          'PATCHUTILS' => 'none',
          'MQ' => 'none',
          'IMAPI' => 'none',
          'CI' => '20110909',
          'LDAPCSDK6_TOOLS' => 'none',
          'JISS' => '20110811',
          'NSS' => 'none',
          'CS_L10N' => 'none',
          'IM' => '20110905',
          'ST' => 'none',
          'RECOMMENDED' => 'none',
          'IM_L10N' => 'none',
          'CS_SCHA' => '20080331',
```

```
          'LDAPJDK' => 'none',
          'BZIP' => 'none',
          'MYSQL_MARKER' => 'none',
          'IM_SCHA' => '20080403',
          'MS_L10N' => 'none',
          'LIBCPLUSPLUS' => 'none',
          'SNMP' => 'none',
          'MS_SCHA' => '20080519',
          'CS' => '20110527',
          'JHRT' => 'none',
          'CE_L10N' => 'none',
          'DA' => '20110805'
        };
====== End QQQ findGetVersion ======
INFO: prod_mktVers{NSS} (no map) = 4.8.8
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) = 4.21
INFO: prod_mktVers{IMAPI} (w/ map) = 9
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{SNMP} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2011.06.17
INFO: prod_mktVers{MYSQL_MARKER} (w/ map) = 1.1
INFO: prod_mktVers{MYSQL} (w/ map) = 5.5.8
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7u2
INFO: prod_mktVers{MS64} (w/ map) = 7u4
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7u2
INFO: prod_mktVers{IM} (w/ map) = 9
INFO: prod_mktVers{IWC} (w/ map) = 2
INFO: prod_mktVers{JISS} (w/ map) = 1u3
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

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.

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```

```
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 SNMP Unknown ...
  Checking pkg SUNWsmagt... present.
  Checking pkg SUNWsmcmd... present.
  Checking pkg SUNWsmmgr... present.
  SNMP Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2011.06.17 ...
  RECOMMENDED 2011.06.17 is not present.
Checking MYSQL_MARKER 1.1 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.1 is not present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.0 is not present.
Checking MYSQL 5.5.8 ...
  Checking pkg mysql... not present.
  MYSQL 5.5.8 is not present.
Checking MYSQL 5.1.36 ...
  Checking pkg mysql... not present.
  MYSQL 5.1.36 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 4.8.8 ...
  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 4.8.8 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=2006.06.18.23.02
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqlpl... not present.
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 3.7,REV=2006.06.18.23.02
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 3.7,REV=2006.06.18.23.02
```

```
  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=2007.07.26.11.39
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.1,REV=2007.07.26.11.39
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.1,REV=2007.07.26.11.39
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.1,REV=2007.07.26.11.40
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.1,REV=2007.07.26.11.40
  NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.3 ...
  Checking pkg SUNWiqr... present but with a different pkg VERSION.
    checking SUNWiqr 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiqu... present but with a different pkg VERSION.
    checking SUNWiqu 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
    checking SUNWiqdoc 4.3,REV=2008.11.07.19.29
  Checking pkg SUNWiquc... present but with a different pkg VERSION.
    checking SUNWiquc 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqum... present but with a different pkg VERSION.
    checking SUNWiqum 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqjx... present but with a different pkg VERSION.
    checking SUNWiqjx 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqfs... present but with a different pkg VERSION.
    checking SUNWiqfs 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
    checking SUNWiqcrt 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
    checking SUNWiqcdv 4.3,REV=2008.11.07.19.30
  Checking pkg SUNWiqlen... present but with a different pkg VERSION.
    checking SUNWiqlen 4.3,REV=2008.11.07.19.30
  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=2006.09.28.01.19.58
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 3.7,REV=2006.09.28.01.19.58
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 3.7,REV=2006.09.02.01.24.16
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 3.7,REV=2006.09.02.01.24.17
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 3.7,REV=2006.09.28.01.19.58
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 3.7,REV=2006.09.28.01.19.59
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 3.7,REV=2006.09.02.01.24.16
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 3.7,REV=2006.09.02.01.24.17
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 3.7,REV=2006.10.28.02.17.39
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 3.7,REV=2006.10.28.02.17.39
  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=2007.08.02.02.12
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
```

```
    checking SUNWciqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.1,REV=2007.08.02.02.12
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.1,REV=2007.08.02.02.12
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking MQ_L10N 4.3 ...
  Checking pkg SUNWfiqu... present but with a different pkg VERSION.
    checking SUNWfiqu 4.3,REV=2008.10.27.08.15.45
  Checking pkg SUNWfiquc... present but with a different pkg VERSION.
    checking SUNWfiquc 4.3,REV=2008.10.27.08.15.47
  Checking pkg SUNWdiqu... present but with a different pkg VERSION.
    checking SUNWdiqu 4.3,REV=2008.10.27.08.16.20
  Checking pkg SUNWdiquc... present but with a different pkg VERSION.
    checking SUNWdiquc 4.3,REV=2008.10.27.08.16.23
  Checking pkg SUNWjiqu... present but with a different pkg VERSION.
    checking SUNWjiqu 4.3,REV=2008.10.27.08.18.18
  Checking pkg SUNWjiquc... present but with a different pkg VERSION.
    checking SUNWjiquc 4.3,REV=2008.10.27.08.18.20
  Checking pkg SUNWeiqu... present but with a different pkg VERSION.
    checking SUNWeiqu 4.3,REV=2008.10.27.08.16.56
  Checking pkg SUNWeiquc... present but with a different pkg VERSION.
    checking SUNWeiquc 4.3,REV=2008.10.27.08.16.59
  Checking pkg SUNWkiqu... present but with a different pkg VERSION.
    checking SUNWkiqu 4.3,REV=2008.10.27.08.17.33
  Checking pkg SUNWkiquc... present but with a different pkg VERSION.
    checking SUNWkiquc 4.3,REV=2008.10.27.08.17.35
  Checking pkg SUNWciqu... present but with a different pkg VERSION.
    checking SUNWciqu 4.3,REV=2008.10.27.08.18.55
  Checking pkg SUNWciquc... present but with a different pkg VERSION.
    checking SUNWciquc 4.3,REV=2008.10.27.08.18.57
  Checking pkg SUNWhiqu... present but with a different pkg VERSION.
    checking SUNWhiqu 4.3,REV=2008.10.27.08.19.31
  Checking pkg SUNWhiquc... present but with a different pkg VERSION.
    checking SUNWhiquc 4.3,REV=2008.10.27.08.19.33
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
Checking LDAPJDK 4.21 ...
  Checking pkg SUNWljdk... present.
  LDAPJDK 4.21 is already present.
Checking IMAPI 9.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 9.0 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 IMAPI 8.0 ...
  Checking pkg SUNWiimdv... not present.
  IMAPI 8.0 is not present.
Checking CI 7.2 ...
```

```
  Checking pkg SUNWcomms...
/opt/sun/comms/CommsInstaller/lib/getVersion VERSION BUILDDATE UNAME
ARCH BITS 2>&1
7.1-0.06
20100726
SunOS
i386
32
-- Exit status: 0
INFO fillInstalledProd: making pkglist for prod=CI
installed_version=7.1-0.06 v=7.1,REV=2010.07.26 using prodVersFamily 7.2
 present but with a different pkg VERSION.
    checking SUNWcomms 7.2,REV=2011.09.09
  NOTICE: CommsInstaller is present with a different pkg VERSION.
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
i386
64
-- Exit status: 0
 present.
  MS64 7.4 is already present.
Checking MS64 6.3 ...
  Checking pkg SUNWmessaging-server-64... present but with a different
pkg VERSION.
    checking SUNWmessaging-server-64 6.3,REV=2007.02.26
  NOTICE: Messaging Server (64bit) is present with a different pkg
VERSION.
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
i386
32
-- Exit status: 0
 present.
  DSSETUP 6.4 is already present.
Checking DAV 7.2 ...
  Checking pkg SUNWdavserver... not present.
  DAV 7.2 is not present.
Checking IM 9.0 ...
  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 SUNWiimgw... not present.
  Checking pkg SUNWiimw... not present.
  Checking pkg SUNWiimfed... not present.
  IM 9.0 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 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 IWC 2.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 2.0 is not present.
Checking IWC 1.0 ...
  Checking pkg SUNWiwc... not present.
  IWC 1.0 is not present.
Checking JISS 1.3 ...
  Checking pkg SUNWjiss... not present.
  JISS 1.3 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 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 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 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 SUNWdiimin... 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.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  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 CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119964-23 /tmp/.patchout_20110921201416.15608
-- Running patchadd  -p report...
--   Generating /tmp/.patchout_20110921201416.15608
patchadd  -p > /tmp/.patchout_20110921201416.15608 2>>
/tmp/CommsInstaller_20110921201416.log
-- Exit status: 0
--  older version at lineno 215 found 119964-21 - not acceptable
--  Final return status: 0
  LIBCPLUSPLUS patch 119964-23 is not present.
-- chk4patch 120901-03 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 39
--  Final return status: 1
  PATCHUTILS patch 120901-03 is already present.
-- chk4patch 121334-04 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 40
--  Final return status: 1
  PATCHUTILS patch 121334-04 is already present.
```

```
-- chk4patch 119255-81 /tmp/.patchout_20110921201416.15608
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Final return status: 0
  PATCHUTILS patch 119255-81 is not present.
-- chk4patch 119255-73 /tmp/.patchout_20110921201416.15608
--  Newer version at line 2 found 119255-75
--  Final return status: 1
  PATCHUTILS patch 119255-73 is already present.
-- chk4patch 120273-06 /tmp/.patchout_20110921201416.15608
--  Newer version at line 190 found 120273-30
--  Final return status: 1
  SNMP patch 120273-06 is already present.
-- chk4patch 126869-05 /tmp/.patchout_20110921201416.15608
--  older version at lineno 188 found 126869-04 - not acceptable
--  Final return status: 0
  BZIP patch 126869-05 is not present.
-- chk4patch 137322-01 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 189
--  Final return status: 1
  BZIP patch 137322-01 is already present.
-- chk4patch 119255-81 /tmp/.patchout_20110921201416.15608
--  older version at lineno 2 found 119255-75 - not acceptable
--  older version at lineno 5 found 119255-79 - not acceptable
--  Final return status: 0
  RECOMMENDED patch 119255-81 is not present.
-- chk4patch 118855-36 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 17
--  Final return status: 1
  RECOMMENDED patch 118855-36 is already present.
-- chk4patch 120012-14 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 38
--  Final return status: 1
  RECOMMENDED patch 120012-14 is already present.
-- chk4patch 120273-30 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 190
--  Final return status: 1
  RECOMMENDED patch 120273-30 is already present.
-- chk4patch 137138-09 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 45
--  Final return status: 1
  RECOMMENDED patch 137138-09 is already present.
-- chk4patch 141445-09 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 48
--  Final return status: 1
  RECOMMENDED patch 141445-09 is already present.
-- chk4patch 142910-17 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 44
--  Final return status: 1
  RECOMMENDED patch 142910-17 is already present.
-- chk4patch 144489-17 /tmp/.patchout_20110921201416.15608
--  Final return status: 0
  RECOMMENDED patch 144489-17 is not present.
-- chk4patch 125359-14 /tmp/.patchout_20110921201416.15608
--  older version at lineno 128 found 125359-13 - not acceptable
--  Final return status: 0
```

```
  NSS patch 125359-14 is not present.
-- chk4patch 125359-13 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 128
--  Final return status: 1
  NSS patch 125359-13 is already present.
-- chk4patch 119346-08 /tmp/.patchout_20110921201416.15608
--  older version at lineno 568 found 119346-07 - not acceptable
--  Final return status: 0
  SASL patch 119346-08 is not present.
-- chk4patch 119346-07 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 568
--  Final return status: 1
  SASL patch 119346-07 is already present.
-- chk4patch 136800-03 /tmp/.patchout_20110921201416.15608
--  older version at lineno 236 found 136800-02 - not acceptable
--  Final return status: 0
  LDAPCSDK6_TOOLS patch 136800-03 is not present.
-- chk4patch 119811-05 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 382
--  Final return status: 1
  ICU patch 119811-05 is already present.
-- chk4patch 125138-28 /tmp/.patchout_20110921201416.15608
--  older version at lineno 309 found 125138-22 - not acceptable
--  older version at lineno 310 found 125138-19 - not acceptable
--  older version at lineno 525 found 125138-23 - not acceptable
--  Final return status: 0
  JDK patch 125138-28 is not present.
-- chk4patch 125139-28 /tmp/.patchout_20110921201416.15608
--  older version at lineno 241 found 125139-22 - not acceptable
--  older version at lineno 242 found 125139-19 - not acceptable
--  older version at lineno 373 found 125139-23 - not acceptable
--  Final return status: 0
  JDK patch 125139-28 is not present.
-- chk4patch 125138-25 /tmp/.patchout_20110921201416.15608
--  older version at lineno 309 found 125138-22 - not acceptable
--  older version at lineno 310 found 125138-19 - not acceptable
--  older version at lineno 525 found 125138-23 - not acceptable
--  Final return status: 0
  JDK patch 125138-25 is not present.
-- chk4patch 125139-25 /tmp/.patchout_20110921201416.15608
--  older version at lineno 241 found 125139-22 - not acceptable
--  older version at lineno 242 found 125139-19 - not acceptable
--  older version at lineno 373 found 125139-23 - not acceptable
--  Final return status: 0
  JDK patch 125139-25 is not present.
-- chk4patch 119725-06 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 117
--  Final return status: 1
  LDAPJDK patch 119725-06 is already present.
-- chk4patch 137205-23 /tmp/.patchout_20110921201416.15608
--  older version at lineno 607 found 137205-18 - not acceptable
--  Final return status: 0
  MS64 patch 137205-23 is not present.
-- chk4patch 118243-03 /tmp/.patchout_20110921201416.15608
--  Exact match found at line 217
--  Final return status: 1
```

```
  DSSETUP patch 118243-03 is already present.
-- chk4patch 118246-23 /tmp/.patchout_20110921201416.15608
--  older version at lineno 218 found 118246-22 - not acceptable
--  Final return status: 0
  DSSETUP patch 118246-23 is not present.
-- chk4patch 142786-04 /tmp/.patchout_20110921201416.15608
--  Final return status: 0
  DAV patch 142786-04 is not present.
-- chk4patch 145712-02 /tmp/.patchout_20110921201416.15608
--  Final return status: 0
  IWC patch 145712-02 is not present.
-- chk4patch 142823-08 /tmp/.patchout_20110921201416.15608
--  Final return status: 0
  JISS patch 142823-08 is not present.
-- chk4patch 124582-04 /tmp/.patchout_20110921201416.15608
--  Final return status: 0
  DA patch 124582-04 is not present.
-- chk4patch 137572-01 /tmp/.patchout_20110921201416.15608
--  Final return status: 0
  IM_SCHA patch 137572-01 is not present.
-- chk4patch 121658-46 /tmp/.patchout_20110921201416.15608
--  Final return status: 0
  CS patch 121658-46 is not present.
====== QQQ detectProducts ======
QQQ Dumper
!!! present
$VAR1 = {
          '119725-06' => 'PRESENT',
          '118855-36' => 'PRESENT',
          'DSSETUP' => {
                         '6.4' => 'PRESENT'
                       },
          '118246-23' => 'NOT_PRESENT',
          'MQ_L10N' => {
                         '4.3' => 'DIFF_VERSION',
                         '3.7' => 'DIFF_VERSION',
                         '4.1' => 'DIFF_VERSION',
                         '4.4' => 'PRESENT'
                       },
          'ICU' => {
                     'ICU2,ICU3' => 'PRESENT'
                   },
          '137572-01' => 'NOT_PRESENT',
          '137205-23' => 'NOT_PRESENT',
          '142786-04' => 'NOT_PRESENT',
          'MS64' => {
                      '7.4_32' => 'NOT_PRESENT',
                      '7.3_32' => 'NOT_PRESENT',
                      '7.2_32' => 'NOT_PRESENT',
                      '6.3' => 'DIFF_VERSION',
                      '6.3_32' => 'NOT_PRESENT',
                      '7.4' => 'PRESENT'
                    },
          'DAV' => {
                     '7.2' => 'NOT_PRESENT'
                   },
```

```
'118243-03' => 'PRESENT',
'137138-09' => 'PRESENT',
'119255-81' => 'NOT_PRESENT',
'CE' => {
          '6.3' => 'NOT_PRESENT'
        },
'MYSQL' => {
             '5.1.36' => 'NOT_PRESENT',
             '5.5.8' => 'NOT_PRESENT'
           },
'PATCHUTILS' => {
                  'Unknown' => 'PRESENT'
                },
'MQ' => {
          '4.3' => 'DIFF_VERSION',
          '3.7' => 'DIFF_VERSION',
          '4.1' => 'DIFF_VERSION',
          '4.4' => 'PRESENT'
        },
'IMAPI' => {
             '8.0' => 'NOT_PRESENT',
             '7.0' => 'NOT_PRESENT',
             '9.0' => 'NOT_PRESENT',
             '7.3' => 'NOT_PRESENT'
           },
'124582-04' => 'NOT_PRESENT',
'LDAPCSDK6_TOOLS' => {
                       '6.0' => 'PRESENT'
                     },
'JISS' => {
            '0.9' => 'NOT_PRESENT',
            '1.3' => 'NOT_PRESENT'
          },
'119811-05' => 'PRESENT',
'137322-01' => 'PRESENT',
'ST' => {
          '1.1.4' => 'PRESENT'
        },
'141445-09' => 'PRESENT',
'120901-03' => 'PRESENT',
'IM_L10N' => {
               '7.2' => 'NOT_PRESENT',
               '7.0' => 'NOT_PRESENT'
             },
'125138-25' => 'NOT_PRESENT',
'121334-04' => 'PRESENT',
'LDAPJDK' => {
               '4.21' => 'PRESENT'
             },
'BZIP' => {
            '11.10' => 'PRESENT'
          },
'IM_SCHA' => {
               '7.0' => 'NOT_PRESENT',
               '7.3' => 'NOT_PRESENT'
             },
```

```
'SNMP' => {
            'Unknown' => 'PRESENT'
          },
'125139-25' => 'NOT_PRESENT',
'MS_SCHA' => {
               '6.0' => 'NOT_PRESENT',
               '7.0' => 'NOT_PRESENT'
             },
'119346-08' => 'NOT_PRESENT',
'JHRT' => {
            '2.0' => 'PRESENT'
          },
'CE_L10N' => {
               '6.2' => 'NOT_PRESENT',
               '6.3' => 'NOT_PRESENT'
             },
'125359-14' => 'NOT_PRESENT',
'145712-02' => 'NOT_PRESENT',
'SASL' => {
            '2.19' => 'PRESENT'
          },
'IWC' => {
           '2.0' => 'NOT_PRESENT',
           '1.0' => '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'
        },
'120012-14' => 'PRESENT',
'119346-07' => 'PRESENT',
'LDAPCSDK6' => {
                 '6.0' => 'PRESENT'
               },
'142910-17' => 'PRESENT',
'142823-08' => 'NOT_PRESENT',
'JDK' => {
           '1.6.0' => 'PRESENT',
           '1.5.0' => 'NOT_PRESENT'
         },
'121658-46' => 'NOT_PRESENT',
'136800-03' => 'NOT_PRESENT',
'CI' => {
          '7.2' => 'DIFF_VERSION'
        },
'119255-73' => 'PRESENT',
'120273-06' => 'PRESENT',
'125138-28' => 'NOT_PRESENT',
'NSS' => {
           '4.8.8' => 'PRESENT'
         },
```

```
          'IM' => {
                    '8.3' => 'NOT_PRESENT',
                    '7.0' => 'NOT_PRESENT',
                    '9.0' => 'NOT_PRESENT',
                    '7.3' => 'NOT_PRESENT'
                  },
          'CS_L10N' => {
                         '6.2' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'RECOMMENDED' => {
                             '2011.06.17' => 'NOT_PRESENT'
                           },
          '119964-23' => 'NOT_PRESENT',
          '120273-30' => 'PRESENT',
          '144489-17' => 'NOT_PRESENT',
          '125139-28' => 'NOT_PRESENT',
          '125359-13' => 'PRESENT',
          'CS_SCHA' => {
                         '6.0' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'MYSQL_MARKER' => {
                              '1.1' => 'NOT_PRESENT',
                              '1.0' => 'NOT_PRESENT'
                            },
          'MS_L10N' => {
                         '6.2' => 'NOT_PRESENT',
                         '6.3' => 'NOT_PRESENT'
                       },
          'LIBCPLUSPLUS' => {
                              '5.9' => 'PRESENT'
                            },
          '126869-05' => 'NOT_PRESENT',
          'CS' => {
                    '6.3' => 'NOT_PRESENT'
                  },
          'DA' => {
                    '6.4' => 'NOT_PRESENT',
                    '7.0' => 'NOT_PRESENT'
                  }
        };
!!! pkgparams
$VAR1 = {
          'SUNWica5' => {},
          'SUNWmsgja' => {},
          'SUNWcomic' => {},
          'SUNWservicetagu' => {
                                 '1.1.4,REV=2008.03.21.07.56' => [

'SUNWservicetagu',
                                                                    '/',

'1.1.4.1',
                                                                    ''
                                                                  ]
```

```
                                 },
          'SUNWsmmgr' => {
                            '1.0,REV=2005.01.08.01.09' => [
                                                             'SUNWsmmgr',
                                                             '/',
                                                             '5.10/SunOS
Development',
                                                             ''
                                                           ]
                        },
          'SUNWjimid' => {},
          'SUNWdiquc' => {
                            '4.4,REV=2009.10.01.09.34.32' => [

'SUNWdiquc',
                                                               '/',
                                                               '4.4.1.0',
                                                               ''
                                                             ]
                        },
          'SUNWmsgko' => {},
          'SUNWics5' => {},
          'SUNWmessaging-server-l10n-64' => {},
          'SUNWiqlpl' => {},
          'SUNWmsgco' => {},
          'SUNWfiquc' => {
                            '4.4,REV=2009.10.01.09.34.22' => [

'SUNWfiquc',
                                                               '/',
                                                               '4.4.1.0',
                                                               ''
                                                             ]
                        },
          'SUNWjiss-extjars' => {},
          'SUNWjhdem' => {
                            '2.0,REV=2006.10.04' => [
                                                       'SUNWjhdem',
                                                       '/usr',
                                                       '2.0/FCS',
                                                       ''
                                                     ]
                        },
          'SUNWiqfs' => {
                             '4.4,REV=2009.08.27.09.46' => [
                                                             'SUNWiqfs',
                                                             '/',
                                                             '4.4.0.0',
                                                             ''
                                                           ]
                       },
          'SUNWfimid' => {},
          'SUNWcomds' => {
                            '6.3,REV=2004.08.12' => [
                                                       'SUNWcomds',
```

```
'/opt/sun/comms/dssetup',
                                                        '6.4-6.03',
                                                        ''
                                                      ]
                          },
          'SUNWjhdev' => {
                            '2.0,REV=2006.10.04' => [
                                                        'SUNWjhdev',
                                                        '/usr',
                                                        '2.0/FCS',
                                                        ''
                                                      ]
                          },
          'SUNWj6rtx' => {
                            '1.6.0,REV=2006.11.29.02.51' => [

'SUNWj6rtx',
                                                                '/usr',

'1.6.0_20/1.6.0_20-b02',
                                                                ''
                                                              ]
                          },
          'SUNWiqum' => {
                            '4.4,REV=2009.08.27.09.46' => [
                                                                'SUNWiqum',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                          },
          'SUNWduwc' => {},
          'SUNWhiimin' => {},
          'SUNWkiimin' => {},
          'SUNWeiimd' => {},
          'SUNWj6rt' => {
                            '1.6.0,REV=2006.11.29.05.03' => [
                                                                  'SUNWj6rt',
                                                                  '/usr',

'1.6.0_20/1.6.0_20-b02',
                                                                  ''
                                                                ]
                          },
          'SUNWj5rt' => {},
          'SUNWiimc-l10n' => {},
          'SUNWhiimc' => {},
          'SUNWmsg-l10n' => {},
          'SUNWfrics' => {},
          'SUNWciqu' => {
                            '4.4,REV=2009.10.01.09.35.07' => [
                                                                  'SUNWciqu',
                                                                  '/',
                                                                  '4.4.1.0',
                                                                  ''
                                                              ]
```

```
                        },
          'SUNWkoics' => {},
          'SUNWdimid' => {},
          'SUNWjiquc' => {
                          '4.4,REV=2009.10.01.09.34.58' => [

'SUNWjiquc',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                        },
          'SUNWiimgw' => {},
          'SUNWiimd-l10n' => {},
          'SUNWhiquc' => {
                          '4.4,REV=2009.10.01.09.35.15' => [

'SUNWhiquc',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                        },
          'SUNWzhics' => {},
          'SUNWkiimd' => {},
          'SUNWiimfed' => {},
          'SUNWmsgmp' => {},
          'SUNWuwc' => {},
          'SUNWscics' => {},
          'SUNWiimc' => {},
          'SUNWhiimd' => {},
          'SUNWmessaging-server-scha' => {},
          'SUNWmsglb' => {},
          'SUNWtls' => {
                        '3.11.4,REV=2006.11.16.21.41' => [
                                                            'SUNWtls',
                                                            '/',
                                                            '3.12.8',
                                                            ''
                                                          ]
                       },
          'SUNWj6dvx' => {
                          '1.6.0,REV=2006.11.29.02.51' => [

'SUNWj6dvx',
                                                             '/usr',

'1.6.0_20/1.6.0_20-b02',
                                                             ''
                                                           ]
                        },
          'SUNWfuwc' => {},
          'SUNWlibC' => {
                           '5.10,REV=2004.12.20' => [
                                                       'SUNWlibC',
                                                       '/',
```

```
                                                        '5.10',
                                                        ''
                                                      ]
                        },
          'SUNWjiss-searchui' => {},
          'SUNWjiimin' => {},
          'SUNWcomms-mysql-marker' => {},
          'SUNWscims' => {},
          'SUNWiimjd' => {},
          'SUNWciimd' => {},
          'SUNWldapcsdk-dev' => {
                                  '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-dev',
                                                                    '/',

'6.00',
                                                                    ''
                                                                  ]
                                },
          'SUNWiqlen' => {
                            '4.4,REV=2009.08.27.09.46' => [
                                                            'SUNWiqlen',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                          },
          'SUNWiimid-l10n' => {},
          'SUNWiqr' => {
                          '4.4,REV=2009.08.27.09.45' => [
                                                          'SUNWiqr',
                                                          '/',
                                                          '4.4.1.0',
                                                          ''
                                                        ]
                        },
          'SUNWdiimc' => {},
          'SUNWmsgwm' => {},
          'SUNWiimw' => {},
          'SUNWmessaging-server-64' => {
                                          '7.0,REV=2008.06.20' => [

'SUNWmessaging-server-64',

'/opt/sun/comms/messaging64',

'7.4-18.01',
                                                                    ''
                                                                  ]
                                        },
          'SUNWeiquc' => {
                            '4.4,REV=2009.10.01.09.34.40' => [

'SUNWeiquc',
                                                                        '/',
```

```
                                                                    '4.4.1.0',
                                                                    ''
                                                                 ]
                            },
          'SUNWj5cfg' => {},
          'SUNWhiqu' => {
                            '4.4,REV=2009.10.01.09.35.15' => [
                                                                 'SUNWhiqu',
                                                                 '/',
                                                                 '4.4.1.0',
                                                                 ''
                                                               ]
                          },
          'SUNWjiss-search' => {},
          'SUNWiimdv' => {},
          'SUNWfiimd' => {},
          'SUNWj5rtx' => {},
          'SUNWiquc' => {
                            '4.4,REV=2009.08.27.09.46' => [
                                                             'SUNWiquc',
                                                             '/',
                                                             '4.4.1.0',
                                                             ''
                                                           ]
                          },
          'SUNWiimid' => {},
          'SUNWmsgmt' => {},
          'SUNWljdk' => {
                            '1.0,REV=2004.10.11.06.02' => [
                                                             'SUNWljdk',
                                                             '/',
                                                             '4.21',
                                                             ''
                                                           ]
                          },
          'SUNWcuwc' => {},
          'SUNWldapcsdk-libs' => {
                                    '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-libs',
                                                                        '/',

'6.02',
                                                                        ''
                                                                      ]
                                  },
          'SUNWservicetagr' => {
                                  '1.1.4,REV=2008.03.21.07.56' => [

'SUNWservicetagr',
                                                                        '/',

'1.1.4.1',
                                                                        ''
                                                                      ]
                                },
```

```
          'SUNWciimc' => {},
          'SUNWjhrt' => {
                          '2.0,REV=2006.10.31' => [
                                                    'SUNWjhrt',
                                                    '/usr',
                                                    '2.0/FCS',
                                                    ''
                                                  ]
                        },
          'SUNWtlsd' => {
                          '3.11.4,REV=2006.11.16.21.41' => [
                                                             'SUNWtlsd',
                                                             '/',
                                                             '3.12.8',
                                                             ''
                                                           ]
                        },
          'SUNWmsgin' => {},
          'SUNWdtrc' => {
                          '11.10.0,REV=2005.01.21.16.34' => [

'SUNWdtrc',
                                                              '/',

'5.10/Generic Patch',
                                                              ''
                                                            ]
                        },
          'SUNWhuwc' => {},
          'mysql' => {},
          'SUNWiqdoc' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                           'SUNWiqdoc',
                                                           '/',
                                                           '4.4.0.0',
                                                           ''
                                                         ]
                         },
          'SUNWjiimd' => {},
          'SUNWjuwc' => {},
          'SUNWiimd' => {},
          'SUNWsmcmd' => {
                           '1.0,REV=2005.01.08.01.09' => [
                                                           'SUNWsmcmd',
                                                           '/',
                                                           '5.10/SunOS
Development',
                                                           ''
                                                         ]
                         },
          'SUNWiqcrt' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                           'SUNWiqcrt',
                                                           '/opt',
                                                           '4.4.1.0',
                                                           ''
```

```
                                                                ]
                          },
          'SUNWmsgzh' => {},
          'SUNWprd' => {
                          '4.6.4,REV=2006.11.16.21.41' => [
                                                                'SUNWprd',
                                                                '/',
                                                                '4.8.6',
                                                                ''
                                                                ]
                        },
          'SUNWdiimin' => {},
          'SUNWjiss-conf' => {},
          'SUNWcommda' => {},
          'SUNWmsgen' => {},
          'SUNWjiss-store' => {},
          'SUNWiwc' => {},
          'SUNWjiss-storeui' => {},
          'SUNWiimin-l10n' => {},
          'SUNWiimsc' => {},
          'SUNWinstall-patch-utils-root' => {

'11.10,REV=2005.01.09.21.19' => [

'SUNWinstall-patch-utils-root',

'/',

'SNAG Development',

''

]
                                                    },
          'SUNWiimin' => {},
          'SUNWuwc-l10n' => {},
          'SUNWmsgst' => {},
          'SUNWiqu' => {
                          '4.4,REV=2009.08.27.09.45' => [
                                                                'SUNWiqu',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                        },
          'SUNWkiimc' => {},
          'SUNWiim' => {},
          'SUNWeiimin' => {},
          'SUNWcimid' => {},
          'SUNWiqcdv' => {
                            '4.4,REV=2009.08.27.09.46' => [
                                                                'SUNWiqcdv',
                                                                '/opt',
                                                                '4.4.1.0',
                                                                ''
                                                                ]
```

```
                          },
          'SUNWldapcsdk-tools' => {
                                     '6.00,REV=2006.12.11.00.35' => [

'SUNWldapcsdk-tools',

'/opt/SUNWdsee',

'6.02',
                                                                        ''
                                                                      ]
                                  },
          'SUNWjss' => {
                          '4.2.4,REV=2006.11.16.21.41' => [
                                                             'SUNWjss',
                                                             '/',
                                                             '4.3.2',
                                                             ''
                                                           ]
                        },
          'SUNWdiqu' => {
                           '4.4,REV=2009.10.01.09.34.32' => [
                                                               'SUNWdiqu',
                                                               '/',
                                                               '4.4.1.0',
                                                               ''
                                                             ]
                         },
          'SUNWjiss' => {},
          'SUNWj6cfg' => {
                            '1.6.0,REV=2006.11.29.05.03' => [

'SUNWj6cfg',
                                                               '/',

'1.6.0_20/1.6.0_20-b02',
                                                               ''
                                                             ]
                          },
          'SUNWhimid' => {},
          'SUNWciquc' => {
                            '4.4,REV=2009.10.01.09.35.07' => [

'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=2009.10.01.09.34.58' => [
                                                              'SUNWjiqu',
                                                              '/',
                                                              '4.4.1.0',
                                                              ''
                                                            ]
                         },
          'SUNWkiqu' => {
                           '4.4,REV=2009.10.01.09.34.50' => [
                                                              'SUNWkiqu',
                                                              '/',
                                                              '4.4.1.0',
                                                              ''
                                                            ]
                         },
          'SUNWkuwc' => {},
          'SUNWics-l10n' => {},
          'SUNWeiqu' => {
                           '4.4,REV=2009.10.01.09.34.40' => [
                                                              'SUNWeiqu',
                                                              '/',
                                                              '4.4.1.0',
                                                              ''
                                                            ]
                         },
          'SUNWmessaging-server' => {},
          'SUNWdavserver' => {},
          'SUNWeiimc' => {},
          'SUNWmsgtw' => {},
          'SUNWjaics' => {},
          'SUNWpkgcmdsu' => {
                               '11.11,REV=2005.01.09.21.19' => [

'SUNWpkgcmdsu',
                                                                  '/',
                                                                  'SNAG
Development',
                                                                  ''
                                                                ]
                             },
          'SUNWjiimc' => {},
          'SUNWeimid' => {},
          'SUNWiqjx' => {
                           '4.4,REV=2009.08.27.09.46' => [
                                                            'SUNWiqjx',
                                                            '/',
                                                            '4.4.1.0',
                                                            ''
                                                          ]
                         },
          'SUNWjhdoc' => {
                            '2.0,REV=2006.10.04' => [
                                                       'SUNWjhdoc',
```

```
                                                        '/usr',
                                                        '2.0/FCS',
                                                        ''
                                                      ]
                          },
          'SUNWj6dev' => {
                            '1.6.0,REV=2006.11.29.05.03' => [

'SUNWj6dev',
                                                            '/usr',

'1.6.0_20/1.6.0_20-b02',
                                                            ''
                                                          ]
                          },
          'SUNWmsges' => {},
          'SUNWpr' => {
                         '4.6.4,REV=2006.11.16.21.41' => [
                                                            'SUNWpr',
                                                            '/',
                                                            '4.8.6',
                                                            ''
                                                          ]
                       },
          'SUNWmsgmf' => {},
          'SUNWkimid' => {},
          'SUNWicu' => {
                          '1.2,REV=2005.01.06.14.13' => [
                                                            'SUNWicu',
                                                            '/usr',
                                                            '10/Generic',
                                                            ''
                                                          ]
                        },
          'SUNWjiss-rest' => {},
          'SUNWfiimin' => {},
          'SUNWswmt' => {
                           '11.10,REV=2005.01.10.15.35' => [
                                                              'SUNWswmt',
                                                              '/',
                                                              'SNAG
Development',
                                                              ''
                                                            ]
                         },
          'SUNWcomis' => {},
          'SUNWdeics' => {},
          'SUNWtwics' => {},
          'SUNWciimin' => {},
          'SUNWmsgfr' => {},
          'SUNWdiimd' => {},
          'SUNWjiss-common' => {},
          'SUNWeuwc' => {},
          'SUNWkiquc' => {
                            '4.4,REV=2009.10.01.09.34.50' => [
```

```
'SUNWkiquc',
                                                                '/',
                                                                '4.4.1.0',
                                                                ''
                                                              ]
                        },
          'SUNWstosreg' => {
                            '1.1.4,REV=2008.03.21.07.56' => [

'SUNWstosreg',
                                                                 '/',

'1.1.4.1',
                                                                 ''
                                                               ]
                          },
          'SUNWmsgde' => {},
          'SUNWsmagt' => {
                           '1.0,REV=2005.01.08.01.09' => [
                                                            'SUNWsmagt',
                                                            '/',
                                                            '5.10/SunOS
Development',
                                                            ''
                                                          ]
                        },
          'SUNWjiss-jmqc' => {},
          'SUNWjiss-indexapi' => {},
          'SUNWbzip' => {
                          '11.10.0,REV=2005.01.08.01.09' => [

'SUNWbzip',
                                                                '/',

'5.10/SunOS Development',
                                                                ''
                                                              ]
                        },
          'SUNWtlsu' => {
                          '3.11.4,REV=2006.11.16.21.41' => [
                                                              'SUNWtlsu',
                                                              '/',
                                                              '3.12.8',
                                                              ''
                                                            ]
                        },
          'SUNWfiqu' => {
                          '4.4,REV=2009.10.01.09.34.22' => [
                                                              'SUNWfiqu',
                                                              '/',
                                                              '4.4.1.0',
                                                              ''
                                                            ]
                        },
          'SUNWsasl' => {
                          '2.17,REV=2003.07.18.13.13' => [
```

```
                                                                    'SUNWsasl',
                                                                    '/',
                                                                    '2.19',
                                                                    ''
                                                                  ]
                                 },
                    'SUNWfiimc' => {},
                    'SUNWzoneu' => {
                                      '11.10.0,REV=2005.01.21.16.34' => [

'SUNWzoneu',
                                                                        '/',

'5.10/Generic Patch',
                                                                        ''
                                                                      ]
                                 },
                    'SUNWcsr' => {
                                 '11.10.0,REV=2005.01.21.16.34' => [
                                                                      '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',
                              '6.4-6.03',
                              '20091123',
                              '6.4',
                              'SunOS',
                              'i386',
                              '32',
                              ''
                            ]
                  },
        'LDAPJDK' => {
                    '4.21' => [
                               '/',
                               '4.21',
                               'none',
                               '4.21',
                               'none',
                               'none',
                               'none',
                               ''
                             ]
                  },
        'MQ_L10N' => {
                    '4.4' => [
                              '/',
                              '4.4.1.0',
                              'none',
                              '4.4',
                              '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',
                                '7.4-18.01',
                                '20100715',
                                '7u4',
                                'SunOS',
                                'i386',
                                '64',
                                ''
                              ]
                    },
          'LIBCPLUSPLUS' => {
                             '5.9' => [
                                        '/',
                                        '5.10',
                                        'none',
                                        '5.9',
                                        'none',
                                        'none',
                                        'none',
                                        ''
                                      ]
                           },
          'LDAPCSDK6' => {
                          '6.0' => [
                                     '/',
                                     '6.02',
                                     'none',
                                     '6.0',
                                     'none',
                                     'none',
                                     'none',
                                     ''
                                   ]
                        },
          'SNMP' => {
                     'Unknown' => [
                                    '/',
                                    '5.10/SunOS Development',
                                    'none',
                                    'Unknown',
                                    'none',
                                    'none',
                                    'none',
                                    ''
                                  ]
                    },
          'JDK' => {
                    '1.6.0' => [
                                '/usr',
                                '1.6.0_20/1.6.0_20-b02',
                                'none',
```

```
                                '1.6.0',
                                'none',
                                'none',
                                'none',
                                ''
                              ]
                    },
          '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',
                                ''
                              ]
                    },
          'CI' => {
                    '7.1,REV=2010.07.26' => [

'/opt/sun/comms/CommsInstaller',
                                             '7.1-0.06',
                                             '20100726',
                                             '7u1',
                                             'SunOS',
                                             'i386',
                                             '32',
                                             ''
                                           ]
                  },
```

```
          'LDAPCSDK6_TOOLS' => {
                                  '6.0' => [
                                              '/opt/SUNWdsee',
                                              '6.02',
                                              'none',
                                              '6.0',
                                              'none',
                                              'none',
                                              'none',
                                              ''
                                            ]
                                },
          'NSS' => {
                      '4.8.8' => [
                                    '/',
                                    '4.3.2',
                                    'none',
                                    '4.8.8',
                                    'none',
                                    'none',
                                    'none',
                                    ''
                                  ]
                    }
        };
====== End QQQ detectProducts ======
-- Checking for RECOMMENDED patch 119255-81
   patch 119255-81: NOT_PRESENT
-- Checking for RECOMMENDED patch 118855-36
   patch is PRESENT
-- Checking for RECOMMENDED patch 120012-14
   patch is PRESENT
-- Checking for RECOMMENDED patch 120273-30
   patch is PRESENT
-- Checking for RECOMMENDED patch 137138-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 141445-09
   patch is PRESENT
-- Checking for RECOMMENDED patch 142910-17
   patch is PRESENT
-- Checking for RECOMMENDED patch 144489-17
   patch 144489-17: NOT_PRESENT
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          119255-81 144489-17
  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/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0
      This version is upgradable to distro version (7.4-23.01)
```

```
INFO: isUpgradable DSSETUP 6.4: 1
      Cmd:
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
6.4-6.03 /opt/sun/comms/dssetup 0
      This version is upgradable to distro version (6.4-23.01)

====== 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 (7.4-23.01)
          Installed Version 7u4 (7.4-18.01) at
/opt/sun/comms/messaging64
       2  Comms DSsetup 6.4 (6.4-23.01)
          Installed Version 6.4 (6.4-6.03) 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 ICU SASL LDAPCSDK6_TOOLS NSS
LDAPCSDK6 ST JDK BZIP JHRT MQ MQ_L10N SNMP LIBCPLUSPLUS CI
Checking for Shared Component Upgrade Requirements...

JDK requires an upgrade for patches 125138-28 125139-28 125138-25
125139-25
```

```
Description: Java Development Kit
  Product Version: 1.6.0
Note that this will be done by uninstalling the
current version and installing the new one.
This is an irreversible process
On the other hand, if you do not upgrade,
some products may not work properly
An alternative is to start over and do a multi-install using --altroot

Do you wish to upgrade JDK [n] : y
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  WILL INSTALL: patch 119255-81 for PATCHUTILS
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/PATC
WILL INSTALL: patch 119346-08 for Simple Authentication and Security
Layer
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
WILL INSTALL: patch 136800-03 for LDAPCSDK6 Tools
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
WILL INSTALL: patch 125359-14 for NSS/NSPR/JSS
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
NOTICE: JDK will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: JDK 1.6.0 (1.6.0_20/1.6.0_20-b02)
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6cfg
1.6.0,REV=2006.11.29.05.03 i=8: realpkg=SUNWj6cfg base=/
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6cfg
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6dvx
1.6.0,REV=2006.11.29.02.51 i=6: realpkg=SUNWj6dvx base=/usr
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dvx
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6dev
1.6.0,REV=2006.11.29.05.03 i=4: realpkg=SUNWj6dev base=/usr
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dev
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6rtx
1.6.0,REV=2006.11.29.02.51 i=2: realpkg=SUNWj6rtx base=/usr
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rtx
-- QQQ30 removeProductPkgs (product=JDK pkg=SUNWj6rt
1.6.0,REV=2006.11.29.05.03 i=0: realpkg=SUNWj6rt base=/usr
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rt
  WILL INSTALL: JDK 1.6.0
WARNING: SUNWj6rt 1.6.0,REV=2006.11.29.05.03 already exists.
pkgparams=SUNWj6rt,/usr  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
```

```
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6rt
WARNING: SUNWj6rtx 1.6.0,REV=2006.11.29.02.51 already exists.
pkgparams=SUNWj6rtx,/usr  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6rtx
WARNING: SUNWj6dev 1.6.0,REV=2006.11.29.05.03 already exists.
pkgparams=SUNWj6dev,/usr  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6dev
WARNING: SUNWj6dvx 1.6.0,REV=2006.11.29.02.51 already exists.
pkgparams=SUNWj6dvx,/usr  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6dvx
WARNING: SUNWj6cfg 1.6.0,REV=2006.11.29.05.03 already exists.
pkgparams=SUNWj6cfg,/  Task: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6cfg
  WILL check JES java symlink
  WILL INSTALL: patch 126869-05 for BZIP OS Component
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/BZIP
WILL INSTALL: patch 119964-23 for LIBCPLUSPLUS
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LIBC
NOTICE: CommsInstaller will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: CommsInstaller 7u1 (7.1-0.06)
-- QQQ30 removeProductPkgs (product=CI pkg=SUNWcomms 7.1,REV=2010.07.26
i=0: realpkg=SUNWcomms base=/opt/sun/comms/CommsInstaller
  Task: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms
  WILL INSTALL: CommsInstaller 7u2 (7.2-0.36)
                to /opt/sun/comms/CommsInstaller
  Task: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921201416 SUNWcomms
  NOTICE: Upgrading Messaging Server (64bit) 7u4 (7.4-18.01)
          to 7u4 (7.4-23.01 at /opt/sun/comms/messaging64)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 137205-23 for Messaging Server (64bit)
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
NOTICE: Upgrading Comms DSsetup 6.4 (6.4-6.03)
```

```
          to 6.4 (6.4-23.01 at /opt/sun/comms/dssetup)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 118246-23 for Comms DSsetup
  Task: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
to upgrade

Do you want to continue ? [yes] :

============================================================
Installing patch 119255-81 for PATCHUTILS...
------ Executing Task 1 of 23 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/PATC
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:

119255-81


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 119255-81 has been successfully installed.
See /var/sadm/patch/119255-81/log for details
Executing postpatch script...

Patch packages installed:
  SUNWinstall-patch-utils-root
  SUNWpkgcmdsr
  SUNWpkgcmdsu
  SUNWswmt

-- Exit status: 0

============================================================
Installing patch 119346-08 for Simple Authentication and Security
Layer...
------ Executing Task 2 of 23 ...
patchadd
```

```
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
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:

119346-08


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 119346-08 has been successfully installed.
See /var/sadm/patch/119346-08/log for details
Executing postpatch script...

Patch packages installed:
  SUNWsasl

-- Exit status: 0

============================================================
Installing patch 136800-03 for LDAPCSDK6 Tools...
------ Executing Task 3 of 23 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
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:

136800-03


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 136800-03 has been successfully installed.
See /var/sadm/patch/136800-03/log for details
Executing postpatch script...

Patch packages installed:
  SUNWldapcsdk-dev
  SUNWldapcsdk-libs
  SUNWldapcsdk-tools

-- Exit status: 0

============================================================
Installing patch 125359-14 for NSS/NSPR/JSS...
------ Executing Task 4 of 23 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
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:

125359-14


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 125359-14 has been successfully installed.
See /var/sadm/patch/125359-14/log for details
Executing postpatch script...

Patch packages installed:
  SUNWjss
```

```
  SUNWpr
  SUNWprd
  SUNWtls
  SUNWtlsd
  SUNWtlsu

-- Exit status: 0

============================================================
Removing existing JDK 1.6.0 (1.6.0_20/1.6.0_20-b02)...
------ Executing Task 5 of 23 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6cfg 2>&1

Removal of <SUNWj6cfg> was successful.
-- Exit status: 0
------ Executing Task 6 of 23 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dvx 2>&1

Removal of <SUNWj6dvx> was successful.
-- Exit status: 0
------ Executing Task 7 of 23 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dev 2>&1

Removal of <SUNWj6dev> was successful.
-- Exit status: 0
------ Executing Task 8 of 23 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rtx 2>&1

Removal of <SUNWj6rtx> was successful.
-- Exit status: 0
------ Executing Task 9 of 23 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rt 2>&1
/var/sadm/pkg/SUNWj6rt/install/postremove: UpdateMimedatabase: not found

Removal of <SUNWj6rt> was successful.
-- Exit status: 0

============================================================
Installing JDK 1.6.0...
------ Executing Task 10 of 23 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6rt 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.
```

```
WARNING: /usr/jdk/instances/jdk1.6.0/jre/lib/i386/client/classes.jsa <no
longer a regular file>

Installation of <SUNWj6rt> was successful.
-- Exit status: 0
------ Executing Task 11 of 23 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6rtx 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWj6rtx> was successful.
-- Exit status: 0
------ Executing Task 12 of 23 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6dev 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWj6dev> was successful.
-- Exit status: 0
------ Executing Task 13 of 23 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6dvx 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWj6dvx> was successful.
-- Exit status: 0
------ Executing Task 14 of 23 ...
pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6cfg 2>&1
Copyright (c) 2011, Oracle and/or its affiliates. All rights reserved.

Installation of <SUNWj6cfg> was successful.
-- Exit status: 0

============================================================
Checking JES java symlink...
------ Executing Task 15 of 23 ...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Sep 21 20:15 /usr/java ->
jdk/jdk1.6.0_26

/usr/jdk:
total 9
drwxr-xr-x   4 root     bin            4 Feb 17  2011 instances
```

```
lrwxrwxrwx   1 root     other          7 Feb 17  2011 j2sdk1.4.2_26 ->
../j2se
lrwxrwxrwx   1 root     other         18 Sep 21 20:15 jdk1.6.0_26 ->
instances/jdk1.6.0
lrwxrwxrwx   1 root     other         11 Sep 21 20:15 latest ->
jdk1.6.0_26
drwxr-xr-x   8 root     bin            8 Feb 17  2011 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 Sep 21 20:15 /usr/jdk/latest ->
jdk1.6.0_26
-- 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 25
-rw-r--r--   1 root     bin         3339 May  4 02:19 COPYRIGHT
-rw-r--r--   1 root     bin           40 May  4 02:19 LICENSE
-rw-r--r--   1 root     bin          115 May  4 02:19 README.html
-rw-r--r--   1 root     bin        20320 Nov 29  2006 README_ja.html
-rw-r--r--   1 root     bin        15160 Nov 29  2006 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 May  4 02:19
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Sep 21 20:15 bin
drwxr-xr-x  11 root     bin           12 Feb 17  2011 demo
drwxr-xr-x   3 root     bin            8 Sep 21 20:15 include
drwxr-xr-x   6 root     bin           11 Sep 21 20:15 jre
drwxr-xr-x   3 root     bin           11 Sep 21 20:15 lib
drwxr-xr-x   3 root     bin            3 Feb 17  2011 man
-r--r--r--   1 root     other       6609 Sep 21 20:15 register.html
-r--r--r--   1 root     other       8055 Sep 21 20:15 register_ja.html
-r--r--r--   1 root     other       6212 Sep 21 20:15
register_zh_CN.html
drwxr-xr-x  10 root     bin           10 Feb 17  2011 sample
-rw-r--r--   1 root     bin      19104157 May  4 02:17 src.zip
-- Exit status: 2
checkEntsy(0) returned 0

============================================================
Installing patch 126869-05 for BZIP OS Component...
------ Executing Task 16 of 23 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/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 126869-05 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:

126869-05


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 126869-05 has been successfully installed.
See /var/sadm/patch/126869-05/log for details
Executing postpatch script...

Patch packages installed:
  SUNWbzip
  SUNWsfman

-- Exit status: 0

============================================================
Installing patch 119964-23 for LIBCPLUSPLUS...
------ Executing Task 17 of 23 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LIBC
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:

119964-23


Checking installed patches...
```

```
Installing patch packages...

Patch 119964-23 has been successfully installed.
See /var/sadm/patch/119964-23/log for details

Patch packages installed:
  SUNWlibC

-- Exit status: 0

============================================================
Removing existing CommsInstaller 7u1 (7.1-0.06)...
------ Executing Task 18 of 23 ...
pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms 2>&1

Removal of <SUNWcomms> was successful.
-- Exit status: 0

============================================================
Installing CommsInstaller 7u2 (7.2-0.36)...
------ Executing Task 19 of 23 ...
pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921201416 SUNWcomms 2>&1
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reserved.
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Installation of <SUNWcomms> was successful.
-- Exit status: 0

============================================================
Upgrading Messaging Server (64bit) 7u4 (7.4-18.01 at
/opt/sun/comms/messaging64)...
------ Executing Task 20 of 23 ...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0 "137205-23" 2>&1
-- Exit status: 0
--
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0 "137205-23"

============================================================
Installing patch 137205-23 for Messaging Server (64bit)...
------ Executing Task 21 of 23 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/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:

137205-23


Checking installed patches...
Executing prepatch script...
Installing patch packages...

Patch 137205-23 has been successfully installed.
See /var/sadm/patch/137205-23/log for details
Executing postpatch script...

Patch packages installed:
  SUNWmessaging-server-64

-- Exit status: 0
------ Executing Task 22 of 23 ...
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0 "137205-23" 2>&1
-- Exit status: 0
--
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0 "137205-23"
============================================================
Done Upgrading Messaging Server (64bit) to 7u4 (7.4-23.01 at
/opt/sun/comms/messaging64)

============================================================
Upgrading Comms DSsetup 6.4 (6.4-6.03 at /opt/sun/comms/dssetup)...

============================================================
Installing patch 118246-23 for Comms DSsetup...
------ Executing Task 23 of 23 ...
patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
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:

118246-23


Checking installed patches...
Installing patch packages...

Patch 118246-23 has been successfully installed.
See /var/sadm/patch/118246-23/log for details

Patch packages installed:
  SUNWcomds

-- Exit status: 0
============================================================
Done Upgrading Comms DSsetup to 6.4 (6.4-23.01 at
/opt/sun/comms/dssetup)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
SUMMARY:

PASSED: Task 1: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/PATC
Task 2: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/SASL
Task 3: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LDAP
Task 4: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/NSS/
Task 5: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6cfg
PASSED: Task 6: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dvx
PASSED: Task 7: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6dev
PASSED: Task 8: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rtx
PASSED: Task 9: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWj6rt
PASSED: Task 10: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6rt
```

```
PASSED: Task 11: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6rtx
PASSED: Task 12: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6dev
PASSED: Task 13: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6dvx
PASSED: Task 14: pkgadd -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/JDK/
-r /tmp/.response_JDK_20110921201416 SUNWj6cfg
PASSED: Task 15: checkEntSys
PASSED: Task 16: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/BZIP
Task 17: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/LIBC
Task 18: pkgrm -n -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
SUNWcomms
PASSED: Task 19: pkgadd -G -a
/net/example.com/export/megan/wspace/dl111122/releases/ci72/.install/Tools/
-n  -d
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/CI/P
-r /tmp/.response_CI_20110921201416 SUNWcomms
PASSED: Task 20: preupgrade
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0 "137205-23"
PASSED: Task 21: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
Task 22: postupgrade
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/MS64
7.4-18.01 /opt/sun/comms/messaging64 0 "137205-23"
PASSED: Task 23: patchadd
/net/example.com/export/megan/wspace/dl111122/releases/ci72/SunOS_i386/DSSE
tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx   1 root     other         15 Sep 21 20:15 /usr/java ->
jdk/jdk1.6.0_26

/usr/jdk:
total 9
drwxr-xr-x   4 root     bin            4 Feb 17  2011 instances
lrwxrwxrwx   1 root     other          7 Feb 17  2011 j2sdk1.4.2_26 ->
../j2se
lrwxrwxrwx   1 root     other         18 Sep 21 20:15 jdk1.6.0_26 ->
instances/jdk1.6.0
```

```
lrwxrwxrwx   1 root     other         11 Sep 21 20:15 latest ->
jdk1.6.0_26
drwxr-xr-x   8 root     bin            8 Feb 17  2011 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 Sep 21 20:15 /usr/jdk/latest ->
jdk1.6.0_26
-- 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 38078
-rw-r--r--   1 root     bin         3339 May  4 02:19 COPYRIGHT
-rw-r--r--   1 root     bin           40 May  4 02:19 LICENSE
-rw-r--r--   1 root     bin          115 May  4 02:19 README.html
-rw-r--r--   1 root     bin        20320 Nov 29  2006 README_ja.html
-rw-r--r--   1 root     bin        15160 Nov 29  2006 README_zh_CN.html
-rw-r--r--   1 root     bin       183173 May  4 02:19
THIRDPARTYLICENSEREADME.txt
drwxr-xr-x   3 root     bin           47 Sep 21 20:15 bin
drwxr-xr-x  11 root     bin           12 Feb 17  2011 demo
drwxr-xr-x   3 root     bin            8 Sep 21 20:15 include
drwxr-xr-x   6 root     bin           11 Sep 21 20:15 jre
drwxr-xr-x   3 root     bin           11 Sep 21 20:15 lib
drwxr-xr-x   3 root     bin            3 Feb 17  2011 man
-r--r--r--   1 root     other       6609 Sep 21 20:15 register.html
-r--r--r--   1 root     other       8055 Sep 21 20:15 register_ja.html
-r--r--r--   1 root     other       6212 Sep 21 20:15
register_zh_CN.html
drwxr-xr-x  10 root     bin           10 Feb 17  2011 sample
-rw-r--r--   1 root     bin      19104157 May  4 02:17 src.zip
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
-- unlink /tmp/.response_JDK_20110921201416
-- unlink /tmp/.response_CI_20110921201416
-- unlink /tmp/.patchout_20110921201416.15608
mkdir -p /var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20110921201416
-- Closing the log at Wed Sep 21 20:16:23 2011
# ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20110921201646.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
```

```
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20110810
  Product: Comms DSsetup 6.4
           Version: 6.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20110713

# ./commpkg info --verbose
-- LOGFILE: /tmp/CommsInstaller_20110921201652.log
CommsInstaller version R7u2 (7.2-0.36 [7.0.2.0.0]) built on Fri Sep  9
13:45:27 PDT 2011
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2011.06.17)
          has not been applied. Specifically the following
          patches are missing:
          144489-17
  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: 7.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/messaging64
           Build Date: 20110810
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           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: 6.4-23.01
           ALTROOT: /
           Basedir: /opt/sun/comms/dssetup
           Build Date: 20110713
           getVersion UNAME: SunOS
           getVersion ARCH: i386
           getVersion BITS: 32
           Product Installation Status: PRESENT
```

```
Package Status/Name/Version:
  PRESENT  SUNWcomds        6.3,REV=2004.08.12
```

Chapter 20. 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 7.3 Update 1 (Patch 13).

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 7.3 Update 1 (Patch 13).

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 7.3 Update 1 (Patch 13) is a two step process.

Step 1: 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.

Step 2: 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.

> **Note:**
> The administrator can configure the desktop install to modify an existing user profile for Connector for Microsoft Outlook 7.1 or later versions (which are configured with GAL) for Calendar migration. The `ModifySun71PlusProfile=0/1` parameter is used. If the value is set to 0, the user profile cannot be modified. If the value is set to 1, user profile can be modified with the property values specified in the configurator.

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 the 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 (Sun Java System Calendar Server 6)	6.3, 6.3.1	5	Required to provide calendar service but has been deprecated in favor of Calendar Server 7
Calendar Server (Oracle Communications Calendar Server 7)	7, 7 Update 1, 7 Update 2	7	Required to provide calendar server; use Calendar Server 7 Update 2 if you want to support CalDAV
Convergence	1.0, 1 Update 1, Convergence 2	6	Optional (Recommended). Convergence can be used to provide address book service, mail filters and out of office message features.
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.

Chapter 21. 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`.

> **Note**
> Upgrade and run comm_dssetup.pl to the latest version before upgrading Delegated Administrator which requires `comm_dssetup.pl` (6.4-23.01) be applied to the Directory Server.

Topic:

- Preserving Customized Data When You Upgrade Delegated Administrator
- Upgrading to Newer Updates of Delegated Administrator 7

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.

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.
- 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.

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.

> **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 to Newer Updates of Delegated Administrator 7

After upgrading to Delegated Administrator 7, apply the latest patch. See Delegated Administrator Patches by Release for patch information.

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 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 Administrator 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.

Chapter 22. DSsetup 6.4-24 Sample Session - Upgrade

DSsetup 6.4-24 Sample Session - Upgrade

This section outlines the commands to run and lists a sample session.

Topics:

- Summary of Commands Run
- Comments
- Session

Summary of Commands Run

```
172  sbin/comm_dssetup.pl
  173  stty -echo
  174  0
  175  1
  176  ./commpkg upgrade
  177  0
  178  5
  179  sbin/comm_dssetup.pl
  180  stty -echo
  181  ls /var/tmp/dssetup_20120907003343
  182  ls /var/tmp/dssetup_20120907003343/save
  183  cat /var/tmp/dssetup_20120907003343/99user_new.ldif
  184  cat /var/tmp/dssetup_20120907003343/dssetup.ldif
  185  cat /var/tmp/dssetup_20120907003343/dssetup.ldif.rej
  186  cat /var/tmp/dssetup_20120907003343/dssetup.sh
  187  cat /var/tmp/dssetup_20120907003343/dssetup.log
```

Comments

- Upgrade from previous version
- Used "commpkg upgrade"
- schema2

Session

```
# sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.23.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-23.01 (built Wed Jul 13 13:51:54 PDT 2011)
```

```
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_20120907002453/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on sc11152328 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 cn
      No new indexes required
    Checking indexes for cosspecifier
      New indexes and Reindexing required
      ReIndex will happen for index type cosspecifier
    Checking indexes for inetCos
      New indexes and Reindexing required
      ReIndex will happen for index type inetCos
    Checking indexes for memberOf
      New indexes and Reindexing required
      ReIndex will happen for index type memberOf
    Checking indexes for groupid
      New indexes and Reindexing required
      ReIndex will happen for index type groupid
    Checking indexes for mail
      No new indexes required
    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 uniqueMember
      No new indexes required
    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 deleted
      New indexes and Reindexing required
      ReIndex will happen for index type deleted
    Checking indexes for mgrpUniqueId
      New indexes and Reindexing required
      ReIndex will happen for index type mgrpUniqueId
    Checking indexes for mailUserStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailUserStatus
    Checking indexes for icsCalendarOwned
      New indexes and Reindexing required
      ReIndex will happen for index type icsCalendarOwned
  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 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 mailDomainStatus
      New indexes and Reindexing required
      ReIndex will happen for index type mailDomainStatus
    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 memberOfManagedGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for memberOfPABGroup
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPABGroup
    Checking indexes for memberOfPAB
      New indexes and Reindexing required
      ReIndex will happen for index type memberOfPAB
```

```
    Checking indexes for un
      New indexes and Reindexing required
      ReIndex will happen for index type un
  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 mail
      No new indexes required
    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 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: cn=CommServers,o=comms-config
The following files have been created:
   /var/tmp/dssetup_20120907002453/dssetup.sh
   /var/tmp/dssetup_20120907002453/dssetup.ldif

Running /var/tmp/dssetup_20120907002453/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_20120907002453/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120907002453/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=12767
-- 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_20120907002453/dssetup.ldif
modifying entry cn=schema

modifying entry cn=schema

adding new entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20120907002453/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20120907002453/dssetup.ldif

-- /opt/dsee7/bin/dsconf create-index o=usergroup cosspecifier
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup cosspecifier

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup cosspecifier
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t cosspecifier o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup inetCos
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup inetCos

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup inetCos
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t inetCos o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup memberOf
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup memberOf

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup memberOf
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOf o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup groupid
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup groupid

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup groupid
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t groupid o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendar
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendar

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup icsCalendar
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t icsCalendar o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup ou
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup ou
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t ou o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailEquivalentAddress
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailEquivalentAddress
o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup deleted
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup deleted

-- /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
pres-enabled:on

-- /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on
Index will not be used unless re-indexed.
Use "dsconf reindex --attr deleted o=usergroup" to reindex.
-- Done /opt/dsee7/bin/dsconf set-index-prop o=usergroup deleted
eq-enabled:on

-- /opt/dsee7/bin/dsconf -t deleted reindex o=usergroup
## usergroupdb2: Indexing attribute: deleted
## usergroupdb2: Index buffer bucket size: 0
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /opt/dsee7/bin/dsconf reindex -t deleted o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mgrpUniqueId

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mgrpUniqueId
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mgrpUniqueId o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailUserStatus
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mailUserStatus

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
pres-enabled:on
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mailUserStatus
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailUserStatus o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendarOwned
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup icsCalendarOwned

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t icsCalendarOwned o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup inetDomainBaseDN
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t inetDomainBaseDN o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup sunOrganizationAlias
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t sunOrganizationAlias
o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup sunPreferredDomain
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t sunPreferredDomain o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup mailDomainStatus
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup mailDomainStatus

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailDomainStatus o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup o
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup o

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup o eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t o o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=usergroup associatedDomain
-- Done /opt/dsee7/bin/dsconf create-index o=usergroup associatedDomain

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t associatedDomain o=usergroup

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfManagedGroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfManagedGroup
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfManagedGroup o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfPABGroup
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfPABGroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPABGroup
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfPABGroup o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab memberOfPAB
-- Done /opt/dsee7/bin/dsconf create-index o=pab memberOfPAB

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab memberOfPAB
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t memberOfPAB o=pab

-- /opt/dsee7/bin/dsconf create-index o=pab un
-- Done /opt/dsee7/bin/dsconf create-index o=pab un
```

```
-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=pab un eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t un o=pab

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberOfPiBook

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb MemberOfPiBook
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t MemberOfPiBook o=PiServerDb

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb MemberofPiGroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t MemberofPiGroup o=PiServerDb

-- /opt/dsee7/bin/dsconf create-index o=PiServerDb displayname
-- Done /opt/dsee7/bin/dsconf create-index o=PiServerDb displayname

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=PiServerDb displayname
sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t displayname o=PiServerDb

-- /opt/dsee7/bin/dsconf create-index o=mlusers mlsubMail
-- Done /opt/dsee7/bin/dsconf create-index o=mlusers mlsubMail

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=mlusers mlsubMail
eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mlsubMail o=mlusers

-- /opt/dsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier
-- Done /opt/dsee7/bin/dsconf create-index o=mlusers mlsubListIdentifier

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mlsubListIdentifier o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20120907002453/dssetup.log for details
[173 Fri Sep 07 00:31:35 root@sc11152328% /opt/sun/comms/dssetup# ]
# stty -echo
stty -echo
[174 Fri Sep 07 00:32:19 root@sc11152328% /opt/sun/comms/dssetup# ]
# 0
 0  /opt/sun/comms/dssetup
 1  /home/dslim/wspace/releases/ci73-20120830
 2  /home/dslim/work/ci_tip/comms/comp/qa
 3  /home/dslim/wspace/releases/ci70
 4  /opt/dsee7/bin
 5  /home/dslim/wspace/releases/ci72
[175 Fri Sep 07 00:32:20 root@sc11152328% /opt/sun/comms/dssetup# ]
# 1
 0  /home/dslim/wspace/releases/ci73-20120830
 1  /home/dslim/work/ci_tip/comms/comp/qa
 2  /home/dslim/wspace/releases/ci70
 3  /opt/dsee7/bin
 4  /home/dslim/wspace/releases/ci72
 5  /opt/sun/comms/dssetup
[176 Fri Sep 07 00:32:22 root@sc11152328%
/home/dslim/wspace/releases/ci73-20120830# ]
# ./commpkg upgrade
-- LOGFILE: /tmp/CommsInstaller_20120907003225.log
CommsInstaller version R7u3 (7.3-0.17 [7.0.3.0.0]) built on Thu Aug 30
22:09:33 PDT 2012

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.

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=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Detecting Installed Products...
  NOTICE: CommsInstaller is present with a different pkg VERSION.
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2012.01.19)
          has not been applied. Specifically the following
          patches are missing:
          119254-82
  NOTICE: You must apply the latest OS Recommended Patchset
          Some products will not work properly without it
Do you want to continue ? [no] : yes
```

```
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Product Selection:

Communication Products:

    Item  Description
    ----  -----------
       1  Comms DSsetup 6.4 (6.4-24.03)
          Installed Version 6.4 (6.4-23.01) 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]:
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Checking for Shared Component Upgrade Requirements...
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
  NOTICE: CommsInstaller will be upgraded...
          Removing the old version is an irreversible process.
  WILL REMOVE EXISTING: CommsInstaller 7u3 (7.3-0.16)
  WILL INSTALL: CommsInstaller 7u3 (7.3-0.17)
                to /opt/sun/comms/CommsInstaller
  NOTICE: Upgrading Comms DSsetup 6.4 (6.4-23.01)
          to 6.4 (6.4-24.03 at /opt/sun/comms/dssetup)
          Upgrade will be done by applying a patch
  WILL INSTALL: patch 118245-24 for Comms DSsetup
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Ready to upgrade

Do you want to continue ? [yes] :

============================================================
Removing existing CommsInstaller 7u3 (7.3-0.16)...
------ Executing Task 1 of 3 ...

============================================================
Installing CommsInstaller 7u3 (7.3-0.17)...
------ Executing Task 2 of 3 ...

============================================================
Upgrading Comms DSsetup 6.4 (6.4-23.01 at /opt/sun/comms/dssetup)...

============================================================
Installing patch 118245-24 for Comms DSsetup...
------ Executing Task 3 of 3 ...
============================================================
Done Upgrading Comms DSsetup to 6.4 (6.4-24.03 at
/opt/sun/comms/dssetup)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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_20120907003225
NOTICE: LOGFILE  created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20120907003225.log
[177 Fri Sep 07 00:33:37 root@sc11152328%
/home/dslim/wspace/releases/ci73-20120830# ]
# 0
 0  /home/dslim/wspace/releases/ci73-20120830
 1  /home/dslim/work/ci_tip/comms/comp/qa
 2  /home/dslim/wspace/releases/ci70
 3  /opt/dsee7/bin
 4  /home/dslim/wspace/releases/ci72
 5  /opt/sun/comms/dssetup
[178 Fri Sep 07 00:33:38 root@sc11152328%
/home/dslim/wspace/releases/ci73-20120830# ]
# 5
 0  /opt/sun/comms/dssetup
 1  /home/dslim/wspace/releases/ci73-20120830
 2  /home/dslim/work/ci_tip/comms/comp/qa
 3  /home/dslim/wspace/releases/ci70
 4  /opt/dsee7/bin
 5  /home/dslim/wspace/releases/ci72
[179 Fri Sep 07 00:33:41 root@sc11152328% /opt/sun/comms/dssetup# ]
# sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120907003343/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 11.1.1.3.0 on sc11152328 port 389

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
  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 cn
      No new indexes required
    Checking indexes for cosspecifier
      No new indexes required
    Checking indexes for inetCos
      No new indexes required
    Checking indexes for memberOf
      No new indexes required
    Checking indexes for groupid
      No new indexes required
    Checking indexes for mail
      New indexes and Reindexing required
      ReIndex will happen for index type mail
    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 uniqueMember
      No new indexes required
    Checking indexes for member
      No new indexes required
    Checking indexes for mailEquivalentAddress
      No new indexes required
    Checking indexes for deleted
      No new indexes required
    Checking indexes for mgrpUniqueId
      No new indexes required
    Checking indexes for mailUserStatus
      No new indexes required
    Checking indexes for icsCalendarOwned
      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 sunOrganizationAlias
      No new indexes required
    Checking indexes for sunPreferredDomain
```

```
      No new indexes required
    Checking indexes for mailDomainStatus
      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 memberOfManagedGroup
      No new indexes required
    Checking indexes for memberOfPABGroup
      No new indexes required
    Checking indexes for memberOfPAB
      No new indexes required
    Checking indexes for un
      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 mail
      No new indexes required
    Checking indexes for mlsubMail
      No new indexes required
    Checking indexes for mlsubListIdentifier
      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_20120907003343/dssetup.sh
   /var/tmp/dssetup_20120907003343/dssetup.ldif

Running /var/tmp/dssetup_20120907003343/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_20120907003343/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120907003343/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=14288
-- Applying ldif file /var/tmp/dssetup_20120907003343/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_20120907003343/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20120907003343/dssetup.ldif

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mail o=usergroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
```

```
mailAlternateAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20120907003343/dssetup.log for details
[180 Fri Sep 07 00:36:30 root@sc11152328% /opt/sun/comms/dssetup# ]
# stty -echo
stty -echo
[181 Fri Sep 07 00:38:09 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120907003343
total 61
   5 99user_new.ldif      29 dssetup.log
   6 dssetup.ldif         14 dssetup.sh*
   2 dssetup.ldif.rej      5 save/
[182 Fri Sep 07 00:38:15 root@sc11152328% /opt/sun/comms/dssetup# ]
# ls /var/tmp/dssetup_20120907003343/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
[183 Fri Sep 07 00:38:18 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907003343/99user_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: 20120907072952Z
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: 5049a270000000000000

[184 Fri Sep 07 00:38:28 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907003343/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 sc11152328 -D binddn -j passwdfile -c -f
```

```
/var/tmp/dssetup_20120907003343/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=24.03
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";)
[185 Fri Sep 07 00:38:33 root@sc11152328% /opt/sun/comms/dssetup# ]
```

```
# cat /var/tmp/dssetup_20120907003343/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";)
[186 Fri Sep 07 00:38:37 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907003343/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

if [ `/usr/bin/id | cut -d= -f2 | cut -d\( -f1` != 0 ]
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/dsee7/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/dsee7/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_20120907003343/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h sc11152328 -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20120907003343/dssetup.ldif.rej -f
/var/tmp/dssetup_20120907003343/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20120907003343/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_20120907003343/dssetup.ldif
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
```

```
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup" "mail"
"approx-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf -t mail reindex o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
--port 389 --hostname sc11152328 --unsecured -t "mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mail" "o=usergroup"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "pres-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "approx-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
/opt/dsee7/bin/dsconf set-index-prop --user-dn "$BINDDN" --pwd-file
"$parg" --port 389 --hostname sc11152328 --unsecured "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf set-index-prop returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf set-index-prop "o=usergroup"
"mailAlternateAddress" "sub-enabled:on"
echo

echo -- /opt/dsee7/bin/dsconf -t mailAlternateAddress reindex
o=usergroup
/opt/dsee7/bin/dsconf reindex --user-dn "$BINDDN" --pwd-file "$parg"
```

```
--port 389 --hostname sc11152328 --unsecured -t "mailAlternateAddress"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
  echo "-- WARNING: /opt/dsee7/bin/dsconf reindex returned $stat"
fi
echo -- Done /opt/dsee7/bin/dsconf reindex -t "mailAlternateAddress"
"o=usergroup"
echo
[187 Fri Sep 07 00:38:39 root@sc11152328% /opt/sun/comms/dssetup# ]
# cat /var/tmp/dssetup_20120907003343/dssetup.log
-=-=-=-=-=-=-=-=-=-=-=-=-=

Running /usr/bin/perl sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool (Comms DSsetup)
6.4.0.24.0 for
Oracle Communications Unified Communications Suite
dssetup Version 6.4-24.03 (built Mon Jun 11 14:36:51 PDT 2012)

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_20120907003343/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


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/dsee7
- DS hostname: sc11152328
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20120907003343/dssetup.pw" -p 389 -h sc11152328 -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/11.1.1.3.0
```

```
B2010.0630.2203
-- Detected DS versions:
   full: 11.1.1.3.0
   major: 11
   minor: 1
   micro: 1
   patch: NONE

Detected DS version 11.1.1.3.0 on sc11152328 port 389
-- Stored Dssetup data ver=6.4 rev=23.01, dctree=o=usergroup
   ug=o=usergroup, schematype=2

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
  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 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 cosspecifier
      Index exists
      Index eq found
      Index pres found
        Index pres 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 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 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
  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 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 uniqueMember
    Index exists
    Index eq found
      Index eq exists
    Default index eq found
    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 deleted
    Index exists
    Index eq found
    Index pres found
      Index pres exists
      Index eq 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 mailUserStatus
    Index exists
    Index eq found
    Index pres found
      Index pres exists
      Index eq 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
  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 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 mailDomainStatus
      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 memberOfManagedGroup
      Index exists
      Index eq found
      Index pres found
        Index pres exists
        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
    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 un
      Index exists
      Index eq found
      Index pres found
        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 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 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 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_20120907003343/dssetup.sh
   /var/tmp/dssetup_20120907003343/dssetup.ldif

Running /var/tmp/dssetup_20120907003343/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_20120907003343/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20120907003343/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=14288
-- Applying ldif file /var/tmp/dssetup_20120907003343/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_20120907003343/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20120907003343/dssetup.ldif

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup mail
approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mail o=usergroup

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on

-- /opt/dsee7/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/dsee7/bin/dsconf reindex -t mailAlternateAddress
o=usergroup
```

```
Successful Completion. Consult
/var/tmp/dssetup_20120907003343/dssetup.log for details
```

Chapter 23. Instant Messaging Upgrade

Upgrading to Oracle Communications Instant Messaging Server Version 9

This information describes how to upgrade to Oracle Communications Instant Messaging Server 9, 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 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.

> **Note**
> When you upgrade to Instant Messaging 9, the `iim.conf` file is automatically upgraded to the `iim.conf.xml` file. You no longer edit this file directly. Instead, you use the `imconfutil` to make changes. For more information, see XML Configuration.

> **Note**
> The new configuration system has backward compatibility. If support for any key is not available with `imconfutil`, or if a parameter is not found in `iim.conf.xml`, it uses the old `iim.conf` as a fallback. If you want to upgrade from releases prior to Instant Messaging 9, you must copy `im.conf-pre9` to `iim.conf` for the fallback to work.

> **Note**
> Due to bug 15964936, upgrading to Instant Messaging Server 9 Patch 1 on Oracle Enterprise Linux fails because of an incorrect `ksh` path in the `preupgrade` and `postupgrade` scripts. The upgrade uses `/usr/bin/ksh` whereas the default `ksh` location is `/bin/ksh`. As a workaround, create a symbolic link before you run the upgrade. For example:
>
> ```
> ln -s /bin/ksh /usr/bin/ksh
> ```

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
   ```

   For more information, see commpkg upgrade Usage.

3. Select the Instant Messaging 9 component from the Product Selection list.
4. Respond to the Communications Suite installer prompts to upgrade.
5. Restart the Instant Messaging server.

   ```
   <im-svr-base>/sbin/imadmin start
   ```

6. (Optional) If you have deployed any Web applications, redeploy them.

   ```
   <im-svr-base>/sbin/iwadmin redeploy <app-name>
   ```

   where *app-name* can be `im`, `httpbind`, `imps`, or `all`.
   This step completes the upgrade process and redeploys the specified component(s).

7. If you had previously configured your deployment to use Service Management Facility (SMF), run the following command to enable SMF, as the upgrade does not preserve SMF status.

   ```
   imadmin smf-register
   ```

8. When upgrading to Instant Messaging 9 Patch 1, the following applies if you are using any of these items and continue to use the old configuration file:
   - Components: Calendar Agent, HTTPBind, and so on
   - S2S Federation
   - Server Pool
   - Server health monitoring using Watchdog

     If you use any of these items, and if you continue to use the old configuration file, then you must set the `iim_server.useport` parameter to **`true`** by using the `imconfutil` command. For example:

```
imconfutil -c <xml config file> set-prop
iim_server.useport=true
```

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 the upgrade process.

To roll back the upgrade process, perform the following steps:

1. Stop all services.
2. Remove the Instant Messaging 9 packages by using the `pkgrm` command.
3. Install the old version of Instant Messaging, for example, version 7.2 ,7.3, or 8.3, by using the Communications Suite installer for that version.

> **Note**
> When you upgrade the server, all previous configuration data is overwritten. The old configuration files are backed up in the `config` directory with the string `-pre 9` suffixed to the filename. For example, the old `iim.conf` file is backed up as `iim.conf-pre9`. This file can be used to roll back to the previous working version in case of a upgrade failure.

4. Rename the old configuration files with their correct names.
   That is, rename `iim.conf-pre9` to `iim.conf`.
5. Restart the services.

Chapter 24. Messaging Server Upgrade

Oracle Communications Messaging 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` (6.4.0.23.0) be applied to the Directory Server.
- Define your upgrade target and the required products and components for that target.
  After upgrading to Messaging Server 7 Update 4, apply the latest patch. See Messaging Server Patches By Release for patch information.
- 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. In-place server upgrade is by done using commpkg upgrade.
- 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.

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 (Red Hat and Oracle 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, such as mailboxes, from one host to another, typically using `imsbackup` and `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 Update 2.
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.

Chapter 25. Upgrading Calendar Server

Upgrading Oracle Communications Calendar Server

This information describes how to upgrade from Calendar Server 7 Update 1 to Calendar Server 7 Update 2, and how to upgrade from MySQL 5.1 to 5.5 (5.5.8). If you need to migrate to Calendar Server 7, see Migrating From Sun Java System Calendar Server 6 to Calendar Server 7. To upgrade from Calendar Server 7 Update 2 to Calendar Server 7 Update 3, see Upgrading to Oracle Communications Calendar Server 7 Update 3.

After upgrading to Calendar Server 7 Update 2, apply the latest patch. See Calendar Server 7 Patches by Release for patch information.

> **Note**
> These instructions also describe how to upgrade from Calendar Server 7 to Calendar Server 7 Update 1. If you installed Calendar Server 7, to upgrade to Calendar Server 7 Update 2, you first need to upgrade to Calendar Server 7 Update 1.

Topics:

- Prerequisites
- Upgrading Calendar Server 7 to Calendar Server 7 Update 1
- Upgrading Calendar Server 7 Update 1 to 7 Update 2
- Upgrading the Calendar Server Document Store
- Upgrading to MySQl Server 5.5.8
- Reloading MySQL Data
- Applying a Calendar Server Patch

Prerequisites

1. Download the necessary software.
   a. Download the Communications Suite 7 Update 2 zip file, for the Calendar Server 7 Update 2 software.
      See Get the Software.
   b. Download MySQL Server 5.5.8 from My Oracle Support.

      > **Note**
      > Calendar Server 7 Update 2 requires that you upgrade to MySQL Server 5.5.8.

      i. Log in to https://support.oracle.com.
      ii. Click the Patches & Updates navigation tab.
      iii. In the Patch Search section, click the Product or Family (Advanced Search) link.
      iv. Type **`MySQL Server`** into the Product field, which displays an auto-completed list of the various MySQL products.
      v. Select options from the two drop-down menus, for example:
         - MySQL Server 5.5
         - Oracle Solaris on SPARC (64-bit)
      vi. Check the box marked "Include all products in a family"
      vii. Click Search.

viii. Select the 5.5.8 release from the resulting list then click Download.
ix. From the pop-up dialog, click the file name to start the download.

2. Place the software on the appropriate hosts.
   a. On Calendar Server 7 Update 1 front-end hosts, and, if applicable, document store hosts, create a temporary directory (for example, `/temp/CS7U2`), and unzip the Communications Suite 7 Update 2 zip file in this directory.
   b. On the Calendar Server 7 Update 1 back-end hosts, create a temporary directory (for example, `/temp/MySQL558`), and place the MySQL Server package in this directory.
3. (Optional) If you are upgrading from Calendar Server 7, you need to first upgrade to Calendar Server 7 Update 1.
   a. Download the Communications Suite 7 Update 1 software, which contains Calendar Server 7 Update 1, from http://edelivery.oracle.com.
   b. On Calendar Server 7 front-end hosts, create a temporary directory (for example, `/temp/CS7U1`), and unzip the Communications Suite 7 Update 1 zip file in this directory.

Upgrading Calendar Server 7 to Calendar Server 7 Update 1

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 from Calendar Server 7 to Calendar Server 7 Update 1. If you are already running Calendar Server 7 Update 1, you should use the steps in Upgrading Calendar Server 7 Update 1 to 7 Update 2.

1. Export all data into `ics` files.
   See the `davadmin` command for more information.
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.
   See the `davadmin` command for more information.

Upgrading Calendar Server 7 Update 1 to 7 Update 2

1. Change to the directory where you unzipped the Communications Suite 7 Update 2 software, for example, (`/temp/CS7U2`).
2. Run the `commpkg upgrade` command, select Calendar Server (CALDAV) 7u2, and respond to the prompts.
   For more information, see commpkg upgrade Usage.
3. After the upgrade has finished, create the iSchedule database by running the `config-mysql` script.

   ```
   cd <cal-svr-base>/tools/unsupported/bin
   ./config-mysql -i
   ```

   You could manually create the iSchedule database by running the following commands:

   ```
   # /opt/mysql/mysql/bin/mysql -u root -p
   Enter password: <password>
   mysql> CREATE DATABASE ischedule CHARACTER SET = UTF8;
   mysql> GRANT ALL ON ischedule.* TO 'caldav'@'localhost';
   mysql> exit
   ```

   Note
   The iSchedule protocol (currently in draft) defines how to handle scheduling between two different calendar servers. In general, the architecture accounts for a global calendar inbox/outbox for invitations. However, because iSchedule is still in draft form and not a standard, general adoption of the protocol has not yet taken place. Calendar Server currently handles invitations through the iMIP protocol (that is, by email). You need to configure the iSchedule database even though it is not currently used. If you remove the iSchedule database configuration, Calendar Server 7 Update 2 does not function correctly without it.

4. After the iSchedule database has been created, make sure that you are logged in as `root`, verify that the SMTP server used to send Calendar notifications is running, then run the `init-config` command and respond to the prompts.

   ```
   cd <cal-svr-base>/sbin
   ./init-config
   ```

   When you are prompted to select the directory for data and configuration files, be sure to choose the existing Calendar Server directory. For more information, see Calendar Server Initial Configuration.

5. After the `init-config` command finishes, run the `merge-config` command, to preserve any customized configurations prior to the upgrade.

   ```
   cd /<cal-svr-base>/sbin
   ./merge-config <patch-dir>
   ```

   where *patch-dir* is the directory where the backout configuration is stored. Typically, this is `/opt/sun/comms/davserver/install/patch/`*xxxxxx-xx*, or `/opt/sun/comms/davserver/install/upgrade/`*MM.mm-REV*.

Upgrading the Calendar Server Document Store

Use this procedure if your deployment contains a remote document store.

1. On each remote document store host, perform the following steps:
   a. Stop the document store:

      ```
      cd <cal-svr-base>/sbin
      ./stop-as
      ```

   b. Change to the directory where you unzipped the Communications Suite 7 Update 2 software, for example, (`/temp/CS7U2`) and upgrade the Calendar Server software.

      ```
      cd /temp/CS7U2
      ./commpkg upgrade
      ```

   c. Start the document store:

      ```
      cd <cal-svr-base>/sbin
      ./start-as
      ```

Upgrading to MySQl Server 5.5.8

1. Use the `asadmin` command to stop the Calendar Server front-end services.
   For example:

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

2. Use the `davadmin db backup` command to back up Calendar Server back-end data.
   For example, to perform a full database backup:

   ```
   davadmin db backup -k backup_file
   ```

3. Use the `mysql` command to dump the Calendar Server back-end data in case a problem happens during the upgrade and you need to reload your data.
   For example:

   ```
   mysqldump --user=caldav --password=mypassword --all-databases >
   myDataDump.sql
   ```

4. Shut down MySQL Server.

   ```
   /etc/init.d/mysql stop
   ```

5. Remove the MySQL package.
   - For example, on Solaris:

     ```
     pkgrm mysql
     ```

- For example, on Linux:

```
rpm --nodeps -evv MySQL-client-enterprise-5.1.36-0.rhel5
rpm --nodeps -evv MySQL-server-enterprise-5.1.36-0.rhel5
```

  Linux has two MySQL RPMs, client and server, that need to be removed.

6. Add the new MySQL package.
   - For example, on Solaris:

```
cd /temp/MySQL558
pkgadd -d mysql-advanced-5.5.8-solaris10-sparc-64bit.pkg
```

   - For example, on Linux:

```
rpm --ivv MySQL-client-advanced-5.5.8-1.rhel5
rpm --ivv MySQL-server-advanced-5.5.8-1.rhel5
```

     Linux has two MySQL RPMs, client and server, that need to be added.

     Note
     Adding the new package on Red Hat Linux might include an automatic `mysql_upgrade`. This is fine in the context of this procedure.

7. Make sure that the `my.cnf` file includes the transaction isolation level additional configuration parameter:

```
transaction-isolation = READ-COMMITTED
```

8. If you use replication, use the following `ROW` binary logging, instead of the default `STATEMENT` logging. Add the following to the `my.cnf` file:

```
binlog-format=ROW
```

9. If you use `log_long_format`, it is no longer supported in MySQL 5.5.8. Remove it from the `/etc/my.cnf` file, otherwise MySQL Server won't start.
10. Start MySQL Server.

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

11. Run `mysql_upgrade` to update data to 5.5.

```
mysql_upgrade --user=root --password=mypassword
```

    On Linux, the `mysql_upgrade` script is located in the `/usr/bin` directory.

12. Stop and start MySQL Server, to allow changes to take effect.

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

13. Use the `asadmin` command to start the Calendar Server front-end services.
    For example:

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

Reloading MySQL Data

If the `mysql_upgrade` (Step 11) experiences errors, then you need to reload the dump of the calendar data taken in Step 3.

```
mysql --user=caldav --password=mypassword < myDataDump.sql
```

Applying a Calendar Server Patch

After upgrading, apply the latest patch. See Calendar Server 7 Patches by Release and To Install a Calendar Server 7 Patch for more information.

Upgrading to Oracle Communications Calendar Server 7 Update 3

Upgrading to Oracle Communications Calendar Server 7 Update 3

This information describes how to upgrade from Calendar Server 7 Update 2 to Calendar Server 7 Update 3. If you need to upgrade from Calendar Server 7 to Calendar Server 7 Update 2, see upgrading to Calendar Server 7 Update 2. If you need to migrate to Calendar Server 7 from Calendar Server 6, see Migrating From Sun Java System Calendar Server 6 to Calendar Server 7.

Notes

- Upgrading to Calendar Server 7 Update 3 requires that you first upgrade your LDAP schema with some new elements required by Calendar Server. To do so, you need to apply the `comm_dssetup` 6.4 patch and run the updated `comm_dssetup` script against your Directory Server instances, as explained later in these instructions.
- Calendar Server 7 Update 3 is the product version attained by applying Calendar Server 7 patch 8 (patch ID 142785/142786/142787-08).
- If your deployment uses document stores, upgrading to Calendar Server 7 Update 3 requires you to also update those document stores at the same time, as documented in these instructions. This upgrade contains a new authentication mechanism and a new shared secret (password) for the server and the document stores and must be created.

Topics:

- Prerequisites for Upgrading to Calendar Server 7 Update 3
- Upgrading comm_dssetup
- Upgrading to Calendar Server 7 Update 3
- Upgrading the Calendar Server Document Store

Prerequisites for Upgrading to Calendar Server 7 Update 3

1. Decide if you want to change the attribute used for the unique identifier for your Calendar Server deployment.
   If, when you initially installed Calendar Server 7, you chose to use `nsUniqueID` as your unique identifier, you should change to `davUniqueId`. For more information, see How Does Calendar Server Use a Unique Identifier?.
2. Download the necessary software.
   a. Download Calendar Server 7 Update 3 (patch 8) and the Communications Suite `comm_dssetup` 6.4 patch from https://support.oracle.com:
      Patch Download Links

Patch	Download Link
Calendar Server 7 Update 3 (Solaris)	142785-08
Calendar Server 7 Update 3 (Solaris x86)	142786-08
Calendar Server 7 Update 3 (Linux)	142787-08
comm_dssetup (Solaris SPARC)	118245-24
comm_dssetup (Solaris x86)	118246-24
comm_dssetup (Linux)	118247-24

3. Place the software on the appropriate hosts.
   a. On Calendar Server 7 Update 2 front-end hosts, and, if applicable, remote document store hosts, create a temporary directory (for example, `/temp/CS7U3`), and unzip the Calendar Server 7 Update 3 patch zip file in this directory.
   b. On the Directory Server hosts, create a temporary directory (for example, `/temp/commdssetup`), and unzip the comm_dssetup zip file in this directory.

Upgrading comm_dssetup

Before you can upgrade Calendar Server 7 Update 2 to Calendar Server 7 Update 3, you need to upgrade the `comm_dssetup.pl` script by applying the 6.4 patch and then run the upgraded `comm_dssetup.pl` script on each Directory Server in your deployment. This new version of the `comm_dssetup.pl` script applies new schema elements that are required for Calendar Server 7 Update 3. For more information on new schema in Calendar Server 7 Update 3, see New Schema Objects.

To upgrade `comm_dssetup.pl` and the Directory Server schema:

1. On each Directory Server host, apply the `comm_dssetup.pl` script patch.
   For example:

   ```
   patchadd 118245-24
   ```

2. On each Directory Server host, run the `comm_dssetup.pl` script to apply the schema updates.
   For example:

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

3. Respond to the prompts.
   For more information, see Communications Suite Directory Server Setup Script (comm_dssetup.pl).
4. Continue with the next section, Upgrading to Calendar Server 7 Update 3.

Upgrading to Calendar Server 7 Update 3

If you initially deployed Calendar Server 7 Update 2 to use the `nsUniqueId` attribute as your unique identifier, you should switch to using the `davUniqueId` attribute, new in Calendar Server 7 Update 3. For more information on the problems with using `nsUniqueId`, see Changing User uuid. For information on the `davUniqueId` attribute, see davUniqueId in the Communications Suite Schema Reference Guide.

Topics in this section:

- To Upgrade to Calendar Server Update 3 for Deployments that Are Using nsUniqueId as the Unique Identifier with 7 Update 2

- To Upgrade to Calendar Server Update 3 for Deployments that Are Not Using nsUniqueId as the Unique Identifier with 7 Update 2

To Upgrade to Calendar Server Update 3 for Deployments that Are Using nsUniqueId as the Unique Identifier with 7 Update 2

For an upgrade from Calendar Server 7 Update 2 to Update 3, and to use the `davUniqueId` attribute:

1. Apply the Calendar Server 7 Update 3 patch.
   See To Install a Calendar Server 7 Patch to upgrade from 7 Update 2 to Update 3 by applying the Calendar Server 7 Update 3 patch 8 (142785/142786/142787-08).
2. Run the `populate-davuniqueid` tool to populate, in LDAP, calendar users, groups, and resources with the `davUniqueId` attribute. You can run the tool interactively or with supplied parameters. For more information on running the `populate-davuniqueid` tool, see populate-davuniqueid Usage. Also, see this known issue when existing LDAP entries already have the `davEntity` object class: 14781101.
   Here is a sample `populate-davuniqueid` session:

   ```
   # /opt/sun/comms/davserver/sbin/populate-davuniqueid
   Directory host: ds.example.com
   Directory user bind DN: admin
   Directory user bind password:
   Directory search base: o=isp
   Output to file: popdavunique-output
   Please check the following information
   Directory host: ds.example.com
   Directory port: 389
   Directory user bind DN: admin
   Directory user bind password: as specified
   Directory search base: o=isp
   Directory search filter:
   (|(objectclass=icscalendaruser)(objectclass=icscalendarresource))
   Output to: popdavunique-output
   Add daventity objectclass: no
   Load output LDIF automatically: no
   Do you want to continue (y/n)?:
   ```

3. Use the `davadmin` command to modify the `davcore.uriinfo.permanentuniqueid` configuration parameter to `davUniqueId`.
   You need to do this, even though you set `davUniqueId` in the configurator, because the `merge-config` command resets this. For example:

   ```
   /opt/sun/comms/davserver/sbin/davadmin config modify -u admin -o
   davcore.uriinfo.permanentuniqueid -v davuniqueid
   ```

4. Use the `davadmin` command to both obtain the value of and modify the `davcore.uriinfo.subjectattributes` configuration parameter to add `davUniqueId` to its list of attributes value.
   For example:

```
/opt/sun/comms/davserver/sbin/davadmin config list -u admin -o
davcore.uriinfo.subjectattributes
davcore.uriinfo.subjectattributes: cn davstore icsstatus mail
mailalternateaddress nsuniqueid owner preferredlanguage uid
objectclass ismemberof uniquemember memberurl mgrprfc822mailmember
kind

/opt/sun/comms/davserver/sbin/davadmin config modify -u admin -o
davcore.uriinfo.subjectattributes -v "cn davstore icsstatus mail
mailalternateaddress davuniqueid owner preferredlanguage uid
objectclass ismemberof uniquemember memberurl mgrprfc822mailmember
kind"
```

5. Restart GlassFish Server.
   For example:

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

6. If you have remote document stores, see Upgrading the Calendar Server Document Store.

To Upgrade to Calendar Server Update 3 for Deployments that Are Not Using nsUniqueId as the Unique Identifier with 7 Update 2

For an upgrade from Calendar Server 7 Update 2 to Update 3, without any change to the current unique identifier:

1. On each Calendar Server front-end host, apply the Calendar Server 7 Update 3 patch.
   See To Install a Calendar Server 7 Patch to upgrade from 7 Update 2 to Update 3 by applying the Calendar Server 7 Update 3 patch 8 (142785/142786/142787-08).
2. If you have remote document stores, see Upgrading the Calendar Server Document Store.

Upgrading the Calendar Server Document Store

Use this procedure if your deployment contains a remote document store.

1. On each remote document store host, perform the following steps:
   a. Stop the document store.

```
cd <cal-svr-base>/sbin
./stop-as
```

   b. Change to the directory where you unzipped the Calendar Server 7 Update 3 software, for example, (`/temp/CS7U3`) and apply the Calendar Server patch.

```
cd /temp/CS7U3
patchadd 142785-08
```

   c. Start the document store:

```
cd <cal-svr-base>/sbin
./start-as
```

2. Set the remote document store passwords.
   Starting in Calendar Server 7 Update 3, the remote document store requires password authentication. See To Configure Remote Document Store Authentication for more information.

populate-davuniqueid Usage

populate-davuniqueid Usage

> The `populate-davuniqueid` command is available starting in **Calendar Server 7 Update 3**.

The `populate-davuniqueid` tool is for use by deployments that initially selected to use the `nsUniqueId` attribute as the unique identifier. The `populate-davuniqueid` tool populates calendar users and resources in LDAP with the `davUniqueId` schema element, introduced in Calendar Server 7 Update 3. It copies the value of `nsUniqueId` to `davUniqueId`, thus preserving references in the calendar database. The `davUniqueId` attribute is subsequently used as the value for the Calendar Server `davcore.uriinfo.permanentuniqueid` configuration parameter. Calendar Server requires a unique identifier in the form of an LDAP attribute whose value is used to map each calendar entry (in the LDAP Directory Server) to a unique account in the calendar database (the MySQL Server or Oracle Database that stores Calendar Server data). The unique identifier links various entries from different database tables for users and resources. You must use a unique identifier, and one that does not change, for user and resource entries stored in LDAP.

> **Note**
> The problem with using the `nsUniqueId` attribute for this purpose is that if the user or resource LDAP entry is deleted and re-created in LDAP, the new entry has a different `nsUniqueId` value. For more information on the problems with using `nsUniqueId`, see Changing User uuid.

Requirements: Must be root user.

Location: *cal-svr-base*`/sbin`

Syntax

```
populate-davuniqueid [ -h HOST ] [ -p PORT ] [ -D USER ] [-b BASE ] [ -f
FILTER ] [ -o OUTFILE ] [-O] [ -x ] [ -v ] [ -? ]
```

Options

The options for this command are:

populate-davuniqueid Options

Option	Description	Default
`-h` *HOST*	Specifies the Directory Server host	Not applicable
`-p` *PORT*	Specifies the Directory Server port	389
`-D` *USER*	Specifies the Directory Server bind user	Not applicable
`-b` *BASE*	Specifies the Directory base to carry out the search	Not applicable
`-f` *FILTER*	Specifies the LDAP search filter	"(|(objectclass=icscalendaruser)(objectclass=icscalendarresource))"
`-o` *OUTFILE*	Specifies the output file name	Not applicable
`-O`	Specifies to add the `davEntity` object class to the LDAP entry	Not applicable
`-x`	Automatically runs the `ldapmodify` command on the output file	Not applicable
`-v`	Specifies verbose debugging	Not applicable
`-?`	Prints the usage help text	Not applicable

When running the `populate-davuniqueid` tool, you are prompted to type all options with the exception of *PORT* and *FILTER*, if you do not specify them. If not specified, *PORT* has a default value of 389 and *FILTER* has the value `"(|(objectclass=icscalendaruser)(objectclass=icscalendarresource))"`. All LDAP entries matching *FILTER*, starting from the search *BASE*, that have a missing `davUniqueId` field are output to the *OUTFILE* file in the form of an LDAP modification operation. You can then examine the *OUTFILE* content before running it through an `ldapmodify` command, Alternately, you can do so automatically by using the `-x` option.

Examples

These examples show different scenarios for running the `populate-davuniqueid` command.

To Add davUniqueId to All Calendar Server 7 Users

1. Run the `populate-davuniqueid` command and output the changes to a file, `sample.txt`.

```
# /opt/sun/comms/davserver/sbin/populate-davuniqueid -h
host1.us.example.com -D "cn=Directory Manager" -b o=isp -o
sample.txt
Directory user bind password:

Please check the following information
Directory host: host1.us.example.com
Directory port: 389
Directory user bind DN: cn=Directory Manager
Directory user bind password: as specified
Directory search base: o=isp
Directory search filter:
(|(objectclass=icscalendaruser)(objectclass=icscalendarresource))
Output to: sample.txt
Add daventity objectclass: no
Load output LDIF automatically: no
Do you want to continue (y/n)?: y
sample.txt is created.  Please examine content and run ldapmodify
on it.
bash-3.00#
```

2. Examine the `sample.txt` file. It should resemble the following:

```
dn: uid=calmaster63, ou=People, o=us.example.com,o=isp
changetype: modify
add: davuniqueid
davuniqueid: e5cb6c08-dd5811e1-80f5ce3b-d63ea23a
```

3. As long as there is no error and no `.ref` file created, run the `ldapmodify` command to add `davUniqueID` to all Calendar Server 7 users, or run the following command:

```
/opt/sun/comms/davserver/sbin/populate-davuniqueid -h
host1.us.example.com -D "cn=Directory Manager" -b o=isp -o
sample.txt -x
Directory user bind password:
```

To Add the daventity Object Class and davuniqueid to All Calendar Server 6 Users

1. Run the `populate-davuniqueid` command and output the changes to a file, `test.txt`.

```
/opt/sun/comms/davserver/sbin/populate-davuniqueid -h
host2.us.example.com -D "cn=Directory Manager" -b o=isp -o test.txt
-O
Directory user bind password:

Please check the following information
Directory host: host2.us.example.com
Directory port: 389
Directory user bind DN: cn=Directory Manager
Directory user bind password: as specified
Directory search base: o=isp
Directory search filter:
(|(objectclass=icscalendaruser)(objectclass=icscalendarresource))
Output to: test.txt
Add daventity objectclass: yes
Load output LDIF automatically: no

Do you want to continue (y/n)?: y
test.txt is created.  Please examine content and run ldapmodify on
it.
bash-3.00#
```

2. Examine the `test.txt` file. It should resemble the following:

```
dn: uid=user3,ou=People,o=domain3.com,o=isp
changetype: modify
add: objectclass
objectclass: daventity
-
add: davuniqueid
davuniqueid: ff22a401-e52011e1-80f5ce3b-d63ea23a
```

3. As long as there is no error and no `.ref` file created, run the `ldapmodify` command to add `davEntity` and `davUniqueID` to all Calendar Server 6 users, or run the following command:

```
/opt/sun/comms/davserver/sbin/populate-davuniqueid -h
host2.us.example.com -D "cn=Directory Manager" -b o=isp -o test.txt
-O -x
Directory user bind password:
```

Chapter 26. 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 --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.

> **Note**
> 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/rel`

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
EXCLUDESC	Specifies to exclude shared component patches. See the `--excludeSC` option to `commpkg upgrade`	EXCLUDESC=no
COMPONENTS	Lists the components you want to upgrade. See the `--components` option to `commpkg upgrade`	COMPONENTS=MS64 to specify 64-bit Messaging Server
UPGRADESC	Indicates whether all shared components should or should not be upgraded without prompting. See the `--upgradeSC` option to `commpkg upgrade`	UPGRADESC=no

USEPKGUPGRADE	flag to indicate whether to perform upgrade using pkgrm/pkgadd. See the `--usePkgUpgrade` option to `commpkg upgrade`	USEPKGUPGRADE=no
COMPONENT_VERSIONS	unused	COMPONENT_VERSIONS= 7.4 6.4 7.2 8.3 2.0 1 7.0

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.

Chapter 27. Upgrading Convergence

Upgrading to Convergence Version 2

This information describes how to upgrade to Convergence 2 Patch 2. You can only upgrade to this version by using the Communication Suite installer, using the `commpkg upgrade` command.

After upgrading to Convergence 2 Patch 2, apply the latest patch. See Convergence Patches by Release for patch information.

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-7.2-0.36-SunOS_sparc.zip`
Solaris x86	`ci-7.2-0.36-SunOS_i386.zip`
Linux	`ci-7.2-0.36-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 Patch 2, see Product Version Compatibility Requirements.

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 Patch 2 package. The `commpkg upgrade` command upgrades to Convergence 2 Patch 2 with an in-place package replacement.

To Upgrade to Convergence 2 Patch 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 to Convergence 2 Patch 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 Patch 2.

Chapter 28. Upgrading Indexing and Search Service

Upgrading Indexing and Search Service for Oracle Communications Unified Communications Suite Version 1 Update 4

Topics:

- Upgrading to Indexing and Search Service 1 Update 4 Overview
- Patching Indexing and Search Service 1 Update 4
- Getting to Indexing and Search Service 1 Update 4 Requires Running postpatch_restart.sh
- Rebootstrapping Accounts
- Reverting an Upgrade

Upgrading to Indexing and Search Service 1 Update 4 Overview

To upgrade to Indexing and Search Service 1 Update 4 from Indexing and Search Service 1, obtain and install the Indexing and Search Service 1 Update 4 patch then rebootstrap accounts if the version you upgraded from was earlier than 1 Update 3.

Patching Indexing and Search Service 1 Update 4

To patch to Indexing and Search Service 1 Update 4, run the platform-specific command. For example, on Solaris run `patchadd`. For more information, refer to the Indexing and Search Service 1 Update 4 README file.

Getting to Indexing and Search Service 1 Update 4 Requires Running postpatch_restart.sh

The final step in this process is to manually run *iss-svr-base*`/bin/postpatch_restart.sh` *iss-svr-base* after completing the upgrade. Because the postpatch process might be interactive, you must manually run `postpatch_restart.sh`.
For example:

```
# cd /opt/sun/comms/jiss/bin
# ./postpatch_restart.sh /opt/sun/comms/jiss
```

For more information, see postpatch_restart.sh.

(Optional) If you also upgraded from Java 6 to 7, you need to rebootstrap accounts. Going forward, Java 7 is recommended, as Java 6 is entering end of life. If ISS indexes were generated while on Java 6, once you upgrade to Java 7, you should regenerate the indexes. See Rebootstrapping Accounts for more information.

To make use of features in Indexing and Search Service 1 Update 4, such as periodic auto-sync and autobootstrapping, see Indexing and Search Service Post Configuration.

Rebootstrapping Accounts

When updating from a version earlier than Indexing and Search Service 1 Update 3, after the upgrade, you should rebootstrap all user accounts. This step is not necesssary when updating from Indexing and Search Service 1 Update 3.

Here is one possible way to rebootstrap your accounts:

1. Use the Messaging Server `imquotacheck` command to get a list of all accounts on the system. For example:

   ```
   cd /opt/sun/comms/messaging64/bin
   ./imquotacheck -a > quotafile
   ```

2. Delete all information in the redirected `quotafile` except the user IDs. Make sure that there is a single user ID on each line of the file.
3. Get a sense of the size of the users by running the following commands.
   - How many users?

     ```
     wc quotafile
     ```

   - Largest users by size, distribution of account sizes?

     ```
     ./imquotacheck | sort -k 3,3rn | less
     ```

   - Total mailbox size in Kbytes?

     ```
     ./mboxutil -l | awk '{ sum += $2} END {print sum}'
     ```

     You might want to save a copy of the `imquotacheck` and `mboxutil -l` output to ISS for later reference.

4. On ISS, remove the existing index by using the `/opt/sun/comms/jiss/examples/removeindex` command.
5. Run `/opt/sun/comms/jiss/examples/createuserlist < quotafile` to create users.
6. Re-initialize the index by using the `/opt/sun/comms/jiss/examples/initializeindex` command.
7. Bootstrap all users in the `quotafile` in parallel by using the `/opt/sun/comms/jiss/examples/parallelbootstrap` command.
   By default, the command bootstraps 16 users in parallel. Edit the file if you need to change this.

Reverting an Upgrade

The indexes for ISS 1 Update 4 are not backward compatible with previous versions of ISS. When downgrading from ISS 1 Update 4 to an earlier release, you must regenerate the index information. If you need to downgrade to ISS 1 Update 3 from ISS 1 Update 4, you only need to regenerate some of the index directories.

To downgrade to ISS 1 Update 3 from ISS 1 Update 4:

1. Stop all ISS services.
   As root, run the following command:

```
<iss-base>/bin/svc_control.sh stop
```

2. Run the *iss-base*/`examples/findbigaccounts.sh` script to get a list of accounts that have been modified to use the new folder flags implementation in ISS 1 Update 4.
   The index information format for these accounts is not backward compatible with previous versions.
3. Reinstall ISS 1 Update 3.
   See Indexing and Search Service 1 Update 3 Installation Scenario for instructions.
4. Delete and rebootstrap each account from the output in step 2.

If you downgrade to any version prior to ISS 1 Update 3 from ISS 1 Update 4, you need to regenerate the index information for all accounts. You can use the *iss-base*/`examples/removeindex` script to remove the entire index so that the index can be recreated after you have completed the downgrade from ISS 1 Update 4.

Chapter 29. Upgrading Instant Messaging in an HA Environment

Upgrading to Oracle Instant Messaging Server 9 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 9 in an HA Environment
- To Upgrade to Instant Messaging Server 9 Sun Cluster Agent (`IM_SCHA`)

To Upgrade to Instant Messaging Server 9 in an HA Environment

1. Disable the Instant Messaging server resource.

   ```
   # scswitch -n -j im-server-resource
   ```

2. Make sure that the non-active node does not have access to the configuration directory.
3. Invoke the `commpkg upgrade` command on all cluster nodes.
4. Copy the Instant Messaging 9 configuration file `iim.conf.xml` to the `iim.conf` file with the same permissions.
   Also copy the `iim.conf.xml` file to `iim.conf` after any future configuration changes as cluster uses the `iim.conf` file.
5. To use the new 'GatewayConnector' service in HA, update this service configuration with the virtual host name or IP address and port number as follows:

   ```
   <im-base-dir>/imconfutil --config <config_dir>
   iim_gwc.hostport=<virtual host-name or ip:port>
   ```

   For example:

   ```
   /opt/sun/comms/sbin/imconfutil --config /DATA1/default/config
   iim_gwc.hostport=192.10.12.11:22222
   ```

6. Enable the Instant Messaging server resource.

   ```
   scswitch -e -j im-server-resource
   ```

To Upgrade to Instant Messaging Server 9 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.

Chapter 30. Upgrading to Messaging Server in an HA Environment

Upgrading to Oracle Communications Messaging 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 31. Calendar Server Release Notes

Oracle Communications Calendar Server Version 7 Update 2 and Update 3

These Release Notes contain important information available at the time of the general release of Oracle Communications Calendar Server, including:

- About Calendar Server 7 Update 2
- What's New in This Release of Calendar Server 7 Update 2 and Update 3
- Requirements for Calendar Server 7 Update 2
- Calendar Server 7 Update 2 Installation Notes
- Calendar Server 7 Update 2 Upgrade Notes
- Calendar Server 7 Update 3 Upgrade Notes
- Calendar Server 7 Update 2 Compatibility Issues
- Problems Fixed in This Release of Calendar Server 7 Update 2
- Problems Fixed in Communications Suite 7 Update 3 (Patches 8 and 9)
- Known Issues and Limitations in Calendar Server 7 Update 2
- Known Issues and Limitations in Calendar Server 7 Update 3
- Redistributable Files for Calendar Server 7 Update 2

About Calendar Server 7 Update 2

See Introduction to Calendar Server 7. Note that the product has been renamed to Oracle Communications Calendar Server.

What's New in This Release of Calendar Server 7 Update 2 and Update 3

See the What's New document.

Requirements for Calendar Server 7 Update 2

- Requirements for Communications Suite 7 Update 2
- Client Requirements for Calendar Server 7 Update 2

Calendar Server 7 Update 2 Installation Notes

To start the Communications Suite installation process, see the Communications Suite Installation Guide. Detailed information on installing Calendar Server 7 Update 2 is located at Installation Scenario - Calendar Server.

Calendar Server 7 Update 2 Upgrade Notes

See Upgrading Calendar Server for information on upgrading to Calendar Server 7 Update 2.

Calendar Server 7 Update 3 Upgrade Notes

See Upgrading to Oracle Communications Calendar Server 7 Update 3 for information on upgrading to

Calendar Server 7 Update 3.

Calendar Server 7 Update 2 Compatibility Issues

The following table describes compatibility issues with Calendar Server.

Calendar Server Compatibility Issues

Functionality	Incompatiblity	Comments
Using Connector for Microsoft Outlook to manage Calendar Server 7 calendars	Prior to Calendar Server 7 Update 2 and Connector for Microsoft Outlook 7.3 Update 1 patch 13	See the Connector for Microsoft Outlook User's Guide for more information.
Using Calendar Server virus scanning	Prior to Calendar Server 7 Update 2 and Messaging Server 7 Update 4 patch 23	See Configuring and Administering Virus Scanning in Calendar Server for more information.

Problems Fixed in This Release of Calendar Server 7 Update 2

```
12296812 SUNBT6962017 PUT WITH A CONTENT-LENGTH VALUE GREATER THAN THE
MAX JAVA INT IS AC
12294971 SUNBT6954087 WCAP GET_FREEBUSY RETURNS BUSY IF STATUS HAS
X-NAME AND TENTATIVE,
12299089 SUNBT2196440 FETCHCOMPONENTS_BY_RANGE.WCAP RETURNS ERROR
MESSAGE W/O RECURRING O
12299091 SUNBT2196443 MIGRATION: ACLS ARE NOT BEING CONVERTED PROPERLY
(MAIL ADDRESS VS.
12299094 SUNBT2196445 DAVADMIN: HELP FOR -S AND -T  (WHAT IS THE
DIFFERENCE BETWEEN THE T
12299095 SUNBT2196446 MIGRATION: MIGRATION LOG SHOWS THAT THE USER BEING
MIGRATED COULD N
12299096 SUNBT2196447 POSSIBLE DUPLICATE SCHEDULING ACES FOR MULTIPLE
MIGRATIONS
12297753 SUNBT6966463 DAVADMIN: CALENDAR OPERATION DOES NOT LIST ACLS
FOR A SPECIFIC CALE
12296074 SUNBT6958587 DAVADMIN ACCOUNT LIST DOES NOT SHOW ALL
INFORMATION ABOUT A NEWLY C
12297680 SUNBT6966067 UNABLE TO CHANGE ATTACHMENT STORE LOCATION BY
CONFIGURING STORE.DAT
12299462 SUNBT2196760 UPDATES OF OTHER ATTENDEE SHOULD NOT PUSH THE
EVENT BACK IF IT DOES
12296203 SUNBT6959112 NEED ERROR MESSAGE WHEN DAVADMIN ACCOUNT MODIFY
WITH INVALID VALUE
12294274 SUNBT6951229 DAVADMIN LIST SHOWS CALENDAR NAME INSTEAD OF
DISPLAY NAME WHEN CREA
12259977 SUNBT6795953 LOGLEVEL ENTRIES SHOULD ONLY ALLOW VALID INPUT TO
""SEVERE/WARNING/I
12299509 SUNBT2196802 LOGIN.WCAP RETURNS SAME SESSION ID FOR DIFFERENT
USERS UNLESS CLEAR
12284444 SUNBT6907175 VALID RIGHTS LEVELS NEED TO BE CHECKED FOR
SET_CALPROPS AND SET_ACC
12299567 SUNBT6975713 DAVADMIN CALENDAR MODIFY -Y WCAPTZID="""" DOES NOT
```

```
CLEAR PROPERTY
12287705 SUNBT6923820 MIGRATION USING AN UNKNOWN USER LIST FILE FAILS
12299578 SUNBT2196850 BACKSLASH NOT PROPERLY ESCAPED IN CALENDAR NAMES
12299628 SUNBT2196894 DOMAINRESOLUTIONEXCEPTION WARNING IN LOG BUT
SHOULD BE LOGGED AT IN
12300062 SUNBT6978246 MISSPELLED OR MISSING NOTIFRECIPIENTS OPTION IN
SET_ACCOUNTPROPS WC
12299881 SUNBT6977558 FETCHOMPONENTS_BY_RANGE.WCAP WITH MAXRESULTS=2
RETURNS MORE THAN 2
12300526 SUNBT6980937 DAVADMIN CALENDAR CREATE WITH EMPTY PROPERTY VALUE
FAILS
12299817 SUNBT6977142 CREATION OF EVENT USING STOREEVENTS.WCAP WITH
DURATION=P1Y2M3DT1H30
12296834 SUNBT6962135 FETCHCOMPONENTS_BY_RANGE RETURNS 1 MORE RESULT
THAN WHAT IS SET IN
12300672 SUNBT6981894 MKCOL WITH NO CONTENT-LENGTH FAILS WITH 400
12267983 SUNBT6830723 [APPLE ICAL]PREVENT CALENDAR COLLECTION CORRUPTION
WHEN MOUNTED OVE
12300706 SUNBT2198183 FREEBUSY INFO FOR ALL DAY AND FLOATING EVENTS NOT
RIGHT
12279297 SUNBT6883176 NEED TO CHECK DOMAIN STATUS TOO BEFORE LOGIN OR
INVITATION
12300739 SUNBT6982328 DELETEEVENTS_BY_ID WCAP COMMAND FAILS IF RID
PARAMETER NOT SUPPLIED
12269083 SUNBT6835457 WHEN STORING CALENDAR RESOURCE, SHOULD REORDER
MULTIVALUED PROPERTI
12301309 SUNBT6986144 REMOVE USE OF PASSWORD FILES FOR DAVADMIN
12296590 SUNBT6960982 RIGHTS DOES NOT WORK CORRECTLY  WHEN SUBSCRIBING
TO A CALENDAR FOR
12301208 SUNBT6985544 CHANGE DAVADMIN TO GIVE NO-ECHO PROMPT WHEN
CHANGING PASSWORD CONFI
12298673 SUNBT6970956 DTSTART/DTEND RETRIVED WRONGLY WHEN GENERATING
NOTIFCATION EMAILS.
12281090 SUNBT6891672 AUTOMATIC PURGE OF INBOX, OUTBOX ENTRIES
12196116 SUNBT6537176 RFE: SUPPORT DISABLING OF ATTACHMENT FEATURE,
SITEWIDE.
12301966 SUNBT6989790 SHOULD IMPLEMENT SCHEDULE-CHANGES PRIVATE
EXTENSION
12301141 SUNBT6985037 ADD INFO IN TELEMETRY LOG EVEN IF SERVLET REQUEST
FAILS
12302304 SUNBT6991328 ON CANCELLING AN EXCEPTION, BOTH A CANCEL AND A
REQUEST ARE SENT, L
12302560 SUNBT6992757 /.WELL-KNOWN/ISCHEDULE SHOULD REDIRECT TO
/DAV/ISCHEDULE/
12301892 SUNBT6989420 PROMPT USER FOR UNIQUE-ID ATTRIBUTE IN FRESH
INSTALL
12301967 SUNBT6989792 TIMERANGE BASED QUERY ON THE SCHEDULING INBOX DOES
NOT RETURN ANYTH
12302622 SUNBT6992979 SHOULD ONLY SET NOTIFRECIPIENT AND NOTIFEMAIL
PROPS FOR INBOX COLLE
12302916 SUNBT2201536 EMAIL NOTIFICATIONS SHOULD BE DISABLED FOR
RESOURCES BY DEFAULT
12302793 SUNBT6993746 X-LOTUS-RECURID;RANGE=ALL:20101006T203000Z CAUSES
PARSING ERROR
12302792 SUNBT6993745 TZID IN X- PROPERTY CAUSES PARSING ERROR
12302524 SUNBT6992457 ADD ABILITY TO BLOCK REQUESTS FROM CERTAIN CLIENTS
```

12303486 SUNBT6997642 REMOVE BACKEND REFERENCE IN WEB.XML
12302828 SUNBT6993840 ONLY PEOPLE WHO HAVE GRANTED FULL DELEGATE PRIVILEGE SHOULD APPEAR
12302387 SUNBT6991702 INCLUDE ICS AS MIME BODY PART IN IMIP
12189926 SUNBT6512836 RFE:SERVER NEEDS TO EXPLICITLY SET THE PASSWORD EXPIRATION POLICY O
12302516 SUNBT6992384 TOO MANY IMIP MESSAGES SENT
12301154 SUNBT6985172 CANNOT SEARCH ACROSS DOMAINS
12302764 SUNBT6993586 GIVE BETTER ERROR INFO ON IMPORT THROUGH WCAP
12303309 SUNBT6996493 GET/SET_CALPROPS NOT CHECKING ACLS OF HOME DIRECTORY BEFORE ALLOWIN
12302896 SUNBT6994144 NEED TO CANONICALIZE EMAIL ADDRESSES IN ATTENDEE OF VEVENT AND VTOD
12299431 SUNBT6974853 WHEN INVITING RESOURCE WITH CUTYPE=ROOM, THE CUTYPE IS WRONGLY CHAN
12303133 SUNBT6995467 ESCAPE NOT WORKING CORRECTLY IN JSON OUTPUT
12303906 SUNBT7000245 NEED GET_USERINFO WCAP COMMAND
12302378 SUNBT6991670 ICAL: ORGANIZER MAY NEVER SEE STATUS UPDATE FROM ATTENDEE
12300649 SUNBT6981733 EXCEPTION WHEN EXDATE IS IN ZULU AND START AND END ARE NOT
12290106 SUNBT6934312 DAVADMIN EXPORT COMMAND WITH -I OPTION EXPORT USER'S WHOLE CALENDAR
12294270 SUNBT6951199 WCAP STOREEVENTS WITH NO TZID RETURNS HTTP 200 BUT WITH NO JSON BOD
12303050 SUNBT6995050 RFE: ADD A NEW INTERFACE TO GET THE CAPABILITIES OF THE CALENDAR SE
12302634 SUNBT6993039 REQUESTING FOR THE ENGLISH MESSAGE CHANGE AS PER THE ENGLISH GRAMMA
12271545 SUNBT6847345 THE BROWSER SERVLET DOES NOT SHOW THE DAVSTORE ID PROPERTY (USED FO
12305124 SUNBT7006156 NEED TO REMOVE PASSWORD FILE OPTION FROM DAVADMIN MIGRATE COMMAND -
12304925 SUNBT7005022 MIGRATION NEEDS TO HANDLE CS6 IN NON-VIRTUALDOMAIN MODE TOO
12300640 SUNBT6981632 OUTPUT MESSAGE IF MAXRESULTS LIMIT IS HIT FOR FETCH BY RANGE OR LAS
12304586 SUNBT7003292 FINE LEVEL MIGRATION LOGS SHOULD GO TO MIGRATION LOG FILE
12286312 SUNBT6916494 CALDAV : MULTIBYTE SUBJECT/MAILBODY IN CALENDAR EMAIL NOTIFICATIONS
12305302 SUNBT7006773 MIGRATION FAILS IF CALMASTER PASSWORD CONTAINS A SEMICOLON
12304809 SUNBT7004364 [EM CLIENT] FREE/BUSY FUNCTIONALITY NOT WORKING WITH EM CLIENT.
12305018 SUNBT7005488 ENABLE ISCHEDULE BACKEND BY DEFAULT
12302317 SUNBT6991395 NEED ABILITY FOR ADMIN TO TRIM DB SIZE BY PURGING OLD ENTRIES
12304884 SUNBT7004801 CAN RETURN ONLY MAIL AS CALUSERADDRESSURI SINCE WE ARE CANONICALIZI
12286535 SUNBT6917706 [LIGHTNING 540410]ONLY LAST ADDRESS OF CALENDAR-USER-ADDRESS-SET US
12292788 SUNBT6945088 CONVERGENCE CANNOT SEE ATTACHMENTS CREATED USING ICAL
12302801 SUNBT6993756 DECLINE AFTER CANCEL
12287293 SUNBT6921513 [APPLE ICAL] LOOSES X-PARAMS SET ON ATTACH

PROPERTY
12302803 SUNBT6993758 USE OF STATUS=CANCELLED IN CANCEL MESSAGE
12306352 SUNBT7011260 MISSING WCAP ERROR CODES IN DOCUMENTATION
12306336 SUNBT7011191 DAVADMIN COMMAND STRIP FAILS UPDATE ACE WHEN USED WITH -F OPTION
12301969 SUNBT6989802 [IPHONE]AUTOCOMPLETE DOES NOT WORK ON IOS 4.2
12300573 SUNBT6981206 [APPLE ICAL]WHEN ADDING A LOCATION, AUTOCOMPLETE RETURNS ALL USERS
12306375 SUNBT7011352 GET_ACCOUNTPROPS.WCAP RETURNS ERRNO:94 FOR USERS WITH NO SCHEDULE P
12305301 SUNBT7006772 HANDLE DYNAMIC GROUPS IN ACLS
12292058 SUNBT6942469 STATUS IS NOT CORRECT IN EVENT REPLY NOTIFICATION DESCRIPTION
12306383 SUNBT7011405 UPDATING ATTENDEE PART-STAT STATUS INFORMATION FAILS FROM THE ORGAN
12302841 SUNBT6993906 RFE: DISABLE APPLE DROPBOX FEATURE, SITEWIDE
12307053 SUNBT7014311 DAVADMIN SHOULD NOT AUTOCREATE ACCOUNTS
12307164 SUNBT7014741 LDAP SEARCH FAILURE IN ""DAVADMIN ACCOUNT"" COMMAND RESULTS IN POOR E
12307238 SUNBT7015109 STORETODOS.WCAP IGNORES STATUS PARAMETER
12270123 SUNBT6840255 / CONTEXT ROOT IS VISIBLE.
12296842 SUNBT6962306 NOTIFICATION PRODUCER NEED TO POST A SPECIAL MSG TO INSTRUCT CONSUM
12307827 SUNBT7017940 ""DAVADMIN ACCOUNT LIST"" WITH INVALID USER SETS INCORRECT EXIT CODE
12307833 SUNBT7017982 GOT EXCEPTION IF TRY TO DELETE CALCOMPONENT WITH -Y OPTION WITH INV
12307161 SUNBT7014697 NEED TO DEFINE SPECIFC INVALID SYNC TOKEN ERROR FOR FETCHCOMPONENTS
12308062 SUNBT7019183 [EMCLIENT] RESCHEDULING AN INSTANCE OF A RECURRING EVENT IS NOT REF
12302328 SUNBT6991484 DAVADMIN COMMAND TO RENAME ACCOUNT
12308132 SUNBT7019553 STOREEVENTS.WCAP RETURN ERROR 60 WHEN AN INSTANCE OF MEETING MOVED
12308360 SUNBT7020718 ADD ABILITY TO ADD/LIST DELEGATEE ADDRESSES THROUGH WCAP AND DAVADM
12308363 SUNBT7020746 ADD IMIP TO RESPONSE NOTIFICATIONS
12308814 SUNBT7023538 CONFIG OPTION DAVCORE.SCHEDULING.ISCHEDULEBACKENDID IS NOT SET WHIL
12302324 SUNBT6991453 DOCUMENT CUSTOMIZATION OF MAIL FORMATTING FILES
12308811 SUNBT7023527 REPLY IS SENT BY ATTENDEE BUT ORG HAS ALREADY DELETED THE EVENT.
12302637 SUNBT6993046 LDAP JDK ERROR CODES MESSAGES FOR TRANSLATION
12307434 SUNBT7016143 NEED IMIP DATA IN NOTIFICATION EMAIL
12308364 SUNBT7020749 SET SENT-BY
12308750 SUNBT7023086 GENERATE IMIP NOTIFICATION FOR DELEGATEES
12309623 SUNBT7028605 DAV:SYNC-TOKEN PROPERTY IS NOT RETURNED
12293025 SUNBT6945985 EXTRACT CONTENT-ID AND STORE AS X-S1CS-CLIENT-ID WHEN ATTACHMENTS A
12309197 SUNBT7026072 PRODUCT GENERATED SAMPLE STATEFILE IS MISSING
12309113 SUNBT7025788 MISTYPED DEFAULT DOMAIN NAME CAUSING SERVICE FAILURE FOR OTHER COMM
12308370 SUNBT7020806 ATTENDEE/ORGANIZER MAIL ADDRESSES MUST BE CANONICALIZED DURING MIGR
12310074 SUNBT7031523 TRANSLATION CHANGES W.R.T TO ENGLISH GRAMMAR
12306405 SUNBT7011476 [EM CLIENT]EXCEPTION IS SEEN AT FINE LEVEL ON

DELETE OPERATION FOR
12308505 SUNBT7021623 RECURRING DAILY INVITE FROM OC GENERATES 409 WHEN ACCEPTING FROM IC
12308738 SUNBT7022984 MERGING OF ATTENDEES COPY OF RECURRING EVENT CAN LEAD TO MASTER + E
12310305 SUNBT7032111 PROPERTY-SEARCH ON CALENDAR-USER-ADDRESS-SET FAILS IF VALUE CONTAIN
12310334 SUNBT7032372 PATCHING WILL FAIL IF THE CURRENT DSSETUP VERSION DOES NOT MEET THE
12309474 SUNBT7027755 SET SENT-BY FOR CANCEL NOTIFICATIONS
12309550 SUNBT7028137 PATCH INSTALL WILL BREAK CONFIG, IF CONFIG WAS CHANGED AFTER INSTAL
12376842 BROWSER SERVLET SHOULD OUPUT SPECIFIC MSG ABT CAUSE IF ERROR OCCURS FROM IMPORT
12390286 FETCH_EVENTS_BY_UID RETURNS AN ERROR IF NO CALID IS SPECIFIED
12423153 COMMAND LOG SHOULD HAVE ENTIRE WCAP COMMAND
12418119 CS7 - DELETED ACCOUNT CAN SEND NUMEROUS EVENT CANCELLATION NOTICES
12267556 SUNBT6828534 BROWSER SERVLET SHOULD BE ABLE TO SUPPORT CROSS PLATFORM BROWSERS E
12553372 DAVADMIN SHOULD GIVE ALL THE GENERIC OPTIONS WITHOUT ABLE TO LOGIN.
12563755 NOTIFICATION EMAIL SHOULD NOT BE SEND FOR PAST SCHEDULED EVENT.
12577641 GENERIC ERROR (-1)RETURNED WHEN STOREEVENTS.WCAP DOES NOT HAVE CALID.
12614577 ALARM LOST WHEN ATTENDEE TRIES TO ADD ONE WHILE MERGE IS HAPPENING
12643562 'DAVADMIN CALCOMPONENT EXPORT' RECEIVES NULL ERROR
12669526 [APPLE ICAL]CANT INVITE GROUP
12667163 ADD THE SCHEDULING HEADER TO THE NOTIFICATION WITH ICS ATTACHMENT
12301051 SUNBT6984442 ACCESSING SHARED CALENDAR USING LIGHTNING RESULTS IN 404 ERROR
12638420 RENAME CALENDAR.LOG TO ERRORS.LOG
12682503 CANT ADD ATTACHMENT TO MEETING WITH ATTENDEE FROM APPLE ICAL
12696779 ICAL ESCAPING WHEN FETCHING USING WCAP IS TOTALLY BOGUS
12539605 "NLS: UPDATE LOCALIZED FILES, ADD GERMAN, SPANISH, KOREAN, CHINESE LANGUAGES"
12666064 "NLS: UPDATE LOCALIZED FILES, ON FR, ES, JA, KO, ZH-TW, ZH-CN LANGUAGES"
12296833 SUNBT6962132 EXCEPTION FROM REBUILDICALPROPS
12259502 SUNBT6794017 RFE CALENDAR SERVER NEEDS TO SCAN DATABASE FOR VIRUS IN ATTACHMENTS
12642788 NO NOTIFICATION EMAIL WHEN SHARING THE DEFAULT CALENDAR
12639831 NLS: OCUCS:PARTIAL TRANS - MANY MESSAGES LEFT IN ENGLISH
12626545 NLS: OCUCS:PARTIAL TRANS - UNTRANSLATED EXCEPT BUTTONS
12727144 SHOULD SUPPORT ACKNOWLEDGED PROPERTY IN VALARM
12716789 EVENT INVITATIONS ARE SET TO TRANSPARENT BY DEFAULT
12734792 [APPLE ICAL]DELEGATION FUNCTIONALITY BROKEN (CANT SEE DELEGATORS LIST)
12756653 UNCLEAR MESSAGE TO CHOOSE DB IN INIT-CONFIG
12756968 "RUNNING ./DAVADMIN VIEWS -H RETURNS ""UNKNOWN OPERATION : VIEWS"""
12752076 DAVCORE.VIRUSSCAN.ONLINEVIRUSACTION NOT WORKING PROPERLY
12768822 COMMSINSTALLER DOESN'T REPORT CALDAV SERVER UPGRADE FAILURE RELATED MESSAGES

12299539 SUNBT6975609 CALDAV SESSION EXPIRES EVEN THOUGH CONVERGENCE CALENDAR USER IS ACT
12800765 CONFIG-BACKEND SCRIPT NEED TO SUPPORT ORACLE DB
12802329 PERFORMANCE IS SLOW DUE TO DATABASE MD5 CONVERSION
12799888 ANY USER CAN BECOME OWNER OF A RESOURCE
12822266 NEED TO BE ABLE TO LIMIT THE NUMBER OF RESOURCES PUT IN A COLLECTION
12777603 MULTIBYTE CONTENTS GETS GARBLED IF USING CALDAV-CS7U2 (REGRESSION)
12825513 OFFICIAL NAME CHANGE FOR CALENDAR SERVER
12826382 SET PERMISSIONS FOR ORACLE DB USERS / INIT SCRIPT
12321363 NPE IN SEVER.LOG WHEN LOGOUT COMMAND WITH INVALID OR EXPIRED SESSION ID
12829289 MULTIBYTE CALENDAR NAME GETS GARBLED
12750042 NLS: NEW HANDOFF FOR LOCALIZED FILES ON FR DE ES JA KO ZH-TW ZH-CN LANGUAGES
12836605 CONFIG-MYSQL AND CONFIG-ORACLE NEED BETTER HANDLING FOR BACK END CREATION
12299093 SUNBT2196444 MIGRATION FAIL COUNT IS NOT CONSISTENT WITH FAILURES REPORTED
12845164 NLS: HANDOFF 4 FOR LOCALIZED FILES ON FR DE ES JA KO ZH-TW ZH-CN LANGUAGES
12775648 GOT DAVEXCEPTION WHEN LAUNCH
12423162 NEED ABILITY TO DO FINE LOGGING FOR SPECIFIED USER(S) ONLY
12886494 WHILE TRIMMING THE ALARM PAYLOAD, RESULTED IN LOSS OF THE TZ INFO
12867757 NON-ASCII CALENDAR NAME UNREADABLE IN NOTIFICATION EMAIL-SHOWN AS % CHARS
12301364 SUNBT6986516 AUTOMATE CREATION OF A NEW BACKEND

```
12952625 ""DAVADMIN DB BACKUP"" DOES NOT RECOGNIZE DBHOST ENTRY IN
CLIFILE
```

Problems Fixed in Patch 5

The following bugs were fixed in Calendar Server 7 Update 2 Patch 5:

```
13332281    SEARCH_CALPROPS RETURNS INACTIVE AND DELETED ACCOUNT
CALENDARS
13253322    NO WAY TO "UNSET" AN OWNER OF A RESOURCE
13253059    GRANTING DELEGATION PRIVILEGE ON RESOURCE CALENDAR MAKE
OWNER DISAPEAR
13253047    MIGRATION OF CALENDAR GENERATES SCHEDULING AND NOTIFICATIONS
13104201    TOOL TO FIX UP OWNED CALENDARS LIST
13095420    SMTP AUTHENTICATION DID NOT WORK
13092048    DAVADMIN MIGRATE DOES NOT ACCEPT PASSWORDS FROM A SCRIPT.
13082478    [APPLE ICAL]RESOURCES OWNED BY USER DONT APPEAR IN ICAL
DELEGATION
13070521    COMMANDS LOG SHOULD BE MORE EASILY PARSEABLE
13063802    NEED TO REMOVE RSVP=TRUE PARAM ON A REPLY
13056345    SHOULD SUPPORT GZIP COMPRESSION SENT FROM CLIENT
13056332    SHOULD SUPPORT GZIP COMPRESSION ON RESPONSES
13056099    [IOS 5.0]IOS 5 CLIENT DOES NOT DO AUTOCOMPLETE WHEN ENTERING
AN ATTENDEE
13055783    [IOS 5.0]IOS 5 ACCOUNT CONFIGURATION IS TAKING A LOT OF TIME
AND FAILING
13055169    SETTING APPLE DELEGATION PROPERTY ON OWNED RESOURCE ACCOUNT
FAILS
13044713    REQUEST ON /WCAP/ CAUSES A 500 ERROR AND NPE IN SERVER.LOG
13044145    [HOTMAIL]IMIP INVITATION FROM HOTMAIL ARE REJECTED
13034653    IMIP REPLY ARE NEVER SENT OUT
13009656    CAL 7: NULL POINTER EXCEPTION WHEN STORING RDATE PROPERTY
13004948    WCAP TZID DEFAULT SHOULD BE ZULU AND NOT EUROPE/LONDON
12996001    CALENDAR 7, AUTO-CREATE FAILS IF SUBJECTATTRIBUTES EXCLUDES
DISPLAYNAMEATTR
12896622    PROPFIND DEPTH 1 DOES NOT RETURN SYNC-TOKEN PROPERTY (APPLE
ICAL)
12889783    ALARM INFO FOR RECURRING INSTANCES WRONG
12680690    DAVADMIN CMD SHOULD LIST A USER'S SUBSCRIBED DATA
12304617    SUNBT7003421 CALENDAR AUTO PROVISIONING WHEN NO OBJECTCLASS:
ICSCALENDARUSER
12301366    SUNBT6986519 IMPORT SHOULD LOG FAILURES AND CONTINUE
13392142    GET_ACCOUNTPROPS.WCAP RETURNS 94 FOR CS6 USERS
12546671    [RFE] WANTS TO ALLOW ONLY THE OWNER TO DOUBLEBOOK THE
RESOURCE
```

Problems Fixed in Patch 6

The following bugs were fixed in Calendar Server 7 Update 2 Patch 6:

```
13840661    INVITATION OF LDAP GROUP RETURNS "X-S1CS-MYRIGHTS":"N"
13816933    NO EMAIL ALARM SENT IF EVENT CREATED WITH DTSTART & DURATION
BUT NO DTEND
13689561    SYNC TOKEN OPERATIONS CAUSE EXCEPTION ON ORACLE DB BACKEND
13793667    AFTER MIGRATION ONLY THE VERY FIRST REMINDER OF A RECURENCE
EVENT IS SET.
13734953    SCHEMA 1 - SEARCH_CALPROPS.WCAP DOES LOOK FOR ICSDOMAINNAMES
13528959    DAVADMIN DOES NOT CORRECTLY EXPORT SPECIAL CHARACTERS
```

Problems Fixed in Patch 7

The following bugs were fixed in Calendar Server 7 Update 2 Patch 7:

```
13989295    RESOURCE CAL, SETTING ANYONE RIGHT TO NONE LEADS TO NO
ACCESS FOR OWNER TOO
14014519    ALL THE DETAILS ARE VISIBLE EVEN WHEN 'SHOW DATE AND TIME
ONLY' WAS SELECTED.
14090745    INVALID JSON FOR X-S1CS-ATTENDEE-RDATELIST PROPERTY FROM CS6
14239416    DOUBLEBOOKING CANNOT BE DISABLED FOR RESOURCES FOR WCAP
STORE
14256491    INVITE FAILS FROM OC WHEN RECIPIENT PULLED FROM GAL CONTAINS
DOUBLE QUOTED CN
14288150    WCAP ERROR 60 - CALENDAR SERVER SUPPORS ONLY ONE ALTERNATE
MAIL ADDRESS ATTRIBUT
14298969    CERTAIN DAVADMIN COMMANDS DO PROXY-AUTH TO LDAP INSTEAD OF
AUTH AS ADMIN
14300709    REPLY FROM ALTERNATE ADDRESS LOOKS LIKE A PARTY CASHER
14304841    ALL CONTENT (ATTACHMENT/TEXT) SENT TO SCANNER YEILDS
CONTENT-TYPE OF TEXT/PLAIN
```

Problems Fixed in Communications Suite 7 Update 3 (Patches 8 and 9)

The following bugs were fixed in Calendar Server 7 Update 3 Patch 8:

```
14674433     ATTENDEE2 PARTSTAT SHOULDN'T FORCE AUTO-ACCEPT/AUTO-DECLINE
FOR ATTENDEE1
14668246     OWNER FIELD IS NOT SET AFTER MIGRATION WHEN THE ICSCALENDAR
ENTRY WITH NO DOMAIN
14668171     OWNER FIELD IS NOT SET AFTER MIGRATION IF THERE ARE NO
"OTHER OWNERS" DEFINED.
14665808     PERF ISSUE WHEN FETCHING AS NON OWNER LARGE CALENDAR
CONTAINING LOTS OF ACES
14653974     INIT-CONFIG FAILS TO RUN ON SOME LINUX BOX WHEN LOGGED IN
AS ALTERNATE ROOT USER
14652876     EVENTS CREATED USING ICALCREATOR STOPS CONVERGENCE
FUNCTIONING
14641874     ATTENDEE BECOMES ORGANIZER WHEN RESCHEDULING AN INST OF AN
RECURRING SERIES
14612004     MISSING MAIL PROPERTIES FILES IN CERTAIN LANGUAGES
14592776     IMIP/ITIP:OUTGOING INVITATIONS AND NOTIFICATIONS: NON-ASCII
```

```
CONTENT SEEN GARBLED
14574620     CANCEL EVENT NOTIFICATION SENT OUT FOR PAST MEETINGS.
14569053     SEARCH_CALPROPS.WCAP THROWS NULLPOINTEREXCEPTION
14545818     CS7 CONFIGURATOR SHOULD SET CONNECTION VALIDATION ON WHEN
CONFIGURING JDBC CONNE
14545387     CALENDAR-QUERY DOES NOT RETURN ALL EXPECTED RESULTS -
MISSING VTIMEZONE ELEMENTS
14517223     EXPORT/IMPORT WCAP CMD FAIL IF START OR END DATE IS FIRST
OF ANY MONTH
14497763     'DAVADMIN ACCOUNT LIST -B' SHOULD NOT SET A SIZELIMIT FOR
LDAP SEARCH.
14481582     WCAP ERROR 60 THROWN FOR EVENT CREATION , WHEN USING
CERTAIN TIMEZONES
14472168     INVALID JSON FOR X-S1CS-GROUP-ATTENDEE PROPERTY FROM CS6
14467393     DAVADMIN ACCOUNT DELETE DOES NOT ALWAYS COMPLETE
14463226     ASSIGNING RESOURCE PRIVACY ACLS FOR DOMAIN OF THE OWNER
REMOVES ADMIN RIGHTS
14463197     ASSIGNING RESOURCE SHARE ACLS FOR DOMAIN OF THE OWNER
REMOVES ADMIN RIGHTS
14401307     SUBSCRIPTION LISTS ARE NOT MIGRATED FROM SCHEMA 1 DATA THAT
IS IN LEGACY MODE
14390114     FETCH_BY_RANGE COUNTER DOES NOT INCREASE WHEN NO CAP OR
RECURRING=0
14382851     DEFAULT CALENDAR NAME MAY BE NULL IN MIGRATION LOGS
14363883     MIGRATION SCHEMA1 UNABLE TO FIND RESOURCE OWNER IN LDAP
14362836     FETCHBY_LASTMOD.WCAP WITH SERVER SIDE MAXRESULTS HIT
RETURNS -1 ERROR
14358550     MIGRATION 'EMPTY COMPONENT' ERROR DUE TO ":" IN THE UID OF
THE EVENT.
14350344     DAVADMIN MIGRATION LOGGING NEEDS ROBUST SUMMARY LINES ON
ALL FAILURES
14340035     EXTERNAL AUTHENTICATION FAILED WHEN DOMAINS ARE DIFFERENT
14304009     SAME ERROR CODE FOR BOTH DOUBLE BOOKING AND BOOKING WINDOW
LIMIT
14266745     ERROR SHOWN IN CHECK AVAIL WINDOW WHEN ONE OF THE USER IS
FREE FOR ENTIRE PERIOD
14245394     DAVADMIN -V GIVES ILLEGAL OPTION MESSAGE
14219938     FB LOOKUP IS TOO LONG
14219102     USER ENTERED VALUES FOR LDAPTIMEOUT AND
LDAPPOOLREFRESHINTERVAL ARE NOT STORED
14191425     SCHEME IN BASIC AUTH AUTHENTICATION HEADER IS CASE
SENSITIVE
14185272     IMPORT FAILS GLOBALLY INSTEAD OF FAILING INDIVIDUAL EVENTS
14173351     UNABLE TO SAVE EVENT/TODO ATTACHMENTS USING
FETCHATTACHMENT.WCAP
14173209     LDAPPOOL CREATE / MODIFY ACCEPTS INVALID VALUES
14173103     DOING MERGE OF EVENT WITH ITIP AND GENERATION OF ITIP FROM
EVENT IS TOO LONG
14168252     LDAPPOOL CREATION USING FILE WHICH DOES NOT EXIST SHOWS
NULL
14161575     LDAPPOOL IS DELETED WITHOUT ANY USER CONFIRMATION MESSAGE
14157032     CS RESTART IS REQUIRED FOR DAVADMIN LDAPPOOL
DELETION/LEAKING POOL
14155975     DAVADMIN LDAPPOOL MODIFY OPTION IS NOT WORKING PROPERLY
14144690     CHANGING THE DATE FORMAT OF ERROR LOG DOESN'T CONVEY TO
RESTART
```

14143049 RESOURCE CALENDAR ONLY HAS VEVENT AS SUPPORTED COMPONENTS, MISSING VTODO
14142104 DAVADMIN USAGE FOR SUPPORTED-COMPONENT-SET IN CALENDAR MODIFY IS WRONG
14123480 CS6-CS7 COEXISTENCE:CS7 INVITATION/REPLY TO CS6 USER CAUSES NONSTOP NOTIFICATION
14120087 VALUE AFTER A COLON IS IGNORED IN A XTOKEN
14115278 MISSING REPLY_REQUESTSTATUS_IMIP.FMT WHEN IMIP TURNED ON AND DELIVERY FAILS
14103612 MIGRATION/IMPORT NEED TO TRIM UNSUPPORTED X-NSCP AND X-S1CS PROPERTIES
14103002 NEW TASK NOTIFICATION TEMPLATES ARE NOT INTERNATIONALIZED
14095013 CS6-CS7 COEXISTENCE SETUP: FREEBUSY LOOKUP OF CS6 USERS DOESN'T WORK
14090642 BINDDN VALUE IS NOT STORED INCASE THE VALUE HAS =
14090238 NO ERROR DURING DELETION/MODIFICATION OF THE LDAPPOOL WHICH DOES NOT EXIST
14090154 MESSAGE IS NOT CONSISTENT ACROSS LDAPPOOL OPERATIONS
14090077 LDAPPOOL CREATION WITHOUT PASSING PROPERTIES GIVES NULL
14079798 CREATING A LDAPPOOL WHICH EXISTS ALREADY THROWS AN EXCEPTION
14064993 NULLPOINTER EXCEPTION IN NOTIFICATION PUBLISH
14058638 DAVADMIN DOES NOT DISPLAY THE LAST MODIFIED DATE
14050085 EVENT CREATED SUCCESSFUL WITH ALARM SET TO MULTIPLE ATTENDEES SEPARATED BY COMMA
14049779 WCAP IMPORTS EVERYTHING EVEN IF PROVIDED WITH INVALID DTSTART/DTEND VALUE
14049746 WCAP EXPORT EVERYTHING IF EXPORT WITH INVALID DTSTART/DTEND VALUE
14046524 CONFIGURE-AS SHOULD BE ABLE TO HANDLE CS IN A NON-DEFAULT LOCATION
14007772 CONFIGURATOR FAILED TO RUN USING 64-BIT JAVA
13996590 CALDAV INIT-CONFIG WIPES OUT CUSTOM ICSDOMAINNAMES IN LDAP ON DEFAULT DOMAIN
13972336 FIXUP UNTIL VALUE IN RRULE BASED ON TZID IF NOT IN ZULU IN WCAP STORE
13945738 IMPORT FAILS IF ATTACHMENT STORE FAILS BUT LOG SAYS THAT IT SUCCEEDED
13942162 CANNOT MODIFY AN EVENT DEFINED WITH DURATION IF NEW STORE REQUEST CONTAINS DTEND
13942095 MIGRATION OF RESOURCES - PRIMARY OWNER IS CHANGED TO ONE OF THE "OTHER OWNER"
13932783 NULL EXCEPTION ON RECURRING STORE WITH NO VALID INSTANCE
13919812 IMPORT FAILED WHEN TRYING TO IMPORT AN .ICS FILE GENERATED BY LIGHTNING
13915844 EMAIL ALARM NOT GENERATED FOR RECURRING TASK
13905022 CALENDAR7 - LOGS FILL UP DISK VERY FAST WHEN BACKEND IS DOWN
13894121 NEED TO SET A VALID RANGE FOR CALATTENDANTUSERFLAGS AUTOCREATE CONFIG PARAM
13887743 CS7 SHOULD NOT FETCH WITH NULL CALID IF GETUSERPREF DID NOT RETURN THE CALIDS
13880628 CONFIG-BACKEND HAS 'ADMIN' AS HARDCODED ADMIN ACCOUNT
13874089 DAVADMIN LIST COMMAND DOES NOT CORRECTLY DISPLAY SPECIAL CHARACTERS
13860929 GET_FREEBUSY.WCAP WITH INVALID EMAIL ADDRESS GENERATES

```
WARNING LEVEL
13859729     TIMEZONE EUROPE/BRATISLAVA IS BEING REPLACED BY
EUROPE/PRAGUE
13836825     ACCOUNT BOOKINGWINDOW SHOULD NOT EXCEED SERVER'S SETTING
13820917     PARTSTAT SET TO NEEDS-ACTION IF ATTENDANCEFLAG IS SET TO 4
13815750     WCAP7: SEARCH_CALPROPS.WCAP CANNOT SEE SELF AND OTHERS IF
DA7 IS NOT CONFIGURED
13805182     DAVADMIN NEED TO BE ABLE TO VALIDATE THE
DAVCORE.AUTOCREATE.CALATTENDANTUSERFLAG
13804698     MOST LDAP SEARCHES ARE NOT ESCAPING STRINGS CORRECTLY
13801585     ORACLE DB BACKEND, ALLOW LARGE DATA STORED IN DB
13784953     WE CAN SET SOME CONFIG PARAMETER AS NEGATIVE EVEN IF WE
SHOULDN'T
13778085     POPULATE-DAVUNIQUEID TOOL ACCEPTS ANY VALUE FOR THE CONINUE
OPTION Y/N
13775549     WRONG ERROR MESSAGE IF CREATE EVENT OUTSIDE OF MINBOOKING
WINDOW
13775255     PATCH 142787-03 - PREPATCH DSSETUP CHECKING FALSE POSITIVE
13770556     BAD CODING PRACTICE IDENTIFIED BY FORTIFY IN GRP
13740079     GOT UNCLEAR ERROR MESSAGE USING DAVADMIN ACCOUNT MODIFY TO
MODIFY THE MIN/MAXBOO
13722189     CREATE PRIVATE TASK/EVENT IN CALENDAR SHARED WITH R+W/OWNER
PERM: NPE THROWN
13718467     POPULATE-DAVUNIQUEID ACCEPTS THE OUTPUT FILE AS DIRECTORY
BUT LATER GIVES AERROR
13716129     USAGE FOR POPULATE-DAVUNIQUEID SHOWS WRONG OPTION FOR PORT
13699825     GOT A NULLPOINTEREXCEPTION IF ENTER NOTHING FOR
13698455     SMS MAIL FORMAT FILE DOES NOT HONOR ALL TOKENS
13691393     MIGRATION IS FAILING WITH VIRTUAL DOMAINS IN LDAP SCHEMA 1
13647720     EVENT INVITATION FROM EXCHANGE, REPLIED FROM APPLE ICAL
RESULT IN DOUBLE TZID
13646650     NOT ABLE TO APPLY CALENDAR PATCH ON REMOTE ATTACHMENT STORE
ONLY HOST
13646345     SHOULD SUPPORT BRIEF HEADER IN REQUESTS
13642052     JSON OUTPUT BOGUS WHEN SUMMARY OR DESCRIPTION HAVE LANGUAGE
PARAM
13641606     500 ERROR ON ACCEPTING A MEETING REQUEST FOR SINGLE
INSTANCE FROM EXCHANGE
13641565     IMIP REPLY FOR JUST ONE INSTANCE FROM EXCHANGE ARE REJECTED
13619378     RESOURCE CAL, SETTING ANYONE RIGHT TO NONE LEADS TO NO
ACCESS FOR OWNER TOO
13614417     MAKE DAVUNIQUEID THE DEFAULT UNIQUEID IN INIT-CONFIG
13608734     TO DOS CREATED VIA HTTP PUT MISSING VTIMEZONE COMPONENT
CAUSING WRONG TZ DISPLAY
13586555     DAVADMIN USAGE DISPLAYS ADDRESSBOOK OPTIONS
13577299     ICAL4J PARSING EXCEPTION IF ATTACH CONTAINS ID
13573588     NEED SCRIPT TO POPULATE DAVUNIQUEID WITH NSUNIQUEID VALUES
13566422     STORE WITH NO CHANGE RESULTS IN LOSS OF SOME PARAMS
13562949     REQUEST FOR A PROCEDURE TO CONFIGURE THE ATTACHMENT STORE
LISTEN HOST
13562492     DOUBLE BOOKING VERIFICATION FAILS FOR SOME RECURRING EVENT
CASES
13559938     SYNC TOKEN OPERATIONS CAUSE EXCEPTION ON ORACLE DB BACKEND
13538036     "DO NOT INCLUDE IN FREE/BUSY LOOKUP" USER CHOICE DURING CAL
CREATION
13519917     ACCEPTING AN EXTERNAL INVITATION FROM LIGHTNING CAUSES AN
```

```
ERROR
13515972     ER - NEED USER AUTHENTICATION USING AN EXTERNAL DIRECTORY -
CALENDAR
13507869     RESOURCETYPE CAL_RESOURCE UPGRADE (FILL IN)
13496867     MISLEADING MESSAGE GENERATED WHEN CREATION OF ACCOUNT
DURING MIGRATION FAILS
13496214     ATTACHMENT STORE FAILING TO START IF NOT USING DEFAULT
INSTALL PATH
13492796     FIX DELEGATE_NOTIFADDR PROPERTY USED FOR EXCHANGE
DELEGATION
13492764     REMOVE AND SILENTLY IGNORE UNUSED CREATECALENDAR PARAMS
SUBSCRIBE & SET_CALPROPS
13488134     NEED A TOOL OR OPTION TO DELETE AN OLD USER, NOT IN LDAP,
WITH A REUSED EMAIL
13484942     CHECK_ID.WCAP RETURNS SUCCESS IF NO ID IS PASSED IN FOR
VERIFICATION
13476815     ACL'S CHANGE FOR CALMASTER AFTER MIGRATION FROM CAL6.3 TO
CS7U2
13464184     DAVADMIN DB BACKUP SHOULD REPORT AN ERROR INSTEAD STOP
BACKUP COMPLETLY
13459122     DO NOT ADD SENT-BY WITH ADMIN OR CALMASTER ADDRESS WHEN AN
ADMIN CREATES EVENTS
13458989     UNIFY DATE FORMAT IN LOGS AND MAY BE MAKE IT CONFIGURABLE
13448023     TIMEZONE CALCULATION BUGS (CHANGE OF DEFAULT OFFSET -
STRIPPING TOO MANY RDATE
13442339     [IOS 5.0] CREATION OF LOCATION BASED REMINDER FAILS
13420487     FIX RANGE PROPERTY IN DELETE_BY_RANGE OUTPUT
13420247     SEARCH_CALPROPS.WCAP RETURNS NO ICAL DATA/WCAP ERRNO WITH
ARBITRARY STRING
13413680     DAVADMIN ACCOUNT DELETE DOES NOT ALWAYS COMPLETE
13398830     INACTIVE,DELETED,REMOVED USERS SHOULD NOT BE CONSIDERED FOR
ANY OPERATION
13398656     GET_ACCOUNTPROPS.WCAP DOESN'T RETURN RIGHTS WHEN THE
RESOURCE ISN'T CREATED YET
13392729     VIRUS SCAN DO NOT SUPPORT SMTP AUTH AND STARTTLS/SSL
13392368     UPGRADE TO NEW MYSQL CONNECTOR
13392254     REMOVE NSUNIQUEID AS DEFAULT UID DURING CONFIG
13392195     GET_ACCOUNTPROPS.WCAP DOESN'T RETURN '@:N' PERMISSIONS
13370966     CALDAV:SUPPORTED-CALENDAR-COMPONENT-SET IN GET_CALPROPS &
CREATE_CALENDAR.WCAP
13355590     CS7 - ABILTY TO LIVE-MIGRATE USERS BETWEEN BACKEND
DATABASES WITHOUT GF RESTART
13064057     NEED DAVCORE.SCHEDULING.MAXBOOKINGWINDOW PER RESOURCE BASIS
13063771     NULL POINTER EXCEPTION WHILE FIXING UP EXDATE OF TYPE DATE
13059532     FLOATING DATETIME EVENTS ARE NOT RETURNED CORRECTLY IN JSON
FORMAT
13039633     [HOTMAIL/OUTLOOK]IMIP REPLY FROM HOTMAIL OR OUTLOOK ARE
REJECTED
13025597     UNKNOWN USERNAME IN ACL LOGS MESSAGE AT INFO LEVEL AND
SHOULD BE FINE LEVEL
12987560     DAVADMIN NOT RETURNING MISSING OPTION MESSAGE
12959042     LDAP INFO CACHETTL DOES NOT WORK AS EXPECTED.
12909115     MISLEADING ERROR MESSAGE IN FETCHCOMPONENTS_BY_RANGE.WCAP
RESULT
12904732     SHOW DISPLAYNAME FOR A CALENDAR COLLECTION ALONG WITH ITS
URI ON BROWSER.
```

```
12881102     NLS: NEGTIVE TEST OF CREATING SAME CALENDAR NAME WITH WRONG
PARMS WCAP
12879658     EXCESSIVE LOGGING INFOMATION AT INFO LEVEL.
12828849     OCUCS:INVALID CREDENTIALS
12826127     MAKE PARTICIPATION STATUS MORE VERBOSE
12819074     OCUCS:INVALID TRANS - OVERTRANSLATION - [YES], [NO]
12775768     NO LINK TO CLICK FOR CALENDAR DROPBOX
12756610     INVITATION TO AN EXCEPTION DOES NOT TRIGGER NOTIFICATION
12737211     DAVADMIN ACCOUNT DISPLAYS INCORRECT SCHEDULING ACL VALUE
12635989     OCUCS:APOSTROPHES DO NOT DISPLAY IN SOME CLI MESSAGES
12629682     OCUCS:&QUOTNOTE" IS MISSING
12626489     OCUCS:BROWSE BUTTON TRUNCATED / MISALIGNMENT OF FIELDS
12350092     CALENDAR/CONVERGENCE SHOULD GIVE ERROR/WARNING WHEN INVITEE
HAS NO CALENDAR
12310347     SUNBT7032423 RFE PROVIDE OPTION TO LIST ALL DB USERS VIA
DAVADMIN COMMAND
12303829     SUNBT6999741 RESPONSE STATUS ARE NOT I18NED FOR CALDAV
EMAIL NOTIFICATIONSIWC2.0
12303634     SUNBT6998709 IMPLEMENT DIRECT BACKEND PURGE
12298922     SUNBT6972341 FETCHCOMPONENTS_BY_RANGE.WCAP RETURNS TODO
ITEMS WITH A DATE OLDER
12296284     SUNBT6959469 VCALENDAR WITH TIMED DATES IN VEEVENT/VTODO
BUT NO VTIMEZONE MUST B
12291093     SUNBT6938537 WHEN EXPANDING GROUP WHERE GROUP CONTAINS
MEMBERS AS DN, THE DOMAIN
12280344     SUNBT6888786 SEARCH FOR RECURRING TASKS IN EXPANDED MODE
RETURNS DATA IN RECURRI
12269981     SUNBT6839742 DAVADMIN DB -T OPTION WITH A STRING AS THE
ARGUMENT VALUE THROWS AN
12263479     SUNBT6810708 ABILITY TO TURN OFF/ON AUTOCREATION AND
CONFIGURE AUTOCREATE SEMANT
```

```
12243958     SUNBT6726988 NOTIFICATION CONSUMER SHOULD SUPPORT ITIP TASK
MESSAGE JUST LIKE SC
```

The following bugs were fixed in Calendar Server 7 Update 3 Patch 9:

```
15940719     SETTING PASSWORD EXPIRATION POLICY ASSUMES O=ISP SUFFIX
EXISTS
15874556     UNICODE LINE AND PARAGRAPH SEPARATORS SENT BY CALENDAR
CAUSE CONVERGENCE ERRORS
15854809     INIT-CONFIG FAILS WHEN SPECIFYING THE ORGANIZATION
14812114     TIMEZONE INFORMATION OF PACIFIC/APIA IS INCORRECT
14787715     NEED ABILITY TO PROVIDE ORGANIZER INFO TO STORE TO STORE
EXTERNAL INVITES
14781101     POPULATE-DAVUNIQUEID SHOULD HANDLE ENTRIES WITH OR WITHOUT
DAVENTITY OC BETTER
14779166     GET_ALL_TIMEZONES JSON RESPONSE HAS MULTIPLE
STANDARD/DAYLIGHT OBJECTS PER TZ
14775825     FETCHBY_LASTMOD.WCAP RETURNS DELETED EVENTS WITH LASTMOD
PARAM IS EMPTY
14757999     DOC STORE CAN'T BE STARTED WHEN A NON-DEFAULT DATA DIR IS
USED IN CONFIGURE-AS
14733178     AFTER CHANGING A RESOURCE ATTENDANCE FLAG FROM 3 TO 0, YOU
GET DOUBLEBOOK ERROR
```

Known Issues and Limitations in Calendar Server 7 Update 2

These Release Notes contain important information available at the time of the general release of Oracle Communications Calendar Server.

12304730 SUNBT7004043 [EM CLIENT]ASSIGNING TASK TO OTHER USER DOES NOT WORK WITH EM CLIEN

When a user creates a task and assigns it to another user, the eM client assigns the task to the organizer.

12881055 A NEW API IS REQUIRED TO MANAGE RESOURCE ACL ON CONVERGENCE

Resource calendar owners are unable to list the resources that they own and manage the access control settings on resource calendar accounts by using the Calendar client.

12896622 PROPFIND DEPTH 1 DOES NOT RETURN SYNC-TOKEN PROPERTY (APPLE ICAL)

Incremental syncronization by using the WebDAV Sync protocol between iCal on Apple's OS X Lion and Calendar Server 7 does not work.

12828849 OCUCS:INVALID CREDENTIALS

The error message that is displayed on failure due to invalid credentials entered for the Directory Server administrator is not localized.

12819074 OCUCS:INVALID TRANS - OVERTRANSLATION - [YES], [NO]

"Yes" or "No" choice in the Calendar Server configuration tool is not localized.

12907665 CREATING NEW CALENDAR ON DELEGATED ACCOUNT HANGS

Creating a new calendar on a delegated account might cause the Apple iCal client to hang.

12889783 ALARM INFO FOR RECURRING INSTANCES WRONG

The iCal data sent to email alarm consumers is wrong for recurring instances. It sends the information from the first instance for series with no exceptions and information from the first exception for series with exceptions. This results in wrong information in email reminders.

12773631 EMAIL NOTIFICATIONS NOT WORKING AS EXPECTED

Notification is not sent if scheduling is enabled only for that one user and is disabled for all other users.

12756610 INVITATION TO AN EXCEPTION DOES NOT TRIGGER NOTIFICATION

If an attendee is invited for only one instance of a series, no notification is sent even if the attendee has notification on.

12737211 DAVADMIN ACCOUNT DISPLAYS INCORRECT SCHEDULING ACL VALUE

Using Apple iCal to give a user read rights might set the scheduling ACL to `r`, which causes the `davadmin account list` command to display the following information:

```
Scheduling ACL: <user>:r
```

However, `r` is not a valid value for the scheduling ACL, which takes the values `f` and `s`.

12680690 DAVADMIN CMD SHOULD LIST A USER'S SUBSCRIBED DATA

Currently, you cannot use the `davadmin` command-line tool to list a user's subscribed data.

12297683 (SUNBT6966124) CANNOT DELETE ATTACHMENT DOC FROM LIGHTNING CLIENT, DELETED DOC STI

You cannot delete attachments from Lightning. Deleted attachments can still be seen through other clients.

12291094 (SUNBT6938541) WHEN AUTOCREATING A RESOURCE WITH OWNER, OWNER IS ASSUMED TO BE IN

Resource account owners are always assumed to be in the same domain as the resource itself.

12959042 LDAP INFO CACHETTL DOES NOT WORK AS EXPECTED.

Calendar Server fetches and caches some domain information that is stored in LDAP, such as domain status. The system does not periodically refresh domain information, unlike user and group information.

Workaround: See To Refresh Domain Information.

12298922 (SUNBT6972341) FETCHCOMPONENTS_BY_RANGE.WCAP RETURNS TODO ITEMS WITH A DATE OLDER

The `fetchcomponents_by_range.wcap` command is returning a todo item that has a `DATE` value prior to the `dtstart` value.

12296079 (SUNBT6958612) SETTING DAVCORE.AUTOCREATE.DEFAULTCALENDAR HAS NO EFFECT

Running the `davadmin config -o davcore.autocreate.defaultcalendar -v defcal` command sets the parameter to `defcal` but autocreate does not use this value. The default calendar is still called `calendar`.

13559938 SYNC TOKEN OPERATIONS CAUSE EXCEPTION ON ORACLE DB BACKEND

This issue causes some significant problems when running Oracle Database on Calendar Server 7 Update 2 Patch 5.

Workaround: Use Calendar Server 7 Update 2 Patch 4 (when you install Calendar Server 7 Update 2 from the Communications Suite installer, you get Patch 4).

13646650 NOT ABLE TO APPLY CALENDAR PATCH ON REMOTE ATTACHMENT STORE ONLY HOST

Workaround:

1. Stop the document store on the remote attachment store host:

```
stop-as
```

2. Copy the *cal-srv-base*`/lib/jars/ashttpd.jar` file from the Calendar Server 7 host where you have the latest patch applied to the remote attachment store host.
3. Start the document store on the remote attachment store host:

```
start-as
```

13619378 RESOURCE CAL, SETTING ANYONE RIGHT TO NONE LEADS TO NO ACCESS FOR OWNER TOO

Changing the ACL on a resource calendar from anyone to none resets the owner's permissions and the ACL cannot be changed any more. For example, if you changed the resource permissions from `a` (all access) and `m` (manage schedule) to `@:n;group:r;owner:a`, you cannot change them back. Likewise, if you changed permissions to `@:n;group:group:s;owner:m`, this set the owner to `s` and you cannot change the owner back to `m`.

Workaround:

1. First, set the permissions by using `@:n` so that it removes rights for all users.
2. Then set the permissions with `group:r;owner:a`, that is, do not use `@:n` to fix the rights.
3. Likewise, do the same if you used `@:n;group:s;owner:m`; instead, use `group:s;owner:m` to fix the rights.

If you do not want a resource to have permissions of `@:r` by default when it is created, set the `davcore.acl.defaultresourcecalendaracl` configuration parameter to `""`, and also set the `davcore.acl.defaultresourceschedulingacl` parameter to `""`. That way, when the resource is created, it has only `owner:a` rights.

14029513 CONVERGENCE CALENDAR SUBSCRIBE DOES NOT DISPLAY RESOURCES

WITHOUT OWNER

If you create a resource calendar without assigning an owner, users are unable to subscribe to the resource in Convergence.

Workaround:
Be sure to use the `-o` *owner* option to the `commadmin resource create` command when creating a resource.

Known Issues and Limitations in Calendar Server 7 Update 3

12297683 (SUNBT6966124) CANNOT DELETE ATTACHMENT DOC FROM LIGHTNING CLIENT, DELETED DOC

If you create an event with an attachment by using Apple iCal, then delete the attachment by using Thunderbird Lightning, and save and close the event, the attachment is gone when viewed from Thunderbird Lightning, but it still shows in Apple iCal. Additionally, the iCal content is displayed from the CalDAV browse servlet.

14554698 OCUCS:APOSTROPHES DO NOT DISPLAY IN SOME CLI MESSAGES IN FRENCH

Because of a bug in Java, single quote marks (') do not display correctly in some messages in French.

14571911 CALDAV - "REPORT" SHOULD SUPPORT "STARTS-WITH" (USED BY ICAL)

Apple CalDAV clients that use the the `principal-property-search match-type="starts-with"` expect to get results that match `mail=`*user@domain**. However, the server returns results that match `mail=`**user@domain**.

14582650 FETCHATTACHMENT.WCAP RETURNS 87 INCASE THE ATTACHMENT IS ADDED THROUGH ICAL

If you create an event in iCal and then add an attachment, it is not saved.

Workaround: Add the attachment through Convergence.

14589084 GROUP INVITATIONS THAT HAVE NOT BEEN RESPONDED TO WILL CAUSE MEMBERS TO APPEAR

Group invitations that have not been responded to cause members to appear busy. This affects both Convergence and CalDAV clients.

14636740 ABILITY TO RESET DAVADMIN PARAMETERS TO THEIR DEFAULT VALUES

Currently, to reset a configuration parameter to its default value, you need to know what the default value is, as specified in the documentation.

14680050 SHOULD PERFORM FREEBUSY CHECK REGARDLESS OF ATTENDANCEFLAG 0X02 SETTING

Ideally, the booking window check and the freebusy check should be separate checks, and the attendance flag should only take effect based on how Calendar Server handles recurring and freebusy instances. With the current behavior, the attendance flag setting also affects whether Calendar Server performs the booking window check.

14691095 ALLOW JMS NOTIFICATION MESSAGE TO EXPIRE

Currently, Calendar Server treats JMS notifications as persistent, thus, they do not ever expire.

14692418 DAVADMIN CALE CREATE -F DOESN'T PARSE INPUT FILE CORRECLY IF IT CONTAINS ACL

If you create a calendar through the `davadmin -F` command and the batch file contains an ACL, the calendar is created but the ACL is not set.

Workaround: Manually set the ACL after the calendar has been created.

14781101 POPULATE-DAVUNIQUEID SHOULD HANDLE ENTRIES WITH OR WITHOUT DAVENTITY OC BETTER

This bug has been fixed in Calendar Server 7 Update 3 Patch 9.

Currently, the `populate-davuniqueid` script can generate LDAPMOD to add to the `davEntity` object class and the `davUniqueId` attribute at the same time. This does not work well when existing LDAP entries already have the `davEntity` object class.

Workaround:
In the `populate-davuniqueid` script, change lines 282-289 as follows:

```
From

  print $1 > OUT
  print "changetype: modify" > OUT
  print "add: objectclass" > OUT
  print "objectclass: daventity" > OUT
  print "-" > OUT
  print "add: davuniqueid" > OUT
  print "davuniqueid: " substr($2, 13) > OUT
  print "" > OUT

to

  print $1 > OUT
  print "changetype: modify" > OUT
  print "add: objectclass" > OUT
  print "objectclass: daventity" > OUT
  print "" > OUT
  print $1 > OUT
  print "changetype: modify" > OUT
  print "add: davuniqueid" > OUT
  print "davuniqueid: " substr($2, 13) > OUT
  print "" > OUT
```

Redistributable Files for Calendar Server 7 Update 2

This release of Calendar Server does not contain any files that you can redistribute.

Chapter 32. Communications Suite Compatibility Issues

Oracle Communications Unified Communications Suite Compatibility Issues
Version 7 Update 2

This information describes compatibility issues affecting Communications Suite products and the products and shared components used by Communications Suite.

The latest Common Agent Container (cacao) patch is not compatible with the Java ES 5 Update 1 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*.

Chapter 33. Communications Suite Component Products Release Notes

Common Release Information for Oracle Communications Unified Communications Suite Component Products Version 7 Update 2

These release notes contain important release information that is common for all component products of Oracle Communications Unified Communications Suite 7 Update 2.

Topics:

- About Oracle Communications Unified Communications Suite 7 Update 2
- What's New in This Release of Communications Suite
- Deprecated and Removed Features for Communications Suite
- Requirements for Communications Suite 7 Update 2
- 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.

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About Oracle Communications Unified Communications Suite 7 Update 2

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 2 release includes the following components:

Oracle Communications Unified Communications Suite Products and Components Version 7 Update 2

Product	Version
Oracle Communications Messaging Server	7 Update 4 (Patch 23)
Oracle Communications Instant Messaging Server	9
Convergence	2 (Patch 2)
Oracle Communications Calendar Server	7 Update 2
Delegated Administrator for Oracle Communications Unified Communications Suite	7 (Patch 4)
Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite	7.3 Update 1 (Patch 13)
Indexing and Search Service for Oracle Communications Unified Communications Suite	1 Update 3
Messaging Server HA Agent (MS_SCHA)	7
Instant Messaging HA Agent (IM_SCHA)	7.3
Dssetup for Oracle Communications Unified Communications Suite (`comm_dssetup`)	6.4 (Patch 23)

Check Communications Suite Component Patches for current patches that have shipped since the initial Communications Suite 7 Update 2 release.

For release notes on individual component products, see the following links:

- Convergence Release Notes
- 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

In this release (Communications Suite 7 Update 2), Calendar Server 6.3 has been removed from the

installation bundle. Refer to the Oracle Lifetime Support Policy for information on product support dates.

For information on Calendar Server 6.3, refer to Calendar Server Release Notes Version 6.3 (in Communications Suite 7 Update 1).

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.

> **Note**
> OpenSSO Single Sign only works with Sun Enterprise GlassFish Server 2.1.1 Patch 7 and earlier patches. It does not work with Sun GlassFish Enterprise Server 2.1.1 Patch 12, the GlassFish version that is supported in this release.

Requirements for Communications Suite 7 Update 2

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 (for Patch 2, Patch 3, and Patch 4)
- 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 2 table lists the products and versions that are compatible with the Communications Suite 7 Update 2 products.

- To install a particular Communications Suite product, which other components do I need? The Communications Suite 7 Update 2 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 2. For information about requirements for these products, refer to the individual product's release notes.

Product Version Compatibility Requirements for Communications Suite 7 Update 2

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 for Messaging Server as well as for Indexing and Search Service.
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 2 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 2

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 7 Update 2	Supported	Not supported	Not supported	Not supported	Not 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 3	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
Instant Messaging Server 9	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 2 Component Dependencies

Product Component	Dependencies	Required or Optional?	Must Be on Local Host?
Calendar Server 7 Update 2	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 2 installer.	Required. To prepare the LDAP directory for Messaging Server.	Not required. Must be on the same host as Directory Server.

	Oracle Database 11g Release 2 or MySQL Server 5.5.8	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 2 front end. You can use GlassFish Enterprise Server for Message Queue functions.
	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 2 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.
	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.

Instant Messaging 9	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 2 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 7 Update 2 Recommended: Calendar Server 7 Update 2	Optional. To support Calendar Server event reminder notifications. See: Configuring Instant Messaging 9.0.1.4.0 Calendar Agent with Calendar Server 7.	Not required.
	GlassFish Enterprise Server 2.1.1 web container	Optional. To provide IMPS Gateway and HTTP Gateway functionality.	Must be on local host. See: Deprecated Support for Access Manager and Sun OpenSSO.
Directory Server Setup Script (`comm_dssetup.pl`) (Version bundled with Communications Suite 7 Update 2 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 2 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 2 (If you are deciding between Calendar Server 7 Update 2 and Calendar Server 6, Calendar Server 7 Update 2 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 Patch 2 Convergence 2 Patch 3 Convergence 2 Patch 4		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 7 Update 2, Calendar Server 6.3, 6.3.1	Required to provide calendar service.	
	Convergence 2 Patch 2 Convergence 2 Patch 3 Convergence 2 Patch 4	Optional (recommended). Convergence can be used to provide address book service, mail filters, and out-of-office message features.	
	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 2, Indexing and Search Service 1 Update 3, Convergence, and Instant Messaging 9. The Communications Suite Installer installs Java 1.6 as a shared component.

If you switch to another Java version, download and install the latest JDK (not JRE) onto your system. For more information, refer to the GlassFish Enterprise Server 2.1.1 Release Notes.

> **Note**
> If you are enabling S/MIME, be sure to install the most recent Java plug-in patch, beginning with 1.6.0_29. For more details, see: http://www.oracle.com/technetwork/java/javase/6u29-relnotes-507960.html.

Network Security Services Requirements

Communications Suite 7 Update 2 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 (for Patch 2, Patch 3, and Patch 4)

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 2 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 Connector for Microsoft Outlook, Address Book Store, and LDAP Schema
- S/MIME Software and Hardware Requirements

Note that some of this information repeats the information shown in the Product Version Compatibility Requirements for Communications Suite 7 Update 2 table.

Additional Product Requirements for Convergence 2 (Patch 2, Patch 3, and Patch 4)

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 3	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 (Patch 2, Patch 3, and Patch 4)

Product	Version	Communications Suite Release	Required or Optional?	Must B Local H
Messaging Server – Webmail Server	7 Update 4	7 Update 2 (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) 7 Update 2 (for MS 7 Update 4, latest patch)	Required to provide mail service in Convergence.	Not req
Calendar Server 6 (formerly Oracle Communications Calendar Server) See: Calendar Server 6.3 Deprecation	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 if Calendar Server 7 is not installed.	Not req

Oracle Communications Calendar Server (also known as Calendar Server 7, formerly Oracle Communications Calendar Server for CALDAV Clients)	7 Update 2 Patch 5 **Note** (Beginning with Convergence 2 Patch 3)	7 Update 2 + apply minimum patch level 5	Required to provide calendar service beginning with Convergence 2 Patch 3.	Not req
Oracle Communications Calendar Server (also known as Calendar Server 7, formerly Oracle Communications Calendar Server for CALDAV Clients)	7, 7 Update 1, 7 Update 2 **Note** (Only applicable up to Convergence 2 Patch 2)	7 Update 2 (for Calendar Server 7 Update 2)	Required to provide calendar service up to Convergence 2 patch 2.	Not req
Instant Messaging	8, 9	7 Update 2 (for Instant Messaging 9)	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 2 installer.	7 Update 2	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, 7 Update 2	Optional.	Not req

Convergence 2 (Patch 2, Patch 3, and Patch 4) Compatibility with 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?
Connector for Microsoft Outlook	7.3, 7.3 Update 1	6 (for 7.3) 7 Update 1 (for 7.3 Update 1) 7 Update 2	Optional. You can deploy Connector for Microsoft Outlook with the same Communications Suite products and Directory Server as Convergence 2 (Patch 2, Patch 3, and Patch 4). End users of Outlook (configured using the Connector for Microsoft Outlook) can access the same Communications Suite services as those accessed through Convergence.
Personal Address Book store	Can be configured by Convergence 2 Patch 2, Convergence 2 Patch 3, or Convergence 2 Patch 4	Not applicable. The Address Book store resides in an LDAP directory.	You can configure Convergence 2 (Patch 2, Patch 3, and Patch 4) and Connector for Microsoft Outlook 7.3 to use the same Address Book store. 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 the now deprecated Communications Express. **Corporate Address Books:** Convergence can be configured to support one Corporate Address Book for each hosted domain. 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 2 component products.

Memory and Disk Space Requirements for Communications Suite 7 Update 2

Product	Disk Space	RAM	Other
Indexing and Search Service1 Update 3	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 2	Approximately 20 Mbytes.		
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 2:

Operating System and Platform Support (Recommended for Communications Suite 7 Update 2)

Operating System	CPU	Comments
Solaris OS 10	SPARC, x64	Minimum recommended version: Solaris OS 10 9/10 (Update 9) See Solaris 10 9/10 documentation for more information.
Oracle Linux 5.5	x64	See Oracle Linux Documentation for more information.
Red Hat Enterprise Linux 5 64-bit	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	Ora Lin 64-
Messaging Server 7 Update 4 32-bit	Not supported	Not supported	Not supported	Supported	Supported	Not supported	Supported	Su
Messaging Server 7 Update 4 64-bit	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Supported	Su
Calendar Server 7 Update 2	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Supported	Su
Instant Messaging 9	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Supported	Su
Convergence 2 (Patch 2, Patch 3, and Patch 4)	Supported	Supported	Supported	Supported	Supported	Supported	Supported	Su
Delegated Administrator 7	Supported	Supported	Supported	Supported	Supported	Not supported	Supported	Su
Connector for Outlook 7.3 Update 1	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	No ap
Indexing and Search Service 1 Update 3	Supported	Not supported	Supported	Not supported	Not supported	Not supported	Supported	Su
Dssetup 6.4	Supported	Supported	Supported	Supported	Supported	Not supported	Supported	Su

Note

- Recommended platforms are Solaris OS 10, Red Hat 5 64-bit, and Oracle Linux 5.5 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, 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.

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 Linux (Red Hat Linux and Oracle Linux) Installation Requirements for Indexing and Search Service

The Red Hat Linux and Oracle Linux installations 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.

High Availability Support

Supported High-Availability Products

Product	Supported Versions

Instant Messaging 9	• 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
	  • Oracle Linux: Not supported
	• Veritas
	  • SPARC: Not supported
	  • x86: Not supported
	  • Red Hat Linux: Not supported
	  • Oracle 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
	  • Oracle 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
	  • Oracle Linux: 4.1, 5.5

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

Convergence 2 Patch 2 and Convergence 2 Patch 3

Browser	Windows XP	Windows 2000	Windows Vista	Windows 7	Solaris	Red Hat Linux	Oracle Linux	Mac OS 10.x
Microsoft Internet Explorer	8.x	Not applicable	8.x, 9.x	8.x, 9.x	Not applicable	Not applicable	Not applicable	Not applicabl
Firefox	5, 6	5, 6	5, 6	5, 6	Not applicable	Not applicable	Not applicable	Not applicabl
Safari	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	5.x

Convergence 2 Patch 4

Browser	Windows XP	Windows 2000	Windows Vista	Windows 7	Solaris	Red Hat Linux	Oracle Linux	Mac OS 10.x
Microsoft Internet Explorer	8.x	Not applicable	8.x, 9.x	8.x, 9.x	Not applicable	Not applicable	Not applicable	Not applicabl
Firefox	5, 6	5, 6	5, 6, 9	5, 6, 9	Not applicable	Not applicable	Not applicable	Not applicabl
Safari	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	5.x

Supported Browser Versions for Delegated Administrator Clients

Browser	Windows XP	Windows 2000	Solaris
Microsoft Internet Explorer	6.0 SP1 and 7.x	6.0 SP1 and 7.x	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 2
- Messaging Server
- Delegated Administrator
- Instant Messaging
- Connector for Outlook

Calendar Server 7 Update 2

Supported Clients for Calendar Server 7 Update 2

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	
Connector for Microsoft Outlook	7.3 Patch 13	
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: Communications Express is not a supported client in the Calendar Server 7 Update 2 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

Production deployments of Messaging Server require a high-quality caching DNS server on the local network. Messaging Server depends heavily on the responsiveness and scalability of the DNS server.

Additionally, your DNS configuration must clearly specify routes 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 must exist and contain the proper entries for reachable DNS servers and domain suffixes.
- In the `/etc/nsswitch.conf` file, the `hosts:` line must have the `files`, `dns`, and `nis` keywords added. The keyword `files` must precede the keywords `dns` and `nis`. For example, the lines should look like this:

```
hosts:  files nis dns
ipnodes:  files nis dns
```

not like this:

```
hosts:  nis dns files
ipnodes:  nis dns files
```

- The Internet host table in the `/etc/hosts` file should include only one line for the IP address of the host. The first host name must be a fully qualified domain name.

For example, the table should look like this:

```
123.45.67.89 budgie.west.sesta.com budgie loghost mailhost
```

not like this:

```
123.45.67.89 budgie.west.sesta.com
123.45.67.89 budgie loghost mailhost
```

Note
For releases up to Solaris OS 10 U3, you must add the fully qualified domain name 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 Operating System Requirements

The Instant Messaging client has been removed from Instant Messaging 9.

Pidgin is the tested supported XMPP client. Ideally any XMPP-compliant client should work with Instant Messaging server.

The following table lists the supported server platforms:
Instant Messaging Support Server Platforms

Operating System	Supported Platforms
Solaris	Solaris OS 10 64-bit
Red Hat Linux	Red Hat Linux 5, 64-bit
Oracle Linux	Oracle Linux 5.5, 64-bit

> **Note:**
> Instant Messaging 9 requires Java version 1.6 or later.

Connector for Outlook

This section describes the requirements and recommendations for Connector for Microsoft Outlook.

The following operating systems are supported:

- Microsoft Windows 7
- 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, refer to Unified Communications Suite Component Patches. When operating system patch requirements change and patches to Communications Suite and other Oracle components become available, you can find updates in the My Oracle Support (MOS) database, initially as recommended patch clusters.

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 and Oracle 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 and Oracle 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 and Oracle Linux: `/opt/sun/dscc`	
Directory Proxy Server	Solaris OS: `/opt/SUNWdsee/dps` Red Hat and Oracle Linux: `/opt/sun/dps`	
Directory Server Instance Directory	Solaris OS: `/var/opt/SUNWdsee/dsins1` Red Hat and Oracle Linux: `/var/opt/sun/dsins1`	
HADB	Solaris OS: `/opt/SUNWhadb` Red Hat and Oracle Linux: `/opt/SUNWhadb`	HADB install locations are not relocatable in Communications Suite installation.
	Solaris OS: `/var/opt/SUNWhadb` Red Hat and Oracle Linux: `/var/opt/SUNWhadb`	HADB Repository Data and Log location.
	Solaris OS: `/etc/opt/SUNWhadb` Red Hat and Oracle Linux: `/etc/opt/SUNWhadb`	HADB Management Agent config file.
	Solaris OS: `/etc/init.d/ma-initd` Red Hat and Oracle 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 and Oracle Linux:
		`/opt/sun/mq`
		`/etc/opt/sun/mq`
		`/var/opt/sun/mq`

Monitoring Console	Solaris OS: `/opt/SUNWjesmc` Red Hat and Oracle 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 and Oracle Linux: `/opt/sun/webserver7`	

Web Server Instance Directory	Solaris OS:
	`/var/opt/SUNWwbsvr7`
	Red Hat and Oracle 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, 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 7	Uses the GlassFish Server ports	
MySQL Server 5.5.8	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
	55222	Gateway Connector Service For Facebook
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.

13491787

Add New Attributes and Object Classes for NAB

This bug was fixed in the DSsetup 6.4 Patch 24 release.

13946660

Define New Attributes for External Auth

This bug was fixed in the DSsetup 6.4 Patch 24 release.

12289905

`comm_dssetup.pl` pre-patch script - backup of files does not work

12303781

`comm_dssetup.pl` failed to find DS install directory

12303307

Need to add new attribute for calendar ACLs at domain level

12240710

`comm_dssetup.pl` may create duplicate or bad configuration in Directory Server 5.2x

12235005

deleted attribute not indexed

12235123

`comm_dssetup.pl` failed to modify `comms-config` for configuration only setup

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.

15964936

Upgrading to Instant Messaging Server 9 Patch 1 on Oracle Enterprise Linux fails because of an incorrect `ksh` path in the `preupgrade` and `postupgrade` scripts. The upgrade uses `/usr/bin/ksh` whereas the default `ksh` location is `/bin/ksh`.

Workaround
Create a symbolic link before you run the upgrade. For example:

```
ln -s /bin/ksh /usr/bin/ksh
```

12301307

MySQL cannot be installed in a sparse zone

MySQL can not be installed into a sparse zone. Workaround: install it on a whole root zone.

12290017

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 2 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.

12226371

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.

No Oracle Bug DB ID, Bugster ID 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.

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.

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. For more information, see: http://download.oracle.com/docs/cd/E19199-01/820-3003/.

Communications Suite Supported Web Containers

Web Containers Supported in Oracle Communications Unified Communications Suite Version 7 Update 2

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 7 Update 2	Supported	Not supported	Not supported	Not supported	Not 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 3	Supported	Not supported	Not supported	Not supported	Not supported	Not supported
Instant Messaging Server 9	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`

Chapter 34. 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 (Version 7.3 Update 1 Patch 13).

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.

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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 2 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 see the following information:

- Deploying Connector for Microsoft Outlook describes the deployment of the Connector for Microsoft Outlook.
- Installing the Desktop Deployment Toolkit describes how to install the administrator package.
- 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.

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

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 LDAP to Improve Searches in Communications Services Clients provides tips for

improving searches in Connector for Microsoft Outlook.

> **Note**
> Starting with version 7.3 Patch 13, Connector for Microsoft Outlook for Oracle Communications Unified Communications Suite supports Oracle Communications Calendar Server (also known as Calendar Server 7, and formerly known as Oracle Communications Calendar Server for CALDAV Clients).

Problems Fixed in This Release of Connector for Microsoft Outlook

Problems Fixed in Patch 17:

14348055

Outlook Connector deployment tool enhancement for calendar migration.

Problems Fixed in Patch 14:

13642163

Ability to manage resource calendars with CS7.

13551122

Deleted series of recurring event not displayed properly in OC of invitee.

13469642

Removed category on event in OC calendar remains visible for subscribed user.

13395599

Special characters in cn of subscribed calendar not displayed correctly in OC.

13260230

Subscribing to calendar in OC fails if uid is different from mail address.

13257255

Adding members to a group schedule in OC causes outlook to crash.

13247259

OC-cal: event category name gets truncated.

13247095

OC-cal: shared calendar name gets truncated.

13102268

Invitees to an instance of a recurring event, cannot see the event in OC.

13094652

OC-cal: event summary sometimes truncated.

13071485

Sensitivity option in OC is not behaving correctly.

13071383

Event classes in OC do not correspond with event classes in UWC/Convergence.

13064869

Double booking error when deleting an instance of a recurring event in OC.

12876834

Delegated calendar with manage permission doesn't allow subscribed user to manag.

12773720

Calendar resource is not getting listed under owner's calendar.

12741564

A modified instance of a recurring event is not visible in resource calendar.

12722803

Modifying recurring event causes inconsistency between UWC and OC.

12307852

Sunbt7018147 single instance from recurrence event is getting deleted from organ.

12272380

Sunbt6851734 ability to subscribe by calendar name.

From the README for 7.3 Patch 13:

12924666

DISPLAY ACTUAL DISPLAY NAME FOR DEFAULT CALENDAR

12924670

OC SHOULD DISPLAY ERROR/WARNING WHEN INVITEE HAS NO CALENDAR

12316531

INVITEES TO AN INSTANCE OF A RECURRING EVENT, CANNOT SEE THE EVENT IN OC

12607437

ACCENTED CHARS IN OUT OF OFFICE MESSAGE OF +127 CHARS ARE SAVED WRONGLY IN OC

12380698

IF REMINDER ON AN EVENT IS SET IN UWC, USER GETS DOUBLE REMINDER POPUP IN OC

12308144

SUNBT7019590 GAL DISPLAY ORDER DOES NOT WORK AS EXPECTED

12290000

SUNBT6933837 RFE CHANGE THE WAY OC DISPLAYS SHARED CALENDAR NAMES

12309539

SUNBT7028099 POPS UP ERROR 60 WHEN USER OPENS A TASK SENT FROM ANOTHER USER

12309201

SUNBT7026083 OC NOT PICKING UP CHANGE TO USERS MAIL ATTRIBUTE ON STARTUP

12301252

SUNBT6985809 SUPPORT FOR CALDAV SERVER(CS7+) WITH WCAPBIS(ENH-VERSION OF WCAP)

12307465

SUNBT7016297 AN INSTANCE OF A RECURRING EVENT WITH INVITEES BECOMES INVISIBLE IN OC

12611056

OWNER'S RESOURCE CALENDAR IS DISPLAYED DUPLICATELY IN OUTLOOK

12734369

GAL DISPLAY ORDER FALLSBACK TO LEGACY MODE IF ONLY 1 ATTRIBUTE IS SET FOR GAL

Fixed in the prior 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 be 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 by using the Services option (select the Outlook menu, then the Tools menu, then the Services option). 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.
- 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 can choose the Mail Filter option from the Tools menu, 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

14760788

Not able to create or modify contact in SSL mode in latest version of Application Server

Outlook profile is configured in SSL to use address book server. However, when Outlook tries to create or modify the contact, it fails to deliver the complete set of POST messages. Contact creation or modification fails in SSL mode.

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:

12772532

NOT ABLE TO INVITE RESOURCE

12773721

CALENDAR RESOURCE IS NOT GETING LISTED UNDER OWNER'S CALENDAR

12819309

NOT ABLE TO SELECT USER FROM GAL IN SCHEDULE PERMISSION TAB

12876834

DELEGATED CALENDAR WITH MANAGE PERMISSION DOESN'T ALLOW SUBSCRIBED USER TO MANAG

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.

14197933

Conflicts with Windows Search Service (WSS)

Outlook Connector might not work as expected if Windows Search Service is enabled.

Workaround:

To work around this issue, turn off Windows Search Service.

See Does Connector for Microsoft Outlook Coexist with Windows Search? for complete details.

Redistributable Files for Connector for Microsoft Outlook

Connector for Microsoft Outlook does not use any redistributable files.

Chapter 35. 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 Convergence 2 Patch 4
- Problems Fixed in Convergence 2 Patch 3
- Problems Fixed in Convergence 2 Patch 2
- Known Problems in Convergence
- Documentation Updates
- 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 for Convergence 2 Patch 4
`13568010` is dependent on the Messaging Server 7 Update 4 Patch 25 fix for `13572497` `MBOX.MJS DOES NOT HONOR IMPORTANCE HEADER FIELD (in mshttpd)`.

Note for Convergence 2 Patch 3
Any Convergence calendar customization example beginning with Convergence 2 Patch 3 is dependent on at least Calendar Server 7 Update 2 Patch 5.
Therefore, you must install a minimum patch level of Calendar Server 7 Update 2 Patch 5 if you use the Calendar service with Convergence 2 Patch 3.

Note for Convergence 2
While you were able to customize themes in Convergence 2, the method for theme customization has been modified in Convergence 2 Patch 1 and later. 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 2.

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 Convergence 2 Patch 4

```
13478456 - MAILEQUIVALENTADDRESS NEED TO BE SUPPORTED FOR
ROSTER.EXTRA.ATTRIBUTES.MAIL
```

> **Note**
> `13478456` needs to be implemented with Instant Messaging 9 Patch 1. `mailequivalentaddress` is now part of the default attribute.

```
13969925 PROVIDE AVATAR SUPPORT FOR IM IN S2S(SERVER FEDERATION)
```

> **Note**
> `13969925` needs to be implemented with Instant Messaging 9 Patch 1.

13624594 ACTION UNDELETE IS OFFERED ON CONTEXT MENU IN EMPTY TRASH FOLDER
13619240 ATTACHMENT NOT VISIBLE IF MIME HEADER HAS CONTENT-ID
13614590 ERROR WHEN EMPTYING TRASH FOLDER WHICH HAS SUBFOLDER OF A SUBFOLDER
13601159 GET "NODE IS NULL" IN FF CONSOLE WHEN FORWARD MESSAGE THEN CANCEL
13599938 CANNOT OPEN MESSAGE IF ATTACHMENT FILENAME CONTAINS FORWARD SLASH (SMIME ONLY)
13599623 MESSAGE TEXT IS LOST WHEN REPLY MESSAGE WITH MESSAGE/RFC822 PARTS
13599549 MESSAGE/RFC822 PART LOST WHEN FORWARDING INLINE IF SMIME APPLET LOADED
13592146 CONTENTS OF THE SMS FIELDS FOR EVENT REMINDERS/NOTIFICATIONS ARE NOT VALIDATED
13588172 CANNOT IMPORT CONTACTS DIRECTLY IN A GROUP
13587623 CLONED EVENTS ARE MOVED IN THE CALENDAR AND NEED A REFRESH TO BE VISIBLE
13587150 MORE MEANINGFUL ERROR WHEN CALENDAR ATTACHMENTS EXCEED DEFAULT SIZE LIMIT
13583475 IN DRAFT FOLDER, SOMETIMES, NOT ALL FUNCTIONS ARE AVAILABLE ON MESSAGES
13583170 PASTING THE URL IN A BROWSER, THE YELLOW OVERLAY IS SHIFTED ONE FULL DAY
13582591 ODD MESSAGE DISPLAYED WHEN TRYING TO SUBSCRIBE TO OWN CALENDAR
13573300 MOVING A DRAFT TO INBOX WITH READ RECEIPT ON ASKS FOR A READ RECEIPT
13573201 INVITEES ARE NOT VISIBLE IN A SHARED CALENDAR FROM THE SHARE/SUBSCRIBED VIEW
13568489 GET ERROR MESSAGE NODE IS NULL IN ERROR CONSOLE IN FF OR EXCEPTION IN IE
13568319 RECURRING EVENTS LOSE INFORMATION AFTER SOME EDITS HAVE BEEN PERFORMED
13568010 IMPORTANCE HEADER FIELD NOT RECOGNIZED BY CONVERGENCE

> **Note**
> 13568010 is dependent on the Messaging Server 7 Update 4 Patch 25 fix for 13572497 MBOX.MJS DOES NOT HONOR IMPORTANCE HEADER FIELD (in mshttpd)

13567650 CURSOR HOURGLASS REMAINS AFTER SENDING A MAIL, IE ONLY
13564209 IE8, RESIZED WINDOW, MINI CALENDAR IS OVER AGENDAS (CORRUPTED DISPLAY)
13561792 COLOR OF CALENDAR CHANGES TO GREEN IF NON ENGLISH USER SETS LANG PREF TO ENGLISH
13545482 MAIL QUOTA USAGE IS DISPLAYED DIFFERENTLY ON IE
13545191 S/MIME APPLET LOADS ON SAFARI AND CHROME ON WINDOWS BUT IT FAILS TO WORK
13540432 CORPDIR STATUS FLAG HAS NOT BEEN INCLUDED IN GET_ALLPREFS.IWC
13538904 RECURRENT EVENT IS SHOWN ENDING ONE DAY LATER
13530082 EMOTICONS ARE NOT DISPLAYED WHEN REPLYING A MESSAGE
13529871 WHILE CREATING A NEW FILTER THE OPERATOIN CANNOT BE SAVED OF CANCELLED

13529028 "SELECT ALL" CHECKBOX NOT CLEARED AFTER A MESSAGE IS SELECTED
13526091 TASK TYPE DROP DOWN LIST BEHAVIOR INCONSISTENT
13521520 EVENT SPANNING MULTIPLE DAYS IS NOT SHOWN ON MONTH VIEW
13520984 CALENDAR TASK REMINDERS TITLE BAR REFERS TO "EVENT" INSTEAD OF "TASK"
13517525 MOVING EVENTS WITH DRAG AND DROP CHANGES THE WAY TIME IS DISPLAYED (24H TO 12H)
13517450 IN SELECT DIALOG BOX, OK IS ACTIVE, THOUGH IS SHOWN AS INACTIVE BUTTON
13515254 EDIT EXISTING FILTER SHOWS "NEW FILTER" AT THE TOP OF THE DIALOG
13516624 DEFAULT FOLDERS ARE CREATED/VERIFIED FOR ENGLISH NAMES ONLY
13516310 USER CANNOT CANCEL ENTRY ON THE PREFERENCES WINDOW
13511975 CAB IN NON VLV MODE IS NOT SORTED BY DISPLAYNAME
13511219 UNPREDICTABLE DURATION USING DRAG FOR QUICK ADD EVENT WITH A TIME IN THE TITLE
13507351 UI DISPLAY CORRUPTION, STICKY BALLOONS
13504671 NO REPLY ICON ADDED TO REPLIED MESSAGES IF SAVED AS DRAFT FIRST
13502746 IE ONLY: ERROR MESSAGE IN SELECT A FOLDER DIALOG BOX FOR PREFERENCES
13502389 OK BUTTON IS NOT ACTIVE IN ADVANCED YEARLY RECURRENCE IN THE CALENDAR
13502227 WHEN SORTING THE PERSONAL ADDRESS BOOK, THE VIEW IS NOT REFRESHED
13496882 WITH MULTIPLE EVENTS, SOME EVENT TITLES ARE COVERED DEPENDING ON THE TIMESPAN
13496670 CHECK AVAILABILITY WINDOW SHOWS ALL DAY EVENT AS 1 HOUR
13482236 QUICK ADD CAL EVENT TITLE TRUNCATES IF TIME SPECIFIED, EVENT MOVES TO WRONG TIME
13469243 CONVERGENCE OUTAGE WHEN NEW HOSTED DOMAINS ARE ADDED TO HTTPBIND
13468378 RECOGNIZING BACKSLASH AS YEN SIGN IN JAPANESE, DOES NOT WORK IN MULTIPLE AREAS
13438931 IWC.EDITOR.EDITOR CANNOT BE C11N USING DOJO.DECLARE AS OTHERS
13437623 ERROR '_25 IS NULL' FOR MIGRATED CAL 7 USER IN COEXISTENT ENVIRONMENT
13413014 EMBEDDED IFRAME: SCRIPT IS EXECUTED WHILE OPENING MESSAGE
13409434 NON-EXISTENCE OF CALENDAR ATTRIBUTE STILL HAS CONVERGENCE CALENDAR7 TAB DISPLAY
13392179 PRIVACY SETTINGS' OPTION SHOULD BE AVAILABLE FOR RESOURCES
13386278 IE9 & FF8 : SMIME :SIGN/ENC MAIL MESSAGE NOT DISPLAYED
13372986 ATTACHMENT IN THE MIDDLE OF MESSAGE BODY IS DISPLAYED AT THE END OF BODY
13044832 CONVERGENCE 2 PATCH 2 NO AUTO SPELL CHECK IN PLAIN TEXT MODE
13028774 QUICK SEARCH BROKEN AT CALENDAR EVENT CREATION FOR RESOURCES RESERVATION
12984104 CAN NOT SEARCH GROUP IN THE ADD FROM ADDRESS BOOK WINDOW
12982845 SMIME FAILS TO WORK WHEN AN ATTACHMENT IS ADDED TO THE EMAIL
12881111 IMPORTING CONTACTS WHILE ON SOME GROUP FAILS, GROUPID IS SENT AS BOOKID
12852904 THE APPLET SHOULD FIRST LOOK AT RFC822NAME
12844646 TABBING FROM TO FIELD NOT JUMP TO CC (ITS STICK BACK IN 'TO' FIELD)
12797492 PRIVACY SETTINGS" OPTION SHOULD BE AVAILABLE ON SELECTING

SUBCRIBED CAL
12773928 QUICKADD IN DAY/WEEK/NEXT7DAYS CAL VIEWS SHOWS DURATION OF EVENT AS LESS THAN1HR
12771918 CONVERGENCE 2, CLICKING ON LINK IN EMAIL DOES NOTHING IF LINK IS TO LOCAL HOST
12733827 OPERATION ON KEYBOARD DOES NOT WORK IN CALENDAR PAGE
12309970 SUNBT7030697 "DAY ENDS AT" COLORING OFF BY ONE HOUR(IF 5:00PM CHOSEN COLORING
12308945 SUNBT7024546 WEEK NUMBER WRONG IN CALENDAR PRINT
12307591 SUNBT7016815 DUPLICATE ATTRIBUTES CAN BYPASS REMOTE FILE BLOCKING
12307441 SUNBT7016166 SCRIPT CAN BE RUN WITHIN IFRAME
12305685 SUNBT7008364 RECURRENCE RULES ARE NOT PROPERLY CREATED USING CONVERGENCE
12304588 SUNBT2203002 USER ABLE TO DELETE/RENAME SYSTEM FOLDERS(SAME SESSION OPTIONS CHANGE
12302731 SUNBT6993446 "UNDEFINED" IS NOT TRANSLATED CORRECTLY IN IWC/CAL
12298717 SUNBT6971240 WEEK IN CALENDAR PRINT IS UNTRANSLATED
12296736 SUNBT6961639 EVENT WITH LONG TITLE HAVE UI ISSUE ON EVENT BALLOON
12276344 SUNBT6868912 CONVERGENCE SHOULD NOT DISPLAY DELETED MESSAGES IF USER'S PREFERENCE
12266135 SUNBT6822872 SUBSCRIBE TO CALENDAR: CALENDARS SHOWN AS CHECKED, BUT CAN'T BE SUB
12260518 SUNBT6797975 USER ABLE TO DELETE/RENAME SYSTEM FOLDERS(SAME SESSION OPTIONS CHANGE)
12252481 SUNBT6767734 "DRAFTS" FOLDER NAME CHANGES TO ENGLISH IF MAILOPTIONS:SAVING DRAFT
12237391 SUNBT6699242 PROVIDE THE ABILITY TO PRINT THE "NEXT 7" VIEW
12222896 SUNBT6646786 CHANGE SYSTEM FOLDER:REFLECT THE CHANGES NEED IWC RELOGIN
13682622 NICK NAME IS NOT SHOWN AFTER IMPORTING A CONTACT IN CSV FORMAT
13625483 CSV FILES CREATED IN ONE LANGUAGE LOSE DATA WHEN IMPORTED IN ENGLISH
12383350 DISABLE ADD FROM AB FOR SHARE FOLDER AND CAL RESOURCES IF CORPAB DISABLED
12933756 CAN NOT CHECK THE DEFAULT VALUE OF SOME IWCADMIN PARAMETERS
13560470 IWC 2, ADDRESS BOOK IMPORT FAILS WITH CUSTOM LOCALE
13692457 FIREFOX HANGS WHEN LOADING S/MIME WHEN CONVERGENCE IS LAUNCHED FROM A DIFFERENT
12238865 UPDATING OF TIME IN RECURRING EVENTS ENDS UP IN SHOWING

```
EVENT DETAIL
12793717 PROBLEM WITH MULTIPLE CALENDAR COLOUR CHANGE REQUESTS IN >
SAME IWC SESSION
```

Problems Fixed in Convergence 2 Patch 3

> **Note**
> For a complete list of Problems Fixed in Convergence 2 Patch 3, see the `README` file bundled with the patch.

12250846

SUNBT6760637 Give Users Option to Specify Where Their Signature Will Appear

12610505

Convergence 2 - New Event > Reservation - Problems with LDAP Searches

12719297

Convergence should indicate on event when invite has failed

12730121

Login Page's Language Drop Down Menu Shows English Even though the Browser is in a Different Language

Saves the Options/Language setting in a cookie named `PREF` (expiration 2 years). This cookie `PREF` is set (if necessary) every time a user logs in or when the user changes the language settings in the Options. When the login page is loaded, it first looks at this cookie to preset the language in the page. If the cookie does not exist, the login page defaults to English. By using this approach, it guarantees the Options/Language settings will be used as the login page setting, thus simplifying the login page and eliminating the need to choose from the language settings pull-down menu.

12733827

Operation on Keyboard does not work in Calendar Page

12756062

Calendar Task has "Delete Event" Button Instead of "Delete Task"

12772120

Convergence 2 - "Reservations should not Look up Deleted Calendars

12793104

Email Reminder is not Sent to the Invited User

12852904

The Applet should first look at RFC822NAME

12933897

Contact Selection Lost

12982845

SMIME fails to work when an attachment is added to the email

12984104

Cannot Search Group in the Add From Address Book Window

12986763

Convergence SMIME Does Not Work with Certificates which Use and Intermediate CA's

13005704

Calendar/Convergence Should Give Error/Warning When Invitee Has No Calendar

13007948

Viewing Large Mail Causes "Out of Memory/Stack" Error on Internet Explorer

13018809

Convergence 2 Not Handling Line Break in "To:" Field When "Reply All"

13028774

Quick Search Broken at Calendar Event Creation for Resources Reservation

13042658

ICS File Exported by Outlook Cannot be Imported to Convergence 2

13044832

Convergence 2 Patch 2 No Auto Spell in Plain Text Mode

13066139

Javascript Error upon Logout with SMIME Enabled

13084692

Convergence: Cannot Display Correct Scheduling Permission "@:M"

13147724

Request For S/MIME Support For Use With Firefox Browser

Problems Fixed in Convergence 2 Patch 2

12670428

Clicking "Help" on the Convergence Banner Displays a "Page Not Found" Error

If the user's preferred language or the browser's language is not supported in Convergence, clicking the Help link on the Convergence Banner results in a File Not Found (404) error.

To work around this issue, see: To Add, Remove, and Set Help for Unsupported Locales in the Convergence Banner.

Supported languages in Convergence 2 are: `de, en, es, fr, fr-ca, ja, ko, zh-cn, zh-tw`.

12565713

Accepting Events In Convergence 2 AND Calendar Server 7 Does Not Update Freebusy Information For Others

12305243

SUNBT2203678 Unread Count of Folder Not Updated After Moving Messages

12617672

BUG 12309205 SUNBT7026112 Request For Backport of Fix on Convergence 2 Patch 1

12624978

Message No Longer Exists Popup Appears While Editing Drafts

12310322

SUNBT7032249 Convergence 2 Message List Column Widths Truncate with Long Subject When Using Firefox Web Browsers

12308864

SUNBT2207123 Removing Mail Forward Option Does Not Restore Delivery

12744706

Every User First Login Throws Error Message After Enabling Anti-spam in Convergence 2 Patch 1

12705430

Convergence S/MIME Issue for Handling Cards with 2011 Certificates

Convergence now correctly handles attributes like Street and Postal Code in the Subject of the Certificates.

12247520

SUNBT6745765 Localization: Adding a New Language – Strings for Login Page Not Picked from c11n directory

12689204

User Logged Into Convergence Has Access to Different User's Mailbox

With this fixed issue, a new configuration parameter has been introduced: `IgnoreURLDomain (true/false)`, which prevents using the URL domain.

Default setting in configuration parameter:

```
base.ignoreurldomain = false
```

12625520

Problems With Multiple External Accounts

12695563

Unread Count of folders in Convergence 2 Should Get Updated When Clicking "Get Mail."

12575702

Checking Options For Deleting Mail Messages Works Unexpectedly

12575407

Internet Explorer only: "Print All" in List Does Not Work for the First Time

12603379

Unable to Switch Signatures

Known Problems in Convergence

The Convergence known problems are grouped in the following categories:

- Known Problems: General and Authentication
- Known Problems: Configuration
- Known Problems: Mail
- Known Problems: Calendar
- Known Problems: Address Book
- Known Problems: Instant Messaging
- Known Problems: Options
- Known Problems: Customization
- Known Problems: S/MIME

Known Problems: General and Authentication

GlassFish Enterprise Server 2.1.1 Patch 15 (v2.1 Patch21) (9.1_02 Patch27 with HADB) Causes Errors

SR number: NA
Bug number: NA

There are known problems when Convergence is deployed with GlassFish Enterprise Server 2.1.1 Patch 15 (128643-29/128644-29/128645-29). Therefore, do not to use this particular GlassFish patch. See also GlassFish bug: *13705971 - Recycle of Parametercount is Not Done*, which causes Convergence user session corruption.

Beginning with Sun GlassFish Enterprise Server 2.1.1 Patch 16 (v2.1 Patch22) (9.1_02 Patch28 with HADB) (128643-30/128644-30/128645-30), the errors appear to have been fixed.

Configurator does not allow for ISS Proxy Authentication.

SR number: NA
Bug number: 12295290 (SUNBT6955552)

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.

Convergence cannot be used with Oracle Directory Server Enterprise Edition 7.0 if VLV indexing is enabled

SR number: NA
Bug number: 12293332 (SUNBT6947126)

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.

Creating a group saves the help text if the user does not enter any values

SR number: NA
Bug number: 12237920 (SUNBT6702002)

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

SR number: NA
Bug number: 12237334 (SUNBT6699051)

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.

Timeouts are reported in dialogs as formatting errors

SR number: NA
Bug number: 12235184 (SUNBT6691137)

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.

Pressing the Tab repeatedly gives usability issues in Create Contact

SR number: NA
Bug number: 12235075 (SUNBT6690719)

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.

The Show Contact in presence alert should highlight the contact in the roster

SR number: NA
Bug number: 12233759 (SUNBT6686064)

Reloading the page causes the Mail tab to be displayed, no matter which tab was displayed originally.

SR number: NA
Bug number: 12213298 (SUNBT6610071)

For example, if you are viewing the Address Book and reload the page, the Mail view is displayed.

Known Problems: Configuration

No Known Configuration Problems at this Time.

Known Problems: Mail

While saving a `.csv` attachment from a Mail message when using Internet Explorer 8, the attachment is automatically saved as an `*.xls` attachment

SR number: NA
Bug number: 12351452

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.

Email subject search does not work when search string contains space

SR number: NA
Bug number: 12297417 (SUNBT6965282)

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.

Attachment Search does not work properly with CCJ character set file names

SR number: NA
Bug number: 12275399 (SUNBT6863476)

This issue occurs only when there are 2 or more complete characters of the file name in the search.

On 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

SR number: NA
Bug number: NA

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

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

SR number: NA
Bug number: 12236181 (SUNBT6694440)

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.

An error message inadequate for end users is displayed when the Messaging Server goes down during a mail session in Convergence

SR number: NA
Bug number: 12235940 (SUNBT6693443)

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..."

A message being composed is not auto-saved if the only change was in message priority or receipt status

SR number: NA
Bug number: 12235562 (SUNBT6692400)

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.

Agenda and invitations week print view shows events in the following week

SR number: NA
Bug number: 12800495

The agenda and invitations week print show events for Tuesday this week - Monday next week. The issue is also evident when there are events only on Monday this week and a print is initiated from Agenda/Invitations view. The print view shows "No items to display." The problem is seen only with the print view and not with the agenda/invitations calendar views.

POP: second time login password dialogue will not show unsaved user account passwords

SR number: NA
Bug number: 12850593

From folder dialog box, new folder creation creates under system folders

SR number: 3-5487263651
Bug number: 12876944

If user wants to create a new folder and set the 'Place a copy in:' option, Convergence creates folders under 'Sent, Trash, Draft folder.' Folder should be created in main folder tree.

Firefox 5 only: Saved draft opens in plain text instead of RTF

SR number: NA
Bug number: 12887902

Known Problems: Calendar

Even though Instant Messaging 9 provides support for event alarms in Calendar Server 7, Convergence does not support this feature.

SR number: NA
Bug number: NA

"Settings for" Label in Privacy Settings is Not Aligned Correctly for Japanese Locales

SR number: NA
Bug number: 13495595

If you login to Convergence with a Japanese locale and click Privacy Settings in Calendar Properties of the Calendar tab, the "Settings for" label is incorrectly aligned. The issue occurs on Firefox and Safari browsers only. On Internet Explorer, the "Settings for" label is correctly aligned.

A user is no longer able to send an invitation to a non-default calendar

SR number: 3-3345530321
Bug number: 12285898 (SUNBT6913955)

This functionality was removed. Users can invite people and resources, but not calendars or non-default calendars to meetings.

Calendar print functionality in daily and weekly views has changed between Convergence 1.x and Convergence 2

SR Number: NA
Bug Number: NA

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.

<, >, &, and " are shown as HTML entities in calendar name tooltips

SR number: NA
Bug number: 12298402 (SUNBT6969741)

If you create a calendar with a name containing special characters (&, ", <, >), the tooltip will display HTML entities when you hover over it.

Cannot Convert Recurring Event to Non-recurring Event

SR number: NA
Bug number: 12298131 (SUNBT6968391)

This issue is found in Calendar Server 7 (Oracle Communications Calendar Server), not in Calendar Server 6 (Oracle Communications Sun Calendar Server).

Anonymous Calendar Access in Calendar Server 7 Requires a minimum of Read Access for Calendar Sharing

SR number: NA
Bug number: 12307415 (SUNBT7016012)

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.`

Cannot save an attachment in a recurring task

SR number: 3-5837068171
Bug number: 12298718 (SUNBT6971242)

Unable to save Annual Events when setting recurrence with Advanced checkbox

SR number: 3-3901596101, 3-3937667251, 3-5038395141
Bug number: 12298201 (SUNBT6968766)

Logging in as calmaster might result in DavException "Recipient is on another internal server"

SR number: NA
Bug number: 12292410 (SUNBT6943472)

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*.

CalDAV redirect URL for availability info should always include a port number

SR number: NA
Bug number: 12287958 (SUNBT6925057)

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.

Quick Add Functionality Does Not Work Correctly in non-English languages

SR number: NA
Bug number: 12270149 (SUNBT6840464)

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.

If you select a subscribed calendar on which you have limited permissions, you cannot create events or edit your own user-owned calendar

SR number: NA
Bug number: 12256018 (SUNBT6780373)

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.

In calendar, in the Next 7 Days view, the Refresh button does not work

SR number: NA
Bug number: 12245896 (SUNBT6737224)

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.

The More link in a calendar continues to be displayed after the calendar is deleted

SR number: NA
Bug number: 12235453 (SUNBT6691971)

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.

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

SR number: NA
Bug number: 12235430 (SUNBT6691933)

In Agenda view, the same event is shown twice, once in the original calendar and once in the second calendar.

A recurring event specified to end "never" actually ends after 60 recurrences

SR number: NA
Bug number: 12222250 (SUNBT6645274)

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.

When you add a new event in month view, using natural language to specify its duration does not yield the correct event duration

SR number: NA
Bug number: 12221257 (SUNBT6641358)

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.

Safari Browser: day/week/next7days views: focus moves to midnight after event creation

SR number: NA
Bug number: 12774109

After a creating an event, and then returning to the day/week/next7days calendar views of that event, the time shown in the UI is starting from midnight, even though the time shown in the prior view is a different time (for example, evening).

Convergence Does Not Allow Invitation By (Non-default) Sub-calendar

SR number: 3-3345530321
Bug number: 12400084

Calendar Express and Communications Express allowed invitation by user (which automatically selected the default calendar) or by `calid`.
Convergence does not have this functionality.

Agenda and invitation day views show all day events on following day as well

SR number: NA
Bug number: 12800541

All day events are shown on the day of the event as well as on the following day in the agenda and invitations day view. '

Sent invitations not shown if invite in another status is present on same day

SR number: NA
Bug number: 12822157

If an invitation in another status (open/accepted/declined/tentative) is present, then the sent invitations for that day aren't shown in the Sent invitations Print view.

After print checking/unchecking, calendar is not working in tasks/agenda/invitation views

SR number: NA
Bug number: 12822222

After printing a calendar in the Invitations/Tasks views, checking and unchecking calendars does not refresh the agenda/invitations/tasks views.

Known Problems: Address Book

Address Book Scroll Bar is Not Working When Chrome Browser Zoom is Less Than 100%

SR number: NA
Bug number: 14184608

Convergence login fails if user has large number of `pistore` entries

SR number: NA
Bug number: 12813939

Convergence login fails if user has large number of `pistore` entries

Workaround:

1. Reset following convergence parameters to accommodate long LDAP command delay:

```
@ ugldap.timeout =
@ ab.storeentrieslimit
@ ab.pstore.lookthrulimit
```

2. Wait for `ugldap.timeout` to expire then refresh the Convergence login screen.

Error in iwc/iwc_admin Log after Configuring Multiple Corporate Directories

SR number: 3-4124748511, 3-5418585761
Bug number: 12296971 (SUNBT6963032)

After correctly configuring two corporate directories in an organization, log files show errors after restarting Application Server.

No option to set default photo or delete photo

SR number: NA
Bug number: 12236938 (SUNBT6697453)

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.

Restoring the default photo from the Avatar properties widget does not ask for confirmation before saving

SR number: NA
Bug number: 12234537 (SUNBT6688678)

In Address Book, the Manage Group option does not have a rename option

SR number: NA
Bug number: 12238408 (SUNBT6704130)

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.

In IE7, apostrophes are not accepted in the Group Name text box

SR number: NA
Bug number: 12235598 (SUNBT6692504)

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.

The print option does not take all the contents in a contact

SR number: NA
Bug number: 12231221 (SUNBT6676645)

When you print an address book contact, some fields, such as the country, nickname, and notes, are not printed.

In the address book, no contact is displayed when the wildcard search value is set to greater than 0

SR number: NA
Bug number: 12225061 (SUNBT6654530)

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.

The Address Book Properties window displays incorrect information

SR number: NA
Bug number: 12223550 (SUNBT6649025)

In the Address Book, the Sr/Jr option is not displayed in view mode

SR number: NA
Bug number: 12222669 (SUNBT6646169)

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.

When you create or edit a contact in the Address Book, the contact fields such as email address and phone number are not validated

SR number: NA
Bug number: 12220601 (SUNBT6638802)

You can enter any text in these fields, such as alpha characters in the phone number field.

Advanced Search in the Address Book is not working

SR number: NA
Bug number: 12220347 (SUNBT6637775)

When you select the Advanced Search option in the Address Book, enter search criteria, and press

Search, no results are returned.

Incorrectly formatted address/bad address still shows "map" in address book

SR number: NA
Bug number: 12213279 (SUNBT6609983)

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.

User is not able to copy contacts from one address book to another group using drag and drop

SR number: NA
Bug number: 12230235 (SUNBT6673188)

Cannot make default address book as corporate address book

SR number: NA
Bug number: 12234348 (SUNBT6688097)

In the corporate address book, details of a contact are displayed in the right pane, though no contact is selected in the search pane

SR number: NA
Bug number: 12235072 (SUNBT6690711)

Pressing the Enter Key opens the Compose Mail screen

SR number: NA
Bug number: 12235604 (SUNBT6692518)

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.

Localization: French Only - UI Dialog for "Add from Address Book" has alignment issues

SR number: NA
Bug number: 12864380

Internet Explorer 9 only: search by email/display name and phone hangs when user has more entries

SR number: NA
Bug number: 12887221

Search for a string by Display Name or Email ID that is not in the contact list will not return anything and hangs.

Safari only: Clicking on {+} sign in the new contact page moves the page to the left

SR number: NA
Bug number: 12905669

Information is not properly shown on the right side pane for new contact form when user tries to add more information by clicking on + sign under other information.

Known Problems: Instant Messaging

Even though Instant Messaging 9 provides support for event alarms in Calendar Server 7, Convergence does not support this feature

SR number: NA
Bug number: NA

If Instant Messaging is configured with `iim.userprops.store = file`, Avatar upload fails

SR number: NA
Bug number: 12298392 (SUNBT6969715)

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`.

Performance Issues seen with concurrent users on Convergence with Instant Messaging enabled

SR number: NA
Bug number: 12278826 (SUNBT6881061)

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.

Provide avatar support for Instant Messenger in Server to Server deployment

SR number: NA
Bug number: 12268036 (SUNBT6830940)

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.

The avatar properties widget should indicate the file-size limit or image dimension limit that can be uploaded

SR number: NA
Bug number: 12236828 (SUNBT6696906)

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.

In Instant Messaging, adding from the Address Book always adds the buddy to Friends group

SR number: NA
Bug number: 12236667 (SUNBT6696027)

Workaround: Manage the group then add the contact.

Buddies in the Instant Messaging roster can be duplicated in the same group

SR number: NA
Bug number: 12234762 (SUNBT6689431)

You cannot delete the duplicate entry; if you delete one entry, all the entries for that buddy are deleted.

Instant Messaging chat window: Click a URL link in chat, opens up new tab in chat window not main browser window

SR number: NA
Bug number: 12233202 (SUNBT6684054)

Users in a buddy list who are in Do Not Disturb or Away status are not sorted

SR number: NA
Bug number: 12228977 (SUNBT6668868)

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.

Offline messages do not show up or are not emailed.*

SR number: NA
Bug number: 12228241

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.

When you create a new chat session and refresh or reload the browser, the old chat session remains

SR number: NA
Bug number: 12228237 (SUNBT6665897)

The old chat session should be closed after a browser reload or refresh.

You cannot add the first contact to any group other than Friends

SR number: NA
Bug ID: 12227758 (SUNBT6664158)

When a user adds the first contact to the buddy list, that first contact must be in the Friends group.

An IM user cannot receive chat messages if the user started the session with "block pop-up windows" configured

SR number: NA
Bug number: 12227392 (SUNBT6662902)

Known Problems: Options

The Print option does not take all the contents in a contact

SR number: NA
Bug number: 12231221 (SUNBT6676645)

If you create a contact with all the details then choose Print > Print Group, not all details are displayed.

The Mail Forwarding options page displays a warning message that the page contains unsaved changes when no changes were made

SR number: NA
Bug number: 12225088 (SUNBT6654595)

There is no option that allows you to save a custom (or personalized) message

SR number: NA
Bug number: 12223408 (SUNBT6648561)

Known Problems: Customization

Default format for IWCP commands still in XML and invalid commands return XML only

SR number: NA
Bug number: 12807684

Response of invalid commands with explicit `fmt-out=text/json` only return XML.

When adding a new right-to-left language such as Arabic or Hebrew to Convergence, the UI text is not right-to-left

SR number: 1-473996841, 1-584006005, 1-622051802
Bug number: 12247522 (SUNBT6745772)

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.

When adding a new language to Convergence, Convergence hangs if no `resources.js` file is directly under the `allDomain` directory

SR number: NA
Bug number: 12247514 (SUNBT6745757)

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 Problems: S/MIME

Cannot send signed or encrypted messages if a multiple user certificate is installed on web browser

SR number: NA
Bug number: 12279141 (SUNBT6882555)

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

SR number: NA
Bug number: 12256501 (SUNBT6781802)

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.

Documentation Updates

The Convergence 2 Customization Guide has a new look and feel. Customization concepts and examples are categorized by function, therefore making it easier to find what you're looking for. In addition, a Convergence 2 Customization Index has been added, providing a complete list of customization examples and topics.

Redistributable Files for Convergence

Convergence 2 does not contain any files that you can redistribute.

Chapter 36. 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)
- Problems Fixed in Delegated Administrator 7 Patch 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 CommSuite: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:

12206413 (SUNBT6579843) 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:

12299098

SUNBT6973262 `locateJDK()` checking for `JAVA_HOME` and JRE version needs to be updated

12299046

SUNBT6973025 DA7 in DL mode, setting user `preferredLocale` gives `objectclass` violation

12304119

SUNBT7001400 `sunOrgType` is not required by `sunDelegatedOrganization` in LDAP schema

12298457

SUNBT6970027 New User (with mail service) "Mail Store" field value should be `preferredmailmessagestore`

12290819

SUNBT6937572 DA should populate every user with a default `mailmessagestore`: value, like "primary"

12298459

SUNBT6970042 patch 124581-01 - prepatch should check for the correct version of `dssetup`

12307832

SUNBT7017974 Remove `-w` option to specify password from the `commadmin` CLI interface

12307831

SUNBT7017972 Encrypt passwords in configuration files and LDIF files

12308089

SUNBT7019302 No prompt after wrong password is entered & "incorrect current password" loops continuously

12308137

SUNBT7019570 Password is not prompted again or no error thrown when no password is not entered in `commcli`

12308236

SUNBT7019976 in commcli when wrong loginid & correct pwd is given "The user could not be found" loops continuously

12308328

SUNBT7020570 remove `-w` option from help menu in `commcli` as it no longer takes values due to CR7017974

12308154

SUNBT7019619 Password is displayed when backspace is used to delete characters typed in password

12309198

SUNBT7026075 Product generated state file is missing

12383302

UNNECESSARY CHECK FOR SUNWCOMIC PACKAGE

12232909

SUNBT6683171 First login attempt throws "session timeout" error message on Application Server.

12294128

SUNBT6950570 `commadmin domain purge` purges calendar resources with no `icsstatus` such as created by `csresource`.

12291438

SUNBT6940023 `commadmin domain delete -S im` throws a `FAIL (java.lang.NullPointerException)`.

12293313

SUNBT6947080 `wildusersearchmaxresults` setting ignored in Direct LDAP mode.

12290105

SUNBT6934306 Domain's `preferredmailmessagestore` is not used for new mail user's `mailmessagestore`.

12285877

SUNBT6913864 Setting `inetMailGroupStatus` to `inactive` causes *Mail Service Details* section to disappear.

12285752

SUNBT6913411 Pre-existing groups, which do not contain `ipgroup` objectclass, fail to be searched or displayed using Delegated Administrator Command Line or GUI.

12285501

SUNBT6912216 Incorrect loginid attribute used in search.

12284093

SUNBT6905468 Japanese translation failure on Delegated Administrator for e-mail status "inactive" and "disabled."

12279491

SUNBT6884225 *Mail Status* is `active` for users with no mail service (-S mail) or service packages.

12279572

SUNBT6884544 Add support for `mailUserStatus: disabled` in the User List's *Mailbox Status* column.

12277943

SUNBT6876376 `commadmin group (create | modify) -m` should check `mailAlternateAddress` and `mailEquivalentAddress`.

12276415

SUNBT6869143 In the `./config-commda` configurator, when there is not organization `dn` specified, a pop up error window appears with wrong text.

12278377

SUNBT6878727 Unable to create groups in example DEF domain.

12277562

SUNBT6874659 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.

12266569

SUNBT6824794 The `enabled` and `disabled` values are not translated when you run an Advanced Search.

12266683

SUNBT6825313 The text "App Server 8.x and up" is not translated for all locales.

12235824

SUNBT6693227 Typo in prompt message displayed when you create an Organization by TLA without selecting a service package.

12196939

SUNBT6540281 Missing space in the Organization Online Help page.

12266678

SUNBT6825305 The configurator in French locale contains some doubled apostrophes.

12132427

SUNBT6316832 Small typo in `config-commda`.

12275043

SUNBT6862081 Default value for `mailAutoReplyMode` is "echo" instead of "reply" when using DL mode.

12276177

SUNBT6868096 No post-upgrade notification regarding use of `damerge` command to keep customizations.

12269428

SUNBT6837249 Update post-install instruction to enable IM service.

12266675

SUNBT6825301 Delegated Administrator for Oracle Communications Unified Communications Suite Online Help is displayed in English even on French environment.

12257167

SUNBT6784367 Cannot add OUA in Organization Properties when logged in as OUA in all locales.

12274952

SUNBT6861629 Setting mail quota values as non-editable in Assign Service Package causes mail step to loop.

12275285

SUNBT6862999 `icsCalendar` attribute isn't provisioned for new accounts.

12266688

SUNBT6825320 The Help link from the Advanced Search page displays the main Online Help page.

12270979

SUNBT6844640 DA Organization Admin Role ACI has unnecessary single quotes.

12272409

SUNBT6851916 Organization administrator cannot apply user changes after fixing the ACI.

12275281

SUNBT6862983 Missing `da.sample.data-dl.ldif` file causes `config-commda` deployment using DL to fail.

12266576

SUNBT6824813 In Delegated Administrator for Oracle Communications Unified Communications Suite, some labels are displayed vertically and some labels are truncated.

12275817

SUNBT6866244 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.

12276219

SUNBT6868225 NullPointerException error message is displayed when you try to view or edit large groups.

12212879

SUNBT6607925 Return failure occurs when `config-commda` fails.

12271487

SUNBT6847020 The `rpm --verify sun-commda` fails.

12231910

SUNBT6679372 Getting inconsistent results of organization searches for adding `icsExtendedDomainPreds` in DA console.

12208109

SUNBT6587572 Delegated Administrator creates new mail groups with `mgrpBroadcasterPolicy=NO_REQUIREMENTS`

12208102

SUNBT6587520 Delegated Administrator creates new users with `mailAutoReplyMode=echo`

12200293

SUNBT6553328 There is no longer a Manager Field available in the Delegated Administrator tool like the one in iPlanet Delegated Administrator 1.2.

12193284

SUNBT6525830 The Delegated Administrator online help for the Editing Group Properties page incorrectly documents the following UI fields: Add Header Field and Remove Header Field.

12193283

SUNBT6525829 The Delegated Administrator online help incorrectly describes the Message Prefix Text field in the Create New Group wizard and Group Properties page.

12189737

SUNBT6512161 The Delegated Administrator online help incorrectly defines the Attachment Quota value in the Create New Organization wizard and Organization Properties page.

12188585

SUNBT6507859 Delegated Administrator online help erroneously states that you can use ">" and "<" signs when searching for organizations.

12181704

SUNBT6483254 Delegated Administrator online help does not explain that the Login ID must be in ASCII characters.

12173035

SUNBT6454001 Can not display `icsExtendedDomainPrefs` entry properly on Delegated Administrator console.

12166632

SUNBT6431459 Although IMAPS is enabled for a service package, it shows "IMAP: disabled"

12132740

SUNBT6317850 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.

12131825

SUNBT6314711 An Organization Administrator (OA) can remove himself as an OA by modifying the organization Properties page.

12107416

SUNBT6218713 Values in the `resource.properties` files are overwritten when Delegated Administrator is reconfigured with the `config-commda` program.

Problems Fixed in Delegated Administrator 7 Patch 5

This section contains a list of problems fixed in the Oracle Communications Delegated Administrator 7 Patch 5 release.

```
12725980 CAN NOT CREATE USER FOR SHARED ORGANISATION
13695730 DA, ICSFIRSTDAY VALID RANGE SHOULD BE 1-7, NOT 0-6
12189933 SUNBT6512860 SERVER NEEDS TO EXPLICITLY SET THE PASSWORD
EXPIRATION POLICY ON TH
13595032 DA SERVER/DL - SHOULD ALLOW ICSSTATUS:REMOVED
12284899 SUNBT6909351 DA7 PATCH README SHOULD INCLUDE THE REQUIRED
DSSETUP VERSION
13416535 COMMSUITE 7U2 - DSSETUP 6.4-23.01 VERSION CHECKING FAILS TO
BLOCKOLD VERSIONS
12295307 SUNBT6955619 CONFIG-COMMDA - SHOULD OBEY
SUNNAMESPACEUNIQUEATTRS B/F LDAP UPLOAD
12298458 SUNBT6970041 PATCHADD 124581 - POSTPATCH DON'T RETURN "1" WHEN
CONFIG-COMMD ERRS
12828994 DA SERVER DOES NOT CREATE EMAIL FOR CALENDAR USER (WHICH IS
REQUIRED)
13773566 "COMMADMIN USER DELETE -S IM" SETS INETUSERSTATUS TO 'DELETED'
12540651 REMOVE LOGGING OF PASSWORDS IN ANY OF THE PRODUCT LOGS
13910101 REMOVE ANONYMOUS ACCESS FROM LDAP ACI
14028269 CONFIGURATOR FAILED TO RUN USING 64-BIT JAVA
14296843 ENTRIES WITH SIMILAR CN , ONLY ONE IS DISPLAYED IN GUI
14299014 COMMAND LINE OPTION -I IS NOT WORKING
```

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

14397971

Delegated Administrator Configurator Hangs When Directory Server is Installed in a Different Location

If Directory Server is located in a different location from Delegated Administrator, the Configurator hangs; therefore, LDAP scripts such as `ldapmodify`, `ldapdelete`, and `ldapsearch` do not work.

Workarounds:

Option 1:

1. Create the directory `opt/SUNWdsee/dsee6` and create a softlink:

```
ln -s /opt/DS7/dsee7/dsrk/bin /opt/SUNWdsee/dsee6
```

2. Rerun the Configurator.

Or:

Option 2:
Copy the `SUNWdsee` folder from another machine into the `/opt` directory.

12167446 (SUNBT6434047)

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`

12150497,12126175(SUNBT6376896, SUNBT6294603)

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 -r UserCalendarService
   ```

3. In Access Manager, add the updated xml file, as in the following example:

   ```
   amadmin -u amadmin
   -s /opt/SUNWcomm/lib/services/UserCalendarService.xml
   ```

4. Restart the Web container.

12130765 (SUNBT6310711)

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

12250825 (SUNBT6760564)

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.

12231373 (SUNBT6677194)

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.

12166220 (SUNBT6430018)

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.

12127916 (SUNBT6300923)

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.

12125462 (SUNBT6292610)

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.

12089359 (SUNBT5094680)

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.

12250824 (SUNBT6760559)

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.

12235818 (SUNBT6693218)

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.

12212774 (SUNBT6607494)

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.

12189737 (SUNBT651216)

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 2 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 or Calendar Server 7, 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.

Chapter 37. Indexing and Search Service Release Notes

Indexing and Search Service for Oracle Communications Unified Communications Suite Release Notes Version 1 Update 3 and 1 Update 4

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
- Problems Fixed in ISS 1 Update 3
- Problems Fixed in ISS 1 Update 4
- Problems Fixed in ISS 1 Update 4 Patch 14
- Problems Fixed in ISS 1 Update 4 Patch 15
- Known Issues and Limitations in Indexing and Search Service 1 Update 3
- Known Issues and Limitations in Indexing and Search Service 1 Update 4
- 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.

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 3

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 3

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 and greater. 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 2 Product Version Compatibility Requirements.

Problems Fixed in ISS 1 Update 3

The following problems have been fixed in Indexing and Search Service 1 Update 3 Patch 11.

```
13416072  ISSADMIN.SH FAILS WHEN CP ENV VAR SET
13409600  SEARCH SERVICE CANNOT INITIALIZE WHILE AUTOSYNC RUNNNG
13388542  FAILS TO SEARCH FOLDER NAME CONTAINING QUOTE CHARACTER
13381657  MISSING REQUIRED FIELDS FOR REAL TIME EVENT (CREATE)
13377943  SEVERE ERROR DURING NEW EMAIL EVENT PROCESSING
13147834  CLUSTER SEARCH SERVICES ENCOUNTERS NPE WHEN INDEX IS REMOTELY
ACCESSED
13456169  AUTO-SYNC MUST WAIT FOR WRITE.LOCK CHECK TO COMPLETE
13456074  SEARCH HANG: ISS.SEARCHSVC.RESPONSE.TIMEOUT DOESN'T APPEAR TO
BE HONORED
13456016  INDEXSVC'S CHECK FOR WRITE LOCKS AT STARTUP NEEDS TO BE SPED
UP
```

Problems Fixed in ISS 1 Update 4

The following problems have been fixed in Indexing and Search Service 1 Update 4.

```
12266628       SUNBT6825112 MULTIMACHINE DEPLOYMENT: APACHE SERVER IS
NOT STOPPED AND HENCE REI
12267959       SUNBT6830555 REDHAT INIT.D FILES SHOULD SUPPORT THE
'SERVICE' COMMAND
12269853       SUNBT6839144 ISSADMIN.SH --CHECKACCOUNT CAN MISS
OUT-OF-SYNC STATE.
12284533       SUNBT6907522 USING AN INVALID USER NAME GENERATES
EXCEPTION IN APPSERVER LOG FIL
12540753       JMQ CONSUMER QUEUE IS NOT CLEARED SOON AFTER ACCOUNT IS
DELETED
12583910       CLUSTERMGR.SH ERRORS DIFFICULT TO UNDERSTAND
12618123       LINUX: RPM -E SHOULD STOP ISS SERVICES LIKE PKGRM DOES
12761637       SETUP SHOULD CHECK THAT JDK LOCATION CONTAINS JDK6
12770700       NEED BETTER ERROR REPORTING IN CONFIGURE_MQ.SH (CALLED BY
SETUP) ON LDAP FAILURE
12790320       POOR BEHAVIOR WHEN SVC_CONTROL.SH CANNOT START INDEXSVC
12816657       SUPPORT FOR JAVA 7 WITH ISS
12816734       JMQ CONSUMER BUFFERED AUTOSYNC CANDIDATES NOT SAVED ON
SHUTDOWN
12842352       SEARCH SERVICE RETURNS INCORRECT RESPONSE CODE
12922116       REDUCE SEARCH OVERHEAD FROM OLD UNUSED FOLDER FLAG
IMPLEMENTATION
12932180       REDUCE IO WHEN JMQ CONSUMER BUFFERED AUTOSYNC CANDIDATES
SAVED
12999093       INDEX FAILURE AFTER MS RECONSTRUCT ON FOLDER
13004534       SETUP -D -S IS NOT COVERED IN USAGE AND RESTARTS SERVICES
WHERE IT SHOULD NOT
13009853       NEED BETTER ERROR REPORTING FROM SETUP WHEN JNDI LDAP
PARAMS ARE MISSING
13032084       USER INDEXED TWICE - ONCE FROM BOOTSTRAP AND ONCE FROM
```

```
AUTOPROVISIONING
13032387       SETUP SHOULD HAVE AN OPTION TO VERIFY THAT EVERYTHING
INSTALLED OK
13032393       NEED A WAY TO IGNORE CERTAIN FOLDERS ACROSS ALL USERS
13032403       ATTACHMENT FILE NAMES SHOULD BE BROKEN UP INTO SUBSTRINGS
AND INDEXED IN BODY
13032436       IF USING FILE BASED JNDI, LDAP.HOST NOT BEING SET CAUSES
FAILURES IN SETUP
13032439       CHECKISS NEEDS TO CHECK MORE PARAMETERS
13035946       REST/STOREUI WARS CANNOT BE REDEPLOYED WITH OUT
RESTARTING APPSERVER
13067130       SETUP SHOULD VALIDATE THE MAIL.IMAP.ADMIN.PASSWORD IS
CORRECT
13092761       FOLDER THREAD POOL SIZE NOT REFRESHED COMPLETELY
13147445       VARIOUS FLAG TERM SEARCHES FAIL OR RETURN WRONG RESULTS
13147572       POSTPATCH_RESTART.SH NEEDS TO HAVE A NON-INTERACTIVE MODE
13254800       EXTEND SCOPE OF RECOVERY AFTER MS RECONSTRUCT ON FOLDER
13257204       UNPUBLISHED OPTIONS ARE REMOVED FROM JISS.CONF WHEN
POSTPATCH_RESTART.SH IS RUN
13257751       PROVIDE SAMPLE END-TO-END PROBES FOR INCLUSION IN
MONITORING SYSTEMS
13257800       NEED EASIER WAY TO EXTRACT SEARCH RATE AND EVENT RATE
13257862       NEED A WAY TO ENSURE USERS ARE IN SYNC WITH MESSAGING
SERVER
13263476       PARTS OF THE "FROM" SEARCH IS NOT WORKING
13352425       --UNIGNOREFOLDER ON NON-EXISTENT FOLDER CREATES THE
FOLDER
13397762       LISTSTATS OUTPUT IS CLUTTERING THE LOG FILE
13397846       ISSADMIN.SH --LISTACTIVESERVICES OUTPUT IS TOO CRYPTIC
13397871       ISSADMIN.SH --CHECKACCOUNT OUTPUT IS CONFUSING
13420400       COPY FROM ANOTHER ACCOUNT'S SHARED INBOX FOLDER BREAKS
AUTO-RECONSTRUCT RECOVERY
13448072       REGRESSION: ACCOUNT CREATED WHEN BOOTSTRAP NON-EXISTENT
ACCOUNT
13453196       MULTI-MACHINE ERRORS FOR RETRIEVING THUMBNAILS DIFFICULT
TO UNDERSTAND
13454004       HAVE SETUP CLEARLY DEFINED MULTI-MACHINE INSTALL OPTIONS
13454024       WEB NODES IN A MULTI-MACHINE DEPLOYMENT CANNOT RETRIEVE
THUMBNAILS
13454033       ADD SUPPORT TO RUN CLUSTER SEARCH SERVICE IN THE BACKEND
TO AVOID WEB TIER NFS
13456128       RESTFUL WEBSERVICE SHOULD RECOGNIZE WHEN SEARCHSVC IS
DOWN AND RETURN ERROR
13476309       IGNOREFOLDER LIST CONFIG PARAMETER FAILS USING
--ACCOUNTLIST
13517733       RECONSTRUCT NOT DETECTED BY EVENTS REQUIRES PERIODIC
CHECK TO CORRECT
13543090       EVENTS DIRECTED TO FOLDER NAME CONTAINING ONLY BLANK
SPACES AREN'T SYNCED
13545757       CHECKISS INTERMITTENTLY FAILS CHECKING PRODUCERS ON MAIL
JMQ
13548481       OUT OF ORDER CANDIDATES PREVENT CORRECT AUTO-SYNC
13568372       --SYNC CAUSES DUPLICATE META DOCS IN ACCOUNT WHICH IT
CANNOT CORRECT
13588747       RUNNING TWO ISSADMIN.SH --CHECKACCOUNT --SYNC COMMANDS
CONCURRENTLY MAY CONFLICT
```

```
13605911       ISSADMIN.SH --CHECKACCOUNT --SYNC OUTPUT MISSING
FOLDER/USERNAME/HOSTNAME
13605979       ISSADMIN.SH --CHECKACCOUNT --SYNC SHOULD REPAIR
MISMATCHED UIDVALIDITY
13646070       RUNNING LISTBRIEF CREATES NPE WHEN CREATEACCOUNT IS
RUNNING
13657825       INDEXSVC STARTUP SHOULDN'T WAIT FOR AUTO-SYNC TO COMPLETE
- DELAY IS TOO LONG
13689580       ISSADMIN.SH FAILURE WHEN SERVICES NOT RUNNING - OOME
13714966       SINGLE SYSTEM INSTALL: SETUP -U REMOVES THE MQ USER AND
THEN NEXT SETUP FAILS
13717834       HAVE WATCHER SUPPORT REFRESH CONFIGURATION PARAMETERS
WHILE RUNNING
13718424       UPDATE THIRD PARTY LIBRARY: MQ
13718906       UTILSVC AND JMQCONSUMER NEED TO RECREATE ISS.LOG.DIR IF
NEEDED
13719475       UPDATE THIRD PARTY LIBRARY: METADATA EXTRACTOR
13729451       IF ALL OR MANY ACCOUNTS ARE OUT OF SYNC, FALL BACK TO
IMAP SEARCH
13733473       ISSADMIN.SH --LISTACTIVESERVICES NEEDS TO LIST USER BEING
SYNCED
13775281       --CHECKACCOUNT MUST WARN WHEN STATE ISN'T "A" & --SYNC
MUSTN'T LEAVE ACCT IN "I"
13776863       A 800KB PPTX AND XLSX FILE SLOW TO INDEX AND CONSUMES TOO
MUCH MEMORY
13780980       --BOOTSTRAP COMMAND SHOULD GENERATE ERROR IF ACCOUNT
ALREADY IN BOOTSTRAP STATE
13781000       USERS XYZX AND X_.X CANNOT BOTH GET CREATED
13781633       ALL SERVICES SHOULD PRINT VERSION STRING IN
STARTUP/SHUTDOWN MESSAGES IN LOG
13785437       ISSADMIN.SH --LISTACTIVESERVICES SOMETIMES HAS
A:NULL:FOLDER-NAME:W ENTRIES
13787331       BOOTSTRAP HANGS UNTIL BROKER RESTART
13795792       POSTPATCH_RESTART.SH MAY FAIL AND LEAVE SMF ENTRIES
MISSING
13795911       CHECK_CONF.SH RETURNS NOT FOUND A BRAND NEW S10 U10
SYSTEM WHILE CONFIGURING 1U1
13795926       PERIODIC AUTO-SYNC LOCKS OUT OTHER ADMIN FUNCTIONS
13796156       BOOTSTRAP FAILURE COLLIDES WITH AUTO-SYNC
13797264       --CHECKACCOUNT --SYNC FAILURES LEAVES ENTRIES IN
--LISTACTIVESERVICES
13799944       JMQCONSUMER STOPPED PROCESSING EVENTS UNTIL ISS RESTART
13811088       REGRESSION: CONFIGOPTIONSTEST CONSISTENTLY FAILS IN THE
NIGHTLY TESTRUN
13811968       PATCHRM HANGS IN LARGE DEPLOYMENT AND DEPENDS ON
GLASSFISH BEING UP
13816568       DUPLICATE ACCOUNT CREATED BY DELETE/CREATE EVENTS WHEN
--USERAMDIR IN EFFECT
13827244       ERRORS DURING EVENTS IN NIGHTLY TESTS: RECOVERY FROM UID
VALIDITY & EXPUNGE
13837637       IMAP SESSION TIMEOUT FAILS TO TRIGGER A RETRY
13846259       INDEXSVC FAILS TO START WHEN THE PORT 52222 IS NOT UP
13873525       CHECKISS SHOULD WARN IF INDEXSVC IS CLOSE TO THE LIMIT ON
OPEN FILE DESCRIPTORS
13882075       DEFAULT ALLOCATION POLICY FOR GROUPS ASSIGNS WRONG GROUP
NUMBER SOMETIMES
```

```
13921493       JMQCONSUMER DOESN'T FREE SERVICE PROXY WHEN HEAP SIZE
EXCEEDED
13921585       NPE SEEN IN AUTOBOOTSTRAP TESTCASES
13927256       AUTOBOOTSTRAP ON TWO ACCOUNTS SIMULTANEOUSLY CAUSES ONE
NOT TO SYNC
13967656       REGRESSION: WASABI CODE STARTED TO DUMP CORE, SEEN IN ALL
NIGHTLIES
13972803       AFTER START-UP INDEXSVC TAKES TOO LONG TO PROCESS INITIAL
REAL-TIME EVENTS
13982371       POSTPATCH_UPGRADE DIDN'T ADD WATCHER PARAMETERS
13992306       WATCHER ALERT IS TRIGGERED ONLY FOR INDEX & SEARCH BUT
NOT JMQCONSUMER & UTILSVC
13997089       WATCHER LOG LEVELS AREN'T HONORED
14002919       WATCHER ALERT SHOULD BE RETRIED AGAIN IF IT FAILS THE
FIRST TIME
14028894       LIFECYCLEEXCEPTION/NPE UPGRADING FROM 1U3 PATCH 12 TO 1U4
EA (1U4-99.7601)
14029291       AUTOBOOT IS TRIGGERING REPEATEDLY ON EXISTING ACCOUNTS,
LEADING TO LOST EVENTS
14045218       ALLOW ISS TO USE NON_PERSISTENT DELIVERY MODE FOR IMQ
MESSAGES
14045269       RFE: WATCHER ON & NOTIFICATION IS ROUTED THRU SENDMAIL,
NOTIFICATION SHOULD WORK
14045362       --SYNC COMMAND FAILS TO DELETE EXTRA UIDS FROM INDEX
14055760       ISS SHOULD TIMEOUT AND DROP NEWMSG/UPDATEMSG/COPY EVENTS
IF IMAP IS SLOW
14072095       ON WEB, LDAP & MQ NODE, LOGS DIRECTORY ARE NOT PRESENT,
HENCE WATCHER COMPLAINS
14072175       LDAP ONLY NODE: SVC_CONTROL.SH STOP AND START TRIES TO
START/STOP ALL SERVICES
14076115       --SYNC FAILS TO DELETE FOLDERS WITH NAMES CONTAINING
NON-ALPHANUMERIC CHARACTERS
14082134       CLUSTER INSTALL ON INDEX NODE DOES NOT SET THE
JAVA.NAMING.FACTORY.INITIAL RIGHT
14082811       UNCAUGHT EXCEPTIONS IN REST CAN CAUSE IMAP TO CORE DUMP
14114311       SETUP SHOULD CALL CHECKISS SCRIPT SELECTIVELY IN
MULTI-MACHINE ENVIRONMENTS
14142090       CHANGEFLAG EVENT UPDATES INDEX INCORRECTLY, FLAGS ARE OUT
OF SYNC
14158968       WATCHER CLUSTER SETUP: CANNOT ACCESS ACCOUNTS ON SEARCHUI
NOR RESTFUL
14164654       OVERQUOTA/UNDERQUOTA EVENTS SHOULD BE DROPPED
14170933       AUTOSYNC MAY HAVE A PERFORMANCE ISSUE
14171012       INDEXSVC NOT ABLE TO KEEP UP WITH PEAK EVENT LOADS
14171110       JMQCONSUMER STOPS DEQUEUING FROM BROKER FOR 20+ MINUTES
CAUSING QUEUE BUILDUP
14276341       LUCENE 3.6 FEATURES DISABLED
14284017       HELP OUT ON OEL SHOWS \T INSTEAD OF TAB SPACES
14284038       CHECKSTACK DOES NOT RETURN ENOUGH INFORMATION
14284189       CLUSTERV2 INSTALL CAN HANG APPSERVER ON OEL/REDHAT
14285043       ERROR WHEN --SETAUTOBOOTLIST USED WITH NO DEFAULT HOST
NAME SPECIFIED
14300950       REGRESSION: NIGHTLY TEST STARTED TO FAIL SINCE JUL 7.
SEARCH GIVES BOGUS RECORDS
14312760       REGRESSION: ACCOUNT SYNC CREATES MORE THAN ONE DOCUMENT
FOR THE SAME UID
```

```
14323822       CONFIGURE_MERGE.PL FAILS IF PASSWORDS NEED TO
ADDED/CHANGED
14324248       UPGRADING WITH COMMPKG UPGRADE NEEDS TO PROVIDE MORE INFO
14354935       STOPPER: MULTI-MACHINE INSTALL IS BROKEN
14377891       SETUP OF WEB NODE SHOULD DISPLAY MESSAGE REQUESTING
APPSERVER RESTART
14383306       SETUP FOR CLUSTERV2 DOES NOT ASK THE CORRECT QUESTIONS
14395043       UTILSVC STOPS RESPONDING AFTER 5 SEVERE ERRORS DETECTED
14463748       RUNAUTOBOOTLOOP SEVERE: EXCEPTION
JAVA.UTIL.CONCURRENTMODIFICATIONEXCEPTION
```

```
14467650       AUTOSYNC ACCOUNT LIST DOES NOT RESET
14498938       DEADLOCK DURING AUTOPROVISIONING/AUTOBOOTSTRAP
```

Problems Fixed in ISS 1 Update 4 Patch 14

The following problems have been fixed in Indexing and Search Service 1 Update 4 Patch 14.

```
14463643       GETACCOUNTSTATE TIMES OUT FETCHING MULTIPLE ACCOUNT
STATES
14463680       AUTOSYNC CANDIDATE NOTIFY FOR DROPPED EVENT IS TOO
EXPENSIVE
14484814       WATCHER EMAIL INTERVAL CONFIG VARIABLE NOT SETUP CORRECT
IN CODE AND JISS.CONF
14500284       ACCOUNT FAILURE IN AUTOSYNC/BOOTSTRAP PREVENTS OTHER
ACCOUNT PROCESSING
14546440       STATE FILE FOR POSTPATCH_RESTART.SH DOESN'T UPDATE
CURRENT ENTRIES
14558968       AUTOBOOTSTRAP CANDIDATE NOTIFY FOR FAILING EVENT IS TOO
EXPENSIVE
14571546       SETUP -S <FILE> -D COMPLAINS ABOUT WATCHER FILES NOT
BEING SET
14571592       POSTPATCH_RESTART.SH LEAVES THE SEARCHUI WAR DEPLOYED
14571600       HAVE POSTPATCH_RESTART.SH SUPPORT THE -B OPTION
14589297       ACCOUNT NAME CONTAINING TILDE CHARACTER NOT HANDLED
CORRECTLY
14642854       ISS.TMP.DIR NOT GETTING CLEANED UP
14643183       JMQ BROKER QUEUE BUILDUP WHEN MESSAGING SERVER IMAPD IS
CRASHING OR SLOW
14661811       AUTOSYNC CANDIDATE NOTIFY RESULTS IN DUPLICATE AND
UNKNOWN ENTRIES
14667746       PARSE EXCEPTION SEARCHING FOR A TERM CONTAINING ':'
CHARACTER
14687475       RECEIVED EVENT LOG MESSAGE NEEDS TIMESTAMP DIFF
CALCULATION
14694753       HIGH MEMORY USAGE WITH AUTOSYNC ENABLED
```

Problems Fixed in ISS 1 Update 4 Patch 15

The following problems have been fixed in Indexing and Search Service 1 Update 4 Patch 15.

```
14787183  RUNQUEUECHECK NEVER COMPLETES DURING SCALABILITY TESTING
14770985  MULTIPLE META DOCUMENTS FOR SINGLE EMAIL CAUSES SEARCH AND
OTHER ERRORS
14770040  ISSEARCHALIVE CHANGES THE TIMEOUT OF SEARCH OBJECTS IN PROXY
POOL
14770013  GLASSFISH RUNS OUT OF MEMORY AFTER SERVING A SEQUENCE OF LARGE
SEARCHES
14764030  WATCHER DOES NOT DETECT IT IS ALREADY RUNNING
14712464  RESTARTING JMQCONSUMER CAUSES SEVERE LOG ENTRY:
JMSSECURITYEXCEPTION C4079
14707419  MISSING FLAGS NOT CORRECTED BY --SYNC COMMAND
14499950  SEARCH QUERY PARSE FAILURE: BRACKETS IN SEARCH TERMS
14324034  NPE IN REST IF PROXYPOOL FAILS TO INIT
14653091  WATCHER DOESN'T LOG THE CAUSE AT LOGLEVEL WARNING AND REPEATS
SAME LEVEL MESSAGE
14606712  SEARCH QUERY PARSE FAILURE: SPECIAL CHARACTERS IN SEARCH TERMS
```

Known Issues and Limitations in Indexing and Search Service 1 Update 3

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
```

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.

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 4

Special Note When Updating From Patch 14 or Earlier

Indexing and Search Service 1 Update 4 Patch 15 contains a fix for bug 14712464 (RESTARTING JMQCONSUMER CAUSES SEVERE LOG ENTRY: JMSSECURITYEXCEPTION).

After updating from Patch 14 or earlier to Patch 15, you must manually remove orphaned JMS temporary destinations created before this bug fix. Otherwise, if the `jmqconsumer` process reuses the temporary destination names when it is restarted, exception error conditions can result.

To prevent these types of errors, perform the following steps after updating to Indexing and Search Service 1 Update 4 Patch 15 and running `postpatch_restart.sh`:

1. Run *iss-base-dir*`/bin/svc_control.sh stop`.
2. Run *iss-base-dir*`/examples/jmqtempcheck -d`.
   This checks for and deletes JMS orphan temporary destinations.
3. Run *iss-base-dir*`/bin/svc_control.sh start`.

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

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

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 executes the command by using the configured store path, not the non-standard path provided by the `--storepath` option.

12254693

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.

12257671

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 cannot be run as root on the folder name. Instead, run the command as the ISS user, for example:

```
/opt/sun/comms/jiss/bin/issadmin.sh --user jeff --checkfolder --folder
jeff\'s\ email
```

12267562

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.

12285934

JMQconsumer save queued events to disk sometimes has EOFException.
If the number of queued events is large (many thousands) when JMQConsumer is shut down, the data might not be saved to disk completely, causing the EOFException when read back during start up. This means events for some accounts have been lost, and those accounts need to be sync'd.

12288231

Real-time updates and issadmin.sh --sync command may conflict.
If events arrive while the `--sync` command is running, they are processed until after the command completes. Because the account already reflects the changes, applying the events afterwards might cause errors, resulting in the account not being in sync.

12290899

After bootstrap exits from "corrupt" mailbox account is created (wrongly) with "A" state.
When an account on the Messaging Server that is corrupted is bootstrapped, the failure is not detected properly, and the account is left in the Active state.

12307720

Terminating issadmin.sh command does not stop server side command.
When the `issadmin.sh` command is used while the Index Service is operational, the work is done in the server process, and the `issadmin.sh` waits for it to respond with completion. If you terminate the `issadmin.sh` command (by using Control-C for example), only the `issadmin.sh` command itself stops, not the services in the server. These continue to run until completion. To stop these tasks, use the `--listactiveservices` command to find which tasks need to be terminated. The output from this

command indicates identifiers that can be used with the `--stopservice ID` command to shutdown the set of tasks left running. See Interrupting Commands for an example of the use of this feature.

12307730

issadmin.sh --listbrief (1M users) causes JMS exception - exceeds message size limit.
Whenever the output from `--listbrief` (or any `--list*` command) is very large, internal broker or Java heap limits might be exceeded, causing the command to fail, leaving the `issadmin.sh` command hanging. If this happens, you can retry the command by adding the `--altoutput` *FILE* option, where *FILE* is the path to a disk file where the output is directed.

12597590

searchRun.sh tool does not work on HA/cluster node.
The `searchRun.sh` tool cannot be used on an HA/cluster node. It can be used on back-end nodes only.

14223395

Server shutdown leave accounts in inactive or bootstrap state.
If the Index Service does not complete its shut down within a minute, it is killed immediately. Any events or commands (including autosync and autobootstrap) still being processed when this occurs are not cleaned up, and accounts being modified might be left in the Inactive or Bootstrap state. You must correct these accounts before service can be restored to them. Use the `–setstate A` command on each account before restarting the server. The accounts are then again included in autosync processing. Depending on the number or size of the accounts, you could also use manual `--sync` or `--bootstrap` commands to ensure services are restored to these accounts sooner. (You might also need to delete `write.locks` left over from `IndexWriters`.)

Redistributable Files for Indexing and Search Service

None.

Chapter 38. Instant Messaging Release Notes

Oracle Communications Instant Messaging Server Release Notes
Version 9

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 Problems in Instant Messaging 9
- Problems Fixed in Oracle Communications Instant Messaging Server 9 Patch 1
- Known Problems in Instant Messaging Server 9 Patch 1
- Known Problems in Instant Messaging Server 9 Patch 2
- Known Problems in Instant Messaging Server 9 Patch 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. Instant Messaging 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 9 document.

Deprecated and Removed Features for Oracle Communications Instant Messaging Server

The following feature is deprecated in this release and may be removed in a future release:

- Instant Messaging calendar pop-up/reminder support with Calendar Server 6.3

The following feature was deprecated in a previous release and may be removed in a future release:

- Access Manager

The following features have been removed from Instant Messaging 9 (deprecation was announced in Instant Messaging 8.2):

- **Instant Messenger Client** - The Java client that is used to access the Instant Messaging server

has been removed. As a result, the following client features are removed:

  - **VOIP Support** - This feature enabled you to convert a user's chat session into a live voice call over the internet by using the Instant Messenger client.
  - **Poll** - This feature helped you in surveying a group rapidly by conducting online polls.
  - **News** - This feature enabled you to access published information such as company announcements, project updates, or event notices on a subscription basis.
  - **Moderated Conferences** - This feature enabled the moderator to moderate private messages that are sent to conferences.
  - **Alerts** - This feature enabled you to notify users of time-sensitive information, either in individual messages or as broadcasts to multiple users. You were also able to specify routing of alerts received when offline.
- **Redirect Server** - This feature enabled you to balance the load between different servers in a server pool.
- **Communications Channel in Portal Server** - This was the channel that was used to launch Instant Messaging in Portal Server.
- **Portal Server Archiving** - This feature enabled you to archive chat content in the portal server.

Requirements for Oracle Communications Instant Messaging Server

See Requirements for Communications Suite 7 Update 2 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 watch changes on other Instant Messaging users
- Default Instant Messaging and presence access

Instant Messaging Compatibility Issues

Although the Instant Messenger 8 client might work with Instant Messaging Server 9, it is not supported.

Problems Fixed in Oracle Communications Instant Messaging Server

This section contains a list of problems fixed in the Oracle Communications Instant Messaging Server release.

```
12186166  SUNBT6498428 CONFIGURATOR FAILS TO START SERVICES WHEN USERID
AND GROUPID IS GIV
12219683  SUNBT6635262 CONFIGURE PARAMETERS ARE NOT UPDATED PROPERLY
WHEN HTTPBIND IS ENAB
12234625  SUNBT6689144 IM7.3: CONFIGURATION DEFAULTS TO OLD PATH
/VAR/OPT/SUNWIIM INSTEAD
12246961  SUNBT6742932 AUTHORIZATION REQUEST FROM AOL USER IS SENT EVEN
```

```
WHEN THE XMPP USER
12251978  SUNBT6765537 YAHOO GATEWAY LOGS IS NOT GENERATING.
12253214  SUNBT6771020 AIM GATEWAY LOG IS NOT GETTING GENERATED.
12264646  SUNBT6815865 STATUS IS NOT GETTING UPDATED ON YAHOO GATEWAYS
USERS
12282814  SUNBT6900058 CONFIGURING AN ALTROOT INSTALLATION OF IM SERVER
FAILS
12284580  SUNBT6907799 HTTPBIND SHOULD LET IOEXCEPTION WHILE READING A
REQUEST PROPAGATE U
12285268  SUNBT6910957 BANNED USER CAN POST MESSAGES TO THE CONFERENCE
ROOM
12285361  SUNBT6911351 SERVER DOES NOT ENFORCE THE CHANGE IN
AFFILIATIONS PROPERLY
12287755  SUNBT6924150 USER ABLE TO REVOKE OWN OWNERSHIP IN A CONFERENCE
ROOM
12287842  SUNBT6924568 SERVER DOES NOT ALLOW TO BAN AN USER WHEN BAREJID
OF THE OCCUPANT I
12287869  SUNBT6924637 OWNER ABLE TO REVOKE VOICE FROM AN ADMIN
12289747  SUNBT6932863 TASK/TODO REMINDERS ARE NOT RECIEVED WITH JMQ
ENABLED
12299582  SUNBT6975833 "CM CANNOT CREATE DIRECTORY" ERROR AFTER ENABLING
SHOAL,WITH USER/G
12300237  SUNBT6979355 JAVA.LANG.ILLEGALARGUMENTEXCEPTION WHEN RUNNING
IMCONFIG <COMMAND>
12300239  SUNBT6979359 ./IMCONFUTIL USAGE IS WRONG
12301066  SUNBT6984504 IM SERVER SHOULD BROADCAST PRESENCE CHANGES TO
ALL THE GATEWAYED CO
12301660  SUNBT6988219 YAHOO GATEWAY FAILS TO COME UP IF AIM GATEWAY IS
NOT CHOSEN DURING
12301664  SUNBT6988227 IWADMIN CLI NOT WORKING
12301671  SUNBT6988241 SMF DOES NOT WORK FOR ALTROOT INSTALLS,AS A
RESULT IM SERVICES FAIL
12301673  SUNBT6988249 YAHOO GATEWAY FAILS TO COME UP ON ALTROOT INSTALL
SINCE SYMLINK IS
12301773  SUNBT6988845 LIST OF UNRECOGNIZED PARAMETERS WITH XML
CONFIG,NEEDS TO BE SUPPORT
12301791  SUNBT6988894 IM SERVICES FAILS TO COME UP ON LINUX
12302056  SUNBT6990155 LDAP FAILOVER NOT WORKING WITH XML CONFIG
12302290  SUNBT6991264 SMS ALERTS NOT WORKING
12302438  SUNBT6991997 WRONG VALUES IN IIM.CONF.XML WHEN CALAGENT IS
CONFIGURED TO REMOTE
12302439  SUNBT6992004 MSN/AIM/YAHOO GWY'S FAIL TO COME UP WHEN
CONFIGURED TO REMOTE IM SE
12302549  SUNBT6992687 PEER DISCOVERY NOT
WORKING,"JAVA.LANG.ILLEGALSTATEEXCEPTION: POOLMA
12303072  SUNBT2201682 REFRESH AND CLOSE SSO PROVIDER API METHODS NOT
CALLED
12303153  SUNBT2201777 ADD DOMAIN SUPPORT TO CUSTOM SSO PROVIDER API
(SSOPROVIDER)
12303216  SUNBT6995992 IM SERVER FAILS TO COME UP WITH IDENTITY REALM
ENABLED
12304136  SUNBT7001480 LOGIN DOES NOT WORK WITH AM SSO ENABLED
12304279  SUNBT7002135 CANNOT ENABLE MUX ONLY/SERVER ONLY CONFIGURATION
VIA CONFIGURATOR/I
12304360  SUNBT7002445 PEER DISCOVERY CONFIGURATION NEEDS TO
SUPPORT,PROVIDING AN HOSTNAME
```

```
12304872  SUNBT7004764 MSN/AIM GATEWAYS NOT WORKING WITH THIRD PARTY
CLIENTS
12304923  SUNBT7005013 NPE WHEN TRYING TO DELETE REQUIRESSL,CONFERENCE
HISTORY,SHOAL TOPIC
12305759  SUNBT7008789 GWC FAILS TO COME UP,WHEN ONLY GWC IS CONFIGURED
ON A HOST
12305847  SUNBT7009067 EXCEPTION AND SOURCE CODE PRINTED WHEN
SET-DEFAULT-MUX-THREADPOOL C
12305963  SUNBT7009495 FB GW: CHAT MESSAGES CONTAINING % CHARACTER
RESULT IN MESSAGE LOSS
12305968  SUNBT7009505 SERVER FAILS TO COME UP WHEN BLACKLISTED DOMAIN
LIST IS DEFINED
12306033  SUNBT7009695 FB GW: FB CONTACTS ADDED/REMOVED FROM FB
WEBCLIENT ARE NOT REFLECTE
12307401  SUNBT7015948 FB GW: IN A HOSTED DOMAIN, THE FB JID IS PICKED
UP FROM THE HOSTED
12307733  SUNBT7017507 FB GW PERF:MAX CHANNEL IS HARDCODED.
12307735  SUNBT7017509 FB GW PERF:GWC UNUSABLE WHEN MAXCHANNEL COUNT
REACHES
12307739  SUNBT7017516 UPGRADE:LOG4J.CONF AND REGISTRATION.PROP NOT
BACKED UP PRIOR TO UPG
12307761  SUNBT7017560 UPGRADE:COSERVER CONFIG PARAMETERS ARE LOST AFTER
UPGRADE(SERVERPOO
12309585  SUNBT7028465 AIM, MSN : PASSWORD IS SHOWN IN CLEAR TEXT
12309634  SUNBT7028696 POST UPGRADE TASKS FAILS WITH
12309660  SUNBT7028882 YIM GW: YAHOO GATEWAY FAILS TO START WHEN
CONFIGURED TO USE FILE AS
12309890  SUNBT7030231 GATEWAY CONNECTOR FAILS TO START -
NOCLASSDEFFOUNDERROR
12309932  SUNBT7030529 HTTPBIND,IMPS DEPLOYMENT FAILS DURING
CONFIGURATION
12309936  SUNBT7030549 FEDERATION HELPER DOES NOT CONNECT TO SERVER IF
SERVER CONNECTION I
12310096  SUNBT7031557 SUBSCRIPTION REFRESH FROM SIP TO XMPP IS NOT
WORKING
12310116  SUNBT7031561 DENIED SUBSCRIPTION REQUESTS FROM SIP USER TO
XMPP USER STILL SENT,
12310269  SUNBT7031965 PUB-SUB : ROSTER ACCESS MODEL IS NOT WORKING
12310271  SUNBT7031969 PUB-SUB:ITEM CHILD ELEMENT IS MISSING IN SUCCESS
WHEN THE PUBLISHE
12310272  SUNBT7031972 PUB-SUB:COULD NOT DISCOVER THE PUBLISHED ITEMS OF
THE NODE
12310278  SUNBT7031984 PUB-SUB: RETRIEVE SUBSCRIPTIONS IS NOT WORKING
12310279  SUNBT7031985 PUB-SUB: REQUEST ALL SUBSCRIPTIONS AT A SPECIFIC
NODE IS NOT WORKI
12310299  SUNBT7032086 PUB-SUB:PAYLOAD IS GENERATED EVEN WHEN
12310300  SUNBT7032087 PUB-SUB:THE SERVICE IS NOT HONOURING THE
PUBSUB#MAX_PAYLOAD_SIZE P
12310301  SUNBT7032090 PUB-SUB:
12310302  SUNBT7032093 PUB-SUB:WHEN OWNER PUBLISHES AN ITEM IT IS NOT
SENT TO HIM,EVEN TH
12310348  SUNBT7032424 SIP FEDERATION DOES NOT WORK WHEN SIP DOMAINS ARE
WHITELISTED,IT'S
12344793  UNABLE TO CONNECT TO MSN GATEWAY CONFGD WITH MYSQL IF LEFT
UNATTENDED OVERNIGHT
12349405  UPGRADE:IM SERVICES FAIL TO COME UP AFTER UPGRADE
```

```
12349556  XMPP MESSAGE ERROR AND NON-DELIVERY OF MESSAGES BETWEEN MSN
GATEWAY USERS
12349559  UPGRADE:MSN AND YAHOO GATEWAYS FAIL TO COME UP AFTER UPGRADE
12354716  USER PASSWORDS STORED IN CLEAR TEXT IN MYSQL DB FOR MSN, YAHOO
GATEWAYS
12424450  P-12367296 INTERMITTANT PRESENCE IN FEDERATION
12424900  MYSQL SCHEMA GENERATOR DOES NOT CREATE THE SCHEMAS FOR IM
GATEWAYS
12555783  P-12367258 CONFERENCE ROOM NOT WORKING WITH FEDERATION ACROSS
JABBER AND ORA...
12604371  CHAT MESSAGES OF CONTENT-TYPE TEXT/HTML FROM SIP N/WK ARE NOT
HANDLED PROPERLY
12654367  GWC SHOWS HIGH CPU AFTER RESTART AND IT SOMETIMES BECOMES
UNRESPONSIVE
12673682  SIP WAR FILE CREATION FAILS SINCE SIPFED.PROPERTIES DOES NOT
EXIST
12682050  IWADMIN CLI DOES NOT WORK IF IIM.CONF.XML DOES NOT EXIST
12690851  PYTRANSPORTS SOURCE MUST BE SHIPPED WITH IM PRODUCT
12709539  FB GW DOES NOT TAKE A RWLOCK WHILE MODIFYING THE ROSTER.
12799528  P-12799485 AVOID THREAD LEAK WITH CONFERENCE MESSAGES IN
SERVER POOL WHEN ON...
12824883  CONFIGURATOR SKIPS UPDATING LDAP SCHEMA,AS RESULT LOGIN FAILS
WHEN AM ENABLED
12849125  EVENT REMINDER ALWAYS SHOWS THE EVENT TIME ON 05:30
13011209  S2S FEDERATION CHAPTER MUST BE UPDATED
12234643  SUNBT6689177 IM7.3: IM CLIENT PUBSUB OPERATIONS RESULT IN
PROHIBITEDEXCEPTION JA
12236512  SUNBT6695462 IM 'CONFIGURE' CREATES STATE FILE WITH 644
PERMISSIONS
12242557  SUNBT6721134 SMF LOOKS FOR DEFAULT DIRECTORY WHILE STARTING IM
SERVER
12246269  SUNBT6739087 ROSTER SUBSCRIPTION NOT WORKING FINE WITH MSN
USERS
12264912  SUNBT6817082 IMADMIN STOP YIM-GATEWAY COMMAND DISPLAY ERROR
MESSAGE ON CONSOLE.
12265399  SUNBT6819401 THERE ARE TWO RESOURCES FILES FOR FRENCH IN
IMCONFIG.JAR -> KEEP ON
12275620  SUNBT6865104 CONFIGURATOR FAILS WHEN CHOSEN TO START SERVICES
AND ENTSYS POINTS
12276921  SUNBT6871464 ./IMADMIN STATUS CHECKS STATUS OF RELAY EVEN WHEN
IT IS NOT ENABLED
12284157  SUNBT6905860 CONFIGURATOR DOESN'T RECOGNIZE THE PARAMETER WHEN
THE JVM.OPTIONS
12288551  SUNBT6927593 XFER LOG PARAMETERS ARE REPLACED AFTER UPGRADE AS
A RESULT EXCEPTIO
12289744  SUNBT6932850 AIM:EXCEPTIONS ARE SEEN WHEN GATEWAY IS STOPED
WHEN A USER IS SIGNE
12290530  SUNBT6936430 MSN/AOL/YAHOO GATEWAY START SCRIPTS SHLD PICK USR
DEFINED PYTHON PA
12293834  SUNBT6949411 DUPLICATE KEYS IN CONGIGURATOR PROPERTIES
12297161  SUNBT6963848 IN THE CONFIGURATOR, "DO YOU WANT TO GO BACK TO
PREVIOUS PANEL" IS
12301661  SUNBT6988222 ./IMADMIN PERFORMANCE IS SLOW COMPARED TO
IM8.3,THIS NEEDS TO BE IM
12301789  SUNBT6988892 ./IMADMIN FAILS TO START SERVICES WITH
UNSUPPORTEDCLASSVERSIONERROR
```

```
12301832  SUNBT6989180 PARAMETERS WHICH NEEDS TO BE CHANGED FROM
RESTRICTED TO UNRESTRICTE
12301927  SUNBT6989555 EXCEPTION SHOULD BE HANDLED WHEN AN INVALID
COMMAND/OPTION IS USED
12302805  SUNBT6993774 L10N ISSUES REPORTED BY WPTG
12303225  SUNBT6996016 ./IMCONFUTIL SCRIPT SHOULD USE A SIMILAR FINDJAVA
ROUTINE AS IS USE
12304124  SUNBT2202618 IM 8, AUTHENTICATION FAILS AFTER RESTARTING LDAP
SERVER
12304230  SUNBT7001889 ./IMADMIN VERSION MUST BE UPDATED TO
RELASE-BUILD(EG:9-0.05)
12304597  SUNBT7003341 IM CONFIGURATOR: WHILE CREATING IM HOME
DIRECTORY, THE PROMPTS TO T
12304675  SUNBT7003727 IM CONFIGURATOR: HTTPBIND.CONF DOESN'T GET
CREATED WHEN ONLY CLIENT
12304676  SUNBT7003729 HTTPBIND LOG DIRECTORY IS NOT CREATED WHEN ONLY
CLIENT COMPONENTS A
12305156  SUNBT7006303 SERVER NOT TRANSMITTING SUBSCRIPTION REQUESTS
FROM THE GATEWAY
12305157  SUNBT7006304 PRESENCE NOTIFICATIONS UNSUBSCRIBE, UNSUBSCRIBED,
UNAVAILABLE NOT S
12305285  SUNBT7006719 REMOVE LEGAL DOCS FROM IM9
12305706  SUNBT7008512 IM CONFIGURATOR: TYPO IN THE WORD "LISTENNING"
DISPLAYED ON THE CON
12305707  SUNBT7008515 IM CONFIGURATOR: FB GATEWAY CONNECTOR'S VALUE
SHOULD DEFAULT TO LOC
12305770  SUNBT7008808 FB GW: ON REGISTERING A FACEBOOK USER TO THE
GATEWAY, THE STATUS OF
12305853  SUNBT7009091 ALL REQUIRED PROPERTIES OF LISTENERS(S2S,C2S) NOT
SET AFTER CONFIGU
12305872  SUNBT7009118 NO WAY TO DISABLE GATEWAY CONNECTOR VIA
CONFIGURATOR
12305874  SUNBT7009120 INDEXOUTOFBOUNDSEXCEPTION IN XMPPD.LOG FOR EVERY
FACEBOOK USER LOGG
12305936  SUNBT7009348 ./IMADMIN STATUS CHECKS STATUS OF GWC EVEN WHEN
IT IS NOT ENABLED
12306020  SUNBT7009667 DIRECTED PRESENCE NOTIFICATIONS TO A LEGACY USER
ARE NOT TRANSMITTE
12306616  SUNBT7012376 SMF-REGISTER,SMF-UNREGISTER OPTIONS MUST NOT BE
LISTED ON LINUX
12306617  SUNBT7012378 CONFIGURATOR REGISTERS IM TO SMF EVEN WHEN CHOSEN
NOT TO START SERV
12306627  SUNBT7012429 IM_SCHA: IM HA DOC NEED TO BE UPDATED DUE TO
CHANGE IN IM CONFIG LO
12306733  SUNBT7012897 AIM GW: NPE WHILE REGISTERING A AIM USER AND
DURING LOGIN TO GATEWA
12306860  SUNBT7013537 CONFIGURATOR FAILS TO COME UP IF ABSOLUTE PATH TO
CONFIGURE SCRIPT
12307026  SUNBT7014201 XML CONFIG - ADD PARAMETER
(IIM_SERVER.SSOPROVIDER) TO ENABLE CUSTO
12307675  SUNBT7017182 FACEBOOK GW CONNECTOR :SHOULD BE ABLE TO SET JVM
ARGS AND HEAP SIZE
12307738  SUNBT7017515 UPGRADE:./IMCONFUTIL LIST-LISTENERS DOES NOT LIST
C2S LISTENER AFTE
12307927  SUNBT7018493 UPGRADE:TLS PARAMETERS NOT MIGRATED PROPERLY
AFTER UPGRADE
```

12309142 SUNBT7025877 YAHOO GATEWAY : NPE IS THROWN WHEN THE USER LOGOUT AND LOGIN TO THE
12309199 SUNBT7026078 PRODUCT IS MISSING REQUIRED SAMPLE SAVESTATE FILE
12309228 SUNBT7026245 CONFIGURATOR :LDAP DETAILS SHOULD NOT BE ASKED WHEN MULTIPLEXOR OR
12309590 SUNBT7028474 AIM:CHANGING THE PRESENCE TO AWAY IN AIM WEB CLIENT IS NOT REFLECTE
12310263 SUNBT7031958 PUB-SUB:DISCO#INFO IS NOT GIVING PROPER FEATURE LIST
12310274 SUNBT7031975 PUB-SUB: MODIFICATION OF SUBSCRIPTIONS CREATES DUPLICATES
12310298 SUNBT7032084 PUB-SUB: MESSAGE DOES NOT POSSESS AN ID ATTRIBUTE
12350114 MSN GATEWAY USER GETS LOGGED OUT ON DELETING A CONTACT FROM ROSTER
12367567 HOSTNAME MUST NOT BE HARDCODED IN SIPFED.PROPERTIES FILE
12547924 99445:APOSTROPHES DO NOT DISPLAY IN MESSAGE
12599094 WHEN AIM GATEWAY IS STOPPED, PRESENCE STATUS IN IM CLIENT SHOWS AS
12651164 IIM.INSTANCEDIR IS CHANGED AFTER RE-CONFIGURATION POST UPGRADE
12651705 "FAILED TO LOAD LEGACY CONFIG FILE" ERROR MSG SEEN DURING SERVICES STARTUP
12655750 TYPO IN SCHEMA GENERATION OUTPUT
12660428 GWC DOES NOT CLOSE SOCKET CONNECTIONS WHEN IM SERVER GOES DOWN
12678825 IM9 HA DOCUMENTATION NEED TO BE UPDATED FOR R7U2 RELEASE
12682673 PUB-SUB : CONFIGURATIONS NOT SUPPORTED SHOULD NOT BE LISTED IN DEFAULT CONFIG
12690726 HTTPBIND DOESN'T WORK AFTER CONFIGURATION
12695194 PUB-SUB: PUBSUB#DELETE-NODES SHOULD BE REMOVED FROM DISCO#INFO
12714798 CORRECT VALUE OF <SHOW> IS NOT PRESENT WHILE LOGIN TO FB GATEWAY
12719118 UNINSTALL OF IM DOES NOT THE UNREGSITER IM SERVICE FROM SMF
12729807 IMPROVE PORT VALIDATION WHEN NO PORTS ARE IN USE WHILE CONFIGURATOR IS RUN
12759917 PROVIDE SUPPORT FOR IIM_SERVER.CONFERENCE.DISTRIBUTEALL PARAMETER
12799513 P-12799507 HANDLE DISCO#INFO TO CONFERENCE JIDS FROM ICHAT
12252794 SUNBT6769021 ES - CONFIGURATOR - TYPO IN TRANSLATION
12287962 SUNBT6925065 USER WITH MEMBER AFFILIATION CANNOT RETRIEVE MEMBER LIST
12301720 SUNBT6988537 REMOVE ALL REFERENCES TO LIST-PROPS COMMAND,SINCE THE COMMAND DOES
12302057 SUNBT6990158 "UNKNOWN CONFIGURATION KEY: IIM_ARCH.IGNOREEXPLICITDENY" SEEN WHEN
12302661 SUNBT6993123 TYPO IN PARAMETER DESCRIPTION

```
12307742  SUNBT7017524 UPGRADE:IIM_MUX.SECCONFIGDIR IS ADDED TO
IIM.CONF.XML AFTER UPGRADE
```

Known Problems in Instant Messaging 9

This section contains a list of current known issues for Instant Messaging 9.

12264906 (SUNBT6817064) RESUBSCRIPTION IS NOT HAPPENING BECAUSE YAHOO USERS ARE NOT GETTING

If you rename a Yahoo contact then remove and readd the Yahoo Transport, the renamed contact reverts to its original name.

12255248 (SUNBT6778222) ISSUES WITH CALENDAR REMINDERS WITH INVITEE

After installing Instant Messaging and configuring with Messaging Server and Calendar Server, creating a new event in Calendar Server and inviting users does not always generate an alert message to invitees.

12300723 (SUNBT6982246) EVENT/TODO REMINDER COMES WITHOUT FORMATTED INFO. WHEN EVENT IS CRE

If you configure Instant Messaging to send a reminder as content type "text/plain," then create a reminder event or todo with an attachment, the reminder arrives on time but the content is unformatted. Also, no attachment is sent.

12301733 (SUNBT6988580) TLS FOR SERVER/MUX CANNOT BE ENABLED WHEN SECCONFIG DIR IS SPECIFIE

Trying to enable TLS with the following commands fails:

```
./imconfutil set-prop -c /opt/sun/comms/im/config/iim.conf.xml
iim_server.secconfigdir=/opt/sun/comms/im/config/certs/
./imconfutil set-prop -c /opt/sun/comms/im/config/iim.conf.xml
iim_server.usessl=true iim_server.sslkeystore=example_com.jks
iim_server.keystorepasswordfile=sslpassword.conf

Please set the iim_server.secconfigdirectory to the directory where the
Keystore file is found
Or provide the absolute path to the keystore file
example_com.jks is not a valid value for iim_server.sslkeystore
Please set the iim_server.secconfigdirectory to the directory where the
Keystore file is found
Or provide the absolute path to the keystore file
sslpassword.conf is not a valid value for
iim_server.keystorepasswordfile.
```

The command fails as well when specifying the `iim_server.secconfigdir` property to the Instant Messaging instance directory.

Workaround:

1. Specify the full path to both the keystore and keystore password file.

2. Copy the keystore files to the instance directory and specify the relative path.
   The instance directory is recognized as the `secconfigdir` by default.

12303175 (SUNBT6995649) MSN GATEWAY PORT NO. TO BE CHANGED IN ALTROOT /MULTI-INSTALL SCENAR

When performing a multi-installation or altroot installation, set the MSN gateway port listed under File Transfer Settings (ftJabberPort) to a unique value per installation. The default port is 8010. For each installation, make sure that the port value is different. Failure to do so can cause the MSN gateway to not start correctly.

12303239 (SUNBT6996044) FGBW : IT TAKES SOMETIME FOR THE PRESENCE TO GET UPGATED

When a users log in to the Facebook gateway, their contacts' presence is not immediately seen. This is a limitation of the Facebook Server.

12305842 (SUNBT7009061) NO COMMAND TO GET-DEFAULT-MUX-THREADPOOL,GET-DEFAULT-SERVER-THREADP

When you run the `imconfutil -u` command to check the supported list of commands, `get-default-server-threadpool` is listed twice.

12306153 (SUNBT7010220) SHOAL PEER DISCOVERY DOES NOT WORK IF IIM_SERVER.POOL.PEER.DISCOVER

If you configure Instant Messaging on two hosts and enable peer discovery on both (by setting the `iim_server.pool.peer.discovery_topic` property), the peers fail to join the server pool.

12306417 (SUNBT7011495) SMF SERVICE CREATION USING IMADMIN OR USING THE CONFIGURATOR SHOULD

Use one of the following methods to enable SMF for Instant Messaging 9:

- Run the Instant Messaging `configure` script and choose the selection to start the SMF service.
- Run the `imadmin smf-register` command. (You must first stop services before running the command.)

When upgrading to Instant Messaging 9, the SMF service is not enabled by default, even if it was enabled in the previous installation. You need to manually run the `imadmin smf-register` command to enable the SMF service again.

12310076 (SUNBT7031535) SIP USER CANNOT SEE XMPP USER CHAT STATES

When an XMPP user and a SIP user, both of whom have subscribed to each other's presence, start chatting, the XMPP user can see the SIP user's chat states (for example, typing), but the SIP user cannot see the XMPP user's chat states.

12310265 (SUNBT7031960) PUB-SUB: INSTANT NODE CREATION IS NOT SUPPORTED

The current Pub-Sub implementation does not support instant node creation.

12310276 (SUNBT7031977) PUB-SUB:A OWNER COULD NOT SET THE AFFILIATION OF A USER TO "PUBLISH

The current Pub-Sub implementation does not enable an owner to set a user's affiliation to "publish-only."

12621391 YAHOO GW: MULTIPLE SUBSCRIPTION REQUESTS RECEIVED FOR EACH CONTACT DURING LOGIN

When a Yahoo user logs in to the Yahoo gateway, multiple subscription requests are received for each user in the roster. Only one subscription request per contact should be received.

12690950 PUB-SUB : KNOWN ISSUES

The current Pub-Sub implementation does not support the following items:

- Discover node metadata
- Receive the last published item
- Retrieve items for a node
- Publish an item to a node for access model "roster" and "whitelist"
- Delete an item
- Delete a node
- Purge all node items
- Delivery of last published item
- Automatic node creation
- Payment required options for subscription
- Anonymous subscriptions
- Subscription pending
- Too many subscriptions
- Configuration required
- Multiple subscriptions
- Configure subscription 0ptions
- Request default subscription configuration options
- Item publisher
- Publishing options
- Collection nodes
- Manage subscription requests
- Presence sharer
- Persistence of nodes and items (created nodes and items are lost after a server restart)
- Server-to-server communications and server pool

12305156-SERVER NOT TRANSMITTING SUBSCRIPTION REQUESTS FROM THE GATEWAY

Resubcription is not happening because YAHOO users are not getting deleted from Gateway.

12222853

MSN user status "Appear offline" results in messages not being delivered.

12713942 SIP FEDERATION DOES NOT WORK IN SERVERPOOL SETUP

The current SIP federation implementation does not work in a server pool deployment.

12715195 SUBSCRIPTION RECD FROM A CONTACT WHO IS DELETED AFTER LOGGING OUT OF GATEWAY

Subscription requests are received from those users who are deleted after logging out of a gateway. Subscription requests should not be received from the users deleted from the roster.

12722717 WRONG MESSAGE DELIVERY FOR GATEWAY USER LOGGED IN FROM MULTIPLE RESOURCES

When a gateway user is logged in from multiple resources, messages are not delivered to the most recent active resource. The messages should be delivered to the resource that is most recent.

12735723 MSN GW: INCONSISTENCIES IN MSN GATEWAY

The following issues are occasionally observed in MSN gateway:

- Deleting an MSN user from the roster causes the registered gateway user to get logged out.
- Presence changes are broadcast only to XMPP users and not gateway users.
- Addition of an MSN buddy fails with the message "Unhandled error in Deferred:" in the gateway log.
- After adding an MSN buddy to the roster, the subscription request is not received. It is received after logging out of the gateway and logging in again.

12759883 SIP PRESENCE SUBSCRIPTION IS NOT RETAINED AFTER USER LOGOUT

A user's SIP presence subscription is not retained after logout.

12849474 CAL-AGENT CONFIGURATION VALIDATION IS GETTING PRINTED ON THE CONSOLE

When you run the Instant Messaging `configure` command with the `--debug` and `--verbose` options, and provide information to the Calendar Agent configuration panel, validation of the input appears on the console.

12850773 MYSQL TABLES FOR GATEWAYS ARE NOT UPDATED CORRECTLY FOR ROSTER ADDITION/DELETION

When the external gateways are configured to use MySQL Server as the data store, the MySQL Server tables for the gateways are not updated when contacts are added to or deleted from the roster. This applies to MSN, Yahoo, and AIM gateways.

12863412 "JIDFORMATEXPN: NODE IS NOT VALID" SEEN WHEN A SIP USER SUBSCRIBES TO XMPP USER

The message "org.jabberstudio.jso.JIDFormatException: node is not valid" happens when a SIP user subscribes to an XMPP user's presence and the SIP user ID contains the XMPP disallowed character, `/`.

12910383 ALL DAY EVENT REMINDER DOES NOT WORK.

The following situations occur when you create an all-day event with the reminder set from either Convergence or a CalDAV client, and also check for the reminder pop-up from Instant Messaging:

1. The pop-up reminder does not arrive if the reminder is set by using the "afterwards" or "beforehand" option with all-day event.
2. The pop-up reminder does arrive if the reminder is set by using the "On specific date and time" option, but it does not contain any event information.

12306573 (SUNBT7012164) IM_SCHA : COUPLE OF ISSUES WITH IM HA WHEN IM CONFIG FILE NAME CHAN

Some of the Instant Messaging HA agent files still refer to the `iim.conf` file instead of the new Instant Messaging 9 configuration file, `iim.conf.xml`.

Workaround:

For a new installation and configuration of Instant Messaging 9 for HA:

1. Copy the Instant Messaging 9 configuration file `iim.conf.xml` to the `iim.conf` file with the same permissions.
   Note: Also copy the `iim.conf.xml` file to `iim.conf` after any future configuration changes as cluster uses the `iim.conf` file.
2. To use the new 'GatewayConnector' service in HA, update this service configuration with the virtual host name or IP address and port number as follows:

   ```
   <im-base-dir>/imconfutil --config <config_dir>
   iim_gwc.hostport=<virtual host-name or ip:port>
   ```

   For example:

   ```
   /opt/sun/comms/sbin/imconfutil --config /DATA1/default/config
   iim_gwc.hostport=192.10.12.11:22222
   ```

For an upgrade to Instant Messaging 9 for HA:

1. Upgrade the Instant Messaging software, from Instant Messaging 8 Update 3 to Instant Messaging 9.
2. After completing the Instant Messaging upgrade, use the previous steps as described for a new Instant Messaging installation.
3. Make sure that non-active node does not have access to the `config` directory, as it will be overriding the old configuration.

This information is available starting in **Instant Messaging Server 9 Patch 1**.

Problems Fixed in Oracle Communications Instant Messaging Server 9 Patch 1

This section contains a list of problems fixed in the Oracle Communications Instant Messaging Server 9 Patch 1 release.

```
14488000         HTTPBIND: FEATURES REPORTED IN INCORRECT ELEMENT
14492963         HTTPBIND SHOULD HANDLE CASE WHEN ID OF A PACKET
CONTAINS COLON
14335835         UNRECOGNIZED PARAMETERS WITH IMCONFUTIL WHICH MUST BE
SUPPORTED
14304611         P-13686205 DEADLOCK SEEN IN JSTACK DUMP OF IM SERVER
14304142         P-12770268 ICHAT CAUSES VERY LARE LOG FILES.
14303959         P-13686264 THREAD HANGING ISSUE DURING JSO'S
STREAM.SEND CALL
14281922         NOT ABLE TO LOGIN TO FACEBOOK USING FACEBOOK GATEWAY
13969925         PROVIDE AVATAR SUPPORT FOR IM IN S2S(SERVER FEDERATION)
13943600         P-13788553 ENABLE SUPPORT FOR OFFLINE MESSAGES IN
INSTANT MESSAGING
13939676         P-13686187 THREAD HANGING ISSUE DURING GROUP CHAT INIT
CALL.
13939664         P-13686227 THREADS HANDLING QUEUES ARE NOT NAMED
PROPERLY.
13939647         P-13639553 IM INSTALL INSTRUCTIONS MUST BE UPDATED IN
```

```
PATCH README
13939121         P-13080295 SUNBT6973034 PERFORM GROUP EXPANSION ON THE
SERVER SIDE, AND AVOI...
13644243         HTTPBIND SHOULD BE ABLE TO SUPPORT STREAM RESTARTS
13597852         WATCHDOG SHOULD TAKE A STACK TRACE BEFORE RESTARTING
SERVER, TO AID DEBUGGING FORCED RESTARTS
13478345         HTTPBIND SHOULD NOT BE RESTARTED WHEN A NEW HOSTED
DOMAIN IS ADDED TO IM SERVER
13428426         P-13428241 IN S2S, ONLY ONE-WAY COMMUNICATION OCCURS
WHEN THE REMOTE SERVER ...
13428417         P-13428225 SERVER RESTARTS WHEN REMOTE SERVER IS
RESTARTED IN A FEDERATION
13428320         P-13428260 THREAD STARVATION LEADING TO SERVER RESTART
IN FEDERATION DURING ...
13428291         P-13428207 SERVER HANGS ON RESTARTING REMOTE SERVER IN
FEDERATION
13423327         RACE CONDITION IN HTTPBIND WHEN A REQUEST IS QUEUED.
13394589         HTTPBIND: PACKETS IN QUEUE NOT NOTIFIED
13394195         HTTPBIND: TIME TO WAIT CALCULATION IS WRONG
13389473         SESSION CLOSED WHEN A REQUEST IS RETRANSMITTED
13385823         SESSION CLOSED WHEN AN UNPROCESSED REQUEST'S CONNECTION
IS CLOSED.
13385373         P-13377767 DEADLOCK IN IM SERVER WHEN CLOSING AN S2S
CONNECTION OVER TLS
13385356         P-13377737 DEADLOCK IN IM SERVER WHEN DISCONNECTING AN
S2S CONNECTION OVER TLS
13385292         P-13377664 TOO MANY THREADS BLOCKED ON SINGLE S2S
CONNECTION
13242229         P-13113030 IM SERVER DOES NOT RELEASE LOCK WHEN IT
RECEIVES A MALFORMED BLOC...
13070819         P-12307319 SUNBT7015505 IM 8, WATCHDOG PROCESS NOT
CLOSING UNUSED S_IFIFO DE...
13038924         P-13038813 MULTIPLEXER PROCESS SHOULD SET JAVA MAX HEAP
SIZE
13038031         P-12618951 UNABLE TO DELETE 2 OR MORE BUDDIES WITH IM
13037885         P-12967340 IM PRESENCE ERROR NOT BEING SENT BACK TO
CLIENT
13001788         P-12301322 SUNBT6986255 PROVIDE CONFIGURATION OPTION TO
CUSTOMIZE TO SERVER ...
13001728         P-12307241 SUNBT7015120 IM 8, WATCHDOG PROCESS SHOULD
SET JAVA MAX HEAP SIZE
13001654         P-12367244 RFE TO IMPLEMENT STATISTICS FROM SERVER
13001627         P-12367182 RFE TO ALLOW CONFERENCE SERVER'S NAME TO BE
CONFIGURED TO OTHER T...
12620812         INCORRECT JID/PASSWORD SET FOR CALAGENT AFTER
CONFIGURATION
12305842         SUNBT7009061 NO COMMAND TO
GET-DEFAULT-MUX-THREADPOOL,GET-DEFAULT-SERVER-THREADP
12291429         SUNBT6940010 CONFIGURATOR SHOULD SUPPORT CONFIGURATION
OF CALENDAR AGENT WITH JM
12222617         SUNBT6646034 IMADMIN ASSIGN_SERVICES FAILS WHEN IM
TALKS TO LDAP IN SSL MODE
13478456         MAILEQUIVALENTADDRESS NEED TO BE SUPPORTED FOR
ROSTER.EXTRA.ATTRIBUTES.MAIL
14371084         IM 9 UNABLE TO CONFIGURE MESSAGE CONVERSION API
FUNCTIONALITY
```

```
13039035         P-12912452 FAILS TO CONNECT TO IM SERVER IF THE
RESOURCE NAME IS NOT ASCII 7...
13412514         API KEEPS SENDING SIMULTANEOUS REQUESTS WITHOUT LIMIT
13363744         RESPONSES SHOULD BE PROCESSED IN ORDER OF THEIR RID
13363724         RETRY IN CASE THE RESPONSE IS DELAYED TO HANDLE PACKET
```

```
LOSS
13363687         RID IN COLLAB API SHOULD BE POSITIVE
```

Known Problems in Instant Messaging Server 9 Patch 1

This section contains a list of current known issues for Instant Messaging Server 9 Patch 1.

14402962 - ENABLING S2S COMMUNICATION MUST SET IIM_SERVER.USEPORT=TRUE

S2S communication (Static pool, Shoal, and Federation) does not work because the `iim_server.useport` parameter is not set to `true`.
Workaround:
Set the `iim_server.useport` to `true` by using the `imconfutil` command, if you are using any of the following features, such as "Static pool," "Shoal," or "Federation."

14402678 S2S LISTENER PROPS MUST BE SET WHEN MANUALLY CONFIGURING HTTPBIND COMPONENT

If you are configuring `httpbind` manually (not through the configurator), then you must run the following command for `httpbind` connections to follow through:

```
/opt/sun/comms/im/sbin/imconfutil -u set-listener-prop -c
/opt/sun/comms/im/config/iim.conf.xml s2s protocols=s2s,component,c2s
```

Manual Post Patch Installation Step for Instant Messaging Server 9 Patch 1 Release

This section contains information about manual tasks that must be performed after the patch installation is complete.

When upgrading to Instant Messaging 9 Patch 1, check if you are using any of the following items and do not wish to reconfigure:

- Components: Calendar Agent, HTTPBind, and so on
- S2S Federation
- Server Pool
- Server health monitoring using Watchdog

If you use any of these items, and if you continue to use the existing configuration file and do not wish to reconfigure, then you must set the `iim_server.useport` parameter to **`true`** by using the `imconfutil` command. For example:

```
imconfutil -c <xml config file> set-prop iim_server.useport=true
```

15964936 IM9P1 PRE/POST UPGRADE TASKS FAILS ON OEL SINCE IT'S USING INCORRECT KSH PATH

Upgrading to Instant Messaging Server 9 Patch 1 on Oracle Enterprise Linux fails because of an incorrect `ksh` path in the `preupgrade` and `postupgrade` scripts. The upgrade uses `/usr/bin/ksh`

whereas the default `ksh` location is `/bin/ksh`.

Workaround
Create a symbolic link before you run the upgrade. For example:

```
ln -s /bin/ksh /usr/bin/ksh
```

Known Problems in Instant Messaging Server 9 Patch 2

This section contains a list of current known problems for Instant Messaging Server 9 Patch 2.

Server-to-server communication does not work because the iim_server.useport parameter is not set to true

SR number: NA
Bug number: 14402962

Server-to-server communication (static pool, shoal, federation) does not work because the `iim_server.useport` is not set to true.
Workaround:
Use the `imconfutil` command to set the `iim_server.useport` parameter to **`true`**.

Server-to-server listener properties must be set manually when configuring HTTPBIND

SR number: NA
Bug number: 14402678

If configuring `httpbind` manually (not through the Instant Messaging Server configurator), then you must run the following command for `httpbind` connections to function properly:

```
<im-svr-base>/sbin/imconfutil -u set-listener-prop -c
<im-svr-base>/config/iim.conf.xml s2s protocols=s2s,component,c2s
```

Manual Post Patch Installation Step for Instant Messaging Server 9 Patch 2 Release

SR number: NA
Bug number: NA

The following applies if you are using any of these items and continue to use the previous configuration file:

- Components: Calendar Agent, HTTPBIND, and so on
- S2S Federation
- Server Pool
- Server health monitoring using Watchdog

If you use any of these items, and if you continue to use the old configuration file, then, after installation is complete, you must set the `iim_server.useport` parameter to `true` by using the `imconfutil` command. For example:

```
imconfutil -c <xml config file> set-prop iim_server.useport=true
```

Known Problems in Instant Messaging Server 9 Patch 3

This section contains a list of current known problems for Instant Messaging Server 9 Patch 3.

Server-to-server Whitelisting Is Not Supported after Upgrade from Instant Messaging 8 to Instant Messaging 9

SR number: NA
Bug number: 17155860

The server-to-server coserver configuration is migrated from Instant Messaging 8 to Instant Messaging 9 during an upgrade, even though the coserver-based system of defining whitelists is no longer supported in Instant Messaging 9.

Workaround:

After upgrading from Instant Messaging 8 to Instant Messaging 9, manually remove the server-to-server coserver properties with the following command.

```
./imconfutil delete-coserver -c iim.conf.xml coserver1,coserver2
```

Also, for server-to-server federation to work as previously, set `iim_server.federation.policy=CLOSED` and `iim_server.federation.exceptions=domain1.com, domain2.com` where `domain1.com` and `domain2.com` were the whitelisted domains in Instant Messaging 8.

For information on configuring server-to-server federation, see Federating Instant Messaging Server 9 Deployments with External Servers on XMPP or non-XMPP Networks.

Redistributable Files for Instant Messaging

Instant Messaging software does not contain any files that you can redistribute.

Chapter 39. Messaging Server Release Notes

Oracle Communications Messaging 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 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 `-l`, `-a`, and `-F` options in `deliver` utility
- Deprecation of `local.sslv3enable` default
- 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 `-l`, `-a`, and `-F` options in `deliver` utility

The following options in the Message Store `deliver` utility are deprecated and might be removed in a

future release:

- `-l`: delivers messages using the LMTP protocol (RFC 2033). To set up LMTP, refer to LMTP Delivery.
- `-a` *authid*: specifies the authorization ID of the sender.
- `-F`: bypasses the access control check.

Deprecation of `local.sslv3enable` default

This parameter determines whether legacy support for the SSLv3 protocol (as opposed to the modern TLS protocol) is enabled. The security community considers SSLv3 deprecated and thus we recommend customers disable SSLv3 if possible. Because some older mail clients may only support SSLv3, we have presently left this enabled, but this default is now deprecated and may be changed in a future release.

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: Webmail to SMTP AUTH fails if local.service.http.smtpauthuser is not set. 12243675: SUNBT6725661 Configure Webmail (mshttpd) to use SMTP AUTH by default. This is also required starting with patch -17 of Messaging Server 7.
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 is required since Messaging Server 7u4 is linked against NSS 3.12.x. NSS 3.12.6 is required to support the NSS shared DB. 12247471: SUNBT6745553: Support for NSS shared DB feature.
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 information, see mboxutil.
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:	

Problems Fixed in This Release of Messaging Server

Problems Fixed in Messaging Server 7 Update 4 Patch 27

```
13785139 IMAPD CORE DUMP THREAD REFERENCES STACK OVERFLOW
14179932 IMAP AUTH FOR MISSING USERPASSWORD FAILS WITH "SERVICE
TEMPORARILY UNAVAILABLE"
14186390 WRONG QUOTA VALUE AFTER MAILBOX RESTORED
14197556 WORKAROUND BROKEN CLIENT USE OF ISO-8859-1 FOR IMAP
LOGIN/PASSWORD
14232795 CHANGE DEFAULT OR MAKE CONFIGURABLE IN MESSAGING SERVER
SERVICE.IMAP.INDEXER.TIM
14274448 DEFRAGMENT FINDS ALL FRAGMENTS TO BE TOO OLD
14275046 IMSIMTA TEST -EXP DUMPS CORE
14295740 IMAPD CRASH DUE TO HEAP CORRUPTION CAUSED BY WASABI CODE
14330510 LIBDB.SO STALE LINK TO LIBDB.SO.2
14331785 TCP_LMTP_SERVER CRASH IN MBOXLIST_CLOSE ON EXIT
14373779 ENDIAN PROBLEM IN WRAP FILTER PARSER FOR IPV4 CIDR MASKS
14485559 IMAPD CRASH DUE TO INVALID/CORRUPT MIME BOUNDARY
14499415 STORE.CLEANUPAGE IS BROKEN
14509767 IMAPD CORE IN NSPLUGIN_NOTIFY_APPEND WITH MAXHEADERSIZE 16K
14532623 INCORRECT HANDLING WHEN MILTER DOES NOT FAIL OUTRIGHT
```

Problems Fixed in Messaging Server 7 Update 4 Patch 26

```
4186390 WRONG QUOTA VALUE AFTER MAILBOX RESTORED
12302971 MESSAGING 7, STARTUP FAILS ON CLUSTER WHEN CONFIGURED WITH SSL
HARDWARE token
12919579 IMAPD DUMPS CORE WHEN CONTENT-LENGTH IS MISSING (WASABI CODE)
13321492 ER - EXTEND MAXIMUM PURGE DELAY IN STORE.CLEANUPAGE
13321538 ER - OPTIONS IN MBOXUTIL TO RECOVER MESSAGES AND FOLDERS FOR
PURGE DELAY PERIOD
13325261 ER - WHEN USER DELETES FOLDER, NEED ABILITY TO HIDE FROM USER
VIEW UNTIL PURGED
13645737 APPEND CATENATE SHOULD CHECK FOR UID=0
13695053 HIGHESTMODSEQ IS INCORRECT
13698511 IMAPD CORE DUMP IN JMQ DUE TO HEADERS CONTAINING NULLS
13770442 IMAPD CORE IN GET_STORE_ANNOTATION
13785139 IMAPD CORE DUMP THREAD REFERENCES STACK OVERFLOW
13805846 CMD_DELETE CRASH IN INDEX_CHECK
13811545 $U IN PORT_ACCESS DOESN'T STICK PAST MAIL FROM
13830978 OPERATIONAL ARCHIVING SHOULD USE INTERNAL MESSAGE DATE
ATTRIBUTE FOR POSTEDDATE
13836967 IMAPD CORE DUMP DOUBLE FREE ON IMAP IDLE
13840268 VERY FREQUENT IMAP CORES POINTING TO POSSIBLE HEAP CORRUPTION
13842267 NULL INPUT BUFFER CAUSES HEAP CORRUPTION CORE WITH LIBUMEM
13858437 PROBLEMS WITH MULTIPLE RECIPIENT BDAT AND BDAT ERROR HANDLING
13866546 - NEED CONFIG OPTION FOR LOGGING REGION OUT OF MEMORY
13868105 OPERATIONAL ARCHIVING MODE SHOULD ALWAYS CONSIDER ENVELOPE
RECIPIENTS INTERNAL
13888962 MMP SPOOFPOP3MAILBOX ON TEMPORARY ERROR
13889746 RECONSTRUCT DOES NOT CHECK FOR EXTRANEOUS STORE.C* FILES
13889915 MBOXUTIL -R COPIES STORE.C* FILES BUT NOT CORRESPONDING EXP
RECORDS
13899635 REHOSTUSER DOES NOT CHECK LDAP FOR MAIL HOST BEFORE MIGRATION
13917483 THE MTA'S CACHE FOR DOMAIN SIEVES DOESN'T TIME OUT PROPERLY
```

```
13972401 ENS EVENTS DO NOT CONTAIN CORRECT QUOTA INFO AFTER MBOXUTIL -R
13973252 OVERQUOTA / UNDERQUOTA JMQ NOTIFICATIONS SHOULD BE OPTIONAL
13987851 MAILBOX HAS AN INVALID FORMAT; REPAIR REQUESTED ERRORS IN IMAP
LOG
14018951 SLOW STORAGE PERFORMANCE BECOMES UNREASONABLY HIGH CPU
CONSUMPTION
14043591 IMAPD AT MAXTHREADS BECAUSE ENSCLIENT_THREAD HUNG IN ZOMBIE
STATE
14049123 MSPROBE SHOULD NOT RESTART SERVER ON EADDRINUSE
14051675 MOVEUSER DUMPS CORE IN FUNCTION 'MOVEUSERS'
14066590 NEED A CONFIG OPTION FOR BDB TRICKLE CONFIG
14066688 SELECT UPDATES PERUSER DB WHEN IT DOES NOT NEED TO
14098809 MSHTTPD CRASHING WHILST READING MESSAGE FROM IMAPD
14104127 MMP CRASHES WHILE WRITING TO LOG FILE FOR ADMIN PROXY FAILURE
14109540 - LARGE NUMBER OF DUPLICATE ENTRIES IN THE MAINTENANCE QUEUE
14112523 TCP_LMTP_SERVER CORE DUMPED IN COMM_READ_PACKET
14115413 - TRANSACTION LOG BUFFER IS TOO SMALL
14127417 METERMAID TEST DATA TYPE DEFAULTS TO IPV4 BUT DOCUMENTATION
SAYS STRING14137350 STORED TXN_CHECKPOINT PREVENTED BY CONTENTION WITH
OTHER PROCESSES
14137350 STORED TXN_CHECKPOINT PREVENTED BY CONTENTION WITH OTHER
PROCESSES
14165734 - UNEXPECTED OVERQUOTA EVENT GENERATED
14169104 PARSE_URLSECTION DOES NOT CHECK INPUT LENGTH
14175818 IF THE MESSAGE ALREADY EXISTS, THEN UPDATE ONLY THE INDEX
```

```
RECORD FOR LINKS
14223097 tcp_smtp_server core dump with nosolicit
```

Problems Fixed in Messaging Server 7 Update 4 Patch 25

```
12157960 Restore flags from backup when a copy of the message is already
present.
12249859 SUNBT6756630 IMSBACKUP/IMSRESTORE TO TAKE ACCOUNT OF MESSAGES
THAT HAVE BEEN DEL/EXP
12293759 REHOSTUSER SHOULD HAVE A SHORTER PERIOD WHERE A LARGE MAILBOX
IS IN
12377500 DOES NOT STRIP @IMPORT DIRECTIVE IN THE MESSAGE BODY AND
ATTACH.MSC?PROCESS=JS
12377643 <link> tag not being stripped from html message body
12593312 IMAPD failing silently without OK or ERROR
12618332 ENHANCEMENT REQUEST FOR IMSBACKUP/IMSRESTORE TO INCLUDE
EXPUNGED FILES
12932843 imap core dump, double free after append error
12986763 SMIME DOES NOT WORK WITH CERTIFICATES WHICH USE AN INTERMEDIATE
CA
13051368 MSHTTPD HEAP CORRUPTION DURING MIME PARAMETER PROCESSING
13243185 MSHTTPD CORES IN PROCESSUPLOADEDFILEATTACHMENT
13251091 SOME THAI CHARACTERS DISPLAYED TRUNCATED IN MESSAGE HEADER
13366349 MSHTTP SCRIPTING ISSUE WITH CONVERGENCE
13371511 imdbverify should use private env
13415002 fix THREAD and SORT performance
13444428 fix changeflag event, use msecs for timestamps, encode msgflags
13458684 IMAPD LEAKS FAILED CONNECTIONS TO ISS
13459533 rehostuser should NULL terminate the attr list
13459607 transaction id for auth success log messages
13466578 fix memory leaks
13488053 update the miso/iss configuration for current imap connections
13502572 IMAPD CORE DUMP IN JMQ DUE TO NULL HEADERS
13522229 purge unused userflags when empty space is unavailable
13572497 MBOX.MJS DOES NOT HONOR IMPORTANCE HEADER FIELD
13604201 imexpire -v -r -p hangs
13615068 mailbox_append_exp overwrites store.exp.timestamp
13641616 make ugldapport set default SSL port if ugldapusessl is set
13695917 DIAGNOSTIC INFORMATION FAILS TO APPEAR IN LOG WITHOUT IP_ACCESS
MAPPING
13780267 IMAP SEARCH LEAKS FROM ADDRESS
```

Problems Fixed in Messaging Server 7 Update 4 Patch 23

12351448

imapd assert mailbox_write_index_fixed_header mailbox->index_lock_count = 0

12618314

`imsconnutil` truncates UID in printout lists

12913583

IMAP errors

12685001

`imapd` errors when AUTH-SERV configuration does not include a ":" and port

12351436

enpd errors on shutdown several times per week

12809334

No value multiple `imapd` error in `GDisp_GetAsyncError`

12308200

SUNBT7019869 Convergence applies unexpected character set

12307666

SUNBT7017167 Backslash (0X5C) in subject/body becomes full-width backslash

12798415

`msuserpurge` has LDAP search timelimit of 20 seconds

12427534

`index_check()` should detect when folder has moved and re-read.

12564588

Issues with `DB_VERSION` IN PREPATCH SCRIPT OF 137204-22

12307706

SUNBT7017340 Wildcard search fails

12830727

`imapd` error IN `ELIMINATE_DUMMIES`

12685492

Messages sent to bitbucket channel ignore SIEVE refuse/ereject/reject/setnotify/capture operations

12544595

Upgrade ICU component TO 4.6.1

12643300

IMAP/POP/HTTP don't start if `local.store.notifyplugin` is specified

12619386

IMAP sort test failure for certain Asian languages

12304120

SUNBT7001417 `mshttpd` removes character set tag in attachment

12410926

Message Queue integration for store notification doesn't work due to lack of Message Queue 64-bit support

12770391

LDAP search for empty user generates LDAP protocol error

12638904

"Vanished (earlier)" can contain an unknown UID

12645817

No value IMAP error because of possible stack overflow in `CHECK_PARENTAGE`

12414549

`imapd` errors in `CHECK_PARENTAGE`

12665682

AService errors while releasing LDAP connection

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

Problems 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.

13619370

Error Message: '[CANNOT] invalid mailbox name' is not localized

When using the IMAP language command, the '[CANNOT] invalid mailbox name' error message is not localized.

Workaround:
Since the old resource file structure is no longer supported by ICU (International Components for Unicode), move the resource file to the new supported location. For example:

```
cd <serverroot>/lib/bundles
mkdir imap_err
chown bin:bin imap_err
mv imap_err_ja.res imap_err/ja.res
```

> **Note**
> Make sure `imap_err` is accessible by the `mailsrv` user.

13036704

`imexpire` support for IMAP user flags

Request for support of IMAP user flags so `imexpire` utilizes user flags or as a criteria for expiration.

13030600

`imexpire` option for expiring based on IMAP annotation

Request for `imexpire` to support IMAP annotation. `imexpire` currently can expire based on IMAP flags seen or deleted. This enhancement is for `imexpire` to also recognize messages that have been 'tagged' with IMAP annotation and act based on customer specifications.

13030549

`imexpire` option for excluding messages

Request to provide an option to exclude messages from expiration policies, based on customer specified criteria like headers, flags, or IMAP annotations. Messaging Server currently allows admins to exclude specific users from expiration, but there is no way to exclude specific messages.

13009741

MMP search message ID mismatch error

A single end-user's authentication will fail inappropriately as a result of this bug. To trigger this bug, a pre-authentication session timeout (default 10 min) has to occur while an LDAP search is in progress.

13009673

MMP cored UMP after `GDispCx_MakePollSlave()` and `GDispCx_MoreSockets` call

12999138

Proxy connect for client should be logged at notice rather than at info

12996677

`AService` LWP#1 hung in `lwp_park` with `gdisp_timer` wedge or core

12983227

`imsconutil -k` core dump

12969205

Authentication server mechanisms omitted from IMAP banner after failed authentication server restore

After restoring failed authentication server tool, IMAP banner still omits authentication server mechanisms from fetched capabilities list (for example, `AUTH=ATOKEN AUTH=WSTOKEN AUTH=WETOKEN`).

12945491

`msprobe` does not run on an MMP-only system

`msprobe` does not run if the MTA is not configured. Thus MMP-only installations are missing this key monitoring/reliability feature.

12945297

`AService` hung because poll() failing with `ENOSYS`

After running all day, `AService` process on one out of eight zones hangs. It does not accept new connections.

12932843

`imapd` core dump – double free on connection shut down?

12922745

MMP `AService` core in `Gdisp_InternalResume`

12919579

`imapd` dumps core when content-length is missing

12918194

`defragment` channel crashes frequently

12888681

MMP needs a `numprocesses` feature like `imapd`

In very high-end deployments with many connections thru MMP, the poll() scalability/performance issue causes the `AService` process main/dispatch thread to consume all of a single processor and become a serious bottleneck. The delivery of new work to worker threads is transferred or transmitted in short, uneven spurts, so that `AService` frequently runs near `maxthreads`. All the worker threads are idle and system load average is high because when work arrives, there are many threads waiting for CPU - all for

very short time - but this causes the run queue to be sporadically high and therefore appears as high load average.

12873473

`imquotacheck` core dump when delimiter is not =

In case a user defines delimiter other than =, in customer's case they use `:` instead, variable value becomes "", which eventually causes `strcpy()` copies from same address to same address and consequently causes segmentation fault.

12866981

CRL check fails due to NSS requirement for authentication

12698180

Add the ability to combine multiple `imexpire` tests with "AND" instead of "OR"

Currently `imexpire` tests are combined with an "OR" operation. So if an `imexpire` rule has multiple tests if any single test passes the action will be carried out. For example:

```
rule1.regexp: 1
rule1.folderpattern: user/%/INBOX
rule1.messagedays: 60
rule1.messagecount:1000
```

If a message is > 60 days old **OR** the `messagecount` is > 1000 emails will be discarded.

A useful extension to the `imexpire` utility would be to be able to combine the tests with an **AND** operation so that in the above case only folders that have old emails (>60 days) AND have a large number of emails (> 1000) will be trimmed.

12667295

A line in header was folded incorrectly

12305793

Enhancement request for `imsbackup` and `imsrestore` to include expunged files

Since the existing imsbackup does not back expunged messages, a user that has been moved may not be able to recover expunged messages. This is a request for the ability
to back these expunged messages up and be able to recover them after a move.

12593312

Request for debugging method of `CMD_COPY()/MBOXNAME_TOINTERNAL()`

12375980

Core dump when dynamic LDAP URL expands to multiple recipients

12307624

SUNBT7016917 MTA BURL `urlauth=submit+<userid>` processing does not allow for use of `inetDomainSearchFilter`

If you configure `inetDomainSearchFilter` to allow users to authenticate using an attribute other than UID, the `BURL_ACCESS` table prevents the normal use of BURL.

```
*|*@*|imap://*;URLAUTH=submit+$1*:*         $:A$M$Y
```

This can never match because the authentication-identity in the probe has been canonicalized whereas the `urlauth=submit+<uid>` part of the URL cannot be.

12302971

SUNBT6994723 Messaging 7, startup fails on cluster when configured with SSL acceleration hardware

12300028

SUNBT6978088 `imsimta process` prompts for password when run as non-root user on Linux

When user tries to run `imsimta process` as the `mailsrv` userID, it prompts for password.

12299168

SUNBT6973581 `imapd` CORE IN `index_checkperuser` on shutdown

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/`

Chapter 40. 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.

> **Note**
> Support for Access Manager is deprecated. For more information, see: Access Manager Support Deprecation.

For more information about the compatibility between Access Manager, the Java version, and a Communications Suite installation, see Communications Suite 7 Update 2 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 41. 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. 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.

3. 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.

4. 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.

5. 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**.

6. Click the **Launch the Connector for Microsoft Outlook Deployment Configuration Program** checkbox.

7. 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 42. 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 GlassFish Server to Run Delegated Administrator in SSL Mode
- 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 welcome 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.
   - 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:
- Web Server 6.x Configuration
- Application Server 7.x Configuration
- Application Server 8.x or higher Configuration

3. **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.
4. **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`.
5. **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.
6. **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.
7. **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.
8. **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.
9. **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.

10. 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 https://support.oracle.com/.

1. Create a text file with the following lines. Replace the parameters shown in the file with values specific to your installation:
   For DSEE 7/ODSEE 11gR2:

```
dn: cn=Uniqueness in Messaging Attribute Set,cn=plugins,cn=config
objectClass: top
objectClass: nsSlapdPlugin
objectClass: ds-signedPlugin
objectClass: extensibleObject
cn: Uniqueness in Messaging Attribute Set
nsslapd-pluginPath: /opt/SUNWdsee7/lib/amd64/uid-plugin.so
nsslapd-pluginInitfunc: NSUniqueAttrSet_Init
nsslapd-pluginType: preoperation
nsslapd-pluginEnabled: on
nsslapd-pluginarg0:
attributeset=mail,mailalternateaddress,mailequivalentaddress
nsslapd-pluginarg1: dc=siroe,dc=com
nsslapd-plugin-depends-on-type: database
nsslapd-pluginId: NSUniqueAttrSet
nsslapd-pluginVersion: 11.1.1.5.0
nsslapd-pluginVendor: Oracle Corporation
nsslapd-pluginDescription: Enforce unique values among an attribute
set
```

   For DSEE 6.3.1 (64-bit Solaris x86):

```
dn: cn=Uniqueness in Messaging Attribute Set,cn=plugins,cn=config
objectClass: top
objectClass: nsSlapdPlugin
objectClass: ds-signedPlugin
objectClass: extensibleObject
cn: Uniqueness in Messaging Attribute Set
nsslapd-pluginPath: /opt/SUNWdsee/ds6/lib/amd64/uid-plugin.so
nsslapd-pluginInitfunc: NSUniqueAttrSet_Init
nsslapd-pluginType: preoperation
nsslapd-pluginEnabled: on
nsslapd-pluginarg0:
attributeset=mail,mailalternateaddress,mailequivalentaddress
nsslapd-pluginarg1: dc=siroe,dc=com
nsslapd-plugin-depends-on-type: database
nsslapd-pluginId: NSUniqueAttrSet
nsslapd-pluginVersion: 6.3.1
nsslapd-pluginVendor: Sun Microsystems, Inc.
nsslapd-pluginDescription: Enforce unique values among an attribute
set
```

Change the following parameters:

- These examples show specific paths for `nsslapd-pluginPath`. If necessary, replace with the directory underneath which your Directory Server is installed. For example: `/var/opt/mps/serverroot`
- These examples show a specific `ugldapbasedn` for `nsslapd-pluginarg1`. If necessary, replace with your root suffix. Uniqueness checking is performed on all entries underneath this suffix.

2. Stop Directory Server.
3. 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
   ```

4. 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 service packages.
#
# There are six COS definitions :
#   standardUserMail
#   standardUserCalendar
#   standardUserMailCalendar
#   standardGroupMail
```

```
#   standardGroupCalendar
#   standardGroupMailCalendar
#
# Each definition can have zero or more COS templates which
# define specific values for the attributes listed in the
# COS definition.
#
# Each COS definition points to a corresponding subdirectory
# in which COS templates for that definition (and no other
# definition) are found.  The templates directory structure
# is as follows:
# standardUserMail       => o=mailuser,o=costemplates,<ugldapbasedn>
# standardUserCalendar      => o=calendaruser,o=costemplates,
#                               <ugldapbasedn>
# standardUserMailCalendar  => o=mailcalendaruser,o=costemplates,
#                               <ugldapbasedn>
# standardGroupMail       => o=mailgroup,o=costemplates,
#                               <ugldapbasedn>
# standardGroupCalendar   => o=calendargroup,o=costemplates,
#                               <ugldapbasedn>
# standardGroupMailCalendar => o=mailcalendargroup,o=costemplates,
#                               <ugldapbasedn>
#
# Thus, all COS templates for the user mail service are found in the
# o=mailuser,o=costemplates,<ugldapbasedn> directory, etc.
#
# It is not necessary to have any templates for a given definition.
# In that case default values are assumed for those attributes defined
# in the COS definition.
#
# If a template is created for a definition there should be at least
# one attribute with a defined value.
#
# Consult documentation for values for the attributes.
# Documentation includes units and default values.
#
# The finished COS derived from this skeleton is added to the
# directory with the following command:
#
# ldapmodify -D <directory manager> -w <password>
# -f <cos.finished.template.ldif>
#
#
##############################################################
#
# standardMailUser COS template
#
##############################################################
# There must be a least one of the following attributes:
# - mailMsgMaxBlocks
# - mailQuota
# - mailMsgQuota
# - mailAllowedServiceAccess
#
dn: cn=<service package name>,o=mailuser,o=cosTemplates,
    <ugldapbasedn>
```

```
changetype: add
objectclass: top
objectclass: LDAPsubentry
objectclass: extensibleobject
objectclass: cosTemplate
cn: <service package name>
mailMsgMaxBlocks: <mailMsgMaxBlocksValue>
mailQuota: <ma:ilQuotaValue>
mailMsgQuota: <mailMsgQuotaValue>
mailAllowedServiceAccess: <mailAllowedServiceAccessValue>
daServiceType: mail user#
#
##############################################################
#
# standardCalendarUser COS template
#
##############################################################
# There must be a least one of the following attributes:
# - icsPreferredHost
# - icsDWPHost
# - icsFirstDay
#
dn: cn=<service package name>,o=calendaruser,o=cosTemplates,
    <ugldapbasedn>
changetype: add
objectclass: top
objectclass: LDAPsubentry
objectclass: extensibleobject
objectclass: cosTemplate
cn: <service package name>
icsPreferredHost: <preferredHostValue>
icsDWPHost: <dwpHostValue>
icsFirstDay: <firstDayValue>
daServiceType: calendar user
#
#
##############################################################
#
# standardMailCalendarUser COS template
#
##############################################################
# There must be a least one of the following attributes:
# - mailMsgMaxBlocks
# - mailQuota
# - mailMsgQuota
# - mailAllowedServiceAccess
#
dn: cn=<service package name>,o=mailcalendaruser,o=cosTemplates,
    <ugldapbasedn>
changetype: add
objectclass: top
objectclass: LDAPsubentry
objectclass: extensibleobject
objectclass: cosTemplate
cn: <service package name>
mailMsgMaxBlocks: <mailMsgMaxBlocksValue>
```

```
mailquota: <mailQuotaValue>
mailmsgquota: <mailMsgQuotaValue>
mailAllowedServiceAccess: <mailAllowedServiceAccessValue>
daServiceType: calendar user
daServiceType: mail user
#
#
##############################################################
#
# standardMailGroup COS template
#
##############################################################
# There must be a least one of the following attributes:
# - mailMsgMaxBlocks
#
#
dn: cn=<service package name>,o=mailgroup,o=cosTemplates,
    <ugldapbasedn>
changetype: add
objectclass: top
objectclass: LDAPsubentry
objectclass: extensibleobject
objectclass: cosTemplate
cn: <service package name>
mailMsgMaxBlocks: <mailMsgMaxBlocksValue>
daServiceType: mail group
#
#
##############################################################
#
# standardCalendarGroup COS template
#
##############################################################
# There must be a least one of the following attributes:
# - icsdoublebooking
# - icsautoaccept
#
#
dn: cn=<service package name>,o=calendargroup,o=cosTemplates,
    <ugldapbasedn>
changetype: add
objectclass: top
objectclass: LDAPsubentry
objectclass: extensibleobject
objectclass: cosTemplate
cn: <service package name>
icsdoublebooking: <doubleBookingValue>
icsautoaccept: <autoAcceptValue>
daServiceType: calendar group
#
#
##############################################################
#
# standardMailCalendarGroup COS template
#
##############################################################
```

```
# There must be a least one of the following attributes:
# - icsdoublebooking
# - icsautoaccept
# - mailMsgMaxBlocks
#
#
dn: cn=<service package name>,o=mailcalendargroup,o=cosTemplates,
    <ugldapbasedn>
changetype: add
objectclass: top
objectclass: LDAPsubentry
objectclass: extensibleobject
objectclass: cosTemplate
cn: <service package name>
mailmsgmaxblocks: <mailMsgMaxBlocksValue>
icsdoublebooking: <doubleBookingValue>
icsautoaccept: <autoAcceptValue>
```

```
daServiceType: calendar group
daServiceType: mail group
```

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.
   - `<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`.
   - 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:A
     ```

   - 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.

3. 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> -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: <local.ugldapbasedn>
########################################
dn: <ugldapbasedn>
changetype: modify
add: aci
aci: (target="ldap:///($dn),<ugldapbasedn>")(targetattr="*")
(version 3.0; acl "Organization Admin Role access deny to org
node";
deny (write,add,delete) roledn = "ldap:///cn=Organization Admin
Role,($dn),<ugldapbasedn>";)
```

```
dn: <ugldapbasedn>
changetype: modify
add: aci
aci: (target="ldap:///($dn),<ugldapbasedn>")(targetattr="*")
(version 3.0; acl "Organization Admin Role access allow read
to org node";
allow (read,search) roledn = "ldap:///cn=Organization Admin
Role,($dn),<ugldapbasedn>";)
```

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>
########################################
dn: <dctreebasedn>
changetype: modify
add: aci
aci: (target="ldap:///($dn),<dctreebasedn>")(targetattr="*")
(version 3.0; acl "Organization Admin Role access deny to dc node";

deny (write,add,delete) roledn = "ldap:///cn=Organization Admin
Role,($dn),<ugldapbasedn>";)
```

```
dn: <dctreebasedn>
changetype: modify
add: aci
aci: (target="ldap:///($dn),<dctreebasedn>")(targetattr="*")
(version 3.0; acl "Organization Admin Role access allow read to dc
node"; allow (read,search) roledn = "ldap:///cn=Organization Admin
Role,($dn),<ugldapbasedn>";)
```

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
aci: (target="ldap:///<dctreebasedn>")(targetattr="*")
(version 3.0; acl "S1IS Proxy user rights"; allow (proxy)
userdn = "ldap:///cn=puser,ou=DSAME Users,<ugldapbasedn>";)
```

```
dn:<dctreebasedn>
changetype:modify
add:aci
aci: (target="ldap:///<dctreebasedn>")(targetattr="*")
(version 3.0; acl "S1IS special dsame user rights for all under the

root suffix"; allow (all) userdn ="ldap:///cn=dsameuser,ou=DSAME
Users,<ugldapbasedn>";)
```

```
dn:<dctreebasedn>
changetype:modify
add:aci
aci: (target="ldap:///<dctreebasedn>")(targetattr="*")
(version 3.0; acl "S1IS Top-level admin rights";
allow (all) roledn = "ldap:///cn=Top-level Admin
Role,<ugldapbasedn>";)
```

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 "cn=Directory Manager" -w password
dn: dc=com,o=internet
changetype: modify
add: objectclass
objectclass: inetdomain
```

7. Restart the Web container.

Configuring GlassFish Server to Run Delegated Administrator in SSL Mode

If you have deployed the Delegated Administrator console to GlassFish Server 2.1.1, you can run the Delegated Administrator console in SSL mode, over a secure port.

To enable the Delegated Administrator console and utility to use SSL access:

1. Edit the daconfig.properties file, located in the *da-base*/data/da/WEB-INF/classes/com/sun/comm/da/resources directory.
2. Change the property values as follows:

```
commadminserver.port=<port>
commadminserver.usessl=true
```

   where *port* is the HTTPS port, for example 8181.

3. Deploy the Delegated Administration Console web application to GlassFish by running the deploy script.
   For example:

```
<da-base>/sbin/config-appsvr8x-da deploy
```

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-Cert -d \
   -P https-<host>.<domain-host>-
   /opt/SUNWwbsvr/alias -a > /tmp/host.cert
   ```

   where

   - `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`.
3. 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.

4. 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.

5. 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
   ```

6. 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.

7. 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 43. 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.

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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.

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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 44. Communications Suite on a Single Host

Deployment Example: Oracle Communications Unified Communications Suite on a Single Host Version 7 Update 2

This deployment example describes how to install Communications Suite 7 Update 2 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, instant messaging, 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 Communications Suite 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.

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 **Oracle Communications Unified Communications Suite 7 Update 2** for Solaris OS 10. 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 Patch 23
- Calendar Server 7 Update 2
- Instant Messaging 9
- Directory Server Enterprise Edition 11gR1
- GlassFish Server 2.1.1 with HADB support
- Delegated Administrator 7 Patch 4
- Convergence 2 Patch 2
- Indexing and Search Service 1 Update 3
- 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 or x86 64-bit
RAM	2 Gbytes or more
Disk Space	2 Gbytes or more free disk space for installed software. 2 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	Port Number
GlassFish Server 2.1.1	Installed separately. Required for Convergence	`/opt/SUNWappserver`	Not applicable	HTTP Port	80
				Admin Port	4848
				HTTPS Port	443
Directory Server 11gR1	Installed separately.	`/opt/SUNWdsee`	`/var/opt /SUNWdsee`	Directory Server Port	389
				LDAP Port	389
				SSL Port	636
Messaging Server 7 Update 4	Installed by using Communications Installer. Additional configuration required.	`/opt/sun /comms/messaging64`	`/var/opt/sun /comms/ messaging64`	Webmail Port (HTTP)	8990
				SMTP Port	25
				POP Port	110
				IMAP Port	143
Instant Messaging 9	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/im`	`/var/opt /sun/comms/im`	XMPP Port	5222
				Multiplexed XMPP Port	45222
				XMPP Server Port	5269
				Notification Server Port	47676
GlassFish Server 2.1.1	Installed separately. Required by Calendar Server 7 Update 2	`/opt/ SUNWappserverCS`	Not applicable	HTTP Port	8080
				Admin Port	8800
				HTTPS Port	8181

MySQL Server 5.5.8	Installed by Communications installer. Additional configuration required.	`/opt/mysql`	`/var/mysql/caldav`	DB Port	3306
Calendar Server 7 Update 2	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/davserver`	`/var/mysql/caldav`	HTTP Port	8080
				Admin Port	8800
				HTTPS	8181
				JMQ Port	47676
GlassFish Message Queue	Installed by Communications installer. Additional configuration required.	`/etc/imq`	Not applicable	JMQ Port	7676
Convergence 2	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/iwc`	`/var/opt/sun/comms/iwc`	Server Instance HTTP Port	80
				Administration Server Port	4848
Indexing and Search Service 1 Update 3	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/jiss`	`/var/opt/sun/comms/jiss`	HTTP Port	80
				Admin Port	4848
				HTTPS Port	443
				IMAP Port	143
				JMQ Port	7676
				Directory Server Port	389

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, GlassFish 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.

> **Note**
> Communications Suite 7 Update 2 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.
3. 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.
<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
4. Installing and Configuring GlassFish Server
5. Preparing Directory Server for Communications Suite
6. Configuring Delegated Administrator and Communications CLI
7. Configuring Messaging Server
8. Configuring MySQL Server
9. Configuring Calendar Server
10. Configuring Instant Messaging
11. Configuring Convergence
12. Configuring Indexing and Search Service
13. Configuring users

These installation steps result in a suitable deployment to evaluate and test Communications Suite 7 Update 2. 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 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 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 2 download site.

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 2 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`.

```
groupadd mail
mkdir -p /export/home
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 2 Software

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

To Install the Communications Suite Software

1. Create a `/temp/UCS` directory, move the Communications Suite 7 Update 2 software zip file (`CommsR7u2-solaris_*.zip`) to this directory and extract the files.

   ```
   cd /temp/UCS
   unzip CommsR7u2-solaris_*.zip
   ```

2. Run the Communications Suite installer.

   ```
   ./commpkg install
   ```

3. Accept the default Install location: `/opt/sun/comms`
4. Select the following components for installation: 1,2,3,4,5,6,7
   - Messaging Server (64bit) 7u4 (7.4-23.01)
   - Comms DSsetup 6.4 (6.4-23.01)
   - Calendar Server 7u2 (7.2-4.19)
   - Instant Messaging 9 (9.0-00.15)
   - Convergence 2 (2.0-2.01)
   - Indexing and Search Service 1u3 (1.3-8.6501)
   - Comms Delegated Administrator 7 (7.0-4.00)
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 2.
8. Press Return when prompted to continue.
9. Continue with the next section.

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 following command to create the directory:

   ```
   mkdir /opt/SUNWdsee
   ```

2. Move the downloaded Directory Server zip file `V25760-01.zip` to a temporary location, such as `/temp/DS`.
3. Unzip the file.

   ```
   cd /temp/DS
   unzip V25760-01.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`.

4. Create your Directory Server instance.

   ```
   mkdir /var/opt/SUNWdsee
   cd /opt/SUNWdsee/dsee7/bin
   ./dsadm create /var/opt/SUNWdsee/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/SUNWdsee/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 Server

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

Prerequisite: Run the `java -version` command to verify that you have at least Java 1.6 installed and linked to. If necessary, you can run a command such as the following to point to the current Java version on the system:

```
ln -s /usr/jdk/latest /usr/java
```

1. Move the downloaded GlassFish 2.1.1 zip file `128643-27.zip` to a temporary location, such as `/temp/GF`.
2. Unzip the file and launch the installer.

   ```
   cd /temp/GF
   unzip 128643-27.zip
   cd 128643-27
   ./sges_ee-2_1_1-p13-solaris-sparc-ml.bin -console
   ```

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 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	[1. Install Java 2 SDK]	**2. Reuse existing Java 2 SDK**
Existing JDK Location	[/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]	**443**
Enable Updatecenter client	[yes]	**no**
Upgrade from previous AS version	[no]	*accept default*

5. Select 1. Install Now.
   The installation proceeds.
6. When the installation completes, press Return to exit.
7. 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.

8. Start GlassFish Server:

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

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

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

11. Type **`admin`** and **`adminpass`** as the username and password when prompted.
12. 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 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 Directory
- Configuring Delegated Administrator and Communications CLI
- Configuring Messaging Server
- Configuring Calendar Server 7
- Configuring Instant Messaging
- Configuring Convergence
- Configuring Indexing and Search Service

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.pl` script is located and run the script, for example:

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

2. Type **y** to continue.
   The 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.pl` script proceeds.
4. When prompted, type **y** to continue with the script.
   Continue with the next step after `comm_dssetup.pl` 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/domains/domain1*
Domain Root Directory	[/var/opt/SUNWappserver/domains/domain1/docroot]	*/opt/SUNWappserver/domains/domain1/docroot*
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/ domains/domain1*
Document Root Directory	[/var/opt/SUNWappserver/domains/domain1/docroot]	*/opt/SUNWappserver/ domains/domain1/docroot*
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]	*accept default*
Top Level Admin for Default Organization	[admin]	*accept default*
Password	-	**adminpass**
Load Sample Service Packages	[Y]	*accept default*
Load Sample Organizations	[Y]	**n**

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 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 -S
mail,cal,im -H wireless.comms.beta.com -B wireless.comms.beta.com

Enter login password:  adminpass
Enter DNS domain name:  comms.beta.com
OK

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

Enter login password: adminpass
OK
```

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	[]	**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.

Configuring Calendar Server 7

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

```
cd /temp/GF
cd 128643-27
./sges_ee-2_1_1-p13-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 2 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]	**8800**
HTTP Port	[38292]	**8080**
HTTPS Port	[38298]	**8181**
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 DATABASE ischedule CHARACTER SET = UTF8;
mysql> CREATE USER 'caldav'@'localhost' IDENTIFIED BY 'adminpass';
mysql> GRANT ALL ON caldav.* TO 'caldav'@'localhost';
mysql> GRANT ALL ON ischedule.* TO 'caldav'@'localhost';
mysql> exit
```

14. Configure MySQL to start automatically upon reboot.
    a. Check for a symbolic link to `S99mysql`.

    ```
    ls -l /etc/rc3.d
    ```

    b. If there is no `S99mysql`, create a symbolic link.

    ```
    ln -s /etc/init.d/mysql /etc/rc3.d/S99mysql
    ```

15. Make sure that you are `root` user.

    ```
    su -
    ```

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

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

17. 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
    ```

18. Click Next at the Welcome page.
19. Directory to store configuration and data files [/var/opt/sun/comms/davserver]
20. 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 2 configure Script

Option	[Default Value]	Enter
Host Name	[wireless]	*accept default*
DNS Domain Name	[comms.beta.com]	*accept default*
MySQL or Oracle Database	[MySQL]	*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*
iSchedule Database Name	[ischedule]	*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]	**8800**
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.*
LDAP Unique ID Attribute	[nsuniqueid]	*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]	*accept default*
Calendar Administrator User Password	--	**adminpass**

21. Click the "Configure Now" button to configure Calendar Server 7.
22. After the configuration is complete, click Next to continue.
23. Click Next to continue.
24. Click Close to quit the Calendar Server configuration wizard.
25. Restart GlassFish Server.

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

26. 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.
3. Hit Enter whenever prompted whether to go back to the previous panel.
   The configuration wizard prompts for a series of options.
4. 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/sun/comms/im]	*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*
Gateway Connector Port	[55222]	*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 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*
Enable Facebook Gateway	[no]	*accept default*
Start Services After Successful Configuration	[yes]	**yes**
Start Services When System starts	[yes]	**yes**

5. At the Configuration Summary page, select **Done** to exit.
6. To configure Instant Messaging Server for integration with Convergence, first save off a copy of the configuration:

```
cd /opt/sun/comms/im/config
cp iim.conf.xml iim.conf.xml.orig
```

7. Next, add the new httpbind and avatar component JIDs to this configuration by executing the following commands:

```
cd /opt/sun/comms/im/sbin
./imconfutil set-prop -c /opt/sun/comms/im/config/iim.conf.xml
iim_agent.enable=true
./imconfutil add-component -c /opt/sun/comms/im/config/iim.conf.xml
id=httpbind jid=wireless.httpbind.comms.beta.com password=adminpass
./imconfutil add-component -c /opt/sun/comms/im/config/iim.conf.xml
id=avatar jid=wireless.avatar.comms.beta.com password=adminpass
./imconfutil -u set-listener-prop -c
/opt/sun/comms/im/config/iim.conf.xml s2s
protocols=s2s,component,c2s
```

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.

8. Enable Hosted Domain Schema 2 support by making the following change:

```
./imconfutil set-prop -c /opt/sun/comms/im/config/iim.conf.xml
iim_ldap.useidentityadmin=false iim_server.usesso="0"
iim.policy.modules=iim_ldap_schema2 iim.userprops.store="ldap"
iim_ldap.schema2.domain_config_root="o=isp"
```

9. Start the Instant Messaging server.

```
./imadmin start
```

10. 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`.
11. Continue with the next section.

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]	*accept default*
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. Restart GlassFish Server.

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

10. 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. Configure the IMQ broker.

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

   The following changes will most likely be necessary:

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

2. 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
   nohup /etc/init.d/imq start
   ```

3. 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
   ```

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

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

5. 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.
   ```

6. Reset the default admin account password.

```
./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.
```

7. 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$ms-internal$`, prepend the new JMQ notification to existing one, for example:

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

If no response is returned, execute the following command:

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

8. 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
```

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

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

cat /opt/sun/comms/messaging64/log/imap
```

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 Server IMAP4 7u4-18.01 64bit (built Jul
15 2010) starting up
```

10. 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
```

11. 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.
```

12. 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
```

13. 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
```

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
Enable cluster configuration (iss.cluster.enabled)	[false]	*accept default*
Fully qualified domain name of system (hostname)	--	**wireless.comms.beta.com**
Instance name of the installation for an indexing node, for example, iss1 (instance.name)	[none]	**wireless**
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:389*
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: 7676*
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:38**
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*

14. Restart GlassFish Server.

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

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

```
cd /opt/sun/comms/jiss/bin
./issadmin.sh --bootstrap --user <user> --host
wireless.comms.beta.com
```

In this example, type the following command:

```
cd /opt/sun/comms/jiss/bin
./issadmin.sh --bootstrap --user jdoe --host
wireless.comms.beta.com
```

16. 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`.
17. Configure Messaging Server to send searches to Indexing and Search Service:

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

18. 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
```

19. Increase the number of GlassFish request processing 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
```

20. Restart GlassFish Server.

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

Creating Additional User Accounts and Groups

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

To Create Users and Groups using the 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 mailing and calendar group (Demostaff@comms.beta.com) consisting of the newly created users.

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 -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 -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 -S mail -E Demostaff@comms.beta.com -H
   wireless.comms.beta.com -o calmaster -m demo1 -m demo2
   ```

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

```
cd /opt/sun/comms/jiss/bin
./issadmin.sh --bootstrap --user demo1 --host
wireless.comms.beta.com
./issadmin.sh --bootstrap --user demo2 --host
wireless.comms.beta.com
```

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 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.

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.

Chapter 45. Communications Suite on a Single Host (Linux)

Deployment Example: Oracle Communications Unified Communications Suite on a Single Host (Linux) Version 7 Update 2

This deployment example describes how to install Communications Suite 7 Update 2 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. Communications Suite 7 Update 2 supports both Oracle Linux 5 and Red Hat Enterprise Linux 5 64-bit. These instructions apply to both operating systems.

> **Note**
> Installing the back-end 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 better if you install services on separate machines.

- Comparison to Communications Suite 7 Update 1 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 Update 1 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.

- Oracle Linux 5.5 64-bit is the default operating system in the Linux guide
- Indexing and Search Service 1 Update 3 is now installed and configured in the Linux guide

New features for Communications Suite 7 Update 2 can also be found in the Communications Suite 7 Update 2 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

This scenario results in a functioning deployment suited for the evaluation and testing of **Oracle Communications Unified Communications Suite 7 Update 2** on Oracle Linux 5. 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 Patch 23
- Calendar Server 7 Update 2
- Instant Messaging 9
- Directory Server Enterprise Edition 11gR1
- GlassFish Server 2.1.1 with HADB support
- Delegated Administrator 7 Patch 4
- Convergence 2 Patch 2
- Indexing and Search Service 1 Update 3
- 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 Oracle Linux 5.5 64-bit)
- Fully qualified (external) host name: `demo.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	x86 64-bit
RAM	2 Gbytes or more
Disk Space	2 Gbytes or more free disk space for installed software. 2 Gbytes additional disk space may be needed for temporary storage of Communications Suite zip files.
Software	Oracle Linux 5.5 64-bit.
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
GlassFish Server 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`
Directory Server 11gR1	Installed separately.	`/opt/sun/directory`	`/var/opt/sun/directory/dsins1`
Messaging Server 7 Update 4	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/messaging64`	`/var/opt/sun/comms/messaging64`

Instant Messaging 9	Installed using Communications Installer. Additional configuration required.	`/opt/sun/comms/im`	`/var/opt/sun/comms/im`
MySQL 5.5.8	Installed using Communications Installer. Additional configuration required	`/usr`	`/var/lib/mysql`
Calendar Server 7 Update 2	Installed using Communications Installer. Additional configuration required.	`/opt/sun/comms/davserver`	`/var/opt/sun/comms/davserver`
GlassFish Message Queue	Installed by Communications installer. Additional configuration required.	`/etc/opt/sun/mq`	Not applicable
Convergence 2	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/iwc`	`/var/opt/sun/comms/iwc`
Indexing and Search Service 1 Update 3	Installed by using Communications Installer. Additional configuration required.	`/opt/sun/comms/jiss`	`/var/opt/sun/comms/jiss`

Installation Time Estimates

The following table provides time estimates for installing this example.

Table 4 Installation Time Estimates

Activity	Estimate
Install Oracle Linux Operating System	2 hours
Install Communications Suite, GlassFish 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.
<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
4. Installing and Configuring GlassFish Server
5. Preparing Directory Server for Communications Suite
6. Configuring Delegated Administrator and Communications CLI
7. Configuring Messaging Server
8. Configuring MySQL Server
9. Configuring Calendar Server
10. Configuring Instant Messaging

11. Configuring Convergence
12. Configuring Indexing and Search Service
13. Configuring users

These installation steps result in a suitable deployment to evaluate and test Communications Suite 7 Update 2. 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 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 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 Oracle Linux 5 uses 1024 file descriptors, which is insufficient for the correct operation of Communications Suite 7 Update 2. A Communications Suite 7 Update 2 system needs the maximum file descriptors set to 16384.

1. In a terminal window, as `root` user, verify the number of file descriptors.
   `ulimit -n`
2. If this number is less than 16384 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

Oracle 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 the Software from the Communications Suite 7 Update 2 download site.

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 2 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`.

```
groupadd mail
mkdir -p /export/home
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.

```
service sendmail stop
chkconfig --del 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 2 Software

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

To Install the Communications Suite Software

1. Create a `/temp/UCS` directory, move the Communications Suite 7 Update 2 software zip file (

CommsR7u2-linux_x86.zip) to this directory and extract the files.

```
cd /temp/UCS
unzip CommsR7u2-linux_x86.zip
```

2. Run the Communications Suite installer.

```
./commpkg install
```

3. Accept the default Install location: /opt/sun/comms
4. Select the following components for installation (2,3,4,5,6,7,8).

```
2.     Messaging Server (64bit) 7u4 (7.4-23.01)
3.     Comms DSsetup 6.4 (6.4-23.01)
4.     Calendar Server 7u2 (7.2-4.19)
5.     Instant Messaging 9 (9.0-00.15)
6.     Convergence 2 (2.0-2.01)
7.     Indexing and Search Service 1u3 (1.3-8.6501)
8.     Comms Delegated Administrator 7 (7.0-4.00)
```

The installation proceeds.

5. You are reminded to set a password for the MySQL root user.
   You do this later when installing Calendar Server 7 Update 2.
6. Press Return when prompted to continue.
7. Continue with the next section.

Installing and Configuring Directory Server

To Install the Zip Version of Directory Server 11gR1

1. Move the downloaded Directory Server zip file V25767-01.zip to a temporary location, such as /temp/DS.
2. Unzip the file.

```
cd /temp/DS
unzip V25767-01.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 /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 Server

GlassFish Server 2.1.1 with HADB 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 zip file `128645-27.zip` to a temporary location, such as `/temp/GF`.
2. Unzip the file and launch the installer.

```
cd /temp/GF
unzip 128645-27.zip
cd 128645-27
./sges_ee-2_1_1-p13-linux-ml.bin -console
```

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 GlassFish 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]	**2. Reuse existing Java 2 SDK**
Existing JDK Location	[/usr/java/jdk1.6.0_26]	**/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 1. Install Now
   The installation proceeds.
6. When the installation completes, press Return to exit.
7. 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 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.

8. Start GlassFish Server:

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

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

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

11. Type **admin** and **adminpass** as the username and password when prompted.
12. 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.

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 Directory
- Configuring Delegated Administrator and Communications CLI
- Configuring Messaging Server
- Configuring MySQL Server
- Configuring Calendar Server
- Configuring Instant Messaging Server
- Configuring Convergence
- Configuring Indexing and Search Service
- Creating Additional User Accounts and Groups

Preparing the Directory

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 .pl` script is located and run the script, for example:

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

2. Type **y** to continue.
   The 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	[/var/opt/sun/directory/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.pl` script proceeds.
4. When prompted, type **y** to continue with the script.
5. Continue with the next section after `comm_dssetup.pl` 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]	**/opt/sun/appserver**
Domain Directory	[/opt/sun/appserver/domains/domain1]	*accept default*
Doc 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	[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]	**/opt/sun/appserver**
Domain Directory	[/opt/sun/appserver/domains/domain1]	*accept default*
Doc 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	[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	[Y]	*accept default*
Load Sample Organizations	[Y]	**n**

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. Restart GlassFish Server.

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

9. Modify the default domain to provide mail, calendar and IM services.

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

   Enter password `adminpass` when prompted.

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

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

    Enter password `adminpass` when prompted for the admin password and enter password `demo` when prompted for the user password.
    You can create as many users as you like at this point.

11. Continue with the next procedure.

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://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 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/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	[]	**demo.comms.beta.com**
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.

Configuring MySQL Server

Calendar Server 7 Update 2 stores calendar data in a MySQL 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. Start MySQL

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

4. Change the MySQL root password

```
/usr/bin/mysqladmin -u root password adminpass
```

5. 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*

6. 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 DATABASE ischedule CHARACTER SET = UTF8;
mysql> CREATE USER 'caldav'@'localhost' IDENTIFIED BY 'adminpass';
mysql> GRANT ALL ON caldav.* TO 'caldav'@'localhost';
mysql> GRANT ALL ON ischedule.* TO 'caldav'@'localhost';
mysql> exit
```

7. 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	[Calendar Server]	*accept default*
Host Name	[demo]	*accept default*
DNS Domain Name	[comms.beta.com]	*accept default*
MySQL or Oracle Database	[MySQL]	*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*
iSchedule Database Name	[ischedule]	*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*
LDAP Unique ID Attribute	[nsuniqueid]	*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.

Testing Calendar accounts

Calendar Server 7 Update 2 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
   ```

   The Components Selection page appears.

2. Select both `Server` and `Client` components for configuration.
3. Hit Enter whenever prompted whether to go back to the previous panel.
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*
Gateway Connector Port	[55222]	*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 IM HTTP Gateway	[yes]	**no**
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 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*
Enable Facebook Gateway	[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. To configure Instant Messaging Server for integration with Convergence, first save off a copy of the configuration:

```
cd /opt/sun/comms/im/config
cp iim.conf.xml iim.conf.xml.orig
```

7. Next, add the new httpbind and avatar component JIDs to this configuration by executing the following commands:

```
cd /opt/sun/comms/im/sbin
./imconfutil set-prop -c /opt/sun/comms/im/config/iim.conf.xml
iim_agent.enable=true
./imconfutil add-component -c /opt/sun/comms/im/config/iim.conf.xml
id=httpbind jid=demo.httpbind.comms.beta.com password=adminpass
./imconfutil add-component -c /opt/sun/comms/im/config/iim.conf.xml
id=avatar jid=demo.avatar.comms.beta.com password=adminpass
./imconfutil -u set-listener-prop -c
/opt/sun/comms/im/config/iim.conf.xml s2s
protocols=s2s,component,c2s
```

> **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.

8. Enable Hosted Domain Schema 2 support by making the following change:

```
./imconfutil set-prop -c /opt/sun/comms/im/config/iim.conf.xml
iim_ldap.useidentityadmin=false iim_server.usesso="0"
iim.policy.modules=iim_ldap_schema2 iim.userprops.store="ldap"
iim_ldap.schema2.domain_config_root="o=isp"
```

9. Start the Instant Messaging server.

```
./imadmin start
```

10. Continue with the next section.

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 -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]	*accept default*
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]	*accept default*
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 Convergence.
7. Once the configuration is completed, exit the configuration tool.
8. Continue with the next procedure.

To Log into Convergence

1. 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://demo.comms.beta.com/iwc

2. Log in using **jdoe** and **demo** as the user ID and password.
3. After verifying that you can access the Convergence Client, log out.

Configuring Indexing and Search Service

1. Configure the IMQ broker.

```
vi /etc/opt/sun/mq/imqbrokerd.conf
```

The following changes will most likely be necessary:

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

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

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

3. Edit the following information at the bottom of the `/var/opt/sun/mq/instances/imqbroker/props/config.properties` file.

```
# cd /var/opt/sun/mq/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
```

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

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

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

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

6. Reset the default account passwords.

```
# cd /opt/sun/mq/bin
# ./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.
```

7. 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$ms-internal$`, prepend the new JMQ notification to existing one, for example:

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

If no response is returned, execute the following command:

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

8. 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
```

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

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

# cat /opt/sun/comms/messaging64/log/imap
<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 Server IMAP4 7u4-18.01
64bit (built Jul 15 2010) starting up
```

10. Verify that the IMQ broker started up cleanly.

```
# cat /var/opt/sun/mq/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
```

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

```
# /opt/sun/mq/bin/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.
```

12. 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
demo.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
```

13. 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
```

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
Enable cluster configuration (iss.cluster.enabled)	[false]	*accept default*
Fully qualified domain name of system (hostname)	--	**demo.comms.beta.com**
Instance name of the installation for an indexing node, ie iss1 (instance.name)	[none]	**demo**
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]	**/usr/java/latest**
User/Group Directory Server format (mail.ldap)	[none]	**demo.comms.beta.com:389**
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]	**demo.comms.beta.com**
Comma-delimited list of mail server IPs (mail.server.ip)	[none]	**Enter IP address of demo.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]	**demo.comms.beta.com:7676**
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]	**/opt/sun/appserver**
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]	**demo.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]	**demo.comms.beta.com:389**

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*

14. Restart GlassFish Server.

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

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

```
cd /opt/sun/comms/jiss/bin
./issadmin.sh --bootstrap --user <username> --host
demo.comms.beta.com
```

In this example, type the following command:

```
cd /opt/sun/comms/jiss/bin
./issadmin.sh --bootstrap --user jdoe --host demo.comms.beta.com
```

16. 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://demo.comms.beta.com/rest*
    - The URL for the Searchui is: `http://`*fully-qualified-server-name*`/searchui`
      For this example, type: *http://demo.comms.beta.com/searchui*
    - In each case, log in as user `jdoe`. The password is `demo`.
17. Configure Messaging Server to send searches to Indexing and Search Service:

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

18. 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 demo.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
```

19. Increase the number of GlassFish request processing threads to support Convergence and Indexing and Search Service in the same web container.

```
cat /proc/cpuinfo | grep processor | wc -l
cd /opt/sun/appserver/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
```

20. Restart GlassFish Server.

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

Creating Additional User Accounts and Groups

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

To Create Users and Groups using the 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 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 -S mail,cal,im -H demo.comms.beta.com
-B demo.comms.beta.com \
-F Demo -L One -l demo1 -d comms.beta.com -E Demo.One@comms.beta.com
./commadmin user create -D admin -S mail,cal,im -H demo.comms.beta.com
-B demo.comms.beta.com \
-F Demo -L Two -l demo2 -d comms.beta.com -E Demo.Two@comms.beta.com
./commadmin group create -D admin -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
```

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

```
# cd /opt/sun/comms/jiss/bin
# ./issadmin.sh --bootstrap --user demo1 --host demo.comms.beta.com
# ./issadmin.sh --bootstrap --user demo2 --host demo.comms.beta.com
```

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 2 services to start automatically on boot and stop automatically on shut-down.

Communications Suite 7 Update 2 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 2, 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 -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 GlashFish 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

Oracle 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. Change the scratch directory to `/dev/shm/iim-demo`

```
cd /opt/sun/comms/im/sbin
./imconfutil set-prop -c /opt/sun/comms/im/config/iim.conf.xml
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 2 Release Notes.

Start and Stop Scripts for Communications Suite (Linux)

Start and Stop Scripts for Oracle Communications Unified Communications Suite Version 7 Update 2 (Linux)

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. JMQ (for Messaging Server notifications)
3. Indexing and Search Service processes:
3a. utilSvc (provides utility services to Index Service)
3b. indexSvc (bootstraps new users and indexes incoming content)
3c. serarchSvc (searches index and returns results)
3d. jmqconsumer (listens to the JMQ on the message store and notifies indexSvc if new content requires indexing)
4. Messaging Server (relies on Directory Server for user-group information)
5. Instant Messaging Server (relies on Directory Server for user-group information, and Messaging Server for SMTP)
6. GlassFish Server (relies on Messaging, MySQL, Instant Messaging services availability)
When the server is shut-down, the ordering is reversed.

Oracle Linux and Red Hat Enterprise Linux provide 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 (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 Directory Server.

/etc/init.d/Sun_DirSvr

```
#!/bin/sh
#
# Sun_DirSvr - boot script to start/stop Directory Server
#
#
# Following stuff is necessary for chkconfig (Red Hat 6.x)
#
# chkconfig: 345 51 05
# description: starts and stops 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 Directory Server instance in $instance_ldap_path
:"
        $deploy_path/bin/dsadm start $instance_ldap_path
        echo "Starting Directory Server instance in $instance_dscc_path
:"
        $deploy_path/bin/dsadm start $instance_dscc_path
        echo "Starting 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 Directory Server instance in $instance_ldap_path
:"
        $deploy_path/bin/dsadm stop $instance_ldap_path
        echo "Stopping Directory Server instance in $instance_dscc_path
:"
        $deploy_path/bin/dsadm stop $instance_dscc_path
        echo "Stopping 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
```

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 Instant Messaging Server.

/etc/init.d/Sun_IMSvr

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

GlassFish Server

GlassFish Server will by default prompt the user for a `master password` when it is started. This prevents automated start-up on boot. GlassFish 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 GlassFish 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 GlassFish Server.

/etc/init.d/Sun_AppSvr

```
#!/bin/sh
#
# Sun_AppSvr - boot script to start/stop GlassFish Server
#
#
# Following stuff is necessary for chkconfig (Red Hat 6.x)
#
# chkconfig: 345 95 15
# description: starts and stops GlassFish 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 GlassFish 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 GlassFish 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 46. Indexing and Search Service Initial Configuration

< Back to Communications Suite 7 Update 2 Installation Scenario - Indexing and Search Service

What You Need to Do Before Performing Indexing and Search Service 1 Update 3 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 1 Update 3 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 3

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 the *iss-base*`/etc/jiss.conf.template` file 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.

Local Parameters

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.

Message Store Parameters

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 Server Parameters

These parameters are used to configure and deploy the `.war` file to GlassFish Server.

GlassFish Server Parameters

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 Server Message Queue (JMQ) Service Parameters

These parameters contain information about accessing the GlassFish Server Message Queue.

GlassFish Server Message Queue (JMQ) Server Parameters

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.

Directory Service Parameters

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.

ISS Services Parameters

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.

Topics in this section:

- Using a Default Configuration File
- The iss.storeui.access.method Parameter
- Install Order
- Example 1
- Example 2
- Example 3
- Additional Indexing Node Configuration
- Multiple Messaging Server Message Stores

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:

1. `ldap` - Holds JNDI lookups
2. `ms` - Message store configuration
3. `jmq` - Requires JNDI lookups
4. `index` - Requires JNDI lookup and GlassFish Message Queue
5. `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:

- `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:

- `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:

- `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
```

Multiple Messaging Server Message Stores

If you want to index multiple Messaging Server message stores on a single ISS host, make sure that you perform the following steps:

1. Choose one of the message store hosts to be the default mail store for purposes of the Indexing and Search Service installation.
   By setting up a default mail server hostname in the index, you do not need to specify it with every `issadmin.sh` command. For example, when the default hostname is `ms1.example.com`, then the following two commands are equivalent:

   ```
   issadmin.sh --bootstrap --user user1
   issadmin.sh --bootstrap --user user1 --host ms1.example.com
   ```

   For users on the non-default message store host, you do have to specify the hostname when

running the `issadmin.sh` command, for example:

```
issadmin.sh --bootstrap --user user1 --host ms2.example.com
```

2. For the `mail.server.ip` parameter, which you specify when running the `setup` command, type the IP addresses for all the mail store hosts (use commas to separate the IP addresses).
3. Configure the message store hosts to publish JMQ notifications to a single INDEXMS destination. You can either have all message store hosts publish to the broker running on the ISS system, or choose one of the message store hosts as the JMQ broker, then have that server connect to `localhost` for publishing notifications, and have the others connect to that server for publishing notifications.

Chapter 47. Instant Messaging Initial Configuration

Completing the Oracle Communications Instant Messaging Server Initial Configuration Version 9

After you install the Instant Messaging software by using the Communications Suite installer, you must configure the Instant Messaging server to complete the installation. You perform this initial runtime configuration by running the Instant Messaging configuration program, `configure`. See Completing the Instant Messaging 9 Initial Configuration for more information.

Chapter 48. Messaging Server Initial Configuration

Oracle Communications Messaging Server Initial Configuration Version 7 Update 4

This information describes 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 name for server processes to which your system users belong, for example:

```
groupadd mail
```

3. Create a user name for system processes and associate it with the group name 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. However, if the user name for server processes already exists, then the primary group for that user name is used, and no option will be prompted for in 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. Run `comm_dssetup.pl` before installing or upgrading any Communications Suite product that is dependent on the Directory Server (such as Messaging Server, Calendar Server, Convergence, and so on).

> **Note**
> Always run the latest version of `comm_dssetup.pl` 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 Directory installation and configuration parameters in the checklists supplied in

Installation Worksheets - Directory Server.

Messaging Server Configuration Checklist

When you run the Messaging Server initial runtime configuration program, record your parameters in Configuration Worksheets - Messaging Server. To answer certain questions, refer to your Directory Server installation checklists in Installation Worksheets - Directory 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 specified after the IP address 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
`--debug`	Provides general debug information primarily for LDAP operations.
`--help`	Displays help
`--ignoreSendmail`	Keeps sendmail enabled after configuration. In other words, does not disable sendmail after configuration.
`--ldapport` [*ldapport*]	Specifies an LDAP port other than the default port 389.
`--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.
`--novalidate`	Skips most validation of user input.
`--saveState` [*statefile*]	Specifies a location other than the default location (mentioned below) to save a state file.
`--ssl` [*ssl*]	Requires SSL when configuring LDAP.
`--state` [*statefile*]	Uses a silent installation file. See To Perform a Silent Installation.
`--version, --V`	Displays product version.

After running the command, the welcome text appears.

1. 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.
2. To accept the default of yes, press Enter. Otherwise, type **n** to exit the configuration utility.
3. 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.
4. 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.
5. 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.
6. Select the host name for the LDAP Directory Server.
7. 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.

8. Type the LDAP administrator password.
   The following messages similar to the following 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
```

9. Type a mail address for postmaster notices.
   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.
10. 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.
11. Verify the password for administration.
    Retype the administration password.
12. 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
==Disabling sendmail==Disabling sendmail
  sendmail is already disabled.
  sendmail is already disabled.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 (1)
* 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
  or Enable SMF for Messaging Server (see documentation for
details)
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.

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 *Oracle Directory Server Enterprise Edition Installation Guide*.
2. Install and configure Messaging Server.
   Messaging Server detects which LDAP Schema you are using.
3. 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. To configure more than one Messaging Server base directory per machine, see Using the ALTROOT Command-Line Argument.

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/` 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/` 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/` 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/` Contains Messaging header files for Software Development Kits (SDK).
Examples `examples`	*`msg_svr_base`*`/examples/` Contains the examples for various SDKs.
Installation Data `install`	*`msg_svr_base`*`/data/install/` and *`msg_svr_base`*`/data/setup/` 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 range from 1 to 65535. Select numbers that do not conflict with port numbers used by enabled system services or other third-party software. The authoritative list of registered port numbers is available at http://www.iana.org. The `/etc/services` also lists a subset of these numbers.

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 (1)`

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 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.