

**Oracle® Communications Unified  
Communications Suite**

Installation and Configuration Guide

Release 7

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**ORACLE®**

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

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# Chapter 1. Get the Software

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## Get the Software to Install a Communications Suite Deployment

Topics:

- [Download](#) 
- [Notes and Caveats](#)
- [Licensing Information](#)



### Download

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

1. Click Continue in the first paragraph.  
A new page is displayed.
2. From the drop-down menu, select Oracle Communications Applications and platform then click Go.  
A list of items is displayed.
3. Select Oracle Communications Unified Communications Suite 7 Media Pack then click Continue.  
A set of Communications Suite downloads is displayed.
4. Click Download for the component you need.

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

- [Sun GlassFish Enterprise Server with HADB v2.1 patch 02](#)
- [Sun Java System Directory Server Enterprise Edition 6.3.1](#)
- [Sun Java Enterprise System 5 Update 1](#) (to obtain Access Manager 7.1 and Web Server 7.0 software)
- [Sun OpenSSO Enterprise 8.0](#)

For more information about Communications Suite 7 component product dependencies, see [Requirements for Communications Suite 7](#).

Download the JES 5 Update 1 distro to obtain Access Manager 7.1 and Web Server 7.0 software.

MySQL 5.1 (required for Calendar Server 7) is included in the Sun Java Communications Suite distro.

## Notes and Caveats



Download the GlassFish Enterprise Server file directly from the Communications Suite download site. Do not install the version of Application Server bundled with JES 5 Update 1. That is an older version of Application Server.

 Download Directory Server Enterprise Edition 6.3.1 (minimum) from the Communications Suite download site before you run the JES 5 Update 1 installer. Do not install the version of Directory Server bundled with JES 5 Update 1. That is an older version of Directory Server.

If you already started with an older DSEE version, you can still get to the recommended DSEE 6.3.1. You must apply an upgrade patch as well as other patches to upgrade to DSEE 6.3.1.

For example, if you obtained the native package format of DSEE on the Solaris 10 x86 or SPARC platform, you must start by installing the DSEE 6.2 version bundled with JES 5 Update 1, then upgrade to DSEE 6.3.1.

You can instead take the easier path: Download and install the version of DSEE 6.3.1 directly from the Communications Suite download site.

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

 The Communications Suite DVD does not contain the Sun JES 5 Update 1 distro or the Directory Server Enterprise Edition software.

 To download Connector for Outlook or Communications Sync, choose Windows as the download platform on the download page.

## Licensing Information

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

# Chapter 2. Calendar Server 6.3 Initial Configuration

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## Completing the Sun Java System Calendar Server 6.3 Installation: Initial Configuration

After you install the Calendar Server software with the Communications Suite installer, you must configure the Calendar Server to complete the installation. You perform this initial runtime configuration by running the Calendar Server configuration program, `csconfigurator.sh`. In addition, you must perform a few manual post-configuration steps.

Topics:

- [Initial Runtime Configuration Program for Calendar Server 6.3 software \(csconfigurator.sh\)](#)
- [Post-Configuration Tasks](#)
- [Database Migration Utilities for Calendar Server 6.3](#)
- [Migration user via csexport and csimport to different domain](#)

# Calendar Server 6.3 Initial Runtime Configuration Program

## Initial Runtime Configuration Program for Calendar Server 6.3 Software (csconfigurator.sh)

After you install the Calendar Server 6.3 software, and before using it, run the two configuration programs in the following order:

1. `comm_dssetup.pl`  
Configure the LDAP directory server.
2. `csconfigurator.sh`  
Configure Calendar Server as described in this information.

Topics:

- [Gathering Your Configuration Information for Calendar Server 6.3 Software](#)
- [Running csconfigurator.sh](#)
- [Automatic Base 64 Encoding of Passwords for Calendar Server 6.3](#)



### Note

If you had an earlier version of Calendar Server or Messaging Server installed, you might need to migrate your LDAP directory entries from Schema version 1 to Schema version 2.

Do not run the configuration utility described in this information until you have read the [Sun Java Communications Suite 5 Schema Migration Guide](#). It will instruct you on the timing and options for running the configuration utilities.

## Gathering Your Configuration Information for Calendar Server 6.3 Software

The Calendar Server configuration program `csconfigurator.sh`, creates a new `ics.conf` configuration file in the following directory:

For Solaris OS: `cal-svr-base/config`

For Red Hat Linux: `cal-svr-base/config`

The configuration program asks you questions for which you must enter specific information about your installation. Use the [Calendar Server Worksheet](#) to gather your information before running the configuration program. (You should determine this information before you install any Communications Suite or Java ES components to avoid conflicts (such as port numbers) with other component products.)

## Running csconfigurator.sh

You can run the configuration program from a graphical user interface (GUI), or from the command line.

If you run the program remotely, you must set your `DISPLAY` environment variable properly and allow X-Windows connections from the server to display on your computer. For example, to use the `xhost` utility, execute the following command on your computer:

```
# xhost +
```

This section contains the following topics:

- To Run the Configuration Program from the Command Line
- To Run the Configuration Program from the GUI

#### To Run the Configuration Program From the Command Line

1. Log in as or become superuser (`root`).
2. Change to the `cal-svr-base/sbin` directory.
3. Run the script using the options chosen from the following table:

Option	Description
<code>-nodisplay</code>	Run the configuration script in text-only mode (non-GUI).
<code>-noconsole</code>	Do not display text output. Use this with <code>-nodisplay</code> to run the configuration script in silent mode.
<code>-novalidate</code>	Do not validate input field text.
<code>-saveState</code> <i>statefile</i>	Save the answers that you input in response to configuration questions to a state file (text file). Unless you specify a fully qualified path for the state file, it will be saved in the default directory: <code>/opt/SUNWics5/cal/jconfigure</code> .
<code>-state</code> <i>statefile</i>	Use the state file for setting input values. This option must be used in conjunction with <code>-novalidate</code> and <code>-noconsole</code> .

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

```
./csconfigurator.sh -nodisplay
```

The command-line version asks for the same information and in the same order as the GUI. Default values are indicated in square brackets, [ ]. To accept a default value, press Enter on your keyboard.



#### Note

For the text of the information contained in the various questions presented by the script, refer to the [Calendar Server Worksheet](#) or see the text in the GUI section that follows.

#### To Run the Configuration Program from the GUI

1. Log in as or become superuser (`root`).
2. Change to the `cal-svr-base/sbin` directory.
3. Run the command:

```
./csconfigurator.sh
```

The configuration program displays the Welcome Screen.



#### Caution

The configuration program only configures a single domain. If you plan to use multiple domains, you need to add the domains by using Delegated Administrator.

4. Click Next to continue or Cancel to exit.  
The Administration, User Preferences and Authentication Screen appears.
5. Type your information and click Next.  
The User Preferences Directory Options Screen appears.
6. Type your information and click Next.  
Use the following information for assistance in filling out this screen.

## LDAP Server Host Name

Host name of the LDAP directory server you are using for user authentication. Default: current host

## LDAP Server Port

Port number that the LDAP server listens on. Default: 389

## Directory Manager DN

User name that can make changes in the directory server schema. Default: `cn=Directory Manager`

## Directory Manager Password

Password of the Directory Manager. This will not be stored in plain text. Default: None

The Virtual Domains and Calendar Administrator Screen appears.

7. Type your information and click Next.  
Use the following information for assistance in filling out this screen.

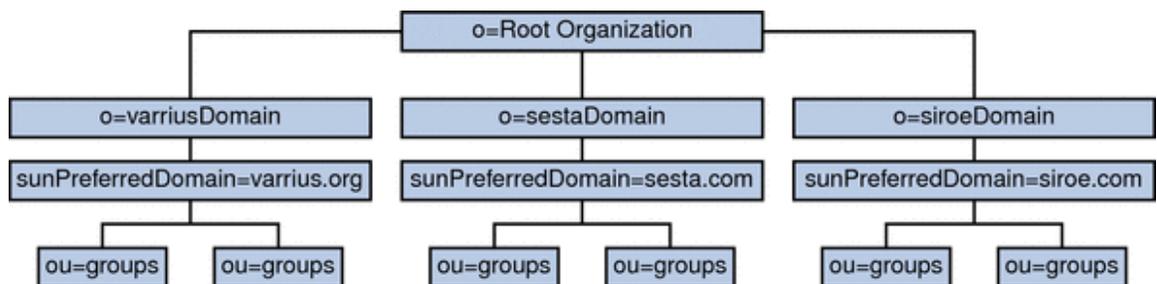


### Note

Virtual domains, hosted domains and multiple domains are all names for the same ability to have more than one LDAP domain with its corresponding user and group records.

If you are upgrading from a non-virtual domain environment, the Enable Virtual Domains Support checkbox must be selected. If you already have a multiple domain environment, the checkbox is greyed out. Virtual domains support is now the default behavior of Calendar Server, and is not optional.

### Virtual Domain Structure



Virtual domains support is now the default behavior for Calendar Server for fresh installations. Using the configuration program graphical user interface, enter a default domain name in the New Default domain input box. The configuration program then creates the domain for you.

Choose your default domain from one of those showing in the Default domain box. If you already used multiple domains in the previous version of Calendar Server, and you do not want to use the domain showing in the Default domain box, click the box to see the list of domains you can choose from and select a new default domain.

The Calendar Administrator Name and Password Screen appears.

8. Type your information and click Next.  
Use the following information for assistance in filling out this screen.

## Username

Username of the Calendar Server Administrator. Default: `calmaster`

## Administrator Password

Password of the Calendar Server Administrator. Default: `None`

## Email Address

Email address for the Calendar Server Administrator.

## Site Administrator

The Site Administrator is the user that has proxy authentication rights across domains.

Click the appropriate response: `Yes` if the Calendar Administrator is also the Site Administrator. `No` if the Calendar Administrator is not the Site Administrator.

The Email and Email Alarms Screen appears.

9. Type your information and click Next.  
Use the following information for assistance in filling out this screen.

## Email Alarms

Specifies whether Calendar Server should send an email alarm message to a Calendar Server administrator in case a server problem occurs. Default: `disabled`. If you choose `Disabled`, no administrator receives email alarms for server problems.

## Administrator Email Address

Email address of the Calendar Server Administrator who will receive the email alarm messages. Default: `None`

## SMTP Host Name

Host name of the SMTP server where used to send alarm messages. Default: `current host`.

The Runtime Configuration Screen appears.

10. Type your information and click Next.  
Use the following information for assistance in filling out this screen.

## Service Port

Port number that Calendar Server listens on to provide Web (HTTP) access to users. Default: `80`.

## Maximum Sessions

Maximum number of concurrent Calendar Server sessions. Default: `5000`

## Maximum Threads

Maximum number of concurrent Calendar Server threads. Default: `20`

## Number of Server Processes

Maximum number of Calendar Server processes to run on the server. Default: Number of CPUs on the server where you are installing Calendar Server.

## Runtime User ID

UNIX user name under which Calendar Server will run. If the account does not exist, the configuration program will create it. Default: `icsuser`



### Caution

Do not use `root` as the Runtime User ID.

## Runtime Group ID

UNIX group under which Calendar Server will run. If the group does not exist, the configuration program will create it. Default: `icsgroup`

## Calendar Server Startup Options

Select one or both options by clicking in the check box.

- Start after successful configuration

Specifies whether to start Calendar Server automatically after this configuration program successfully finishes running.

- Start on system startup

Specifies whether to start Calendar Server automatically after a system startup.



### Note

By default, only the Start on system startup checkbox is selected.

The Set Up a Front End-Back End Deployment Screen appears.

11. Choose whether to configure this server as a single server deployment, or a front-end, back-end deployment. If you choose to have a single server instance of Calendar Server, do not select the check box on this screen. If you want to put your Calendar Server databases on one or more servers, while keeping the processes that communicate with the client on a different server, select the check box.

For instructions on how to configure an instance of Calendar Server as a front end or a back end server, see [Configuring a Front End or Back End Calendar Server](#).

The Directories to Store Configuration and Data Files Screen appears.

12. Accept the default directories on this screen. While you are allowed to choose the store configuration and data files directories, it is not advised. Click Next to continue. The Select Directories Configuration Screen appears.
13. Type your information and click Next. Use the following information for assistance in filling out this screen.

### Config Directory

Directory where the configuration file (`ics.conf`) resides.

### Database Directory

Directory where Calendar Server creates and stores the calendar database files. Default: `/var/opt/SUNWics5/csdb`

### Attachment Store Directory

Directory where the attachment store resides. Default: `/var/opt/SUNWics5/astore`

### Logs Directory

Directory where Calendar Server writes log files. Default: `/var/opt/SUNWics5/logs`

### Temporary Files Directory

Directory where the Calendar Server writes temporary files. Default: `/var/opt/SUNWics5/tmp`



#### Note

If any of these directories do not already exist, a pop-up window appears for each missing directory. Click the appropriate button to choose whether to have the configuration program create the new directory, or to return you to the screen where you can choose a different directory.

For any directory that already exists but is not empty, a pop-up window appears with two choices. Click the appropriate button to accept the directory anyway, or to return to the screen where you can choose a different directory.

The Archive and Hot Backup Configuration Screen appears.

14. Type your information and click Next.

This screen enables you to select both automatic backup types, or either one of the two, or none. Select or deselect the boxes appropriately. Using both archive backups and hot backups is strongly recommended.



#### Tip

Prevent the catastrophic loss of all your database copies due to an equipment failure. Keep your automatic backup copies on a disk or disk system other than the one where your live databases reside.

For information on automatic backups, see "Chapter 9, Configuring Automatic Backups (csstored)" in the *Sun Java System Calendar Server 6.3 Administration Guide*.

The Archive and hot backup Configuration Screen appears.

15. Type your information and click Next.

Use the following information for assistance in filling out this screen.

#### Enable Archive

When this box is selected (default), `csstored` will take a snapshot of your calendar databases every 24 hours. Throughout the day, at regular intervals, it stores the transaction log files for that day with the snapshot in the archive backup directory.

If this box is not checked, the Archive Directory input field is greyed out.

## Archive Directory

Choose the backup directory by clicking Browse, or accept the default.

## Enable Hot Backup

When this box is selected (default), `csstored` takes a snapshot of your calendar databases every 24 hours, then applies the transaction logs to the snapshot at a set interval (default is two minutes), throughout the day, ensuring a nearly complete duplicate of your live database.

If this box is not checked, the Hot Backup Directory input field is greyed out.

## Hot Backup Directory

Choose the backup directory by clicking Browse, or accept the default.

## Keep Archives for (in days)

This field is only active if the Enable Archive box is selected; otherwise, it is greyed out.

Click the up or down arrows in the Minimum and Maximum fields to select range of days of archival backups to keep in the backup directory.

## Keep Hot Backups for (in days)

This field is only active if the Enable Hot Backup box is selected; otherwise, it is greyed out. You can set the number of hot backups to keep in two ways:

- Click the up or down arrows in the Minimum and Maximum fields to select the range of days of hot backups to keep in the directory.

The number of copies actually stored at any one time depends on the size of the files and the size of the directory. When either the size limits, or maximum number of copies exceeds the limit, the oldest copies are purged down to the minimum number specified on this configuration screen.

- If you want the same settings for Hot Backups as for Archival Backups, you can check the Same As Archive box.

The Ready to Configure Screen appears.

16. Click Configure Now to configure Calendar Server.

Up to now the screens have been gathering data needed for the configuration and performing some validity checking. You can go back and redo the configuration information at this point, or start the configuration.

The Sequence Completed Screen appears.

This panel provides a running update of all the tasks and the disposition (passed or failed). When the message "All Tasks Passed", the configuration has finished. Check the log files indicated to see if there are any error messages.

17. Click Next when the configuration program completes.

The Configuration Summary Screen appears.

18. Click Details to view the details of the configuration log or Close to exit the configuration program.

## Automatic Base 64 Encoding of Passwords for Calendar Server 6.3

In the past, the Calendar Server configuration file had some passwords in clear text. Though there are read permission restrictions on `ics.conf`, someone can see the passwords when the Administrator is

editing the configuration file. In Calendar Server 6.3, the passwords have been moved to another file and obfuscated by base 64 encoding them. This will prevent someone from seeing the passwords accidentally. Since no encryption is done, the file must still be read protected and prevented from falling into the wrong hands to keep the passwords secure.

If you are installing Calendar Server for the first time, the configuration program encodes the passwords you create during the configuration process, and stores them in a separate password configuration file.

If you are upgrading your existing Calendar Server software to the Calendar Server 6.3 version, the configuration program encodes the existing passwords found in the `ics.conf` file, and moves them to the password configuration file.

In both cases, the configuration program also adds a new `ics.conf` parameter to indicate the location of the password file, as shown in the following example:

```
local.passwordfile="/etc/opt/SUNWics5/config/icspassword.conf"
```

It is not advisable to change this configuration parameter.

The configuration parameters moved out of `ics.conf` due to this change are the following:

- `local.authldapbindcred`
- `local.enduseradmincred`
- `local.lookupldapbindcred`
- `service.siteadmin.cred`



**Note**

The LDAP bind passwords that are generated by the configurator are re-generated each time the configurator is run, once they are moved out of the `ics.conf` file.

## Configuring a Front-End or Back-End Calendar Server

### Configuring a Front-End or Back-End Calendar Server

In the Calendar Server configuration tool, the **Set Up a Front End-Back End Deployment Screen** enables you to choose whether to configure this server as one of the following:

- A single-server deployment of Calendar Server
- A front-end instance of Calendar Server
- A back-end instance of Calendar Server

If you choose to have a single-server instance of Calendar Server, do not select the check box on this screen. If you want to put your Calendar Server databases on one or more servers, while keeping the processes that communicate with the client on different servers, select the check box.

Use the following topics for more information:

- [Single-Server Deployment](#)
- [Front-End and Back-End Deployment](#)

#### Single-Server Deployment

Do not change any part of this screen if you want a single-server deployment in which both the administrative processes and the databases reside on one server. Click **Next** to continue.

If you wish to deploy separate Front End and Back End machines, click the check box labeled: **Setup a Front End/Back End deployment**. The screen will change and you will be allowed to configure the front-end and back-end servers separately.

#### Front-End and Back-End Deployment



##### Note

You must run the Calendar Server configuration program on each front-end server and back-end server you add to your configuration.

To complete this screen, perform the following steps:

- To configure this instance of Calendar Server as a back-end server (that is, the server on which to store calendar databases), you need only specify the service port.

The service port entry box is pre-filled with the port named in the `ics.conf` parameters `service.dwp.server.hostname.port` and `service.dwp.port`.

If you want to change the port number, enter the desired port number in the Service Port entry box.

- To configure this instance of Calendar Server as a front-end server, click **Add a Host**.

Next, enter the host names and IP addresses of the back-end Calendar Server instances with which this front-end will communicate.

For each back-end Calendar Server, click **Add a Host** and enter its host name and IP address.

- If this server is the default front-end server, select the **Default** check box.

Click Next.



**Note**

You may also remove back-end Calendar Servers from this list by clicking **Remove Selected Host**.

# Calendar Server 6.3 Post-Configuration Tasks

## Calendar Server Post-Configuration Tasks

After you install the Calendar Server software and run the Calendar Server configuration program (`csconfigurator.sh`), you must perform some configuration settings and changes that the Communications Suite installer and Calendar Server configuration utility do not make. You must manually make changes to the following two items by editing the `ics.conf` file:

- **DWP and CLD Configurations.** Enable the CLD cache option. This cache stores the DWP host server information for calendar users and thus reduces calls to the LDAP directory server.
- **Default Time Zone.** Change the default time zone if you are not in the Americas/New York time zone.

For more information on these changes, see the [Sun Java System Calendar Server 6.3 Administration Guide](#).

# Database Migration Utilities for Calendar Server 6.3

## Database Migration Utilities for Calendar Server 6.3

This information describes the various database migration utilities available for migrating your calendar databases and LDAP database after you have installed and configured Calendar Server 6.3 software.

Topics:

- [An Overview of Calendar Server Database Migration Utilities](#)
- [Choosing the Right Calendar Server Utilities](#)
- [csmigrate Utility](#)
- [cs5migrate Utility](#)
- [csmig Utility](#)
- [csvdmig](#)
- [commdirmig](#)



### Tip

If you are migrating from Calendar Server 6.0, 6.1, or 6.2 versions, run the utility called [csmigrate](#). If you did not already run `cs5migrate` for recurring events and tasks in your previous deployment, you must run `cs5migrate` on your existing calendar databases before running `csmigrate`.

If you are migrating from Calendar Server 5.1.1, migrate the calendar databases and the LDAP database using the migration utilities as explained in [Choosing the Right Calendar Server Utilities](#).

If you had an even earlier version of Calendar Server installed, call technical support for assistance with migration of your data.

## An Overview of Calendar Server Database Migration Utilities

This section describes each of the migration utilities. Use only the migration utilities you need, depending on which version of Calendar Server you previously had installed. These utilities are found in the `sbin` directory.



### Tip

If you have ever run the `cs5migrate` utility against your databases, but did not use the `-r` option, you must run it again with the `-r` option before running any of the other utilities.

The migration utilities are as follows:

### [csmig Utility](#)

Assigns an owner to each calendar in the Calendar Server 6 database and maps each calendar ID (`calid`) to an owner, if needed, which allows support for multiple domains and the LDAP Calendar Lookup Database (CLD) plug-in.

Run this utility before `cs5migrate` and `csvdmig`.

## csvdmig

Upgrades a Calendar Server 6 site to use multiple domains by adding the calendar's domain (`@domainname`) to each `calid`. For example, in the domain `sesta.com`, the **jdoe** `calid` would now be `jdoe@sesta.com`. This utility is packaged with Calendar Server.

Run this utility after `csmig` and before `cs5migrate`.

## cs5migrate Utility

Migrates your calendar databases from Calendar Server version 5 to version 6.2 format. You must run this utility against your databases specifying the `-r` option. If you migrated from Calendar Server version 5.1.1 to version 6.2 prior to this time, but you did not run the `cs5migrate` utility with the `-r` option, you must run it with that option before running the `csmigrate` utility.

Run this utility after `csmig` and `csvdmig` and before `csmigrate`.

## csmigrate Utility

Migrates your calendar databases for upgrading from Calendar Server version 6.0, 6.1, or 6.2 to Calendar Server 6.3 version. If you need to run `cs5migrate` with the `-r` option, run it before this utility.

## commdirmig

Migrates LDAP data from Schema version 1 to Schema version 2 in preparation for use with Access Manager (in Legacy mode).

## Choosing the Right Calendar Server Utilities

This section helps you decide which utilities you need to run to have all calendar databases and your LDAP database at the Calendar Server 6.3 software level.

Use the following table to find the correct collection of utilities to run:

 **Note**  
Run the utilities in the order given.

### Choosing the Right Utilities

Calendar Server Version You Are Migrating From	Condition of Your Database Files	Utilities to Use
Calendar Server 6.0, 6.1, 6.2	You are using recurring events and tasks. If you ever had a pre 6.0 installation at some point, you have already run <code>cs5migrate</code> in the past.  You already use Schema version 2.	Run <code>csmigrate</code>
Calendar Server 6.0, 6.1, 6.2	You are using recurring events and tasks. If you ever had a pre 6.0 installation at some point, you have already run <code>cs5migrate</code> in the past.  You did not use Schema version 2 before, but need to now.	Run <code>csmigrate</code> and <code>commdirmig</code> .
Calendar Server 6.0, 6.1, 6.2	You had a pre 6.0 installation at some point, and you have never run <code>cs5migrate</code> against your files.  You already use Schema version 2, or you are on Schema version 1 and plan to stay with it.	Run <code>cs5migrate</code> and <code>csmigrate</code> .
Calendar Server 6.0, 6.1, 6.2	You had a pre 6.0 installation at some point, and you have never run <code>cs5migrate</code> against your files.  You did not use Schema version 2 before, but need to now.	Run <code>cs5migrate</code> , <code>csmigrate</code> , and <code>commdirmig</code> .
Calendar Server 5.1.1	You did not use multiple domains in the past.	Run <code>csmig</code> , <code>csvdmig</code> , <code>cs5migrate</code> , <code>csmigrate</code> , and <code>commdirmig</code> .
Earlier than Calendar Server 5.1.1	Your files do not support multiple domains or the LDAP CLD. Your LDAP database is using Schema version 1.	Call technical support for help getting your database and LDAP files to Calendar Server 5.1.1 level.
Earlier than Calendar Server 5.1.1	Your system is configured for limited virtual domains, or you have multiple instances of Calendar Server software installed on an operating system that predates Solaris 10.	Contact the sales account representative for an evaluation of your migration requirements.

## csmigrate Utility

The `csmigrate` utility is used to migrate Calendar Server 6.0, 6.1 or 6.2 databases to Calendar Server 6.3 databases. You can find the `csmigrate` utility in the `sbin` directory of the Calendar Server product along with other administrative tools.

This section contains the following topics:

- [csmigrate Utility Syntax](#)
- [csmigrate Example](#)
- [How to Run the Calendar Server csmigrate Utility](#)

## csmigrate Utility Syntax

The syntax for the `csmigrate` command is:

```
csmigrate [-q] [-d] [-l min|max] [-b backup_dir] source_dbdir target_dbdir
```

The options and their usage are as follows:

`-q` (optional)

Specifies quiet mode and no print instructions.

`-d` (optional)

Specifies dry run mode and no new database written.

`-l min|max` (optional)

Specifies log level. The migration logs are written to `csmigrate.log` and errors are written to `csmigrateError.log` in the default logs directory.

`-b backup_dir` (optional)

Specifies the directory to backup source database. The program backs up the source database to this directory and works on that copy to prevent any damage to the source databases. Default location is the `backup` under the source database directory.

`-source_dbdir` (mandatory)

The directory where pre-migration database files are located.

`-target_dbdir` (mandatory)

The directory where post-migration files are created.

`-V` (other supported option)

To print the version information of the tool.

`-?` (other supported option)

To print the usage information of the tool.



**Note**

The exit codes for the program are 255 on failure and 0 on success.

### **csmigrate Example**

Examples of using the options in `csmigrate` command are:

```
csmigrate -b /var/opt/SUNWics5/tmpdb /var/opt/SUNWics5/old_db /var/opt/SUNWics5/new_db  
  
csmigrate -q /var/opt/SUNWics5/old_db /var/opt/SUNWics5/new_db  
csmigrate -l min old_db /var/opt/SUNWics5/new_db  
csmigrate -l max old_db /var/opt/SUNWics5/new_db
```

## How to Run the Calendar Server `csmigrate` Utility

1. Log in with root privileges.
2. Stop all services.

For example, issue the following command:

```
stop-cal
```

3. Move your current databases to a temporary directory.

For example, move the entire `csdb` directory to the `oldcsdb`.

```
mv cal-svr-base/SUNWics5/csdb/* cal-svr-base/SUNWics5/oldcsdb
```

4. Make sure both the new directory and old files in that directory are owned by the default administrator (`icsuser`, `icsgroup`).

If the ownership is not correct, change ownership using the following command:

```
chown -R icsuser:icsgroup /cal-svr-base/SUNWics5/oldcsdb/
```

5. Run the migration tool.

Migrate from your new backup copy (`oldcsdb`) to the `csdb` directory as shown in the following example:

```
cd cal-svr-base/SUNWics5/cal/sbin/  
./csmigrate -l max /cal-svr-base/SUNWics5/oldcsdb cal-svr-base/SUNWics5/csdb
```

6. Restart calendar services.

For example, use the following command:

```
stop-cal
```

## **cs5migrate** Utility

The `cs5migrate` utility is used to migrate the Calendar Server 5.1.1 databases to Calendar Server 6.3 level. In addition, run this utility if you are migrating from one of the earlier Calendar Server 6 versions, and you did not use the recurring option.

The original `cs5migrate` documentation in [Sun ONE Calendar Server 6.0 Installation Guide for Solaris Operating Systems](#). In Calendar Server 6.3, no new information was provided.



### **Note**

In the past, if you did not plan to use the Connector for Microsoft Outlook, you could choose to run this utility without doing the recurring data conversion. However, starting with Calendar Server 6.3, you must convert your recurring data to the new format.

This utility can be found in the `sbin` directory along with other administrative tools, after you have

upgraded to Calendar Server 6.3 software.

## **csmig Utility**

The `csmig` utility assigns an owner to each calendar in the calendar database and maps each calendar ID (`calid`) to an owner, if needed.

The `csmig` utility supports multiple domains and the LDAP Calendar Lookup Database (CLD) plug-in. Calendars in the migrated database are accessible using the LDAP CLD plug-in. For information about the LDAP CLD plug-in, see [Chapter 5, Configuring Calendar Database Distribution Across Multiple Machines in Calendar Server Version 6.3](#).

This section describes the following topics:

- [csmig Utility Functions](#)
- [csmig Utility Requirements](#)
- [csmig Syntax](#)
- [csmig Utility Migration Steps](#)
- [csmig Tips and Troubleshooting](#)

### **csmig Utility Functions**

The `csmig` migration utility performs the following functions:

- [Migrates Calendars](#)
- [Assigns Owners to Calendars](#)
- [Updates LDAP Attributes](#)

#### **Migrates Calendars**

`csmig` migrates both user and resource calendars in the current calendar database (`*.db` files) specified by the `caldb.berkeleydb.homedir.path` parameter. In the new destination target database, `csmig` updates entries required by the LDAP CLD plug-in in the calendar properties (`calprops`), events, todos (tasks), and group scheduling engine (GSE) database files.

`csmig` writes only to the destination target database; it does not update your existing calendar database.

#### **Assigns Owners to Calendars**

`csmig` assigns an owner to each calendar in the calendar database and maps each calendar ID (`calid`) to an owner, if needed. All default `calids` are kept as is, and no changes are made.

Other calendars are mapped as follows:

- User calendars that don't have valid owners will be owned by the user passed to `csmig` by the `-c` option. For example, if calendar ID `jsmith` doesn't have an owner, it will be converted to `orphan:jsmith`, where `orphan` is specified as the `-c` option.
- Resource calendars that don't have an owner will be owned by the resource user passed to `csmig` by the `-r` option.
- If a resource calendar has any colons (`:`) in the name, the colons are converted to underscores, so that the migrated name has only one colon.

For example, a calendar named `football` with owner `bkamdar` will be converted to `bkamdar:football`. A calendar named `tchang:soccer` with the owner `bkamdar` will be converted to `bkamdar:tchang_soccer`. A resource calendar named `auditorium:room1` with an owner `admin1` will be converted to `admin1:auditorium_room1`.

#### **Updates LDAP Attributes**

`csmig` updates LDAP attributes for all relevant LDAP entries, including `icsSubscribed`,

`icsCalendar`, `icsCalendarOwned`, `icsFreeBusy`, `icsSet`, and for resource calendars, `uid`. `csmig` creates the `icsDWPHost` attribute for each calendar in the LDAP directory server database. `icsDWPHost` specifies the host name of the back-end server where a calendar resides.

## csmig Utility Requirements

The requirements for using `csmig` are:

- The calendar database must not be corrupted. Use the `csdb check` command to check your calendar database, and if necessary, run the `csdb rebuild` command to rebuild the database. For information about these commands, [Appendix D, Calendar Server Command-Line Utilities Reference](#).
- You must have sufficient disk space for the new destination target database and if applicable, your backup database.
- To run `csmig`, log in as `icsuser` (or as the Calendar Server runtime user ID specified during configuration). If you run `csmig` as superuser (`root`), you might need to reset the permissions for the migrated files.

You must also have privileges to manage the attributes of calendar users in the LDAP directory server that stores user preferences.

- Calendar Server must be stopped.

## csmig Syntax

The `csmig` utility has the following syntax:

```
csmig [-t DestinationDB]
      [-b Backend-DWPHost]
      [-o OutputFile]
      [-e ErrorFile]
      [-m MappingFile]
      [-c calendarOwner]
      [-r resourceOwner]
      [migrate |dryrun ]
```

The following table lists the utility options, gives a description of each, and gives the default value.

csmig Options	Description and Default Value
<code>-t <i>DestinationDB</i></code>	Specifies the destination target database that <code>csmig</code> generates. The default is <code>MigratedDB</code> .
<code>-b <i>Backend-DWPHost</i></code>	Specifies the name of the DWP back-end host server. This name must match the DWP back-end host server name specified in the <code>ics.conf</code> file.
<code>-o <i>OutputFile</i></code>	Specifies an output file that captures the <code>csmig</code> output to the screen as well as any errors that occur. The default is <code>MigrateOut</code> .
<code>-e <i>ErrorFile</i></code>	The file where <code>csmig</code> writes any errors or database entries that cannot be resolved. If database entries cannot be resolved, they are not written to the destination database. The default is <code>MigrateError</code> .
<code>-m <i>MappingFile</i></code>	Specifies an output mapping file generated in <code>dryrun</code> mode that lists entries in the LDAP schema that need to be changed. For example:

Old: `calid=jsmith`

New: `calid=jsmith:basketball`

The mapping file provides only a list of changes to make to the LDAP schema. `csmig` does not actually make the changes to the schema.

The mapping file is not used in `migrate` mode.

<code>-c</code> <i>calendarOwner</i>	Specifies the owner for user calendars that don't have owners.
<code>-r</code> <i>resourceOwner</i>	Specifies the owner for resource calendars that don't have owners.
<code>migrate</code>   <code>dryrun</code>	Specifies which mode the utility is running in. Use <code>migrate</code> mode to perform the migration. Use <code>dryrun</code> mode to generate the output mapping file before you actually migrate.

## csmig Utility Migration Steps

If you had a version of Calendar Server predating version 5.1.1, after you install and configure Calendar Server 6.3, run `csmig` to migrate your existing Calendar Server and LDAP databases. Migration of the LDAP data is required for the LDAP CLD plug-in to work properly. Use these steps to migrate calendar data using `csmig`:

### High Level Steps for Using csmig

1. Configure your Directory Server using `comm_dssetup.pl`.  
If you have not already indexed LDAP attributes using `comm_dssetup.pl`, do so at this time. This will greatly help performance of the LDAP data migration.
2. Using a staging server (not your production server), perform a test dry run.  
A dry run reports what `csmig` would do during an actual migration but does not migrate any data. After the dry run, and before you actually migrate, correct any errors and determine a plan to handle any unresolved calendars.  
For instructions on how to perform a test dry run, see [csmig Utility Migration Steps](#).
3. Migrate Your Production Data  
During a production run, `csmig` migrates the calendar database (.db files) and LDAP data (user and group preferences data), `icsSubscribed`, `icsCalendar`, `icsCalendarOwned`, `icsFreeBusy`, `icsSet`, and `uid` (for resource calendars). After the migration, all calendar resources will have an LDAP entry created.  
For instructions on how to migrate your production data, see [csmig Utility Migration Steps](#).

### To Perform a Test Dry Run

1. Install Calendar Server 6.3 (if necessary) on the staging server.
2. Copy a snapshot of your calendar database to the staging server.
3. Mimic your production LDAP environment on the staging server by performing the following tasks:
  - Install Directory Server.
  - Install a snapshot of the LDAP database on this server.
4. Run `comm_dssetup.pl` to configure the staging Directory Server.
5. Run `csconfigurator.sh` to configure the staging Calendar Server.
6. Log in as `icsuser` (or, if its different, log in as the Calendar Server runtime user ID specified during configuration). If you run `csmig` as superuser (`root`), you might need to reset the permissions for the migrated files.
7. Change to the `cal-svr-base/SUNWics5/cal/sbin` directory.
8. Run the `csdb check` command to check your database for corruption. If corruption is indicated, run `csdb rebuild` to rebuild the database.
9. Consider creating a catchall `calid` for user calendars that don't have an owner. For example, the following command creates a user with the `calid` of `orphan`:

```
./csuser -g orphan -s adminuser -y password -l en -c orphan create orphan
```

10. Stop the Calendar Server using the `stop-cal` command (if necessary).

```
cal-svr-base/SUNWics5/cal/sbin/stop-cal
```

11. Run `csmig` with the `-dryrun` option. For example, you might enter:

```
./csmig -b sesta.com -o csmig.out -e csmig.errors  
-m csmig.map -c orphan -r calmaster dryrun
```

This command assigns user calendars without an owner (orphan calendars) to the owner `orphan` and resource calendars without an owner to the owner `calmaster`.

12. Check the output mapping file (`csmig.map`). The mapping file lists entries that need to be updated in the LDAP schema.
13. Check the output, mapping, and error files. Resolve any LDAP issues or errors that you find. Determine how you will handle any unresolved calendars before the actual migration. Several options are:
  - Delete any unneeded calendars before you migrate.
  - Assign owners to any unresolved calendars.
  - Allow `csmig` to assign owners to the calendars during migration using the `-c` and `-r` options.

14. Run `csmig` to migrate your staging calendar database.

For example, the following command migrates the calendar database to the `/var/opt/SUNWics5/testcsdb/` directory:

```
./csmig -t /var/opt/SUNWics5/testcsdb/ -b sesta.com  
-o csmig.out -e csmig.errors -m csmig.map -c orphan  
-r calmaster migrate
```

15. After the test migration is finished, perform these steps to check out the newly migrated calendar database.
  - a. Copy the migrated database to the `/csdb` directory specified by the `caldb.berkeleydb.homedir.path` parameter. Or, edit this parameter to point to the new location of the migrated database.
  - b. Run `csdb check` on the new calendar database. The number of events and todos in the migrated database should match the pre-migration totals.
  - c. Search for `icsCalendarOwned` entries and make sure that the entries match the pre-migration number of calendars.
  - d. Log in to Communications Express and verify some of the calendars in the migrated database.If the test migration is successful, you are ready to migrate your production database.

#### To Migrate Your Production Data

1. Log in as `icsuser` (or as the Calendar Server runtime user ID specified during configuration). If you run `csmig` as superuser (`root`), you might need to reset the permissions for the migrated files.
2. Change to the `cal-svr-base/SUNWics5/cal/sbin` directory.
3. Stop the Calendar Server using the `stop-cal` command.

```
cal-svr-base/SUNWics5/cal/sbin/stop-cal
```
4. Backup the following data:
  - Calendar database (`.db` files).
  - LDAP data: `slapd` database directory and LDAP database.
  - `ics.conf` file. This step is not actually required, but it can be useful if you need to revert to

your original configuration.

5. Run `csmig` with the `-migrate` option.

For example, the following command migrates the calendar database to the `/var/opt/SUNWics5/newcsdb/` directory:

```
./csmig -t /var/opt/SUNWics5/newcsdb/ -b sesta.com
-o csmig.out -e csmig.errors -m csmig.log -c orphan
-r calmaster migrate
```

6. Check for any unresolved calendars in the error file (`csmig.errors`) and resolve them according to your plan from [csmig Utility Migration Steps](#) under [csmig Utility Migration Steps](#).
7. Run the `csdb check` command to check your migrated database. If any corruption is indicated, run `csdb rebuild` to rebuild the database.
8. Copy the new migrated database to the `/csdb` directory specified by the `caldb.berkeleydb.homedir.path` parameter. Or, edit this parameter to point to the new location of the migrated database.
9. Enable the LDAP CLD plug-in by making any necessary changes to the following configuration parameters in the `ics.conf` file:
  - `service.dwp.enable = "yes"`
  - `service.dwp.port = "59779"`
  - `csapi.plugin.calendarlookup = "yes"`
  - `csapi.plugin.calendarlookup.name = "*"`
  - `caldb.cld.type = "directory"`
  - `caldb.dwp.server.default = "default-server-name"`
  - `caldb.dwp.server.server-hostname.ip = "_server-hostname_"` (for each back-end server including the local server)
  - `caldb.cld.cache.enable = "yes"` (if you want to use the CLD cache option)
  - `caldb.cld.cache.homedir.path` specifies the location of the CLD cache directory. The default is `/var/opt/SUNWics5/csdb/cld_cache`.For information about setting configuration parameters for the LDAP CLD plug-in, see [Chapter 5, Configuring Calendar Database Distribution Across Multiple Machines in Calendar Server Version 6.3](#).
10. Restart Calendar Server using the `start-cal` command.
11. Log in to Communications Express and verify that your configuration is working by checking several of the migrated calendars.

To disable alarms while you are making your checks, set each of the following parameters in the `ics.conf` file to "no":

  - `caldb.serveralarms = "no"`
  - `caldb.serveralarms.dispatch = "no"`
  - `service.ens.enable = "no"`
  - `service.notify.enable = "no"`
  - `ine.cancellation.enable = "no"`
  - `ine.invitation.enable = "no"`
  - `service.admin.alarm = "no"`

## csmig Tips and Troubleshooting

The section describes the following tips and trouble shooting examples:

- [The csmig dry run calendar shows the wrong owner for a calendar.](#)
- [The LDAP calendar search doesn't work correctly.](#)
- [The csmig dry run indicates duplicate calendar names.](#)
- [How do I assign orphan calendars to different owners?](#)
- [How do I move calendar users to another back-end server?](#)

**The csmig dry run calendar shows the wrong owner for a calendar.**

### **Example Problem**

A calendar named `tchang:myCalendar` has the owner `jsmith` in the calendar database, and the `csmig` dry run shows the mapping as `jsmith:tchang_myCalendar`. However, you would like to name this calendar `tchang:myCalendar` and assign the owner as `tchang`.

### **Example Solution**

Before the migration, use the `cscal` utility to change the owner of the calendar `tchang:myCalendar` to `tchang`. Once this is done, the migration will map this calendar to `tchang:myCalendar` and add `icsCalendarowned` to the LDAP entry for user ID `tchang`.

**The LDAP calendar search doesn't work correctly.**

### **Example Problem**

After migration, the LDAP calendar search is enabled, but the calendar search dialog does not return any results or returns only partial results.

### **Example Solution**

Enabling the LDAP calendar search allows Calendar Server to search `(&(objectclass=icscalendaruser)(icscalendarowned=substr))`.

Manually run two different searches on the LDAP data with the following filters and compare the output:

- LDAP search with filter `(&(objectclass=icscalendaruser)(icscalendarowned=substr))`
- LDAP search with filter `(icscalendarowned=substr)`

Since the server uses the filter that includes `icsCalendarUser` object class, the LDAP server might have been deployed with the schema check disabled, and some calendar entries may have been provisioned without the `<classname>icsCalendarUser</classname>` object class.

**The csmig dry run indicates duplicate calendar names.**

### **Example Problem**

The `csmig` dry run mapping file and output file indicate that there is a duplicate calendar name. For example, in the original database, `jsmith` owns the following calendars:

- `basketball` with 5 events
- `jsmith:basketball` with 10 events

The dry run indicates that during a migration, the two calendars will be merged, and the resulting calendar will be `jsmith:basketball` with owner `jsmith` and 15 total events

The output file will include the following warning message:

```
Error modifying calendar properties, error=2
```

### **Example Solution**

If you don't want the two calendars to be merged, change the owner of `basketball` to a user other than `jsmith` before the migration. This will preserve the data integrity of the two separate calendars.

**How do I assign orphan calendars to different owners?**

### **Example Problem**

By default `csmig` assigns all orphan calendars to a single owner, but I would like to assign different owners for some orphan calendars.

### **Example Solution**

`csmig` does not accept the mapping file in the command line. However, you can assign owners to the orphan calendars in the original database before the migration. Check the dry run mapping file for all orphan calendars. Then use the `cscal` utility to assign owners to the orphan calendars before the migration. Run `csmig` in `-dryrun` mode again to verify the new owners.

### **How do I move calendar users to another back-end server?**

#### **Example Problem**

How do I move users from one back-end server to another?

#### **Example Solution**

To move a calendar user, you `export` each of the user's calendars on the original server and then `import` the calendars on the second server. After the calendars are moved, you can delete the calendars on the original server. For instructions on how to move calendars, see [Managing User Calendars](#).

## **csvdmig**

The `csvdmig` utility prepares your calendar databases and LDAP user and group entries for use in a multiple-domain environment. Even if you plan to use only the default domain, you must run this utility.



#### **Note**

Be sure to run `csmig` before using this utility if you are migrating from a non-domain environment to the multiple domain environment in Calendar Server 6.3.

This sections contains the following topics:

- [csvdmig Functions](#)
- [csvdmig Syntax](#)
- [csvdmig Examples](#)

### **csvdmig Functions**

The `csvdmig` utility performs the following changes to your databases and LDAP entries:

- The format of calendar IDs (`calids`) is changed:

From: `userid:calendar-name`

To: `userid@domain:calendar-name`

- Access Control List (ACL) access rules are changed:

From: `userid`

To: `userid@domain`

- The LDAP directory server user entries for the Calendar Server attributes are modified as:

`userid:calendar-name` to `userid@domain:calendar-name`.

- Updates the owner and attendee fields in events and tasks in the calendar database. For example:

If `jsmith` in the domain `sesta.com` is the owner of an event, the new owner field would contain `jsmith@sesta.com`.



### Caution

The `csvdmig` utility updates the databases and LDAP directory in place. That is, it does not create a separate migrated database, but alters the database you are converting. Therefore, to be safe, run `csvdmig` against snapshots of your databases and LDAP directory.

## csvdmig Syntax

The `csvdmig` utility has the following syntax:

```
csvdmig [-t DestinationDB]
        [-c ConfigFile]
        [-e ErrorFile]
        [-m MappingFile]
        migrate [DB|LDAP]
```

The following table lists the options used by `csvdmig`, and gives a description of each.

Option	Description and Default Value
<code>-m</code> <i>MappingFile</i>	Input parameter specifying a mapping file. For more information on the mapping file, see <a href="#">Mapping File</a> . The default is <code>MigrateMapping</code> .
<code>-c</code> <i>ConfigFile</i>	Input parameter that specifies a Calendar Server configuration file. The default is the <code>ics.conf</code> file.
<code>-t</code> <i>DestinationDB</i>	Output parameter that specifies the location of the database to be migrated. The default is <code>MigratedDB</code> . <div style="background-color: #e6f2ff; padding: 10px; margin-top: 10px;"> <p> <b>Tip</b> Always use the <code>-t</code> option.</p> <p>For more information on this option, see <a href="#">Destination DB</a>.</p> </div>
<code>-e</code> <i>ErrorFile</i>	output parameter that specifies the name of the error file for errors that cannot be resolved. The default is <code>MigrateError</code> .
DB	LDAP Specifies which database to modify:  DB – the calendar database  LDAP – the LDAP directory  The default is the calendar database (DB).

### Mapping File

The mapping file is an input text file that maps existing users to their respective domains. You must

create the mapping file before you run `csvdmig`. Specify one entry per line with a space between the old and new values. For example:

```
user1 user1@sesta.com
user2 user2@siroe.com
user3 user3@sesta.com
...
user_n_ user_n_@siroe.com
```

### Destination DB

The location of the database to be migrated. The utility updates the file in place. Be sure you have backed up this directory before using the `csvdmig` utility.

If you do not specify the `-t` option, the utility will attempt to migrate the contents of the current directory (the directory specified by performing `pwd` at the command line), with unpredictable results.

### csvdmig Examples

The following are `csvdmig` examples

- Migrate the LDAP directory server data using default values:

```
csvdmig migrate LDAP
```

- Migrate the Calendar Server database:

```
csvdmig -t targetDB -e errorFile -m mappingFile migrate
```

### commdirmig

The `commdirmig` utility migrates your LDAP data from Sun Java System LDAP Schema version 1 to Schema version 2 in preparation for using Access Manager for authentication services. If your previous installation already used Schema version 2, you do not have to run this utility again.

- [Who Should Run the commdirmig Utility](#)
- [When to Run the commdirmig Utility](#)
- [Where to Find Documentation on the commdirmig Utility](#)
- [Where to Find the Utility](#)

### Who Should Run the commdirmig Utility

This migration utility migrates your Schema version 1 LDAP database to Schema version 2. If you are going to use Access Manager software for authentication, you must convert your LDAP entries to Schema version 2 format by running this utility.

If you are not using Access Manager, you should still consider migrating your LDAP data, since Schema version 2 is the preferred LDAP mode for all Communications Suite products that use LDAP.

**Note**

If you have a separate LDAP directory for preferences, you must run `commdirmig` on that LDAP as well as the one used for authentication.

**When to Run the `commdirmig` Utility**

Run `commdirmig` after you have run all the other migration utilities necessary to migrate your calendar and LDAP databases from your earlier version of Calendar Server software to the 6.3 version of the Calendar Server software.

**Where to Find Documentation on the `commdirmig` Utility**

The `commdirmig` migration utility requires special preparation and planning. It is documented in a separate guide, see [Sun Java Communications Suite 5 Schema Migration Guide](#).

**Where to Find the Utility**

The `commdirmig` utility comes bundled with Delegated Administrator that you install from the Communications Suite installer.

A patch is also available from technical support for the utility.

# Migrating Calendar Server 6 Users to a Different Domain

## Migrating Calendar Server 6 Users to a Different Domain

This scenario explains how to migrate Calendar Server 6 user calendars to a different domain by using the `csexport` and `csimport` commands. This scenario moves a user `ggreen@logical.tld` from a Java ES 5 environment to a Communications Suite 6 environment with a different domain name `ggreen@vmdomain.tld`.



### Note

It possible to use a different user *and* a different domain as well. This scenario can be used, for example, to move `userA@domain1.tld` to `userX@domain2.tld`.

Topics:

- [Java ES 5 LDAP User Entry](#)
- [Exporting the Java ES 5 User Calendar `ggreen@logical.tld`](#)
- [Communications Suite 6 LDAP User Entry](#)
- [Migrating the Calendar](#)
- [Importing the Calendar to the Communications Suite 6 Environment](#)

### Java ES 5 LDAP User Entry



### Note

For a calendar migration, the `ics*` attributes are important, specifically the `icsCalendarOwned` and `icsSubscribed` attributes. The `mail` attribute is also important.

```
dn: uid=ggreen,ou=People,o=logical.tld,dc=vmdomain,dc=tld
cn: Gustaf Green
givenName: Gustaf

icsCalendar: ggreen@logical.tld
icsCalendarOwned: ggreen@logical.tld$Gustaf Green
icsDWPHost: myjazz.vmdomain.tld
icsStatus: Active
icsSubscribed: ggreen@logical.tld$Gustaf Green
icsTimezone: Europe/Paris

mail: Gustaf.Green@logical.tld
```

### Exporting the Java ES 5 User Calendar `ggreen@logical.tld`

```
bash-3.00# ./csexport -c ggreen@logical.tld calendar /tmp/ggreen.ics
Calendar ggreen@logical.tld has been exported to /tmp/ggreen.ics
```

The important lines in the exported file are those where the Calendar Server user is mentioned, for example:

### *the calendar properties itself*

```
X-NSCP-CALPROPS-RELATIVE-CALID:ggreen@logical.tld
X-NSCP-CALPROPS-NAME:Gustaf Green
X-NSCP-CALPROPS-PRIMARY-OWNER:ggreen@logical.tld
```

### *the calendar events*

```
ORGANIZER;CN="Gustaf Green"
;SENT-BY="Gustaf.Green@logical.tld"
;X-S1CS-EMAIL=Gustaf.Green@logical.tld
:ggreen@logical.tld

X-NSCP-ORGANIZER-EMAIL:Gustaf.Green@logical.tld
```



#### **Note**

Your exported user calendar \*.ics file may vary and include more places where the user is mentioned.

## Communications Suite 6 LDAP User Entry



#### **Note**

For a calendar migration, the ics\* attributes are important, specifically the icsCalendarOwned and icsSubscribed attributes. The mail attribute is also important.

```
dn: uid=ggreen,ou=People,o=vmdomain.tld,o=isp
cn: Gustaf Green
givenName: Gustaf

icsCalendar: ggreen@vmdomain.tld
icsCalendarOwned: ggreen@vmdomain.tld$Gustaf Green
icsDWPHost: mycando.vmdomain.tld
icsFirstDay: 2
icsStatus: Active
icsSubscribed: ggreen@vmdomain.tld$Gustaf Green
icsTimezone: Europe/Paris

mail: Gustaf.Green@vmdomain.tld
```

## Migrating the Calendar

As you from logical.tld to vmdomain.tld, you need to edit the \*.ics file, which you exported from the Java ES 5 environment, before importing the file into the Communications Suite 6 environment.

**Note**

In the exported file, all events are created and owned by `ggreen@logical.tld`. When you import this file to "another" user or another domain, you will most likely run into problems. The solution is to replace the string `ggreen@logical.tld` with `ggreen@vmdomain.tld` in the whole exported file *before* you import this file.

This scenario replaces the value of LDAP attribute `icsCalendar` of the "old" user with the value of the LDAP attribute `icsCalendar` of the "new" user.

**Tip**

In this example you simply could replace `logical` with `vmdomain` in the `*.ics` file as the user name and the Top Level Domain part are the same.

If you use `vi`, you could do it by simply typing `:1,$s/logical/vmdomain/g`.

The important lines in the `*.ics` file looks like this after editing:

For the calendar properties itself:

```
X-NSCP-CALPROPS-RELATIVE-CALID:ggreen@vmdomain.tld
X-NSCP-CALPROPS-NAME:Gustaf Green
X-NSCP-CALPROPS-PRIMARY-OWNER:ggreen@vmdomain.tld
```

For the calendar events:

```
ORGANIZER;CN="Gustaf Green"
;SENT-BY="Gustaf.Green@vmdomain.tld"
;X-S1CS-EMAIL=Gustaf.Green@vmdomain.tld
:ggreen@vmdomain.tld

X-NSCP-ORGANIZER-EMAIL:Gustaf.Green@vmdomain.tld
```

## Importing the Calendar to the Communications Suite 6 Environment

```
bash-3.00# ./csimport -c ggreen@vmdomain.tld calendar /export/ggreen.ics
Calendar ggreen@vmdomain.tld has been imported from /export/ggreen.ics
```

**Note**

Be aware to have the same time zone settings on the Convergence client as on the client that the user regularly uses. Otherwise, the calendar events become imported but are displayed "wrong."

The following shell script shows how to export and import of calendar. This script is shown for educational reason only.

Example shell script to **export** all users:

```

#!/bin/sh

#####
###   Export Entire Calendar Database   ###
### -----                            ###
### M.Button - Sun Technical Support    ###
### 10/04/08 - v1.1                    ###
#####

#####
### Functions ###
#####

_validate()
{
    ### Check Command line path is valid ###
    if [ "$dbexportpath" = "" ]
    then
        echo "Error: No export location specified!"
        echo
        echo "Usage:"
        echo "  exportdb.sh [path of exported database]"
        echo
        exit
    fi
    if [ ! -d "$dbexportpath" ]
    then
        echo "Error: Export location specified not found!"
        exit
    fi

    ### Check it is okay to continue with export ###

    echo
    echo "Export entire calendar database!"
    echo "-----"
    echo
    echo "It's highly recommended to shutdown your calendar server before"
    echo "you continue to export the entire database."
    echo
    echo "Export to: $dbexportpath"
    echo
    echo "Do you wish it continue [y/n]?"
    read ask
    if [ "$ask" != "y" ] && [ "$ask" != "Y" ]
    then
        ### Exit if user does not enter Y ###
        exit
    fi
}

_build_cal_list()
{
    #####
    ### Build Calendar List File ###
    #####

```

```

echo
echo "Building Calendar List..."
./cscal list | cut -f1 -d" " > $dbexportpath/cal-list

### Find EOF ###
numofcals=`cat $dbexportpath/cal-list | wc -l`
echo "Found: $numofcals Calendars in database."
}

_export_calendars()
{
#####
### Export Calendars ###
#####

echo

for calid in `cat $dbexportpath/cal-list`
do
    ### Remove ending colon in line ':' ###
    chars=`echo "$calid" | wc -c`
    chars=`expr $chars - 2`
    calid=`echo "$calid" | cut -c1-$chars`

    ### Export Calendar with csexport command ###
    ./csexport -v -c $calid calendar $dbexportpath/$calid.ics >>
$dbexportpath/export.log
    echo "Exported: $calid"
done
}

#####
### Start ###
#####

dbexportpath=$1

_validate
_build_cal_list
_export_calendars

echo
echo "Export process complete!"
echo "  Check $dbexportpath/export.log for details."

```

```

echo

### End of Script ###

```

Example shell script to **import** all users:

```

#!/bin/sh

#####
###   Import Entire Calendar Database   ###
###   -----   ###
###   M.Button - Sun Technical Support   ###
###   10/04/08 - v1.1                   ###
#####

#####
### Functions ###
#####

_validate()
{
    ### Check Command line path is valid ###
    if [ "$dbimportpath" = "" ]
    then
        echo "Error: No import location specified!"
        echo
        echo "Usage:"
        echo "  importdb.sh [path to exported database]"
        echo
        exit
    fi
    if [ ! -d "$dbimportpath" ]
    then
        echo "Error: Import location specified not found!"
        exit
    fi

    ### Check it is okay to continue with export ###
    echo
    echo "Import entire calendar database!"
    echo "-----"
    echo
    echo "It's highly recommended to shutdown your calendar server before"
    echo "you continue to import the entire database."
    echo
    echo "Import from: $dbimportpath"
    echo "`cat $dbimportpath/cal-list | wc -l` calendars to import."
    echo
    echo "Do you wish it continue [y/n]?"
    read ask
    if [ "$ask" != "y" ] && [ "$ask" != "Y" ]
    then

```

```

    ### Exit if user does not enter Y ###
    exit
fi
}

_import_calendars()
{
#####
### Import Calendars ###
#####

echo

for calid in `cat $dbimportpath/cal-list`
do
    ### Remove ending colon in line ':' ###
    chars=`echo "$calid" | wc -c`
    chars=`expr $chars - 2`
    calid=`echo "$calid" | cut -c1-$chars`

    ### Export Calendar with csexport command ###
    ./csimport -v -c $calid calendar $dbimportpath/$calid.ics >>
$dbimportpath/import.log
    echo "Imported: $calid"
done
}

#####
### Start ###
#####

dbimportpath=$1

_validate
_import_calendars

echo
echo "Import process complete!"
echo "  Check $dbimportpath/import.log for details."

```

```
echo
```

```
### End of Script ###
```

# Chapter 3. Calendar Server 7 Initial Configuration

[< Back to Communications Suite 7 Installation Scenario - Calendar Server 7](#)

## Completing the Calendar Server 7 Installation: Initial Configuration

After you install the Calendar Server 7 software by using the Communications Suite installer, you must configure the Calendar Server to complete the installation. You perform this initial runtime configuration by running the Calendar Server configuration program, `init-config`.

1. If you haven't done so already, run the `comm_dssetup.pl` script installed by the Communications Suite installer.  
This prepares the Directory Server LDAP. See [Communications Suite Directory Server Setup Script \(comm\\_dssetup.pl\)](#).



### Note

You can use LDAP Schema 1. Some additional steps are necessary after configuring Directory Server and Calendar Server 7. See [Configuring Calendar Server 7 to Use LDAP Schema 1 step](#).

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



### Note

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

- b. Change to the `cal-svr-base/sbin` directory.  
The default installation directory is `/opt/sun/comms/davserver`.
- c. Run the script.  
See [Calendar Server 7 init-config - General Syntax](#) for more information.

```
./init-config
```

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

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

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

**Note**

For the text of the information contained in the various questions presented by the script, refer to the [Configuration Worksheets - Calendar Server 7](#).

Panel 1: Select the Directory to store the configuration and data files

Directory: /var/opt/sun/comms/davserver (default)

Panel 2: Select Components to be Configured

Sun Java System Calendar Server 7 (selected by default)

Panel 3: Network Connection

Hostname:

DNS Domain Name:

Panel 4: MySQL Server Configuration Details

Enter the MySQL Server host name, port number, the runtime userID, password, and the default calendar database.

MySQL Server Details

Server Host: localhost (default)

Server Port: 3306 (default)

Runtime User: caldav (default)

Password:

DAV Database: caldav (default)

-----

Note: 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.

-----

Panel 5: Application Server Configuration Details

Installation Directory: /opt/SUNWappserver

Domain Directory: /opt/SUNWappserver/domains/domain1 (default)

Document Root Directory: /opt/SUNWappserver/domains/domain1/docroot (default)

Server Target Name: server (default)

Virtual Server Identifier: server (default)

Server Instance HTTP Port: 8080 (default)

Panel 6: Application Server: Administration Instance Details

Administration Server Port: 4848 (default)

Administrator User ID: admin (default)

Administrator Password:

Secure Administration Server Instance: (selected by default)

Panel 7: URI Path

URI Path: / (default)

-----

The default URI path is `{{/}}`. Use a different value if you are using your GlassFish container for more applications. For example, you might use `{{/davserver}}`, or `{{/cal}}`, and so forth. Using `{{/}}` as the URI path replaces the GlassFish Server's main `{{index.html}}`, thus, the GlassFish welcome page no longer is

displayed at {{http://}}\_host\_{{:}}\_port\_.  
-----

Panel 8: User/Group Directory Server Details

LDAP URL: ldap://<hostname>:389 (default)

Bind DN: cn=Directory Manager (default)

Bind Password:  
-----

Note: A pop-up message appears if you do not have the latest version of comm\_dssetup.pl. It is mandatory to run at least the comm\_dssetup.pl 6.4 version 1.04.  
-----

Note: A pop-up message 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.

Click the Choose New button.  
-----

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.  
-----

Panel 9: DC Tree Suffix

DC Tree suffix: o=dav (default)

Panel 10: Default Domain Name

Enter the Domain Name: the domainname your host resides on(default)

Panel 11: Notification Mail Server Configuration Details

Mail Server Host Name: <hostname>.<domainname> (default)

Mail Server Port Number: 25 (default)

Panel 12: Sun CalDAV Server Administrator

Username: calmaster (default)

Password:  
Password Again:

**Note**  
To enable SSL communication between Calendar Server and Directory Server, you can do so as a post-configuration step. See [Calendar Server 7 Post Configuration](#) for more information.

**Note**  
Currently, the default setting for the timezone ( `davcore.serverdefaults.tzid`) is configured based on the tzid of the host where Calendar Server is deployed.

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

# Chapter 4. Communications Suite 7 Release Notes

---

## Sun Java Communications Suite 7 Release Notes

This book contains release information, feature descriptions, known limitations and issues, requirements, and other information about the following products for Sun Java Communications Suite:

- [Common Release Information for Sun Java Communications Suite 7 Component Products](#)
- [Sun Convergence 1 Update 3 Release Notes](#)
- [Sun Java System Calendar Server 7 Release Notes](#)
- [Sun Java System Calendar Server 6.3 Release Notes](#)
- [Sun Java System Messaging Server 7 Update 3 Release Notes](#)
- [Sun Java System Indexing and Search Service 1](#)
- [Sun Java System Instant Messaging 8 Update 2 Release Notes](#)
- [Sun Java System Delegated Administrator 7 Release Notes](#)
- [Sun Java System Connector for Microsoft Outlook 7.3 Update 1 Release Notes](#)
- [Sun Java System Communications Sync 3.1 Release Notes](#)

**Note:** This link directs to you the Sync 3.0 Release Notes. Sync 3.1 is the same as 3.0 with additional fixes.

# Calendar Server 6.3 Release Notes

## Sun Java System Calendar Server 6.3 Release Notes

**As of Communications Suite 7, Calendar Server 6.3 has been deprecated.**

If you are not installing Sun Convergence, you should no longer be installing Calendar Server 6.3. Instead, install Calendar Server 7.

These Release Notes contain important information available at the time of the general release of Sun Java System Calendar Server 6.3 including:

- [About Calendar Server 6.3](#)
- [What's New in This Release of Calendar Server](#)
- [Deprecated and Removed Features for Calendar Server 6.3](#)
- [Requirements for Calendar Server 6.3](#)
- [Important Upgrade Patch Information for Calendar Server 6.3](#)
- [Calendar Server Installation Notes](#)
- [Calendar Server Documentation Updates](#)
- [Calendar Server Compatibility Issues](#)
- [Problems Fixed in This Release of Calendar Server](#)
- [Known Issues and Limitations in Calendar Server](#)
- [Redistributable Files for Calendar Server](#)

### About Calendar Server 6.3

Calendar Server is a scalable, web-based solution for centralized calendaring and scheduling for enterprises and service providers. Calendar Server supports user calendars for both events and tasks as well as calendars for resources, such as conference rooms and equipment.

Calendar Server offers two graphical user interfaces, Convergence and Communications Express. It also offers customers the flexibility to use the Web Calendar Access Protocol (WCAP) to access calendar data directly in either `text/calendar` or `text/xml` format.

### What's New in This Release of Calendar Server

For details, see the [What's New document](#).

### Deprecated and Removed Features for Calendar Server 6.3

For Sun Java System Calendar Server 6.3, the following features have been deprecated:

- The Calendar Express graphical user interface (GUI) has been deprecated and will be removed from the distribution in the the next major feature release.
- The WCAP `attachments` parameter, used by both `storeevents` and `storetodo`, has been deprecated. For backward compatibility, this parameter is still honored. But in a future release this parameter will no longer be recognized. Change any scripts you have using this parameter.
- The `cstool` utility that you use for monitoring Calendar Server activity has been removed in the Calendar Server 6.3 release.
- Calendar Server software is no longer available for Windows and HP-UX platforms.

### Requirements for Calendar Server 6.3

See Requirements for Communications Suite 6.

## Important Upgrade Patch Information for Calendar Server 6.3

The following Calendar Server 6.3 product upgrade patches are as follows:

### Calendar Server 6.3 Upgrade Patches

Platform	Patch Number (English and Localized Languages)
Solaris OS, SPARC	121657-40
x86	121658-40
Linux	121659-40

After patching, `csversion` will show the product version as "6.3-19.01".

You can find the most current product patches at Sun Solve. For how to find patches on Sun Solve, use the following procedure:

### How to Find Patches on SunSolve

1. For the current list of required patches for Sun Java System Calendar Server, go to:  
<http://sunsolve.sun.com>
2. Select either "Patches" or "Patch Portal".
3. Follow the Sun Java System Calendar Server links.  
As operating system patch requirements change and patches to Java Enterprise System components become available, updates will be made available on SunSolve, initially in the form of recommended patch clusters.

## Calendar Server Installation Notes

This section contains information you should know before you install Calendar Server 6.3. This section contains the following subsections:

- [Default Calendar Server Installation Directories on Solaris and Linux Platforms](#)
- [OS Patches](#)
- [Required Privileges](#)
- [Upgrading From an Earlier Version of Calendar Server 6](#)
- [Upgrading Your Calendar Database](#)
- [Upgrading to Calendar Server 6.3 Patch 121658-20 or Later on Solaris x86 Platforms](#)
- [Calendar Server Postinstallation Configuration](#)
- [Automatic Base 64 Encoding of Passwords](#)
- [Where to Find Calendar Server Data and Program Files](#)
- [Tuning Directory Server Performance for Calendar Server](#)



### Caution

Calendar Server does not support Network File System (NFS) mounted partitions. Do not install or create any part of Calendar Server, including executable, database, configuration, data, temporary, or log files, on an NFS-mounted partition.

### Default Calendar Server Installation Directories on Solaris and Linux Platforms

The following table shows the default installation directory paths for Solaris and Linux:

**Table 3-2 Default Calendar Server Installation Directories**

### Solaris Default Directories

```
cal-svr-base=/opt/sun/comms/calendar/  
/etc/cal-svr-base/SUNWics5/config  
/var/cal-svr-base/SUNWics5
```

### Linux Default Directories

```
cal-svr-base=/opt/sun/comms/calendar/  
/etc/cal-svr-base/config  
/var/cal-svr-base/
```



#### Tip

In the documentation, the default installation directory for Calendar Server is referred to as *cal-svr-base*.

## OS Patches

You must apply the required operating system patches before installing Calendar Server. The Communications Suite installer checks for required platform patches. You must install all required patches or the installation process does not continue.

## Required Privileges

To run the Communications Suite 6 installer or the Calendar Server 6.3 configuration program on a Solaris OS system, log in as or become the superuser (*root*).

## Upgrading From an Earlier Version of Calendar Server 6

Upgrade to the latest Calendar Server 6.3 patch by using `patchadd` process.

For more information about upgrading to Calendar Server 6.3 from previous Calendar Server versions, see [Sun Java Communications Suite 5 Upgrade Guide](#).

## Upgrading Your Calendar Database

If you are upgrading from a Calendar Server version prior to 6.3 to the current 6.3 version, you must upgrade your databases also, using various database tools named in this section. More information about the migration tools can be found in the [Sun Java System Calendar Server 6.3 Administration Guide](#).

### Upgrading from an Earlier Version of Calendar Server

If the version of your previous Calendar Server software predates version 5.1.1, first call Sun Support Services for assistance in migrating your databases to be Calendar Server 5.1.1 compatible. You can not migrate directly to any of the Calendar Server version 6 releases. In the process recommended by Sun Support Services, you are required to install Calendar Server 5.1.1. After your database files are Calendar Server 5.1.1 compatible, install Calendar Server 6.3 and run the following database tools in the order listed.

#### ***cs5migrate***

Run this utility to upgrade your databases from version 5.1.1 to version 6.2 level. This is an intermediate

step that is required before you run the `csmigrate` utility to bring it up to version 6.3 level. The `cs5migrate` utility can be found in the `sbin` directory after you install Calendar Server 6.2 with latest patch available on SunSolve (116577-42 for Sparc, 116578-42 for x86 and 117851-42 for Linux).

You must specify the `-r` option. The `cs5migrate` utility then creates master and exception records for all recurring events and tasks. Going forward these records will be automatically generated by Calendar Server.

This utility performs the following changes to your databases:

- Migrates your Calendar Server 5.1.1 LDAP database to be Calendar Server 6.2 compatible
- Migrates your Berkeley Data Base to version 4.2
- Writes the migration status to `csmigrate.log` log file
- Writes errors to `csmigrateerror.log` log file

### ***csmig***

Run this utility so the LDAP CLD plug-in works properly.

### ***csvdmig***

Run this utility to convert your non-domain calendar databases to single domain databases compatible with a multiple domain environment.

### ***csmigrate***

Now that your Calendar Server Databases are in version 6.2 mode, run the `csmigrate` utility to migrate your Calendar Server 6.2 databases to be compatible with Calendar Server version 6.3.

You can find the `csmigrate` utility, along with other administrative tools, in the `sbin` directory of your newly installed Calendar Server 6.3 software. For more information on `csmigrate`, see [Sun Java System Calendar Server 6.3 Administration Guide](#).



#### **Caution**

If you are upgrading from a much older version of Calendar Server that was configured for limited virtual domain mode or has multiple instances of Calendar Server on the same machine, contact your Sun Microsystems, Inc. sales account representative for an evaluation of your migration requirements and to ensure that you have the specific migration utility that supports those requirements.

**And, as always, never migrate your database without first performing a full backup.**

### **Upgrading Your Calendar Server Version 6.0, 6.1, or 6.2 Databases to be Calendar Server Version 6.3 Compatible**

Run `csmigrate` to upgrade your calendar databases to version 6.3 level.

You can find the `csmigrate` utility, along with other administrative tools, in the `sbin` directory of your newly installed Calendar Server 6.3 software. For more information on `csmigrate`, see [Sun Java System Calendar Server 6.3 Administration Guide](#).



#### **Caution**

If you already have a Calendar Server 6.3 installation and you just upgraded to the latest patch, no migration utilities need to be run.

## Upgrading to Calendar Server 6.3 Patch 121658-20 or Later on Solaris x86 Platforms

**Data created in the Solaris x86 version of Calendar Server 6.3 patch 121658-19 or earlier is corrupted when you upgrade to patch 121658-20 or later. This issue occurs on Solaris x86 platforms only (CR 6642958).**

With patch 121658-20 and later, Calendar Server uses the new Berkeley Database library, which is incompatible with the database created by earlier versions. In order to use the database created by patch 121658-19 (or prior) with this patch, you must update the database.

Follow this procedure:

# Make sure the Calendar Server installation is patch 121658-19 or prior.

1. Important: Take a copy of the current database.
2. Check to make sure the database is in good condition by running `db_verify` and `csdb check`.
3. Dump the data using `db_dump`.
  - a. Set `LD_LIBRARY_PATH` to `cal-svr-base/SUNWics5/cal/lib`.  
For example: `./db_dump -r -f /var/opt/SUNWics5/dump/ics50alarms.db.txt /var/opt/SUNWics5/csdb/ics50alarms.db`
  - b. Do the same for all the databases.  
This dumps the `ics50alarms.db` to `ics50alarms.db.txt` (text file) and is placed in the "dump" directory.
4. Apply this patch (121658-24 or later).
5. Load the data dumped in the preceding step to the database files using the `cs_dbload` utility provided in this patch.
  - a. Set `LD_LIBRARY_PATH` to `cal-svr-base/SUNWics5/cal/lib`.
  - b. Run `cs_dbload` to load files dumped in step 4.  
For example: `./cs_dbload -f /var/opt/SUNWics5/dump/ics50alarms.db.txt /var/opt/SUNWics5/dbload/ics50alarms.db`
  - c. Do the same for all the databases.  
This loads the records present in `ics50alarms.db.txt` to the `ics50alarms.db` in the "dbload" directory. A new "dbload" directory is chosen in order not to overwrite the original database.
6. Run `csdb check` or `csdb rebuild` on the database files created in the preceding step.

### FAQ: Solaris x86 Upgrade to Calendar Server 6.3 Patch 121658-20 or Later.

**Question:** Is this a problem only for Solaris x86?

**Answer:** Yes, this is problem only for Solaris x86. SPARC and Linux platforms are not affected.

**Question:** Do you have to perform this task for every patch? Or only one time?

**Answer:** This is a one-time only task. Once you convert the database to work with this patch, you do not have to repeat these steps for future patches. You can just perform a `patchadd`.

**Question:** If I have patch -17 or -18, what should I do?

**Answer:** Follow the [previous procedure](#).

**Question:** If I have patch -21, -22, or -23, and I have not previously done a dump/load, what should I do?

**Answer:** We don't expect Calendar Server to run without crashes on these patch levels if the dump/load procedure is not performed. If you have these patches installed and do not see any issue, then please contact technical support on how to move forward with the patches.

**Question:** If I have already applied patch -24, and I've already done a dump/load, and I want patch -25 or the Communications Suite 6 software, what should I do?

**Answer:** Perform a `patchadd` of patch -25. No additional steps are required.

**Question:** If I have Communications Suite 5 (Calendar Server 6.3) and I want to be a Beta customer,

what should I do?

**Answer:** If you want to move data from your existing database to the new database, you will have to perform the dump/load procedure described in patch -24.

## Calendar Server Postinstallation Configuration

After installing or upgrading to Calendar Server 6.3 and before you can use Calendar Server, you must configure it according to the instructions in [Calendar Server 6.3 Initial Configuration](#).

### Automatic Base 64 Encoding of Passwords

In the past, the Calendar Server configuration file stored some passwords in clear text. Though the `ics.conf` file has read permission restrictions, the passwords could be visible to someone else when the administrator edits the configuration file. In Calendar Server 6.3, the passwords have been moved to another file and obfuscated by base 64 encoding them. The base 64 encoding prevents someone from accidentally seeing the passwords. You must still protect the file with read permission restrictions, and keep the file secure so that no unauthorized user can get to it, to keep the passwords secure.

If you are installing Calendar Server for the first time, the configuration program encodes the passwords that you create during the configuration process, and stores them in a separate password configuration file.

If you are upgrading your existing Calendar Server software to the Calendar Server 6.3 version, the configuration program encodes the existing passwords found in the `ics.conf` file, and moves them to the password configuration file.

In both cases, the configuration program also adds a new `ics.conf` parameter to indicate the location of the password file, as shown in the following example:

```
local.passwordfile="/etc/opt/SUNWics5/config/icspassword.conf"
```

Do not change this configuration parameter.

Due to this change, the following configuration parameters have been moved out of the `ics.conf` file:

- `local.authldapbindcred`
- `local.enduseradmincred`
- `local.lookupldapbindcred`
- `service.siteadmin.cred`



#### Note

The LDAP bind passwords that are generated by the configurator are re-generated each time you run the configurator, once they are moved out of the `ics.conf` file.

## Where to Find Calendar Server Data and Program Files

The following table shows where to find various files and programs referred to in the documentation for both the Solaris and Linux platforms:

**Table 3-4 Location of Calendar Server Files**

File Names	Solaris Locations	Linux Locations
Administrator utilities: <code>start-cal</code> , <code>stop-cal</code> , <code>csattribute</code> , <code>csbackup</code> , <code>cscal</code> , <code>cscomponents</code> , <code>csdb</code> , <code>csdomain</code> , <code>csexport</code> , <code>csimport</code> , <code>csmonitor</code> , <code>csplugin</code> , <code>cspurge</code> , <code>csrename</code> , <code>csresource</code> , <code>csrestore</code> , <code>csschedule</code> , <code>csstats</code> , <code>cstool</code> , and <code>csuser</code>	<code>cal-svr-base</code> <code>/SUNWics5/cal/lsbin</code>	<code>cal-svr-base/sbin</code>
Migration utilities: <code>csmig</code> and <code>csvdmig</code>	<code>cal-svr-base</code> <code>/SUNWics5/cal/sbin</code>	<code>cal-svr-base/sbin</code>
Configuration files: <code>ics.conf</code> , <code>version.conf</code> , <code>counter.conf</code> , and <code>sslpassword.conf</code>	After installation, files are located at: <code>cal-svr-base</code> <code>/SUNWics5/cal/lib/config-template</code>  During configuration, the various files from the above directory are moved to the locations specified by the configuration options you choose. The default location is: <code>/etc/cal-svr-base</code> <code>/SUNWics5/config</code>	After installation, the files are located at: <code>cal-svr-base/lib/config-template</code>  During configuration, the various files from the above directory are moved to the locations specified by the configuration options you choose. The default location is: <code>/etc/cal-svr-base</code> <code>/config</code>
Mail formatting (*.fmt) files	After installation, the files are located at: <code>cal-svr-base</code> <code>/SUNWics5/cal/lib/config-template</code>  After configuration, the files are located at: <code>/etc/cal-svr-base</code> <code>/SUNWics5/config/language</code>  where <i>language</i> is en, de, es, fr, ja, ko, zh-TW, or zh-CN.	After installation, the files are located at <code>cal-svr-base/lib/config-template</code>  After configuration, the files are located at: <code>/etc/cal-svr-base</code> <code>/config/language</code>  where <i>language</i> is en, de, es, fr, ja, ko, zh-TW, or zh-CN.
Library (.so) files SSL utilities: <code>certutil</code> and <code>modutil</code>	<code>/var/cal-svr-base</code> <code>/SUNWics5/cal/lib/</code>	<code>cal-svr-base/lib</code>
Session database	<code>/var/cal-svr-base</code> <code>/SUNWics5/data/http</code>	<code>/var/cal-svr-base</code> <code>/data/http</code>
Counter statistics files: <code>counter</code> and <code>counter.dbstat</code>	<code>cal-svr-base</code> <code>/SUNWics5/cal/lib/counter</code>	<code>cal-svr-base</code> <code>/lib/counter</code>
<code>timezones.ics</code> file	<code>/etc/cal-svr-base</code> <code>/SUNWics5/config</code>	<code>/etc/cal-svr-base</code> <code>/config</code>

## Tuning Directory Server Performance for Calendar Server

To improve the performance of your LDAP directory server, especially if you are using calendar searches of the LDAP directory consider the following items:

### Indexing the LDAP Directory Server Attributes

To improve performance when Calendar Server accesses the LDAP directory server, add indexes to the LDAP configuration file for various attributes.

The configuration program, `comm_dssetup.pl`, will optionally do the indexing for you.



#### Tip

To see the performance difference indexing can give you, perform the following test:

1. Before indexing, time how long it takes to run the following LDAP command:

```
ldapsearch -b "base" "(&(icscalendarowned=*  
user*)(objectclass=icsCalendarUser))"
```

Where `base` is the LDAP base DN of the directory server where the user and resource data for Calendar Server is located, and `user` is the value that an end user can enter in the Calendar Search dialog.

2. Run indexing for `icsCalendarOwned`.
3. Again run the following LDAP command, and time it:

```
ldapsearch -b "base"  
"(&(icscalendarowned=*user*)(objectclass=icsCalendarUser))"
```

Where `base` is the LDAP base DN of the directory server where the user and resource data for Calendar Server is located, and `user` is the value that an end user can enter in the Calendar Search dialog.

4. Compare the times. There should be a measurable time difference.

### Checking and Setting the Size Limit and the Look Through Limit Parameters

To determine if the Look Through Limit (`nsslapd-lookthroughlimit`) and Size Limit (`nsslapd-sizelimit`) parameters are set to appropriate values, try the following command:

```
ldapsearch -b "base" "(&(icscalendarowned=*  
user ID*)  
(objectclass=icsCalendarUser))"
```

where `base` is the LDAP base DN of the directory server where the user and resource data for Calendar Server is located, and `user ID` is the value that an end user can enter in a calendar search dialog in Communications Express.

If the LDAP server returns an error, the `nsslapd-sizelimit` or the `nsslapd-lookthroughlimit` parameter might not be large enough. Follow these guidelines to set these parameters:

- Ensure that the value for the `nsslapd-sizelimit` parameter in the `slapd.conf` or equivalent file is large enough to return all the desired results; otherwise, truncation can occur, and no results will be displayed.

- Ensure that the value for the `nsslapd-lookthroughlimit` parameter in the `slapd.ldbm.conf` or equivalent file is large enough to complete a search of all the users and resources in the LDAP directory. If possible set `nsslapd-lookthroughlimit` to `-1`, which causes no limit to be used.

## Using Schema 1 with Calendar Server and Communications Express

There are two issues with Schema 1 in Communications Express:

- If you are running Communications Express with Sun LDAP Schema 1, before running the Communications Express configuration program, you must add the DC root node to your LDAP using `ldapmodify`. The entry should look like this:

```
dn: o=internet
objectClass: organization
o: internet
description: Root level node in the Domain Component (DC) tree
```

- The Calendar Server utility used to provision users in Schema 1, `csuser`, was designed for Calendar Express and does not enable a user for Address Book service as is needed for Communications Express.

## Calendar Server Provisioning Tools

There are two tools for provisioning users, groups and domains for Calendar Server: The Delegated Administrator and Calendar Server utilities. Delegated Administrator has two user interfaces: the Console, a graphical user interface, and the Utility, a command-line interface. For information on Delegated Administrator, see the [Sun Java System Delegated Administrator 6.4 Administration Guide](#). Instructions on use of the Console can be found in the Delegated Administrator Console online help.

For information on the Calendar Server utilities, see the [Sun Java System Calendar Server 6.3 Administration Guide](#).



### Caution

Do not attempt to provision users through the Access Manager Console. Though it is possible to create users and assign them a calendar service, do not use this method as results will be unpredictable and will negatively impact your deployment.

## Calendar Server Documentation Updates

### The `csclean` Utility Works in Schema 1 and Schema 2

The Communications Suite 5 version of [Calendar Server 6.3 Administration Guide](#) incorrectly states that the `csclean` utility only works in Schema 2.

### Restoring Backups

As of Calendar Server 6.0, you can restore a specific calendar using `csrestore` from any backup including backups saved with Hot Backup or Archival Backup. To do so, issue the following command:

```
csrestore -c <usercal> calendar <backupdir>
```

6544548

The Sun StorEdge Enterprise Backup software (formerly Solstice Backup) and Legato Networker ( `legbackup.sh` and `legrestore.sh`) are no longer distributed with Calendar Server 6.3. The [Sun Java System Calendar Server 6.3 Administration Guide](#) still documents these utilities in section "17.3 Using Sun StorEdge Enterprise Backup or Legato Networker," in "Chapter 17: Backing Up and Restoring Calendar Server Data." Ignore this information, as it is out of date.

## Calendar Server Compatibility Issues

The following table lists the known incompatibilities between Calendar Server 6.3 and earlier versions.

**Table 3-5 Calendar Server Incompatibilities**

Incompatibility	Impact	Comments
Access Manager now has two install types: Legacy and Realm.	At installation, you must choose Legacy as the install type on the following panel:  Access Manager: Administration (1 of 6)	If the wrong Access Manager is installed, you will not be able to run Delegated Administrator.
The Directory Preparation Tool ( <code>comm_dssetup.pl</code> ) under <code>/opt/SUNWics5</code> doesn't work.	<code>comm_dssetup.pl</code> is now in its own package installed in <code>/opt/SUNcomds</code> for Solaris, and <code>/opt/sun/comms/dssetup</code> for Linux  Existing scripts that specify the old path need to be updated.	To install the package, be sure the Directory Preparation Tool is selected in the appropriate installer panel.
The configuration program for the Delegated Administrator has changed.	Install Delegated Administrator and run the configuration program. The current program is located at: for Solaris, <code>/opt/SUNWcomm/sbin/config-commda</code>  for Linux <code>/opt/sun/comms/config-commda</code>	Upgrade to the new Delegated Administrator when installing this version of Calendar Server.
This release of Communications Express is incompatible with the previous version of Calendar Server.	If you upgrade Communications Express, you must also upgrade Calendar Server.	This also applies to Messaging Server.
Due to a change in the way packaging is done, Calendar Express must do string substitution at runtime.	Significant Performance Degradation	Call technical support to receive a script you can run before starting Calendar Server operations. The script performs all the required string substitutions.  Calendar Express is deprecated and will not be included in a future release of Calendar Server. This problem will not be fixed.

<p>Due to a program code change in SSL processing, the following parameter no longer works:</p> <p>service.http.ssl.certdb.path</p>	<p>Scripts and configuration files still using the old parameter to point to the SSL directory will not work. SSL is not enabled.</p>	<p>A new parameter was added to the ics.conf [file:]</p> <pre>local.ssldbpath = "/etc/opt/SUNWics5/config"</pre>
<p>Password to certificate database is no longer held in ics.conf parameter:</p> <p>service.http.ssl.certdb.password</p>	<p>SSL password can't be found. Error message:</p> <p>General Error: http_ssl_init(): SSL initialization failed.</p>	<p>Password to certificate database is now found in the following file located in the config directory:</p> <p>sslpassword.conf</p> <p>Format of password is:</p> <p>Internal (Software) Token:<i>password</i></p>
<p>Non-domain environments no longer allowed.</p>	<p>Scripts that modify LDAP entries must now include a default domain.</p>	<p>When Calendar Server is installed and configured, it runs a silent conversion program on all LDAP entries to add the default domain you specified.</p> <p>Requests that come in (WCAP commands) without the domain will be automatically assumed to be for the default domain.</p> <p>But any scripts you run that directly modify LDAP entries must include the new default domain.</p>
<p>The service.admin.calmaster.userid and service.admin.calmaster.cred parameters in the ics.conf file are not used anymore.</p>	<p>You cannot set the Calendar user preferences and credentials using these old parameters.</p>	<p>The service.admin.calmaster.userid parameter is changed to service.siteadmin.userid and service.admin.calmaster.cred parameter is changed to service.siteadmin.cred. In case of an upgrade these parameters are migrated by the patch scripts.</p>
<p>Windows and HP-UX versions of Calendar Server are no longer available.</p>	<p>The only operating system platforms supported by server-side Calendar Server software are Solaris and Linux.</p>	<p>This does not effect client-side software, such as the Connector for Microsoft Outlook. See the individual client component Release Notes for a list of supported operating systems.</p>

## Problems Fixed in This Release of Calendar Server

The list that follows are problems reported fixed for this patch of Calendar Server 6.3:

**6697835**

**A "freebusy" failure should not cause http error to be returned for XML/JSON output**  
Calendar Server returns http error 404 when doing a "freebusy" lookup on a non-existing calendar.

**6683707**

**get\_freebusy.wcap crashes cshttpd**

**6681812**

**csdb rebuild should not change the modified timestamp**

**6680028**

**cshttpd crashes when a "freebusy" lookup is done on ldapgroup**

**6677838**

**Unauthorized WCAP request should return response with http code 401-Unauthorized for JSON payload**

**6676306**

**Time zone names are wrong for daylight times in Australia**

**6674186**

**Implement handling of SMS reminders**

**6673980**

**Calendar Server fails to stay running in Sun Cluster HA when configured in read-only mode**

**6662778**

**Event Accepted Notification emails are not sent if multiple calendar ID's are invited**

**6662417**

**Integration of localization files into core patch for Communications Suite 5 and 6**

**6659624**

**JSON syntax error returned when "freebusylist" is empty in getfreebusy.wcap**

**6657860**

**JSON format error returned in get\_freebusy.wcap**

**6657246**

**There is a memory leak for every login if the authentication filter is configured**

**6657242**

**There is a memory leak when fetching a multivalued attribute from ldap**

**6656154**

**Calendar Server needs to implement the Communications Suite Installer upgrade interfaces**

**6651348**

**SMF needs to have unique names for Messaging Server and Calendar Server watcher services**

6650915

**Can't start Calendar Server using SMF**

6650391

**SMF: watcher fails to start (path to binaries is incorrect in cal.exe)**

6650270

**SMF : watcher.xml references Messaging Server**

6649304

**Passwords are put back (twice in the ics.conf with empty value after using removing the latest cs631 patch**

6649300

**patchadd produces error "cannot access /opt/SUNWics5/cal/lib/com.sun.cmm.cs.xml.new**

6649297

**Linux only: Old password related fields left in ics.conf**

6646891

**Calendar Express cannot modify time format if service.http.numprocesses is greater than 1**

6642958

**Bad data representation with patch 121658-19 for the x86 version of Calendar Server 6.3**

6642312

**The csversion utility is missing on Linux**

6642081

**Anonymous login to calendar is not working**

6641750

**fetchattachment.wcap returns incorrect mime output**

6640527

**csadmin crashes when accessing an attachment with an encoded file size that is an exact multiple of the page size**

6640009

**There is no SMF support in the Calendar Server build**

6635743

## **Configuring CS fails with a java exception error**

6629318

**cspassword reveals passwords to all**

6626685

**There is a memory leak every time an attachment is fetched**

6626674

**There is a cshttpd memory leak under stress**

6626006

**csdb rebuild and csrestore from backup fails due to sbin directory ownership issue**

6625765

**Calendar Server import process causes attachments to be truncated**

6624889

**Calendar Server encoding session id makes Outlook Connector unstable\***

6624747

**cshttp thread lock issue in ASock\_Recv**

6623038

**Build failure with Sun Studio 12**

6622866

**PROPFIND causes a denial of service of the Calendar Server**

6622081

**csexport should have the ability to export events including the attachment data**

6622015

**get\_calprops.wcap not sending the correct response if calid parameter is of a calendar group**

6621290

**JSON syntax error: storeevents.wcap} with {{alarmpop**

6621234

**JSON syntax error: list\_subscribed.wcap**

6621213

**JSON syntax error: list.wcap**

6621128

**JSON syntax error: get\_freebusy.wcap**

6620937

**Calendar Server is returning incorrect ICAL output when an event contains an attachment**

6620263 \*

**cscomponent command is missing for the Communications Suite 5 Linux installation**

6620139

**JSON syntax error: set\_userprefs.wcap**

6620122

**JSON syntax error: get\_userprefs.wcap**

6620046

**JSON syntax error: search\_calprops.wcap**

6619357

**{{cshttpd{{ crashes with memory corruption**

6618932

**patchadd error message**

6618247

**patchrm error message**

6618196

**JSON syntax error: storeevents.wcap with timezone ID**

6617799

**JSON syntax error: get\_all\_timezones.wcap**

6617787

**JSON syntax error: deletecomponents\_by\_range.wcap**

6617784

**JSON syntax error: deletetodos\_by\_range.wcap**

6617782

**JSON: deletetodos\_by\_id.wcap syntax error**

6616433

**config-servicetags exits abnormally on Linux**

6615480

**JSON output has syntax errors**

6615475

**Calendar Server needs to locate correct product path when the Communications installer is used with altroot**

6615440

**Calendar Server needs to create /var/opt/sun/install on Linux**

6612742

**There is a cshttpd crash in print\_event\_detail**

6612651

**nswcalCALID should be removed from Calendar Server 6.3 LDAP update code**

6611728

**While creating an event if you invite a resource, it shows the RSVP status as "Accepted" if autoaccept is enabled**

6609386

**config-mfwk and config-servicetag scripts are needed for Uniformity in Documentation for Calendar Server and Messaging Server\***

6607940

**New calendar creation mail feature causes functional test failures**

6607478

**com.sun.cmm.cs.xml has hard-coded values**

6605715

**Update timezones.ics file with the Venezuela time zone change**

6604662

**You cannot add more invitees to an event when another existing user is removed from LDAP**

6603427

**Calendar Server emits malformed XML if an event contains an attachment\***

6602903

**csrename causes a core dump while renaming the calendars**

**6597809**

**Double-booking restrictions are ignored when importing an event**

**6596706**

**The cshttpd process is crashes when you try to update the attachment information for a recurring series**

**6596628**

**Implement getVersion for Calendar Server**

**6592804**

**The cshttpd process crashes in the DWP setup due to memory corruption when fetching the attachment\***

**6592448**

**A cshttpd crash occurred in loginincorrect\_negative**

**6591407**

**The cshttpd process crashes if the master copy of the recurring event is missing\***

**6590680**

**cshttpd may crash in attachment-related functions for the events created with patch-17 in DWP setup\***

**6589856**

**cshttpd is crashing in shtml\_command when browser.cache.enabled is set to "yes"**

**6588744**

**Inviting resources to an event shows wrong RSVP status if autoaccept is enabled**

**6588737**

**Calendar Server emits broken XML if the email field contains quotes**

**6588557**

**Error 81 is returned when an attendee is removed from a single instance of a recurring event**

**6585886**

**Recurring events are not shown in Outlook Connector after running csrename**

**6583657**

**Change output from "error" to "debug" for caldb\_pvt\_ScanDeleteLog: Resurrected entry**

**6580129**

`fetchcomponents_by_id.wcap` could cause `cshttpd` to crash when it returns error 81

6578849

Emit calendar data in JSON format

6577773

Sun Java Enterprise System Monitoring Framework product identifying tag needs to be fixed

6572538

There is no `jmclient` bundled in Calendar Server 6.3.1 on Linux

6571479

`admin.log` shows confusing log message for `jmclient`

6569278

Creating an event by inviting a resource calendar fails with "Unknown Error 80"

6568622

`httpd` does not start with Message Queue 3.7 on Linux

6567265

Make number of Berkeley database locks configurable

6565532

`csdwpd` crashes if there are any errors while reading the calendar properties

6564744

`cshttpd` crashes with `fetchcomponents.wcap` when run under `libumem`

6563558

The `cshttpd` process memory grows very quickly if many events or to do's are fetched in a single request

6563284

`dbstore_is_archivebackup_enabled` contains an incorrect return value

6561930

Update `timezones.ics` file with the new DST changes in New Zealand

6559166

hotbackup and archive should copy all } } { } { .db files\*

6558709

\*The front-end system receives a "backup failed" error email even when `archive` and `hotbackup` are disabled.

6555671

**The copyright for Calendar Express is still 2006**

6554012

**httpd crash on freebusy query uses mail if redirect is on**

6548178

**Alarm retry feature may result in thousands of event reminders**

6546804

**The `icsSubscribed` attribute is not removed from LDAP by `csca1` when deleting a calendar created by Communications Express**

6546620

**`fetchattachment.wcap` over DWP may return a corrupted file**

6546549

**A memory leak occurs when an event with attachment is saved**

6546541

**Uploaded files are not getting deleted after the attachment is saved**

6546535

**The `cshttpd` process crashes in `ac_fetchattachment()` if the event in the database does not have an `attachid`**

6546532

**`csimport` crashes when you try to import an event with an attachment**

6545488

**There is a crash in `wcap_login` on Linux**

6545035

**`attachid` is missing in `fetchcomponents_by_.wcap` in DWP setup\***

6542989

**`csconfigurator.sh` creates an invalid DWP configuration**

6541912

**`fetchcomponents` returns a malformed WCAP response for calendar events having an LDAP group as an attendee**

6541320

**The Calendar Express window title shows incorrect version 6 5**

6540503

**Attachment store needs to open with a hash flag to maintain only a single copy for each back end**

6538972

- Notification and reminder timings are off by an hour with the new DST dates\*

6537923 \

**The copy file utility function fails silently with large files**

6537359

**In Calendar Server 2005Q4, the `timezones.ics` file does not account for 2007 DST differences in Mexico**

6531658

**`csrename` returns a segmentation fault and crashes in `csadm_rename_in_ldap()`**

6530207

**`csrestore` is unable to restore a calendar from the backup database. It cannot connect to the watcher process.**

6525791

**`csrename` stops abruptly without renaming the LDAP database**

6524804

**Calendar creation begins to degrade as the number of calendars increases for a single user when using bulk load**

6522147

**Users can log in with `icsstatus=inactive`**

6520001

**Hide passwords**

6516438

**You cannot login to Calendar Server after an upgrade. You will see "Backend Host Unresolvable" on the login page**

6509780

**Follow new versioning policy**

6505280

## **Introduce daylight savings for Western Australia**

**6500444**

\*There is an HTTP Request Smuggling security issue in `cshttpd`

**6498903** There is a `cshttpd` crash in `caldb_pvt_ReadLinkedComponent()`\*

**6498212**

**The configurator throws a java exception when you choose which server to use as a back end in DWP setup**

**6497774**

`csmigrate` should create the target directory with the owner `icsuser:icsgroup` if it is run by root

**6497116**

**The configurator window's title shows Sun Java System Calendar Server Version 6 5**

**6496627**

**Changing the calendar event case in Calendar Express with no spaces added or removed fails the first time**

**6496601**

**Deleting the secondary calendar does not remove it from the database**

**6496586**

**When switching from December to January using the monthly view, Calendar Express displays January of current year**

**6496353**

**There are memory leaks in `cshttpd`**

**6494811**

`admin` dumps core when `JMQ` is enabled

**6494557**

**There is a WCAP problem replacing X-properties on recurring components**

**6494514**

**All-day events are shifted by one day after importing a `}}{.ics` file\***

**6489729**

**Calendar Server's HTTP server crashes while accepting invitations**

**6486422**

**Calendar Express does not display all-day events in some views (Day/Overview)**

6480935

**Recovery function for databases failed**

6479810

**There are session database issues**

6475187

**WCAP deleteevents\_by\_id returns non-published iErr -5010**

6475106

**cshttpd uses too much memory**

6474557

**Database handles remain open during environment close**

6472348

**The csadmin process is spinning and using 100% CPU**

6461762

**Change the absolute path to relative path in the post install script**

6456901

**watcher.log date/time stamp diverge from the standard used in other log files**

6442769

**Calendar Server should add the X-Sun-calendar-msg: *ITIP Method* in calendar notifications**

6442476

**User calendars automatically created at login have auto-provisioning turned off resulting in calendars not being created on the server**

6422917

**Notification of an event contains garbled multi-byte characters**

6407790

**Use the output "This command is not valid for schema 2" message for csattribute, csuser, and csdomain with any option**

6406628

**JMQ notifications are not triggered for advanced options**

6391858

csstats is no longer reporting authentication, alarm, disk, or response statistics\*

**6378975**

**Online Help is not available for new panels in the Calendar Server configurator**

**6331404**

**Exception invitations do not show up in Outlook using the connector**

**6289810**

**By default, invitations should be "Accepted" for resource calendars**

**6282134**

**Some strings need to be translated in event notifications in zh-CN and zh-TW versions of Communications Express**

**6280808**

\*The title of the tasks List in the Spanish version is corrupted.

**6280710**

**Month names should begin with lower case letters in the Spanish version**

**6279597**

**The text for introducing the time in the new-task dialog in the Spanish version is incorrect**

**6279591**

The initials for the days in the Calendar Server web client are incorrect in the German, Spanish, and possibly the French versions\*

**6278714**

**There is an unnecessary tilde in the message warning about deletion of repeating tasks**

**6278698**

**The copyright year 2003 on the Calendar Express login page is incorrect**

**6275914**

**The Calendar Server configurator online help is out of sync with the Spanish GUI**

**6236637**

**The version of the administration tools displays the wrong build date**

**6214765**

**The string in the Spanish versio of the "Create Group" window is corrupted**

**5109953**

The `createcalendar.wcap` command writes errors to the directory server logs

5069988

`cscomponents -e date` removes all tasks after the end date

4924536

HTML is not rendered under the "Preview" tab of "Edit Event" dialog

## Known Issues and Limitations in Calendar Server

This section contains known issues at the time of this Calendar Server 6.3 release:

- [Calendar Server Issues](#)
- [Documentation Issues in Calendar Server](#)

### Calendar Server Issues

#### Calendar Server Upgrade on x86 Platforms Using the Installer is Not Supported

Upgrading Calendar Server using Communications Suite 6 installer (specifically `commpkg upgrade`) is not supported on x86 platforms. Instead follow the manual steps to upgrade Calendar Server on x86 platforms.

6780694

There are missing apostrophes in the French OLH

6688858

\*There are some issues when upgrading Calendar Server HA and SC\_SCHA via the Communications Installer.\*

**Workaround:** After the upgrade, mount the config directory and run `csconfigurator.sh -nodisplay -noconsole -novalidate`.

6695856

**`./csconfigurator` fails to create the values from `ics.conf` to the `cspassword` file during upgrade from Calendar Server 6.2 to 6.3**

6568622

`httpd` does not start when running Message Queue 3.7 on Linux

**Calendar Server Doesn't Start After Patchadd Because New Parameters Are Added to `ics.conf` With value UNKNOWN (CR 6722736)**

At some sites, the calendar server might not start during a patch process. If this problem occurs, use the following procedure. This procedure needs to be performed only once.

1. Set the `configutil` parameters below to valid values in `ics.conf`. For example:

```
caldb.berkeleydb.archive.maxdays="6"  
caldb.berkeleydb.archive.mindays="3"
```

```
caldb.berkeleydb.hotbackup.maxdays="6"  
caldb.berkeleydb.hotbackup.mindays="3"
```

2. Run the following:

```
./csconfigurator.sh -noconsole -nodisplay -novalidate
```

Contact regular support channels if this procedure does not solve the problem.

## Documentation Issues in Calendar Server

### Incorrect Description of icsAllowedRights Values

This issue occurs in the *Sun Java System Calendar Server 6.3 Administration Guide*, in the following section: [D.9.3.1 icsAllowRights Attribute: csdomain Utility](#).

This section describes the `icsAllowRights` attribute and properties that you can set with the `csdomain` utility. The following statement is incorrect:

"If a bit corresponding to a specific right is set (value=1), the right is not allowed. If the bit is not set (value=0), the right is allowed."

The correct statement is as follows:

"If a bit corresponding to a specific right is set (value=1), the right is explicitly allowed. If the bit is not set (value=0), the right is determined by the corresponding `ics.conf` parameter value."

In addition, in Table D-15, `icsAllowRights` LDAP Directory Attribute and Properties, the values documented for the individual attribute bits are incorrect.

For example, this statement is incorrect: "allowCalendarCreation: If set (bit 0=1), do not allow calendars to be created."

This statement should read as follows: "allowCalendarCreation: If set (bit 0=1), allow calendars to be created."

## Redistributable Files for Calendar Server

Sun Java System Calendar Server 6.3 contains the following set of files for which Sun Microsystems, Inc. grants you a non-exclusive, non-transferable, limited license to reproduce and distribute in binary form.

In addition, you may copy and use but not modify the listed header files and class libraries solely to cause your resulting binaries to be able to interface with Sun's software APIs.

Sample code is provided solely for reference purposes pursuant to creating the above mentioned binaries.

All the redistributable files for Calendar Server are for the plug-in API, known as CSAPI. The API is described in the *Sun Java System Calendar Server 6 2005Q4 Developer's Guide*.

In the following files, `cal-svr-base` is the directory into which Calendar Server was installed. The default for Solaris is `/opt/SUNWics5/cal`, for Linux it is `/opt/sun/calendar`

Redistributable files are found in various subdirectories of `cal-svr-base/csapi` :

- [authsdk Redistributable Files](#)
- [bin Redistributable Files](#)
- [classes Redistributable Files](#)

- [include Redistributable Files](#)
- [plugins Redistributable Files](#)
- [samples Redistributable Files](#)

### **authsdk Redistributable Files**

The following are the redistributable files in this subdirectory ( `cal-svr-base/csapi/authsdk/`):

```
cgiauth.c
expapi.h
login.html
nsapiauth.c
```

### **bin Redistributable Files**

The following are the redistributable files in this subdirectory ( `cal-svr-base/csapi/bin/`):

```
libcsapi_xpcom10.so
libcsexp10.so
```

### **classes Redistributable Files**

The following are the redistributable files in this subdirectory ( `cal-svr-base/csapi/classes/`):

```
ens.jar
jms.jar
```

### **include Redistributable Files**

The following are the redistributable files in this subdirectory ( `cal-svr-base/csapi/include/`):

```
IIDS.h
csIAccessControl.h
csIAuthentication.h

csICalendarDatabase.h
csICalendarLookup.h
csICalendarServer.h
csIDBTranslator.h
csIDataTranslator.h
csIMalloc.hplugins
csIPlugin.h
csIQualifiedCalidLookup.h
csIUserAttributes.h
mozIClassRegistry.h
mozIRegistry.h
nsAgg.h
nsCOMPtr.h
nsCRT.h
nsCom.h
nsDebug.h
nsError.h
nsHashtable.h
nsIAtom.h
nsICaseConversion.h
nsICollection.h
nsID.h
nsIEnumerator.h
nsIEventQueueService.h
nsIFactory.h
nsIPtr.h
```

nsIServiceManager.h  
nsIServiceProvider.h  
nsISizeOfHandler.h  
nsISupports.h  
nsISupportsArray.h  
nsMacRepository.h  
nsProxyEvent.h  
nsRepository.h  
nsString.h  
nsTraceRefcnt.h  
nsVector.h  
nsUnicharUtilCIID.h  
nsXPComCIID.h  
nsXPComFactory.h  
nscore.h  
pasdisp.h  
publisher.h  
subscriber.h  
xcDll.h  
xcDllStore.h

### **plugins Redistributable Files**

This directory (`cal-svr-base/csapi/plugins/`) has redistributable files in the following subdirectories:

- [accesscontrol Redistributable Files](#)
- [authentication Redistributable Files](#)
- [datatranslator Redistributable Files](#)
- [userattributes Redistributable Files](#)

#### **accesscontrol Redistributable Files**

The following redistributable files are found in this subdirectory (`cal-svr-base/csapi/plugins/accesscontrol/`):

`csAccessControl.cpp`  
`csAccessControl.h`  
`csAccessControlFactory.cpp`

#### **authentication Redistributable Files**

The following redistributable files are found in this subdirectory (`cal-svr-base/csapi/plugins/authentication/`):

`csAuthentication.cpp`  
`csAuthentication.h`  
`csAuthenticationFactory.cpp`

#### **datatranslator Redistributable Files**

The following redistributable files are found in this subdirectory (`cal-svr-base/csapi/plugins/datatranslator/`):

`csDataTranslator.cpp`  
`csDataTranslator.h`  
`csDataTranslatorFactory.cpp`

#### **userattributes Redistributable Files**

The following redistributable files are found in this subdirectory ( `cal-svr-base/csapi/plugins/userattributes/` ):

- `csUserAttributes.cpp`
- `csUserAttributes.h`
- `csUserAttributesFactory.cpp`

### **samples Redistributable Files**

This directory (`cal-svr-base/csapi/samples/`) has redistributable files in the following subdirectories:

- [samples/authentication Redistributable Files](#)
- [samples/datatranslator Redistributable Files](#)
- [samples/ens Redistributable Files](#)
- [samples/userattributes Redistributable Files](#)

#### **samples/authentication Redistributable Files**

The following redistributable files are found in this subdirectory ( `cal-svr-base/csapi/samples/authentication/` ):

- `authlogon.c`
- `authlogon.h`
- `authtest.c`
- `csAuthenticationLocal.cpp`
- `csAuthenticationLocal.h`
- `csAuthenticationLocalFactory.cpp`

#### **samples/datatranslator Redistributable Files**

The following redistributable files are found in this subdirectory ( `cal-svr-base/csapi/samples/datatranslator/` ):

- `csDataTranslatorCSV.cpp`
- `csDataTranslatorCSV.h`
- `csDataTranslatorCSVFactory.cpp`

#### **samples/ens Redistributable Files**

The following redistributable files are found in this subdirectory ( `cal-svr-base/csapi/samples/ens/` ):

- `apub.c`
- `asub.c`
- `rpub.c`
- `rsub.c`

#### **samples/userattributes Redistributable Files**

The following redistributable files are found in this subdirectory ( `cal-svr-base/csapi/samples/userattributes/` ):

- `csUserAttributesDB.cpp`
- `csUserAttributesDB.h`
- `csUserAttributesDBFactory.cpp`

# Calendar Server 7 Release Notes

## Sun Java System Calendar Server 7 Release Notes

These Release Notes contain important information available at the time of the general release of Sun Calendar Server 7, including:

- [About Calendar Server 7](#)
- [What's New in This Release of Calendar Server 7](#)
- [Requirements for Calendar Server 7](#)
- [Calendar Server 7 Installation Notes](#)
- [Calendar Server 7 Compatibility Issues](#)
- [Known Issues and Limitations in Calendar Server 7](#)
- [Redistributable Files for Calendar Server 7](#)

### About Calendar Server 7

See [Introduction to Calendar Server 7](#).

### What's New in This Release of Calendar Server 7

See the [What's New](#) document.

### Requirements for Calendar Server 7

- [Requirements for Communications Suite 7](#)
- [Requirements for Calendar Server 7](#)

### Calendar Server 7 Installation Notes

See the [Communications Suite 7 Installation Guide](#) for information on installing Calendar Server 7.

### Calendar Server 7 Compatibility Issues

If necessary, this section should list any compatibility issues.

### Known Issues and Limitations in Calendar Server 7

**6868370**

**In a Calendar Server 6/Calendar Server 7 co-deployment scenario, busy information for All Day events are not being shown through the Convergence UI**

**6846562**

#### **Schema 1 support for CalDAV Server**

For Calendar Server 7 to support LDAP schema 1, you need to add some ACIs at the domain level, at least the anonymous access. See [Configuring Calendar Server 7 to Use LDAP Schema 1](#) for workaround.

**6724653**

**Logs for Calendar Server 7 JMS consumer for notification emails are embedded in Application Server logs**

**6737896**

**Apple iCal uses a new property to determine the privacy restrictions, instead of just using the CLASS property in the event.**

**6740679**

**[Appleical]Task creation with Due Date creates 403 error mismatch: DTSTART floating = false Does not apply to Mac OS X Snow Leopard.**

**Workaround:** Remove dtstart if due=date and dtstart=datetime. Add RELATED=END param to alarm trigger if relative alarm.

**6742801**

**[AppleiCal]Error on removing and adding an attendee in one instance of a recurring series**

**6748104**

**Event request notification is not displaying the modified time correctly for modification of a single occurrence of a recurring event**

**6791801**

**[AppleiCal]get http 403 when modifying an instance to add an attendee**

**6795953**

**davadmin config allows setting of invalid log levels**

**6799116**

**Creation of a task in Lightning with due date and alarm fails with invalid calendar data**

**6879002**

**davadmin calresource import fails for events with ORGANIZER**

**6879006**

**davadmin calresource import fails for events with ATTENDEES**

**6808801**

**davadmin config command takes invalid values for log.dav.\*.maxlogfiles**

**6811845**

**MKCOL with weird body should fail; extended MKCOL support not complete.**

**6821041**

**davadmin config command takes invalid value for notification.dav.smtpport**

**6822646**

**Deleting a range of all day recurring events by using `davadmin` fails if the range includes an exception**

**6834023**

**Error while modifying a single instance of recurring event in Thunderbird**

**6834152**

**ical:Single instance of time based event cannot be modified into all day event in recurring event**

## **Redistributable Files for Calendar Server 7**

This release of Calendar Server 7 does not contain any files that you can redistribute.

# Communications Suite 7 Compatibility Issues

## Communications Suite 7 Compatibility Issues

This page 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 JavaES 5 Update1 Installer. (6782178)**

Incompatibility	Solution	Comments
<p><b>Issue:</b> 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).</p> <p><b>Note:</b> The Java ES installer is needed to install Access Manager and Web Server, two products optionally used with Communications Suite products.</p> <p><b>Cause:</b> 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.</p>	<p>In general, we recommend that you run the Communications Suite installer <i>after</i> running the Java ES installer to ensure that the latest versions of the Communications Suite shared components are installed. However, the Communications Suite installer does not install cacao; so this issue does not directly affect the installation of Communications Suite products.</p>	<p>This issue can affect the use of Communications Suite products if they are monitored with the Java Enterprise System Monitoring Framework (JESMF). Note also that this is not a compatibility issue with Communications Suite products. It is an incompatibility between the cacao patches and the Java ES installer.</p>

**On Red Hat Linux systems, upgrading to Java 6 (JDK 6u13) may affect dependent products that use earlier versions of Java. (6743356)**

Incompatibility	Solution	Comments
<p><b>Issue 1:</b> On Red Hat Linux systems, when installing or upgrading to Communications Suite 6 Update 2, the Comms Suite installer checks if there is an existing version of Java on the machine and upgrades it to Java 6 (JDK 6u13). 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 6.</p> <p>On Red Hat Linux, the Communications</p>	<p><b>Solution for Issue 1:</b> Install or upgrade to a later version of the affected Sun Java product, which is compatible with Java 6. However, this approach does not apply to Access Manager 7.1, installed with the Java Enterprise 5 Update 1 installer. See the <b>Note for Access Manager 7.1</b>, below.</p> <p><b>Note:</b> You could choose not to upgrade to Java 6 when you run <code>commpkg upgrade</code>, but in general we do not recommend</p>	<p>On Red Hat Linux, during an interactive install or upgrade, if the Comms Suite installer detects any existing Java version on the machine, it prompts you to choose whether to upgrade the Java component or not. Choose <code>y</code> to perform the upgrade. If you are performing a</p>

Suite installer replaces any previous Java version with Java 6. This is not an issue on Solaris OS; on Solaris OS, the Comms Suite installer upgrades Java side-by-side with the previous version. That is, the installer installs Java 6 and leaves the previous Java version on the system.

This issue only affects dependent Sun Java products running on the same machine as the Communications Suite products.

**Cause:** On Red Hat Linux systems, packages are not used to manage product versions. Without the version-management facility available with Solaris OS packages, the Comms Suite installer can only replace any existing Java version with the upgraded version.

**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. In most cases, the Comms Suite installer addresses and resolves this issue.

This issue might occur only if the Comms Suite installer upgrades the Java shared component to Java 6 under these conditions: On Red Hat Linux systems, in silent mode, and when the dependent Sun Java product such as Access Manager, Web Server, Directory Server, or Application Server was installed with the Java ES 5 Update 1 installer.

**Cause:** 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

this approach. Java 6 is recommended for Communications Suite 6 Update 2 products such as Convergence 1 Update 2. 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. 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 sym link, 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

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.

`--fixEntsys y` option in the command line when you run the `commpkg` command.

`commpkg` in silent mode, you must enter this option in the command line with the `commpkg` command.

For more information, see [About Upgrading Shared Components](#).

# Communications Suite 7 Component Products Release Notes

## Common Release Information for Sun Java Communications Suite 7 Component Products

These release notes contain important release information that is common for all component products of Sun Java Communications Suite 7.

These release notes contain the following sections:

- [About Sun Java Communications Suite 7](#)
- [What's New in this Release of Sun Java Communications Suite](#)
- [Deprecated and Removed Features for Communications Suite](#)
- [Requirements for Communications Suite 7](#)
- [Locating Patches for Sun Java Communications Suite Products](#)
- [Sun Java Communications Suite Installation and Upgrade Notes](#)
- [Communications Suite Compatibility Issues](#)
- [Problems Fixed in This Release of Communications Suite](#)
- [Known Issues in Sun Java Communications Suite](#)

Third-party URLs are referenced in this document and provide additional, related information.



### Note

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## About Sun Java Communications Suite 7

The Sun Java Communications Suite integrates a number of Sun server and client products to support distributed communication and collaboration applications.

The Sun Java Communications Suite 7 release includes the following components:

### ***Communications Suite 7 Products and Components***

Product	Version
Messaging Server	7 Update 3
Instant Messaging	8 Update 2
Convergence	1 Update 3
Calendar Server	7
Delegated Administrator	7 (latest patch)
Outlook Connector	7.3 Update 1 (latest patch)
Calendar Server	6.3 (latest patch)
Indexing and Search Service	1
Comms Sync	3.1 (latest patch)
Comms Installer	7
Messaging Server HA Agent (MS_SCHA)	7
Calendar Server HA Agent (CS_SCHA)	6.3
Instant Messaging HA Agent (IM_SCHA)	7.3
comm_dssetup	6.4 (latest patch 6.4p5)

For release notes on individual component products, see the following links:

- [Sun Convergence 1 Update 3 Release Notes](#)
- [Sun Java System Calendar Server 7 Release Notes](#)
- [Sun Java System Calendar Server 6.3 Release Notes](#)
- [Sun Java System Messaging Server 7 Update 3 Release Notes](#)
- [Sun Java Indexing and Search Service 1 Release Notes](#)
- [Sun Java System Instant Messaging 8 Update 2 Release Notes](#)
- [Sun Java System Delegated Administrator 7 Update 1 Release Notes](#)
- [Sun Java System Connector for Microsoft Outlook 7.3 Update 1 Release Notes](#)
- [Sun Java System Communications Sync 3.1](#)

The Release Notes for Sun Java System Communications Sync 3.1 can be found at <http://docs.sun.com/source/819-4706/index.html>.

## What's New in this Release of Sun Java Communications Suite

See the [Communications Suite 7 What's New](#) document.

## Deprecated and Removed Features for Communications Suite

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:

- [Communications Express 6.3](#)
- [Delegated Administrator 6.4](#)
- [Connector for Microsoft Outlook 7.1 , 7.2, and 7.2 Update 1](#)
- [Communications Sync](#)

## Communications Express 6.3

Going forward, no new features will be added to the Communications Express user interface. It has been deprecated in favor of Sun Convergence. Communications Express will be removed from the product in a future release.

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 7.3.

### **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 [Sun Java Mobile Communications](#).

## **Requirements for Communications Suite 7**

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](#)
- [Sun Convergence 1 Update 3: Product Version Compatibility Requirements](#)
- [Memory and Disk Space Requirements](#)
- [Operating System Requirements](#)
- [System Virtualization Support](#)
- [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 Sun Java System products are required to support the Communications Suite 7 products? The [Sun Java System Product Version Compatibility Requirements for Communications Suite 7](#) table lists the Sun Java System product versions that are compatible with the Communications Suite 7 products.
- To install a particular Communications Suite product, which other components do I need? The [Communications Suite 7 Component Dependencies](#) table lists the individual Communications Suite products and shows the components on which they depend, including other Communications Suite components.

### ***Sun Java System Product Version Compatibility Requirements for Communications Suite 7***

Product	Version	Required or Optional?
Sun Java System Directory Server	5.x, 6.x	Required. 6.3 or later recommended. If doing a fresh installation, 6.3.1 is recommended.
Sun Java System Message Queue	4.3	Optional. Communications Suite installer automatically installs Message Queue as a shared component.
Sun Java System Access Manager	7.1	Optional.
GlassFish Enterprise Server	2.1	Required as the web container for the following Communications Suite 7 components: Calendar Server 7, Instant Messaging 8 Update 2, and Indexing and Search Service 1.
Sun Java System Application Server	9.1 Update 2	Optional web container for some Communications Suite 7 components.
Sun Java System Web Server	7.0 Update 2	Delegated Administrator requires a web container. Alternately, you can use either Application 8.2P2 or Application Server 9.1 Update 2 (recommended) as the web container.

For information about requirements for Directory Server, Access Manager, Web Server, GlassFish Enterprise Server, and Application Server, see the current release notes for these products.

#### **Communications Suite 7 Component Dependencies**

Product Component	Dependencies	Required or Optional?	Must Be on Local Host?
Calendar Server 7	Directory Server 5.x, 6.x Recommended: 6.3.1	Required. To store user/group and domain information for authentication, authorization, and email delivery.	No
	Directory Server Setup Script ( <code>comm_dssetup.pl</code> ) You must use the version that is bundled with the Communications Suite 7 installer.	Required. To prepare the LDAP directory for Messaging Server.	No. Must be on the same host as Directory Server.
	MySQL Server 5.1	Required. To store Calendar Server database information.	No
	GlassFish Enterprise Server 2.1	Required. To act as the web container.	Same host on which you install Calendar Server 7.
	Messaging Server	Optional but an SMTP server is required.	No

Indexing and Search Service 1	Directory Server 5.x, 6.x Recommended: 6.3.1	Required. To store user/group and domain information for authentication, authorization, and email delivery.	No
	Messaging Server 7 Update 3	Required.	No
	GlassFish Enterprise Server 2.1	To act as the web container.	Same host on which you install front-end ISS components.
	Java Message Queue 4.3	To generate notifications.	No
Messaging Server 7 Update 3	Directory Server 5.x, 6.x Recommended: 6.3 or later	Required. To store user/group and domain information for authentication, authorization, and email delivery.	No
	Directory Server Setup Script ( <code>comm_dssetup.pl</code> ) You must use the version that is bundled with the Communications Suite 7 installer.	Required. To prepare the LDAP directory for Messaging Server.	No. Must be on the same host as Directory Server.
	Delegated Administrator 7	Optional. To manage user and group data; to manage the directory schema.	No
Calendar Server 6.3	Directory Server 5.x, 6.x Recommended: 6.3 or later	Required. To store user/group and domain information for authentication, authorization, and calendar account provisioning.	No
	Directory Server Setup Script ( <code>comm_dssetup.pl</code> ) You must use the version that is bundled with the Communications Suite 7 installer.	Required. To prepare the LDAP directory for Calendar Server.	No. Must be on the same host as Directory Server.
	Messaging Server 6.x, 7.0, 7 Update 1, 7 Update 2, 7 Update 3 Recommended: 7 Update 3	Optional. To provide email notifications.	No
	Access Manager 7.1 (for SSO)	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).	No
	Delegated Administrator 7	Optional. To provision users of calendar services; to manage the directory schema.	No

Instant Messaging 8 Update 2	Directory Server 5.x, 6.x Recommended: 6.3.1	Required. To store user, conference room, and news channel data.	No
	Directory Server Setup Script ( <code>comm_dssetup.pl</code> ) You must use the version that is bundled with the Communications Suite 7 installer.	Required. To prepare the LDAP directory for Instant Messaging.	No. Must be on the same host as Directory Server.
	Messaging Server 6.x, 7.0, 7 Update 1, 7 Update 2, 7 Update 3 Recommended: 7 Update 3	Optional. To support offline delivery of instant messaging alerts and chat archives as email messages.	No
	Calendar Server 6.x Recommended: 6.3	Optional. To support Calendar Server event reminder notifications.	No
	Access Manager 7.1 (for SSO)	Optional. To provide authentication, authorization single sign-on (SSO), and policy services. You can use a local Access Manager client SDK, which provides access to a remote Access Manager Server; if you deploy the SDK, a remote Access Manager Server must be deployed to support it.	No. However, if you want IM to use a remote Access Manager, the Access Manager SDK must be installed on the host where the IM server is installed.
	Web container, one of: GlassFish Enterprise Server 2.1 Application Server 8.x Recommended: GlassFish Enterprise Server 2.1	Optional. To support distribution and downloading of the Instant Messenger Java client and to provide IMPS Gateway and HTTP Gateway functionality.	Yes If you want the IM client to use SSO, the IM client must be deployed to the same web container as Access Manager.
Directory Server Setup Script ( <code>comm_dssetup.pl</code> ) (Version bundled with Communications Suite 7 installer)	Directory Server 5.x, 6.x Recommended: 6.3 or later	Required. To set up the LDAP directory, which the <code>comm_dssetup.pl</code> script updates with Communications Suite components' schema.	Yes

Delegated Administrator 7	Directory Server 5.x, 6.x Recommended: 6.3 or later To enforce unique values for mail attributes, you must install one of these releases: 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.	No
	Directory Server Setup Script ( <code>comm_dssetup.pl</code> ) You must use the version that is bundled with the Communications Suite 7 installer.	Required. To prepare the LDAP directory for Delegated Administrator.	No. Must be on the same host as Directory Server.
	Access Manager 7.1	Optional. To provide authentication and authorization services when Delegated Administrator accesses the LDAP directory data.	Yes
	Web container, one of: Application Server 9.1 U2 Application Server 8.x Recommended: AS 9.1 U2 Web Server 7 or higher Web Server 6 (compatible with Delegated Administrator 7, although WS 6 is not available for new installation)	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.	Yes
	Messaging Server 6.x, 7.0, 7 Update 1, 7 Update 2, 7 Update 3 Recommended: 7 Update 3	Required to provide mail service for users and groups provisioned by Delegated Administrator. Not required if you do not provision mail users.	No
	Calendar Server 6.x Recommended: 6.3	Required to provide calendar service for users and groups provisioned by Delegated Administrator. Not required if you do not provision calendar users.	No
Convergence 1 Update 3		For details about Convergence dependencies, see <a href="#">Sun Convergence 1 Update 3: Product Version Compatibility Requirements</a> .	

## Java Requirements

The following products require that you have Java 1.6 installed: GlassFish Enterprise Server 2.1, Calendar Server 7, Indexing and Search Service 1, and Instant Messaging 8 Update 2.

### **NSS Requirements**

Communications Suite 7 requires the use of the shared security component NSS version 3.11.7. 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](#).

### **Sun Convergence 1 Update 3: Product Version Compatibility Requirements**

The information in this section provides you with all the product requirements and minimum product versions to install Convergence in these deployments:

- A new Communications Suite 7 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:

- Sun Java System Product Requirements
- Communications Suite Component Requirements
- Compatibility with Communications Express and the Address Book Store

Note that some of this information repeats the information shown in the [Sun Java System Product Version Compatibility Requirements for Communications Suite 7](#) table.

***Sun Java System Product vides you with all the product requirements and minimum product versions to install Convergence in these deployments:***

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- 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.



#### **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 IM service, you do not need Instant Messaging.

The following tables list the product requirements, dependencies, and compatibilities specific to Convergence:

- Sun Java System Product Requirements

- Communications Suite Component Requirements
- Compatibility with Communications Express and the Address Book Store

Note that some of this information repeats the information shown in the [Sun Java System Product Version Compatibility Requirements for Communications Suite 7](#) table.

**Sun Java System Product Requirements for Convergence 1 Update 3**

Product	Version	Required or Optional?	Must Be on Local Host?
Sun Java System Directory Server Enterprise Edition	Release 5 and later, Release 6 and later	Required. At least version 6.3. For the recommended version to download, see <a href="#">Get the Software</a> .	No
Web Container	<ul style="list-style-type: none"> <li>• Sun GlassFish Enterprise Server 2.1 Patch 02 (recommended)</li> </ul>	Required. For the recommended version to download, see <a href="#">Get the Software</a> .	Yes

- Sun Java System Application Server 9.1 Update 2



**Note**

If you are using Sun Java System Application Server 9.1 Update 2, it is recommended that you upgrade to Sun Java System Application Server 9.1 Update 2 Patch 08 or later for better performance.



**Note**

The following patches that were released after the release of Sun Java System Application Server 9.1 Update 2 do not work with Sun Convergence 1 Update 2:

- Patch 06
  - Solaris SPARC - 128640-08 (package-based), 128643-08 (file based)
  - Solaris x86 - 128641-08 (package-based), 128644-08 (file based)
  - Red Hat Linux - 128642-08 (package based), 128645-08 (file based)
- Patch 07
  - Solaris SPARC - 128640-09 (package-based), 128643-09 (file based)
  - Solaris x86 - 128641-09 (package-based), 128644-09 (file based)
  - Red Hat Linux - 128642-09 (package based), 128645-09 (file based)

Sun Java System Access Manager	7.1	Optional. Required only if you want to use Access Manager for authentication and/or SSO. Convergence supports both Access Manager Realm mode (the default) and Legacy mode for providing authentication and SSO.	No
Sun OpenSSO Enterprise	8.0	Optional. Required only if you want to use Sun OpenSSO Enterprise for authentication and/or SSO.	No

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 1 Update 3***

Product	Version	Communications Suite Release	Required or Optional?	Must Be on Local Host?
Messaging Server - Webmail Server	7 Update 3  (See <a href="#">Note</a> after this table.)	7 (for MS 7 Update 3)	Required to provide mail service in Convergence.	No, but you should deploy Webmail Server on the same host as Convergence for scalability and performance.
Messaging Server - all other MS components	6.3, 7.0, 7 Update 1, 7 Update 2, 7 Update 3  (See <a href="#">Note</a> .)	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)	Required to provide mail service in Convergence.	No
Calendar Server	6.3, patch level -35 or higher	5 + apply patch level -35 6 + apply patch level -35 6 Update 1 + apply patch level -35 6 Update 2, 7	Required to provide calendar service in Convergence. To support Convergence, Calendar Server 6.3 must be at least at the -28 patch level.	No
Instant Messaging	8 Update 2	7 (for IM 8 Update 2)	Required to provide Instant Messaging service in Convergence.	No
Directory Server Setup script, <code>comm_dssetup.pl</code>	You must use the version that is bundled with the Communications Suite 7 installer.	7	Required. You must run <code>comm_dssetup.pl</code> on the hosts where Directory Server is installed.	No
Delegated Administrator	6.4, 7.0-0.00	5, 6, or 6 Update 1, or 6 Update 2, 7	Optional.	No



**Note**

For Messaging Server 7 Update 3, if you enable flagged message sort through the Convergence UI, you need to ensure that your `wmap_version` is equal to or greater than 9. This version is available 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.

**Convergence 1 Update 3 Compatibility with Communications Express, Connector for Microsoft Outlook, Address Book Store, and LDAP Schema**

Product	Version	Communications Suite Release	Required or Optional?
Communications Express	6.3	5, 6, or 6 Update 1	Optional. You can deploy Communications Express with the same Messaging Server, Calendar Server, and Directory Server as Convergence 1 Update 3. You can configure end users to access Communications Suite services through either client.
Connector for Microsoft Outlook	7.3, 7.3 Update 1	6 (for 7.3) 6 Update 1 (for 7.3 Update 1)	Optional. You can deploy Connector for Microsoft Outlook with the same Communications Suite products and Directory Server as Convergence 1 Update 3. End users of Outlook (configured via the Connector for Microsoft Outlook) can access the same Communications Suite services as those accessed via Convergence and Communications Express.
Personal Address Book store	Can be configured by either Convergence 1 Update 3 or Communications Express 6.3	N/A. (The Address Book store resides in an LDAP directory.)	<p>You can configure Convergence 1 Update 3, Communications Express 6.3, and Connector for Microsoft Outlook 7.3 to use the same Address Book store.</p> <p>Convergence end users can access and update an existing Address Book store configured on an existing Directory Server by using Communications Express. Conversely, you can configure Communications Express end users to access and update an Address Book store originally configured via Convergence 1 Update 3.</p> <p>Updates to the Address Book made in one client are visible and accessible on the other client.</p> <p>New Address Book features provided by Convergence do not invalidate Address Book LDAP entries originally configured by using Communications Express. From the perspective of the Communications Express client, the Address Book functions as it did before Convergence was installed.</p> <p><b>A Note About Corporate Address Books:</b> Convergence can be configured to support one Corporate Address Book for each hosted domain. Users of Communications Express who use a single Corporate Address Book can also access and update that Address Book through Convergence.</p> <p><b>Caveat:</b> 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.</p>

LDAP Schema	Schema 1 or 2 Schema 2 only if Access Manager is deployed with Convergence.	N/A	If you use Access Manager (Realm Mode or Legacy Mode) to provide Single Sign-on (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.
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## Memory and Disk Space Requirements

The following table shows the memory and disk space requirements for Communications Suite 7 component products.

### *Memory and Disk Space Requirements for Communications Suite 7*

Product	Disk Space	RAM	Other
Sun Indexing and Search Service	Approximately 20 Mbytes must be free in <code>/opt</code> for <code>/opt/sun/comms/jiss</code> . Roughly 50 percent of the Messaging Server store size will be required for <code>/var/iss</code> directory. As ISS supports more attachment types, the amount of disk space needed for <code>/var/iss/attach</code> will increase. <sup>1</sup>	4 Gbytes	
Sun Java System Calendar Server 7	Approximately 20 Mbytes.		
Sun Java System Calendar Server 6.3	Approximately 500 Mbytes of disk space for typical installation. For production systems, at least 1 Gbyte.	128 Mbytes of RAM. For production systems, 256 Mbytes to 1 Gbyte for best performance.	RAID storage for fast access (recommended for large databases).
Sun Convergence	Approximately 100 Mbytes of disk space for initial installation.	1 Gbyte minimum.	
Sun Java System 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.	
Sun Java System 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		

<sup>1</sup> In Indexing and Search Service, the `/var/iss` directory is divided into three subdirectories:

- `/var/iss/attach` - Stores attachments, including JPG, PDF, ODF, Microsoft Word,

Powerpoint, Visio, and Excel thumbnails as well as the original JPG, PDF, ODF, Microsoft Word, Powerpoint, Visio, and Excel files from the email. Because ISS stores the original attachment file here, the size of this directory can grow quite large depending on how many attachments of this type are in the mail store. Turning off the attachment store is a configurable option. Compared to the index store, this directory could probably reside on slower disk.

- /var/iss/logs - Stores log files.
- /var/iss/index/store - 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 as it is frequently accessed.

## Operating System Requirements

The following table shows the recommended platforms for Communications Suite 7:

### *Operating System and Platform Support (Recommended for Communications Suite 7)*

Operating System	CPU	Comments
Solaris OS 10	SPARC, x64	Minimum recommended version: Solaris OS 10 5/08 (Update 5) See <a href="http://docs.sun.com/app/docs/coll/1236.8">http://docs.sun.com/app/docs/coll/1236.8</a> for more information.
Red Hat Enterprise Linux 5 Update 3	x64	See <a href="http://www.redhat.com/docs/manuals/enterprise/">http://www.redhat.com/docs/manuals/enterprise/</a> 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 9 SPARC, x86	Solaris OS 10 SPARC	Solaris OS 10 x86, 32-bit	Solaris OS 10 x86, 64-bit	Red Hat Linux 3 AS/ES 32- and 64-bit	Red Hat Linux 4 AS/ES 32-bit	Red Hat Linux 4 AS/ES 64-bit	Red Hat Enterprise Linux 5 Server Update 3 64-bit	Windows XP (SP3 or higher) 2003 Terminal Server
Messaging Server 7 Update 3 32-bit	No	No	No	No	No	Yes	Yes	Yes	No
Messaging Server 7 Update 3 64-bit	No	Yes	No	Yes	No	No	No	No	No
Messaging Server HA	No	Yes	No	Yes	No	No	No	No	No
Calendar Server 7	No	Yes	No	Yes	No	No	No	Yes	No
Instant Messaging 8 Update 2	No	Yes	No	Yes	No	No	Yes (only AS)	Yes	No
Instant Messaging HA	No	Yes	No	Yes	No	No	No	No	No
Convergence 1 Update 3	No	Yes	No	Yes	No	No	Yes	Yes	No
Delegated Administrator 7	No	Yes	No	Yes	No	Yes	No	Yes	No
Connector for Outlook 7.3 Update 1	NA	NA	NA	NA	NA	NA	NA	NA	Yes
Calendar Server 6.3	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Calendar Server 6.3 HA	No	Yes	No	Yes	No	No	No	No	No
Information and Search Service 1	No	Yes	No	Yes	No	No	No	Yes	No
Communications Sync 3.1	NA	NA	NA	NA	NA	NA	NA	NA	Yes
Dssetup	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No

Notes:

- Messaging Server, Calendar Server, Instant Messaging, Communications Express, and Delegated Administrator are no longer supported on HP-UX or Windows platforms.
- Instant Messaging is not supported on Solaris OS 32-bit and Red Hat Linux 32-bit OS platforms.

- The Communications Suite installer checks for required platform patches.
- The performance of your Communications Suite deployment depends on many factors, including CPU power, available memory, disk space, file system performance, usage patterns, network bandwidth, and so on. For example, throughput is directly related to file system performance. If you have questions about sizing and performance, contact your Sun Java 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 with pkginfo. Multi-machine deployments require SUNWapch2d, SUNWapch2r, and SUNWapch2u to be installed on indexing nodes. If 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 SUNWsshhr add
package SUNWsshhu add
# NTP
package SUNWntpr add
package SUNWntpu add
# System Admin Tools (showrev)
package SUNWadmfw add
package SUNWadmfr add

##
## Indexing and Search Service Requirements
##
# GNU tar and Dependencies
package SUNWgcmn add
package SUNWgtar add
# XCU4 Utilities - ISS requires for awk and id
package SUNWxcu4 add
# Java 5 Run Time
package SUNWj5rt add
# wget - required only for remote ISS installs
package SUNWwgetr add
package SUNWwgetu add
```

### ***Minimal Red Hat Linux Installation Requirements for Indexing and Search Service***

The Red Hat Linux installation can run on top of the install group @Base in your `kickstart.cfg` file. The following RPMs must be installed on Red Hat Enterprise Linux 5:

- rpm-build
- elfutils
- elfutils-libs
- compat-libstdc++-33
- ntp
- sharutils
- compat-libstdc++-296
- libxml2
- xinetd

Multi-machine deployments require that the `httpd` RPM to be installed on indexing nodes for Red Hat Enterprise Linux 5.

### **System Virtualization Support**

System virtualization is a technology that enables multiple operating system (OS) instances to execute independently on shared hardware. Functionally, software deployed to an OS hosted in a virtualized environment is generally unaware that the underlying platform has been virtualized. Sun performs testing of its Sun Java System products on select system virtualization and OS combinations. This testing helps validate that the Sun Java System products continue to function on properly sized and configured virtualized environments as they do on nonvirtualized systems.

Communications Suite supports the VMware container (VMware ESX Server 3). As support for such virtualization platforms as LDOMs and the xVM Server becomes available, this document will be updated.

For information about Sun support for Sun Java System products in virtualized environments, see <http://docs.sun.com/doc/820-4651>.

### **High Availability Support**

#### ***Supported High-Availability Products***

<b>Product</b>	<b>Supported Versions</b>
Calendar Server 6.3	<ul style="list-style-type: none"> <li>• Sun Cluster <ul style="list-style-type: none"> <li>• SPARC: 3.0, 3.1 Update 4, 3.2, 3.3</li> <li>• x86: 3.1 Update 4, 3.2, 3.3</li> <li>• Red Hat Linux: Not Supported</li> </ul> </li> <li>• Veritas <ul style="list-style-type: none"> <li>• SPARC: Not Supported</li> <li>• x86: Not Supported</li> <li>• Red Hat Linux: Not Supported</li> </ul> </li> </ul>
Instant Messaging 8 Update 2	<ul style="list-style-type: none"> <li>• Sun Cluster <ul style="list-style-type: none"> <li>• SPARC: 3.1 Update 4, 3.2, 3.3</li> <li>• x86: 3.1 Update 4, 3.2, 3.3</li> <li>• Red Hat Linux: Not Supported</li> </ul> </li> <li>• Veritas <ul style="list-style-type: none"> <li>• SPARC: Not Supported</li> <li>• x86: Not Supported</li> <li>• Red Hat Linux: Not Supported</li> </ul> </li> </ul>
Messaging Server 7 Update 3	<ul style="list-style-type: none"> <li>• Sun Cluster <ul style="list-style-type: none"> <li>• SPARC: 3.0, 3.1 Update 4, 3.2, 3.3</li> <li>• x86: 3.1 Update 4, 3.2 U1, 3.3</li> <li>• Red Hat Linux: Not Supported</li> </ul> </li> <li>• Veritas <ul style="list-style-type: none"> <li>• SPARC: 3.5, 4.0, 4.1, 5.0</li> <li>• x86: 3.5, 4.0. 4.1, 5.0</li> <li>• Red Hat Linux: 4.1, 5.0</li> </ul> </li> </ul>

***Compatibility Between Messaging Server and the MS High-Availability Agent Versions***

<b>MS High-Availability Agent Version</b>	<b>Compatible Messaging Server Versions</b>
MS_SCHA 7.0	Messaging Server 64-bit version 6.3 or later Messaging Server 64-bit will 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 Clients***

Browser	Windows XP	Windows 2000	Windows Vista	Solaris	Red Hat Linux	Mac OS 10.x
Microsoft Internet Explorer	7.x and 8.0	N/A	7.x and 8.0	N/A	N/A	N/A
Firefox	2.0.0.11 minimum 3.0.x, 3.6.x (See Note)					
<div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 10px;"> <p><b>Note</b> Support for Firefox 2 is deprecated and will be removed in the future. Firefox 3.6.x is supported on Convergence 1 Patch 13 as well as on all later releases.</p> </div>						
Safari	N/A	N/A	N/A	N/A	N/A	3.2.x

#### Supported Browser Versions for Delegated Administrator Clients

Browser	Windows XP	Windows 2000	Solaris
Microsoft Internet Explorer	6.0 SP1 and 7.0	6.0 SP1 and 7.0	N/A
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 (CalDAV Server)
- Messaging Server
- Delegated Administrator
- Instant Messaging
- Connector for Outlook

#### Calendar Server 7 (CalDAV Server)

##### Supported Clients for Calendar Server 7

Client	Version	Notes
Apple iCal	At least version 3	iCal 3 comes bundled with Mac OS 10.5.
Lightning	0.8 and 0.9	Lightning 0.8 supports basic CalDAV but does not support invitations and as such cannot be used for scheduling. Lightning 0.9, which does support CalDAV scheduling, is also supported by Calendar Server. Note that the latest version of Thunderbird is version 2.
Convergence		Future integration is planned.

## 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 [Sun Java System Messaging Server 6.3 Administration Guide](#) for more information. In addition, NFS can be supported on BSD-style mailboxes (`/var/mail/`) as well as for message stores.
- ZFS. As of Messaging Server 6.3, Messaging Server supports the ZFS file system. See [Messaging Server ZFS Support](#) for more information.

### *DNS Server and Messaging Server*

A high-quality caching DNS server on the local network is a requirement for a production deployment of Messaging Server. Messaging Server depends heavily on the responsiveness and scalability of the DNS server.

Additionally, your DNS configuration needs to be clearly specified as to how to route to hosts that are not on the local subnet by ensuring the following:

- The `/etc/defaultrouter` file should contain the IP address of the gateway system. This address must be on a local subnet.
- The `/etc/resolv.conf` file exists and contains the proper entries for reachable DNS servers and domain suffixes.
- In the `/etc/nsswitch.conf` file, the `hosts:` line has the `files`, `dns`, and `nis` keywords added. The keyword `files` must precede `dns` and `nis`. For example, the lines should not look like this:

```
hosts:  nis dns files
ipnodes:  nis dns files
```

The lines should be changed to this:

```
hosts:  files nis dns
ipnodes:  files nis dns
```

\* In the `/etc/hosts` file, the FQDN is the first host name.

For example, if your Internet host table in your `/etc/hosts` file should not look like this:

```
123.45.67.89 budgie.west.sesta.com
123.45.67.89 budgie loghost mailhost
```

Change the host table so that only one line is shown for the IP address of the host. Be sure that the first host name is a fully qualified domain name. For example:

```
123.45.67.89 budgie.west.sesta.com budgie loghost mailhost
```

**Note**

On Solaris OS 10 U3 and earlier platforms, you not only have to add the fully qualified domain name (FQDN) to the `/etc/hosts` file, but also to the `/etc/inet/ipnodes` file. Otherwise, you will receive an error indicating that your host name is not a fully qualified domain name. From Solaris OS 10 U4 onward, the contents of the `/etc/inet/ipnodes` and `/etc/hosts` files have been merged together into just the `/etc/hosts` file. Applying kernel patch 120011-14 on any Solaris 10 system also performs the merge, and subsequent removal of the `/etc/inet/ipnodes` file.

**Delegated Administrator**

The following Java Enterprise System components, tools, and LDAP schema version are required for this release of Delegated Administrator:

- Directory Server 5.x or 6.x  
To enforce unique values for mail attributes, you must install one of these releases:
  - 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:
  - Sun Java System Web Server 6.1 or higher
  - Sun Java System Web Server 7 or higher
  - Sun Java System Application Server 7.x
  - Sun Java System Application Server 8.x
  - Sun Java System Application Server 9.1
- Directory Server Setup script, `comm_dssetup.pl`: Use the version that is bundled with the current version of the Communications Suite installer.
- LDAP Schema 2  
This release of Communications Suite Delegated Administrator is designed for provisioning users in an LDAP Schema 2 directory.

**Instant Messaging*****Instant Messaging Client Hardware Requirements***

Instant Messenger uses between 50 and 70 Mbytes of memory on most platforms. You should estimate the memory requirement by including the requirements of other applications (including operating systems) used on the client machine. In most cases, at least 256 Mbytes RAM is recommended to run Instant Messenger and other applications comfortably. This number becomes higher when using memory-intensive operating systems.

***Instant Messaging Client Operating System Requirements***

The table below lists the supported and unsupported client platforms:

Operating System	Supported Platforms	Unsupported Platforms
Solaris	Solaris OS 10 64-bit	Solaris 9, Solaris 10 32-bit
Microsoft Windows	Microsoft Windows 98, ME, NT (SP 6a), 2000, XP	-
Mac	MacOS X, minimum 10.1	-
Red Hat Linux	Red Hat Linux 4 and 5, 64-bit	Red Hat Linux 4 32-bit, Red Hat Linux 3 and Red Hat Linux 5 32-bit

The table below lists the supported and unsupported server platforms:

Operating System	Supported Platforms	Unsupported Platforms
Solaris	Solaris OS 10 64-bit	Solaris 9, Solaris 10 32-bit
Red Hat Linux	Red Hat Linux 4 64-bit, Red Hat Linux 5, 64-bit	Red Hat Linux 4 32-bit, Red Hat Linux 5 32-bit, Red Hat Linux 3



**Note:**

Instant Messaging 8 Update 2 requires Java version 1.6 minimum.

On Windows, you can run Instant Messenger by using the browser's Java Plugin from the following browsers:

- Netscape, minimum 7.2
- Mozilla, minimum 1.7
- Mozilla Firefox, minimum 1.0
- Internet Explorer, minimum 6.0 SP 2

If the client machine has Java 1.6 minimum installed, there are no additional requirements to use either Java Plugin or Java Web Start. Netscape Navigator v7 as well as the recent versions of the Mozilla browser include Java v1.6 minimum. Internet Explorer does not include the latest version of Java. JDK 5.0 is included with Sun Java System Instant Messaging.

If the client machine does not have Java v1.6 minimum installed, you need to install Java Web Start. You can download and install Java v1.6 from the Java Technology website (<http://java.sun.com/j2se>).

You can download and install Java Web Start from the Java Web Start Technology website (<http://java.sun.com/products/javawebstart>).

HTML links can be exchanged over Instant Messenger and activated from the messenger by clicking them. When a link is activated, the messenger invokes a browser. The following table lists supported operating system and browser combinations.

***Supported Client OS and Browser Combinations for Instant Messaging***

Operating System	Browser
Solaris OS 10	JDS Desktop Netscape Communicator, minimum 8.0, Mozilla minimum 1.7.12, Mozilla Firefox minimum 1.5.0
Red Hat Linux Desktop	Minimum 7.0 Netscape Communicator, minimum 8.0, Mozilla minimum 1.7.12, Mozilla Firefox minimum 1.5.0
Red Hat Linux Desktop	Minimum 9.0 Netscape Communicator, minimum 8.0, Mozilla minimum 1.7.12, Mozilla Firefox minimum 1.5.0
Windows 98/ME/NT/2000/XP	No restrictions
Mac OS X	No restrictions

### Connector for Outlook

This section describes the requirements and recommendations for Sun Java System Connector for Microsoft Outlook.

The following operating systems are supported:

- Microsoft Windows 2000 (Service Pack 3 or higher)
- Microsoft Windows XP
- Microsoft Windows 2003 Terminal Server
- Microsoft Vista

The following versions of Microsoft Outlook are supported:

- Outlook 2007
- Outlook 2003

### **Communications Suite Component Requirements for Sun Java System Connector for Microsoft Outlook 7.3**

Product	Version	Communications Suite Release	Required or Optional?
Messaging Server	6.3, 7.0	5 (for 6.3) or 6 (for 7.0)	Required to provide mail service.
Calendar Server	6.3, 6.3.1	5	Required to provide calendar service.
Convergence	1.0	6	Optional (Recommended). Either Communications Express or Convergence can be used to provide address book service, mail filters and out of office message features.
Communications Express	6.3	6	Optional.
Directory Server	5.2, 6.0 or higher	4 (for 5.2), 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 Sun Java System Calendar Server need to engage with Sun Professional Services to enable their data to be converted and migrated to the new format. A Sun Professional Services offering is available. 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.

## Locating Patches for Sun Java Communications Suite Products

### Communications Suite Patches

For the most current list of required patches for Sun Java Communications Suite, go to <http://sunsolve.sun.com> and select either Patches or Patch Portal. As operating system patch requirements change and patches to Communications Suite and Java Enterprise System components become available, updates will be distributed on the SunSolve database, initially in the form of recommended patch clusters.

To deploy Calendar Server 6.3 with Convergence, Calendar Server must be at least at the -28 patch level.

If you wish to locate patches for the Sun Java Communications Suite products, the following table lists the keywords used for each Communications Suite product. You can use the specific keyword to search for relevant patches on SunSolve.

#### *Patch Keywords for Communications Suite Products*

Product	Keyword
Calendar Server	"Calendar Server"
Communications Express	"communications express"
Convergence	"convergence"
Delegated Administrator	commcli
Dssetup	comm_dssetup
Indexing and Search Service	"Indexing Search Service"
Instant Messaging	"Instant Messaging"
Messaging Server	"Messaging Server"
Connector for Microsoft Outlook	"Outlook Connector"

**Note**

The double quotes should be used to search for the text string and space.

## Sun Java Communications Suite Installation and Upgrade Notes

### Default Installation Directories and Ports

## Reviewers

Need to update this section for Indexing and Search Service 1 and Calendar Server 7

The Communications Suite installer automatically installs product components in default directories unless you specify otherwise. In most cases, you can specify a custom location to override a default location when you are specifying configuration values during or after installation, with the following exceptions:

- **Sun Cluster components.** You cannot change the location of the installation directories.
- **Message Queue.** You cannot change the location of the installation directories.



### Note

Use the default installation directory when installing product components, if possible. If you specify an alternative installation directory, you are responsible for consistently pointing components to that installation directory during configuration.

The following table lists the default installation directories for the Communications Suite product components.

### Default Installation Directories

Label and State File Parameter	Default Directory	Comment
Access Manager CMN_IS_INSTALLDIR	Solaris OS: /opt/SUNWam Red Hat Linux: /opt/sun/identity	
Application Server CMN_AS_INSTALLDIR	Solaris OS and Red Hat Linux: /opt/SUNWappserver	Contains Application Server utilities, executables, and libraries.
Application Server Domains CMN_AS_DOMAINSDIR	Solaris OS and Red Hat Linux: /opt/SUNWappserver/domains	Default area under which administrative domains are created.
Calendar Server CMN_CS_INSTALLDIR	Solaris OS and Red Hat Linux: /opt/sun/comms/calendar	
Convergence CMN_IWC_INSTALLDIR	Solaris OS and Red Hat Linux: /opt/sun/comms/iwc	
Communications Express CMN_UWC_INSTALLDIR	Solaris OS and Red Hat Linux: /opt/sun/comms/ce	
Delegated Administrator CMN_COMMDA_INSTALLDIR	Solaris OS and Red Hat Linux: /opt/sun/comms/da	
Directory Preparation Tool CMN_DSSETUP_INSTALLDIR	Solaris OS and Red Hat Linux: /opt/sun/comms/dssetup	
Directory Server Core DSEE_BASE	Solaris OS: /opt/SUNWdsee/ds6 Red Hat Linux: /opt/sun/ds6	Separately located subcomponents of Directory Server EE include Directory Server Core, Directory Service Control Center, and Directory Proxy Server.

Directory Service Control Center DSEE_BASE	Solaris OS: /opt/SUNWdsee/dscc Red Hat Linux: /opt/sun/dscc	
Directory Proxy Server DSEE_BASE	Solaris OS: /opt/SUNWdsee/dps Red Hat Linux and HP-UX: /opt/sun/dps	
Directory Server Instance Directory DSEE_INSTANCE_DIR	Solaris OS: /var/opt/SUNWdsee/dsins1 Red Hat Linux: /var/opt/sun/dsins1	
HADB CMN_HADB_INSTALLDIR	Solaris OS: /opt/SUNWhadb Red Hat Linux: /opt/SUNWhadb	HADB install locations are not relocatable in Communications Suite installation.
	Solaris OS: /var/opt/SUNWhadb Red Hat Linux: /var/opt/SUNWhadb	HADB Repository Data and Log location.
	Solaris OS: /etc/opt/SUNWhadb Red Hat Linux: /etc/opt/SUNWhadb	HADB Management Agent Config File
	Solaris OS: /etc/init.d/ma-initd Red Hat Linux: /etc/init.d/ma-initd	HADB Management Agent Startup Script
Instant Messaging CMN_IIM_INSTALLDIR	Solaris OS and Red Hat Linux: /opt/sun/comms/im	
Instant Messaging Resource Directory CMN_IIM_DOCSDIR	Solaris OS and Red Hat Linux: /opt/sun/comms/im/html	
Instant Messaging Online Help Directory CMN_IIM_DOCSHELPPDIR	Solaris OS and Red Hat Linux: /opt/sun/comms/im/html/en/imhelp	
Message Queue You cannot change the installation directories, so no field is in the installer or parameter in the state file.	Not applicable	Solaris OS: /usr/bin /usr/share/lib /usr/share/lib/imq /etc/imq /var/imq /usr/share/javadoc/imq /usr/demo/imq /opt/SUNWimq Red Hat Linux: /opt/sun/mq /etc/opt/sun/mq /var/opt/sun/mq
Messaging Server CMN_MS_INSTALLDIR	Red Hat Linux, 32 bit: /opt/sun/comms/messaging Solaris OS 64-bit: /opt/sun/comms/messaging64	Messaging Server also uses /var/opt/sun/comms/messaging and /var/opt/sun/comms/messaging64 as the read-write area for configuration, queue, log, store, and other miscellaneous data.
Monitoring Console CMN_MC_INSTALLDIR	Solaris OS: /opt/SUNWjesmc Red Hat Linux: /opt/sun/jesmc	

Sun Cluster You cannot change the installation directories, so no is field in the installer or parameter in the state file.	Not applicable	Sun Cluster software is installed in the following locations on Solaris OS: /usr/opt /usr/cluster
Web Server CMN_WS_INSTALLDIR	Solaris OS: /opt/SUNWwbsvr7 Red Hat Linux: /opt/sun/webserver7	
Web Server Instance Directory CMN_WS_INSTANCEDIR	Solaris OS: /var/opt/SUNWwbsvr7 Red Hat Linux: /var/opt/sun/webserver7	

## Default Port Numbers

When the Communications Suite installer requests that you enter a port number, the installer performs a runtime check on the ports in use and displays an appropriate default value. If the default port number is being used by another component or by another instance of the same product component, the installer presents an alternative value.

The following table lists the default Communications Suite product component port numbers and the purpose of each port.



### Note

Convergence, Access Manager, Communications Express, and Delegated Administrator are not listed in this table because they use the port numbers of the web container into which they are deployed.

### Reviewers

Need to update this section for Indexing and Search Service 1 and Calendar Server 7

### 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	80	Standard HTTP port
	389	LDAP port

	57997	ENS
	59779	DWP
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
HADB	1862	Management Agent Port (JMX)
	15200	Default Portbase
Instant Messaging	5222	Multiplexer port
	5269	Instant Messaging server-to-server port
	45222	Server port used for multiplexer communication
Message Queue	80	Standard HTTP port
	7676	Port Mapper
	7674	HTTPS Tunneling Servlet Port
	7675	HTTP Tunneling Servlet Port
Messaging Server	25	Standard SMTP port or MMP SMTP Proxy <sup>Note 1</sup>
	110	Standard POP3 port or MMP POP3 Proxy <sup>Note 1</sup>
	143	Standard IMAP4 port or MMP IMAP Proxy <sup>Note 1</sup>
	225	Default port for communications to back-end store through LMTP
	465	SMTP/SUBMIT over SSL or MMP SMTP Proxy over SSL <sup>Note 1</sup>
	587	Standard Message Submission (SMTP SUBMIT) port
	993	IMAP over SSL or MMP IMAP Proxy over SSL <sup>Note 1</sup>

	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, 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 7 Compatibility Issues](#).

## Problems Fixed in This Release of Communications Suite

This section lists problems fixed in this release of Sun Java Communications Suite.

**Uninstall prior Calendar Server localization packages before installing Communications Suite 6**

**(CI 6.0-0.02 and later, this issue does not exist on CI 6.0-0.01): You must uninstall the prior Calendar Server localization packages before installing Communications Suite 6. Otherwise (at least on Red Hat Linux) the Calendar Server installation fails.**

## Known Issues in Sun Java Communications Suite

This section describes the known issues that exist in this release of Sun Java Communications Suite. Specifically, this section describes installation and upgrade issues.

### JDK upgrade may affect other products' upgrade

The JDK upgrade may affect the upgrade of other products. For details, see [Communications Suite 7 Compatibility Issues](#).

### 6785668 (fixed in R6u2)

**When you install `comm_dssetup` only, the Communications Suite installer does not install the SASL, NSS, and ICU shared components.**

The `comm_dssetup` script requires SASL because `ldapsearch` needs it.

This issue occurs only if you run the Communications Suite installer and select `comm_dssetup` without selecting any other Communications Suite products. This scenario may occur in a multi-host deployment, where `comm_dssetup` is installed with Directory Server on separate machines, and no Communications Suite products are installed on those machines.

The shared components *are* installed when you install Communications Suite products such as Messaging Server with `comm_dssetup` on the same machine.

**Note:** `comm_dssetup` is installed and run on machines where Directory Server is located. This issue occurs when you install Directory Server with the Directory Server zip file version, which does not install the SASL, NSS, and ICU shared components in the standard location. This installation method is recommended on the Communications Suite software download site.

If you install Directory Server with the Java ES installer (not recommended because it installs an older version of DSEE), these shared components are installed.

**Workaround:** When you run `commpkg install`, when you are prompted to select components to install, select `~1, 3`.

This selection directs the Communications Suite installer to install `comm_dssetup` (selection 3) and the shared components associated with Messaging Server (selection `~1`). It does not install the Messaging Server software.

The tilde (`~`) prefixed to a product selection directs the Communications Suite installer to install the shared components associated with a product, but not the product itself.

### 6766549 (fixed in `comm_dssetup 6.4p4` which is part of R6u2)

`comm_dssetup.pl` is unable to locate `ldapsearch`. `comm_dssetup.pl` may not be able to locate `ldapsearch` if you install it in an `altroot` location.

**Workaround:** Install `comm_dssetup.pl` in the default root location.

### `pkgadd` will fail on systems with greater than 2 TB of space (fixed in R6u2)

Currently this issue occurs only on ZFS file systems that are available only on Solaris 10. This is due to

Solaris bug 6514450, which is fixed in patch 119254-61(sparc)/119255-61(sol x86) or later.

**Workaround:** Download and apply the patch.

**6659438**

**The Communications Installer fails when a directory contains a space.**

The `commpkg` utility fails when the current directory has a space in its name.

**Workaround:** Do not use `commpkg` in a path that contains a space in its name.

**6653773**

**Access Manager 7.1 fails to start if it is deployed to a non-enterprise (EE) version of Application Server 9.1.**

For details, see [Communications Suite 7 Compatibility Issues](#).

**No Localization Files for Communications Express (R7 no longer delivers CE)**

**No localization files are available for Communications Express.**

You see only English in the Communications Express interface, even if you try to change the preferred language to another choice.

**`comm_dssetup` Utility**

**If you installed Directory Server Java ES (for example, Java ES 5 U1), the `comm_dssetup` utility is also installed. The Communications Installer comes with a newer version of `comm_dssetup` that you need to use.**

**Workaround:** To upgrade to the current version of `comm_dssetup`, run `{{commpkg upgr`

# Connector for Microsoft Outlook 7.3 Update 1 Release Notes

## Sun Java System Connector for Microsoft Outlook 7.3 Update 1 Release Notes

These Release Notes contain important information available at the time of the general release of Sun Java System Connector for Microsoft Outlook 7.3 Update 1. These Release Notes contain the following sections:

- [About Connector for Microsoft Outlook 7.3 Update 1](#)
- [What's New in This Release of Connector for Microsoft Outlook](#)
- [Deprecated and Removed Features for Connector for Microsoft Outlook 7.3 Update 1](#)
- [Requirements for Connector for Microsoft Outlook 7.3 Update 1](#)
- [Connector for Microsoft Outlook Installation Notes](#)
- [Connector for Microsoft Outlook Compatibility Issues](#)
- [Problems Fixed in This Release of Connector for Microsoft Outlook](#)
- [Known Limitations and Issues in Connector for Microsoft Outlook](#)
- [Redistributable Files for Connector for Microsoft Outlook](#)

Third-party URLs are referenced in this document and provide additional, related information.



### Note

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## About Connector for Microsoft Outlook 7.3 Update 1

Sun Java System Connector for Microsoft Outlook enables Outlook to be used as a desktop client with Sun Java 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 the Sun Java System 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 the Sun Java System Calendar Server for events and tasks which are then converted into MAPI properties. With this model, Sun Java System 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, Sun Convergence, and Sun Java System Communications Express.

**Note**

Please note, the package that is Sun Java System 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 Sun Java Communications Suite. Sun provides a migration service to help move data and users from an existing Exchange deployment to Sun Java 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 7.3 Update 1

The following features have been deprecated in Connector for Microsoft Outlook 7.3 Update 1:

- Support for Microsoft Outlook 2000.
- Support for Microsoft Outlook 2002/XP.

The following versions have been deprecated in Connector for Microsoft Outlook 7.3 Update 1:

- 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 7.3 Update 1

See [Requirements for Communications Suite 6](#) 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 Sun Java System Connector for Microsoft Outlook, please check the [SunSolve website](http://sunsolve.sun.com/pub-cgi/show.pl?target=patchpage) (<http://sunsolve.sun.com/pub-cgi/show.pl?target=patchpage>) for the latest information about any required patches.

The installation and deployment is a three-step process.

### Installing Connector for Microsoft Outlook

1. Install the administrator package.
2. Create an installation package for the end user.
3. Deploy the installation package.

The Connector for Microsoft Outlook packages ships an installer for the administrator package. The system administrator should prepare a special installation package called the Setup Wizard for the end user. The Setup Wizard installs and configures the Connector for Microsoft Outlook software on the end user's desktop. This installation package is designed to simplify and automate

the installation process.

For installation, configuration, and deployment instructions please see the following:

- [Sun Java System Connector for Microsoft Outlook Installation Guide](#) describes how to install the administrator package. The steps to install Sun Java System Connector for Microsoft Outlook 7.3 Update 1 is same as installing Sun Java System Connector for Microsoft Outlook 7.3.
- [Sun Java System Connector for Microsoft Outlook Administration Guide](#) describes how to create an installation package for the end user using the Deployment configuration Program.
- [Deploying Connector for Microsoft Outlook](#) describes the deployment of the Connector for Microsoft Outlook.

## Converting Data

One of the optional steps that can be performed during setup and configuration of Connector for Microsoft Outlook is the conversion of data that resides on the desktop. This conversion process is invoked only if the administrator checks the Convert existing profile option during the creation of the end user installation package. Please note, this conversion process is not intended to, nor does it replace the need for server-based migration. Sun provides a migration service to help move data and users from an existing Exchange deployment to Sun Java Communications Suite.

## LDAP Attributes

In order for Connector for Microsoft Outlook to function correctly, the following LDAP attributes in the Sun Java System 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 [Sun Java System Calendar Server 6.3 Administration Guide](#) and the [Sun Java System Messaging Server 6.3 Administration Guide](#).

## Connector for Microsoft Outlook Compatibility Issues

Please refer to the following Technical Notes for information about compatibility issues with Connector for Microsoft Outlook and other products or applications:

- [Configuring Calendar Server for Connector for Microsoft Outlook](#): describes specific configuration tasks and other considerations for Calendar Server to work with Connector for Microsoft Outlook.
- [Tuning Communications Express to Work With Connector for Microsoft Outlook](#): describes interoperability issues and tuning tips when using Communications Express with Connector for Microsoft Outlook.
- [Tuning LDAP to Improve Searches in Communications Services Clients](#): provides tips for improving searches in Communications Express and Connector for Microsoft Outlook.

## Problems Fixed in This Release of Connector for Microsoft Outlook

From the README:

Fixed in most recent release

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 occurrence 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 Sun Java System 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 occurrence

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 attendee'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 Sun Java System Connector for Microsoft Outlook.

### Limitations in Connector for Microsoft Outlook

Some limitations exist in this release of Sun Java System 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 Sun Java System Connector for Microsoft Outlook cannot be modified using the ToolsServices option from the Outlook menu. To modify the properties:
  1. Exit Outlook.
  2. Right click the Outlook icon and select Properties.  
The Properties dialog appears.
  3. Select Folders - < *your user name*>from the list of services.
  4. Click Properties.
- Free/busy lookup using SSL is not supported.
- Installing Sun Java System Connector for Microsoft Outlook on Exchange servers is not supported.
- Recurring tasks are not supported.
- Offline limitations:
  - During an offline session, if any item in a Calendar, Task, mail, or Contact folder is modified using Outlook, and then another client on the server is used to modify the same item, the changes made offline are lost when the user returns to online mode in Outlook. The changes made by the other client on the server remain.
  - When creating a new event in offline mode, the invitation is saved to the user's Outbox. If, while still in offline mode, the user opens the invitation, the invitation disappears from the Outbox once it is closed.
- Junk Mail Filter does not work for Outlook 2003 and Outlook 2007.  
The Junk Email feature available in Outlook 2003 and Outlook 2007 (select ToolsOption) does not function with Connector for Microsoft Outlook. Senders that are set to be filtered using this tool are not filtered.  
Because Outlook's Junk Email feature relies on the client to filter unwanted messages, Sun recommends using a server-side solution. In client filters, like the one Outlook utilizes, the messages arrive in the user's Inbox, which is then moved to the Junk folder. This could potentially create unnecessary network traffic and slower response time.  
Users may use the ToolsMail Filter option, which utilizes the server-side filtering function. A more efficient solution would be to use a server-side virus or junk mail filter that is compatible with Sun Java System 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 <http://www.sun.com/software/products/communications/partner&#95;library/index.xml>

### Known Issues in Connector for Microsoft Outlook

This section describes the known issues at the time of this release of Sun Java System Connector for Microsoft Outlook. If known, IDs are included in parentheses.

The categories of issues discussed in this section are:

- [General Issues in Connector for Microsoft Outlook](#)
- [Installation and Upgrade Issues in Connector for Microsoft Outlook](#)
- [Calendar Issues in Connector for Microsoft Outlook](#)
- [Mail Issues in Connector for Microsoft Outlook](#)
- [Address Book Issues in Connector for Microsoft Outlook](#)
- [Localization Issues for Connector for Microsoft Outlook](#)
- [Communications Express Interoperability Issues for Connector for Microsoft Outlook](#)
- [Microsoft Exchange Interoperability Issues](#)
- [Microsoft Outlook Issues](#)

### **General Issues in Connector for Microsoft Outlook**

**No ID**

**Mail Quota and Folder Size dialog and documentation are not localized.**

**6550994 and 6766033**

**Non Default Contacts Folder Not Getting Deleted in Communications Express and Convergence**

**Workaround:** Delete the contacts folder from the Deleted Items list in addition to deleting it from Outlook.

**6689448**

**Close button on Mail Filters Page Does Not Work in Mozilla Firefox**

**Workaround:** If the Close button on Mail Filters page or on the Out of Office Message page does not work in Mozilla Firefox browser, go to the `Program Files\Mozilla Firefox\greprefs` folder. Edit the `all.js` file by setting the value of the `dom.allow_scripts_to_close_windows` preference to true.

**6570441**

**Vista: Not able to create user profile using silent installation**

**Workaround:** Able to proceed with silent installation after enabling hidden administrator. With Administrator account, this issue is not reproducible. This is Windows Vista specific. This behavior is not seen in other flavors of Windows.

Steps to enable default administrator account in Vista:

1. Run the command `compmgmt.msc`.
2. Select Local Users and Groups from Left side Tree View.
3. Select Users. This will show all the users present on the machine.
4. Right click on "Administrator".
5. Click properties. Administrator Properties dialog box will be displayed.
6. Clear the option "Account is Disabled".(By default, this option is selected so the administrator account is disabled).

**6604704**

**Outlook 2007: Not able to create profile using installation package**

When you run the installation package to create a new profile, you get the following error and the profile is not created.

"Outlook is not installed on this machine. Please install Outlook 2000 with the Office 2000 Service Pack 3 or Outlook 2002 with the Office XP Service Pack 2, and then run this program again."

Issue is because of the missing registry sub-key.

HKEY\_CLASSES\_ROOT\Outlook.Application

You may experience this issue if you install a Microsoft Office 2003 program after the 2007 Microsoft Office system is installed. For example, you experience this issue in the following scenario:

1. You install the 2007 Office system.
2. You modify the 2007 Office system installation to remove Microsoft Office Word 2007.
3. You install Microsoft Office Word 2003.

**Workaround:**

1. Exit all 2007 Office programs.
2. Click Start, click Run, enter `appwiz.cpl` in the Open box, and then click OK.
3. In the Add or Remove Programs dialog box, click Microsoft Office Version 2007, and then click Change.
4. In the Microsoft Office Version 2007 dialog box, click Repair, and then click Continue.

For other details see:

<http://support.microsoft.com/kb/930010>



**Note**

Outlook 2000 and Outlook XP/2002 are not supported.

**Installation and Upgrade Issues in Connector for Microsoft Outlook**

**4930092**

**Unauthenticated Shared Drive Path Displays Warning.**

For fields requiring a shared drive path, or UNC (Universal Naming Convention) be entered (for example, the shared path to the location for Microsoft Web Publishing Wizard on the Processes Tab of the Deployment Configuration Program), a validation warning is displayed that states the path does not exist if the user is not authenticated for the specified shared drive.

**Workaround:** The specified shared drive should be accessible by anonymous authentication, allowing anybody to access the shared drive.

**No ID**

**Upgrade defaults to previous servers and ports.**

When upgrading from the Connector for Microsoft Outlook 6 2004Q2 version to the Connector for Microsoft Outlook 7.2 version, if the server names and port numbers have changed, the upgrade only takes into consideration the old server names and port numbers.

**Workaround:** None.

**Calendar Issues in Connector for Microsoft Outlook**

The following issues relate the calendar portion of Sun Java System Connector for Microsoft Outlook:

**6589461**

**Outlook 2007 Cannot Open the Internet Calendar (.ics) File When a Nondefault Calendar Is Shared Through Email.**

When you open an Internet Calendar email attachment in Outlook 2007, for example, `Sample.ics`, the following error message is displayed:

```
The file "Sample" is not a valid Internet Calendar file. You cannot
create a new folder here.
```

**Workaround:** Perform the following steps:

1. Save the `Sample.ics` file from your email on your desktop.
2. From Outlook Connector File menu, select Import and Export.
3. Select the Import an iCalendar (.ics) or vCalendar file (.vcs) option from the actions list and click Next.
4. Click the `Sample.ics` file that you have saved on your desktop.  
The Do you want to open this calendar as a new calendar or import its items into your calendar? dialog box appears.
5. Click Import.  
The contents of the Internet Calendar file are imported to the default calendar folder.

**6595737**

**When a Resource is Double Booked, Outlook Incorrectly Shows The Second Event as Created.**

When a resource is booked for two recurring events in the same time slot, and the first instance of the recurring event is deleted, the event is not created in the Calendar Server. However, Outlook 2003 displays the event in the calendar.

The following error message is displayed:

```
Operation failed. Double Booking is not allowed.
```

**Workaround:** None.

**6835766**

**Need to Specify Minimum Version of `mapi32.dll`.**

When you try to install Outlook Connector on a machine that has Groupwise installed, the following error message is displayed:

```
Error 5351 -- unable to install Sun 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 Sun Java System 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 Sun Java System 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 Sun Java System Connector for Microsoft Outlook:

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 --> Sun Java System 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 Sun Java System Connector for Microsoft Outlook and Sun Java System 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. Sun Java System 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 Sun Java System 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.

## **Redistributable Files for Connector for Microsoft Outlook**

Connector for Microsoft Outlook does not use any redistributable files.

# Delegated Administrator 7 Release Notes

## Sun Java System Delegated Administrator 7 Release Notes

These Release Notes contain important information available at the time of the general release of Sun Java System Delegated Administrator 7 including:

- [About Delegated Administrator 7](#)
- [What's New in This Release of Delegated Administrator](#)
- [Deprecated and Removed Features for Delegated Administrator 7](#)
- [Delegated Administrator Installation Notes](#)
- [Delegated Administrator Documentation Updates](#)
- [Delegated Administrator Compatibility Issues](#)
- [Problems Fixed in This Release of Delegated Administrator \(since Communications Suite 5\)](#)
- [Known Issues and Limitations in Delegated Administrator](#)
- [Requirements for Delegated Administrator](#)

### About Delegated Administrator 7

Delegated Administrator 7 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 7, you can provision users in an LDAP Schema 1 and Schema 2 directories.

For information about configuring and managing Delegated Administrator, see the [Sun Java System 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 [Communications Suite 7 What's New](#) document.

### Deprecated and Removed Features for Delegated Administrator 7

#### 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.

#### 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. Sun Microsystems, 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 [Sun Java System Delegated Administrator Administration Guide](#).

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### **ACI Consolidation**

For large-scale installations with Access Manager, Messaging Server, and an LDAP Schema 2 directory, you might want to consolidate the Access Control Instructions (ACIs) in your directory.

When you install Access Manager with Messaging Server, a large number of ACIs initially are installed in the directory. Many default ACIs are not needed or used by Messaging Server. You can improve the performance of Directory Server and, consequently, of Messaging Server look-ups, by consolidating and reducing the number of default ACIs in the directory.

For information about how to consolidate and discard unused ACIs, see [Consolidating ACIs for Directory Server Performance](#).

## **Delegated Administrator Documentation Updates**

In this release of Delegated Administrator, *Sun Java System Delegated Administrator Administration Guide* describes how to enforce unique values for mail attributes when running Directory Server 5.x. This task appears as a “Post-Configuration Task” after you run the Delegated Administrator configuration program.

If you are running Directory Server 6.x, you must follow the procedure described here to enforce unique mail attribute values:

#### **6579843 To enforce the uniqueness of mail attributes when running Directory Server 6.x**

Messaging Server uses the following mail attributes to identify a user's email address and alternate email addresses:

- `mail`
- `mailAlternateAddress`
- `mailEquivalentAddress`

Each user's mail attributes should be unique across the directory.

1. Install the following Directory Server plug-in: 6.1\_PR\_6573440.

To install the plug-in, follow the instructions in the plug-in README file.

The plug-in is available with Directory Server 6.x patches on SunSolve.

This plug-in provides a hotfix patch to Directory Server to enforce mail attribute uniqueness. Although the plug-in is labeled "6.1", it applies to other Directory Server 6.x releases such as Directory Server 6.0.

2. Create the plug-in for Delegated Administrator by using the Directory Server configuration utility, `dsconf`.

For example:

```
dsconf create-plugin -h host -p port
-H /opt/SUNWdsee/ds6/lib/uid-plugin.so -F NSUniqueAttrSet_Init
-Y preoperation -G
attributeset=mail,mailalternateaddress,mailequivalentaddress
-G "ugldapbasedn" "Uniqueness in Attribute 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 Communications Suite Delegated Administrator 7 and earlier versions.

Incompatibility	Impact	Comments
<p>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.</p>	<p>At installation, you must choose Legacy Mode as the install type on the following panel:</p> <p>Access Manager:  Administration (1 of 6)</p>	<p>If the Realm Mode install type of Access Manager is installed, you will not be able to run Delegated Administrator.</p>
<p>Directory Server releases 5.2.4 and earlier</p>	<p>The Directory Server feature that enforces unique values for mail attributes is not available with versions earlier than 5.2.4.</p>	<p>Solution: Upgrade to Directory Server 5.2.5 or later.</p> <p>You also can install Directory Server 5.2.4, but you must apply patch 5.2_Patch_4_6313027. For detailed instructions, see <a href="#">Enforce Unique Values for Mail Attributes</a>.</p>

## Problems Fixed in This Release of Delegated Administrator (since Communications Suite 5)

This list describes the issues fixed in Delegated Administrator:

### 6824794

The `enabled` and `disabled` values are not translated when you run an Advanced Search.

### 6825313

The text "App Server 8.x and up" is not translated for all locales.

### 6693227

Typo in prompt message displayed when you create an Organization by TLA without selecting a service package.

### 6540281

Missing space in the Organization Online Help page.

### 6825305

The configurator in French locale contains some doubled apostrophes.

### 6316832

Small typo in `config-commnda`.

### 6862081

Default value for `mailAutoReplyMode` is "echo" instead of "reply" when using DL mode.

### 6868096

No post-upgrade notification regarding use of `damerge` command to keep customizations.

**6837249**

Update post-install instruction to enable IM service.

**6825301**

Delegated Administrator 7 Online Help is displayed in English even on French environment.

**6784367**

Cannot add OUA in Organization Properties when logged in as OUA in all locales.

**6861629**

Setting mail quota values as non-editable in Assign Service Package causes mail step to loop.

**6862999**

`icsCalendar` attribute isn't provisioned for new accounts.

**6825320**

The Help link from the Advanced Search page displays the main Online Help page.

**6844640**

DA Organization Admin Role ACI has unnecessary single quotes.

**6851916**

Organization administrator cannot apply user changes after fixing the ACI.

**6862983**

Missing `da.sample.data-dl.ldif` file causes `config-commda` deployment using DL to fail.

**6824749**

Delegated Administrator 7 Online Help is displayed in English even on Japanese environment.

**6824813**

In Delegated Administrator 7, some labels are displayed vertically and truncatedly.

**6866244**

In Delegated Administrator 7, both the 'Service Available' and 'Mail Quota' columns show services when SP for new users is

selected.

**6868225**

`NullPointerException` error message is displayed when you try to view or edit large groups.

**6607925**

Return failure occurs when `config-commda` fails.

**6847020**

The `rpm --verify sun-commda` fails.

**6679372**

Getting inconsistent results of organization searches for adding `icsExtendedDomainPreds` in DA console.

**6587572**

Delegated Administrator creates new mail groups with `mgrpBroadcasterPolicy=NO_REQUIREMENTS`

**6587520**

Delegated Administrator creates new users with `mailAutoReplyMode=echo`

**6553328**

There is no longer a Manager Field available in the Delegated Administrator tool like the one in iPlanet Delegated Administrator 1.2.

**6525830**

The Delegated Administrator online help for the Editing Group Properties page incorrectly documents the following UI fields: Add Header Field and Remove Header Field.

**6525829**

The Delegated Administrator online help incorrectly describes the Message Prefix Text field in the Create New Group wizard and Group Properties page.

**6512161**

The Delegated Administrator online help incorrectly defines the Attachment Quota value in the Create New Organization wizard and Organization Properties page.

**6507859**

Delegated Administrator online help erroneously states that you can use ">" and "<" signs when searching for organizations.

**6483254**

Delegated Administrator online help does not explain that the Login ID must be in ASCII characters.

**6454001**

Can not display `icsExtendedDomainPrefs` entry properly on Delegated Administrator console.

**6431459**

Although IMAPS is enabled for a service package, it shows "IMAP: disabled"

**6317850**

Attributes passed with the `-A` option of the `commadmin` command are ignored if the command also calls an input file containing attributes passed with `-A`.

## 6314711

An Organization Administrator (OA) can remove himself as an OA by modifying the organization Properties page.

## 6218713

Values in the resource.properties files are overwritten when Delegated Administrator is reconfigured with the config-commda program.

## 5107441

If the first part of the default organization name created in the Delegated Administrator configuration program (config-commda) matches the root suffix name, the organization cannot be created.

## 4934768

Cannot modify non-ASCII groups.

## 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](#)

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### Delegated Administrator Installation, Upgrade, and Configuration Issues

#### 6434047

**You cannot upgrade Delegated Administrator from version 2004Q2 to version 7 (the current release) when Access Manager is deployed to an Application Server node agent.**

This issue occurs when Delegated Administrator is deployed to Application Server and you upgrade Application Server from version 7 to version 8.x. The `asupgrade` utility migrates the Application Server 7 `server1` instance into the Application Server 8.x `server1` target running under a `nodeagent`. However, `asupgrade` changes the value of the virtual server from `server1` in Application Server 7 to `server` in Application Server 8.x.

#### Workaround:

When you run the Delegated Administrator configuration program, `config-commda`, in the Application Server Preferences panel, specify these values for the target and virtual server:

- Target: `server1`
- Virtual Server: `server`

6376896, 6294603

**Upgrading to Access Manager 7.0 without upgrading Delegated Administrator to version 7 (the current release) will cause user creation to fail.**



**Note**

This issue occurs only if you are currently running Delegated Administrator 6 2005Q1 (Java ES Release 3) or earlier. If you have installed Delegated Administrator version 6 2005Q4 (Java ES Release 4) or have already upgraded Delegated Administrator to version 7, this issue does not occur.

When you upgrade to Java Enterprise System Release 5, if you upgrade Access Manager from version 6.x to 7.0 but do not upgrade Delegated Administrator to version 7, user creation with mail or calendar service will fail.

The recommended way to solve this issue is to upgrade Delegated Administrator to version 7. If you have a compelling reason not to upgrade Delegated Administrator, take the steps described in the following workaround.

**Workaround:**

1. Update the `UserCalendarService.xml` file, located by default in the following directory:

```
/opt/SUNWcomm/lib/services/UserCalendarService.xml
```

In the `UserCalendarService.xml` file, mark the `mail`, `icssubscribed`, and `icsfirstday` attributes as optional instead of required.

2. In Access Manager, remove the existing xml file by running the `amadmin` command, as in the following example:

```
amadmin -u amadmin -w netscape -r UserCalendarService
```

3. In Access Manager, add the updated xml file, as in the following example:

```
amadmin -u amadmin -w netscape  
-s /opt/SUNWcomm/lib/services/UserCalendarService.xml
```

4. Restart the Web container.

## 6310711

### The Delegated Administrator configuration program allows you to enter invalid values in the Domain Separator field.

In the configuration program, `config-commda`, you can enter invalid characters such as `^` in the Domain Separator field. You cannot log into the Delegated Administrator console using a login ID with the invalid domain-separator character.

**Workaround:** Edit the value of the `commadminserver.domainseparator` property in the `daconfig.properties` file, located in the following default path:

```
/var/opt/SUNWcomm/da/WEB-INF/classes/  
com/sun/comm/da/resources/daconfig.properties
```

Use a valid value such as `@`, `-`, or `_`.

Redeploy the edited `daconfig.properties` file to the Web container used by the Delegated Administrator console.

Before the change can take effect, you must run the script that deploys the customized `daconfig.properties` file to your Web container.

For instructions on how to deploy a customized properties file to a particular Web container, see [To Deploy a Customized Configuration File in Sun Java System Delegated Administrator Administration Guide](#).

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## Delegated Administrator Console and Command-Line Utilities

### 6760564

#### In the Delegated Administrator console, the Calendar service Advanced Rights interface is missing the calendar group double-booking option.

When the group calendar account functionality was added in Calendar Server 6.3, a new bit was added to the `icsAllowRights` LDAP attribute:

```
bit 15 : allowGroupDoubleBook : "Double booking of group calendars"
```

The Delegated Administrator console is missing a field to "Allow double booking for new group calendars" by setting bit 15 of the `icsAllowedRights` attribute. (The Advanced Rights fields are in the Calendar Service section of the Organization Properties page in the Delegated Administrator console.)

#### Workaround:

Use the `commadmin domain create -R` or `commadmin domain modify -R` command to set the advanced rights properties (bits) in the `icsAllowRights` attribute.

6677194

**Local Organization Administrators and Service Provider Administrators can change the disk space quota attribute of their domains when the service package assigned to the domains restricts the disk space quota.**

An Organization Administrator can use the Delegated Administrator console to change the value of the **Disk Space Quota** option for the domain, overriding the service package restrictions.

**Workaround:** Edit the `Security.properties` file, as follows:

1. To prohibit an organization administrator from editing the disk space quota field, add the following line to the `Security.properties` file:

```
OrganizationAdminRole.UserProperties.MailQuotaValue=NONEDITABLE
```

For a Service Provider Administrator, add the following line:

```
ProviderAdminRole.UserProperties.MailQuotaValue=NONEDITABLE
```

Be sure to update the `Security.properties` file in the Delegated Administrator configuration directory. For example:

```
/var/opt/sun/com/da/WEB-INF/classes/com/sun/comm/da/resources/Security.properties
```

**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.properties
```

2. You also must deploy the updated `Security.properties` file to the web container's configuration directory. For example, if you have deployed Delegated Administrator to Web Server 7.x, the default path would be:

```
/var/opt/SUNWwbsvr7/<https-Host_name>/web-app/<Host_name> \
/da/WEB-INF/classes/com/sun/comm/da/resources/Security.properties
```

3. Restart the web container.

## 6430018

**If service packages are displayed across multiple pages in the Delegated Administrator console, only changes to the last page are saved.**

This issue affects three functions:

- Allocating service packages to an organization.
- Changing the quantities of service packages allocated to an organization.
- Removing service packages from the list of service packages allocated to an organization.

**Workaround:**

If the services packages are displayed on multiple pages, click the icon that displays multiple pages pointing to a single page.

This icon appears above *and* below the list of service packages. If you place your cursor over the icon, a message says: *Show Data in a Single Page*.

You must display all service packages on a single page to save your all of your changes. If the service packages are displayed on multiple pages, only the changes made to service packages on the last page are saved.

## 6300923

**When you add Dynamic members to a group In the Delegated Administrator console, you cannot test a manually constructed LDAP URL.**

When you create a new group and add dynamic members to the group, you can either manually construct an LDAP URL or use the fields available in the drop-down menus to construct the LDAP URL. If you use the drop-down menus, you can click the **Test LDAP URL** button. If you manually construct the LDAP URL, this feature is disabled.

## 6292610

**Using the browser or system controls in the Delegated Administrator console can generate unexpected results.**

**Workaround:** Navigate only by using the built-in Delegated Administrator controls, such as the tabs, buttons, and navigation links provided on the page itself. Do not use browser or system controls, such as your browser's Back button or the Close icon on dialog windows.

## 6234660

**No indication when a User, Organization, or Group list page has finished loading.**

If you click a button while a list page is loading, an error occurs.

**Workaround:** While the page is loading, a message asks you to wait. Do not click any buttons or links until the page is ready.

**5094680**

**The advanced search feature does not return correct results for organizations.**

This issue occurs if you perform the following steps:

1. Select the Advanced Search feature.
2. Select "Organizations" from the drop-down list.
3. Click the Match All or Match Any radio button.
4. Select an organization name from the drop-down list.
5. Enter valid values in the text field.
6. Click Search.

Instead of returning only the organizations that match the search criteria, Delegated Administrator displays all organizations.

**Workaround:** None.

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## **Delegated Administrator Localization and Globalization Issues**

This section describes Delegated Administrator localization problems. No localization issue exist for this release.

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## **Delegated Administrator Documentation**

This section describes errors or incomplete information in the Delegated Administrator books and online help.

**6760559**

**In the Delegated Administrator console, the Calendar service advanced rights (icsAllowRights) GUI interface can easily be misinterpreted.**

This issue is described in the following page: [Setting Calendar Server Advanced Rights with Delegated Administrator](#).

**6693218**

**The Delegated Administrator online help displays the current version as Communications Suite 5 Delegated Administrator instead of Delegated Administrator 7 or Communications Suite 6 Delegated Administrator.**

**6824749**

**In Vista, the Delegated Administrator Online Help is displayed in English even when you have set the language to Japanese.**

**6825301**

**The Delegated Administrator Online Help is displayed in English even when you have set the language to French.**

**Workaround:** You could modify the URL by changing `\en` to `\fr`.

6607494

**The Delegated Administrator online help describes nested groups, although nested groups are not supported in Delegated Administrator.**

For example, the online help describes how to add a nested group (add a group as a member of an existing group) by choosing from a drop-down menu and searching/selecting a group. These options do not exist in the UI. You cannot add nested groups.

651216

**The Delegated Administrator online help incorrectly defines the Attachment Quota value in the Create New Organization wizard and Organization Properties page.**

The online help describing the Mail Service Details panel in the Create New Organization wizard and the Mail Service section of the Organization Properties page states that the Attachment Quota field displays the "attachment size per message." The online help tells the user to enter a maximum attachment quota size in kilobytes. This is incorrect.

The Attachment Quota sets the maximum number of attachments for each email message. For example, setting a value of 2 would allow users to attach no more than two files to a message. The size of each attachment is not affected by this attribute.

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## Requirements for Delegated Administrator

See [Requirements for Communications Suite 7](#) and [Requirements for Delegated Administrator](#).

This section describes the following platform, client product, and additional software requirements for this release of Delegated Administrator:

- [Delegated Administrator Operating System Requirements](#)
- [Sun Java System Software](#)
- [Delegated Administrator Hardware Requirements](#)
- [Supported Browsers for Delegated Administrator](#)

### Delegated Administrator Operating System Requirements

This release of the Communications Suite products, including Delegated Administrator, is supported on the following platforms:

- Solaris 10 Operating System (SPARC™ and x86 Platform Editions) including Zones Support
- Red Hat Enterprise Linux Advanced Server (32- and 64-bit versions), version 4 (all updates) and 5 (all updates)
- Red Hat Enterprise Linux Enterprise Server (32- and 64-bit versions), version 4 (all updates) and 5 (all updates)



#### Note

Delegated Administrator is no longer supported on HP-UX or Windows platforms.

For detailed information about Solaris and Linux requirements, including required upgrade patches and kernel versions, see the *Sun Java Communications Suite Installation Guide* and *Sun Java Communications Suite Release Notes*.

## Sun Java System Software

The following Sun Java System Software, tools, and LDAP schema version are required for this release of Delegated Administrator:

- Directory Server 5.x or 6  
To enforce unique values for mail attributes, you must install one of these releases:
  - Directory Server 6
  - Directory Server 5.2.5 or later
  - Directory Server 5.2.4, and you must apply patch 5.2\_Patch\_4\_6313027
- Either Messaging Server 6 or Calendar Server 6, or both
- Java System Web container. You must deploy Delegated Administrator to one of the following Web containers:
  - Sun Java System Web Server 6.1 or higher
  - Sun Java System Web Server 7 or higher
  - Sun Java System Application Server 7.x
  - Sun Java System Application Server 8.x
  - Sun Java System Application Server 9.x
- Directory Server Preparation Tool (Setup script): `comm_dssetup.pl` version 6.4–4.01  
`comm-dssetup.pl` version 6.4–4.01 is provided in Communications Suite 6 Update 2.
- LDAP Schema 1 and 2  
This release of Communications Suite Delegated Administrator is designed for provisioning users in an LDAP Schema 2 directory.

For information about requirements for Directory Server, Access Manager, Web Server, and Application Server, see the current release notes for these products.

For installation instructions for the Java Enterprise System components listed in this section, see the *Sun Java Enterprise System Installation Guide*.

### Delegated Administrator Hardware Requirements

The memory and disk space requirements for Delegated Administrator are the same as those of the Web container to which Delegated Administrator is deployed.

For information about the Web container's hardware requirements, see the current release notes for this Java Enterprise System component.

### Supported Browsers for Delegated Administrator

See [Client Requirements](#) for more information.

# Indexing and Search Service 1 Release Notes

## Indexing and Search Service 1 Release Notes

Topics:

- [About Indexing and Search Service](#)
- [What's New in This Release of Indexing and Search Service](#)
- [Requirements for Indexing and Search Service](#)
- [Product Version Compatibility Requirements](#)
- [Known Issues and Limitations in Indexing and Search Service 1](#)
- [Redistributable Files for Indexing and Search Service](#)

### About Indexing and Search Service

Sun Java Indexing and Search Service 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 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 will be supported. Sun Java System 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 Sun Java Communications Suite data such as the Messaging Server message store. This includes embedded data in text, HTML, XML, Open Office, Microsoft Office, and PDF formats. Also, metadata is created for JPEG files.

### What's New in This Release of Indexing and Search Service

See the [What's New](#) document.

### Requirements for Indexing and Search Service

See [Requirements for Communications Suite 7](#).

### Product Version Compatibility Requirements

See [Communications Suite 7 Product Version Compatibility Requirements](#).

### Known Issues and Limitations in Indexing and Search Service 1

**No issue ID**

**No search capability yet for calendar, address book, and instant messaging content.**

This feature might be supported in a future release.

**6857221**

**`/var/iss/logs` is left over after uninstall.**

Uninstalling ISS will not remove the `/var/iss/logs` directory. This directory should be manually

removed if desired after uninstallation.

**6868898**

**Specifying the component as a parameter for setup.sh should be case insensitive.**

setup.sh requires that component names be specified in lower case.

**6871171**

**Communications Suite Installer (switching from infraprov) uninstall leaves appserver startup.**

If a successful uninstall using `infraprov` has not occurred (`infraprov` was the installer/uninstaller for the ISS beta), it is possible that a subsequent install of ISS using Communications Suite Installer will not be successful. As a workaround, ensure that the uninstall using `infraprov` succeeds before upgrading.

**6870440**

**Single Host with Indexing and Search Server and Convergence in same instance of GlassFish Enterprise Server: Switching between attachments and Inbox makes the GlassFish Enterprise Server unresponsive**

If Convergence and ISS are deployed on the same instance of GlassFish Enterprise Server, GlassFish Enterprise Server becomes unresponsive when users switch between the Attachments folder and Inbox.

To fix this, perform the following steps:

1. If you are deploying Convergence and ISS on the same host and on the same GlassFish Enterprise Server web container, you must increase the number of GlassFish Enterprise 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.

```
cd /opt/SUNWappserver/bin
./asadmin set
server.http-service.request-processing.thread-count = <2 x
number-of-cpus>
```

2. Restart GlassFish Enterprise Server.

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

**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, it cannot run as root. Instead, run the command as the ISS user, for example:

```
su - jiss
/opt/sun/comms/jiss/store/scripts/issadmin.sh --user jeff --checkfolder
--folder jeff\s\ email
```

#### 6787743

##### **Concurrent --checkaccount runs produce wrong results.**

Concurrent `--checkaccount` runs against the same user return wrong results. Avoid running `--checkaccount` against the same user at the same time. Running against different users at the same time is fine.

#### 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 shows up as a message indicating "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, this transitory problem has been fixed. If the message recurs, then run `--sync` to fix the folder. This problem might be addressed in a future release.

#### 6839144

##### **issadmin.sh --checkaccount can miss out-of-sync state.**

`issadmin.sh --checkaccount` compares the first and last valid UIDs and the message count to determine whether a folder is in sync. It is possible for these values to match, but for there still to be differences.

#### 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 the command is run. If the index service is running, the command will be executed by the index service, which is using the configured store path and not the non-standard path provided by the `--storepath` option.

#### 6861561

##### **issadmin.sh behaves poorly while batch processing.**

Running the `issadmin.sh` command with the `--accountlist` option will abort on the first failure rather than continue to the next account if a failure is encountered.

#### 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 marks, so no search query will match correctly because punctuation is treated like blanks. This problem might be addressed in a future release.

#### 6652023

##### **Unable to match strings with underscore, /, . etc characters.**

Punctuation characters are generally treated as blanks. Try searching for substrings delimited by them. This issue 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 and while this is correct after bootstrapping an account, it is not maintained properly as changes are made to the account.

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.

6800930

**Search query using wildcard can fail with `org.apache.lucene.search.BooleanQuery$TooManyClauses`.**

To support wildcarding, the query is expanded to match many possible patterns. Sometimes this exceeds a predetermined limit, which causes the search to abort. Reducing the scope of the wildcard in the query might avoid this problem. 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.

6855529

**Searches for stop words generate the wrong results.**

Searches for words such as "the" and "this" will yield no matches because "stop" words such as these are not indexed.

6696346

**Index lock not cleaned up after abort.**

Should a command that modifies an account, such as `issadmin.sh --synch` or `indexSvcBootstrap.sh` abort for some reason, the `indexWriter` that was used might not be cleaned up properly. This situation might then cause various `issadmin.sh` commands, such as `--accountinfo` to produce strange results. To check if something is wrong, run the following command, for example:

```
find /var/iss/index/store -name write.lock
```

If you find any such files in the index of an account that you had been modifying, stop the server, delete those `write.lock` files, and restart the server before you continue. This problem might be addressed in a future release.

6881401

**Multiple account state listeners cause harmless jms error messages in log.**

Error message such as following:

```
com.sun.comms.iss.common.AccountStateListener sendResponse WARNING:
Unable to obtain JMS objects to send message response: [SEND_REPLY(9)]
[C4036]: A broker error occurred. :[500]
com.sun.messaging.jmq.jmsserver.util.BrokerException: Destination
Q:temporary_destination:__queue_10.5.185.151_49983_1 could not be found
in the store user=misoadmin, broker=isshost.example.com:7676(62279)
```

might appear in JMQConsumer and appserver log when account state is changed, it indicates the listener couldn't send back a confirmation message, but there is no impact on functionality. This kind of error messages can be ignored. Sending response to the account state topic might be removed 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 show the content in the first page if the content is not in the cropped area.

**6735477**

**Allow all supported attachment types to be downloaded from attachment store (not just PDF,ODF,JPEG, Microsoft Office files).**

At present, the attachment store plugin only stores Microsoft Office files, PDF, ODF, and JPEG attachments. Other attachment types are parsed and indexed and can be searched, but no thumbnail is generated and the original document is not stored in the attachment store. The original document can still be retrieved on the Messaging Server.

**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, which Internet Explorer does not interpret properly for some non-ASCII characters. A garbled name may appear if such an attachment is saved to the client system within Convergence's Attachment Search interface.

**6681801**

**ISS doesn't support the Word 2007 .docx file format or other Microsoft Office 2007 OpenXML formats.**

This feature might be 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 and generate errors similar to this one. 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 are not able to be parsed and generate errors similar to this one.

**6804279**

**MSVisio Attachment: Unable to extract content java.lang.ArrayIndexOutOfBoundsException.**

Some Microsoft Visio files are not able to be parsed and generate errors similar to this one.

**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 with more terms to ensure there are fewer than 100 total results.

**6887552**

**Real-time events with Content-type: text/\* and Content-disposition: inline are not indexed.**

The message body from emails with Content-type: text/\* and Content-disposition: inline is not handled properly when arriving as a real-time event, resulting in a failure to search within the message body of such emails. A fix may be forthcoming in patch 1 of ISS, and after ISS is patched, all users must be re-bootstrapped.

**Redistributable Files for Indexing and Search Service**

None.

# Instant Messaging 8 Update 2 Release Notes

## Sun Java System Instant Messaging Software 8 Update 2 Release Notes

This chapter contains important release information about Sun Java System Instant Messaging Software 8 Update 2. The release notes contain the following sections:

- [About Instant Messaging](#)
- [What's New in This Release of Instant Messaging](#)
- [Deprecated and Removed Features for Instant Messaging 8 Update 2](#)
- [Requirements for Instant Messaging 8 Update 2](#)
- [Instant Messaging Installation and Uninstallation Notes](#)
- [Instant Messaging Compatibility Issues](#)
- [Problems Fixed in Instant Messaging 8 Update 2](#)
- [Known Issues and Limitations in Instant Messaging 8 Update 2](#)
- [Redistributable Files for Instant Messaging](#)

### About Instant Messaging

Sun Java System Instant Messaging software delivers secure presence and extended real-time messaging, enabling user communities to communicate and collaborate instantly and securely. It combines the instant messaging capabilities with conferences, alerts, news, polling, and file transfer, to create a rich collaborative environment. It leverages an existing community that can be managed by using LDAP, Sun Java System Access Manager, or Sun Java System Portal Server.

### What's New in This Release of Instant Messaging

See the [What's New in Instant Messaging 8 Update 2](#) document.

### Deprecated and Removed Features for Instant Messaging 8 Update 2

The following features have been deprecated from Instant Messaging 8 Update 2:

- **IM Client** - The Java client that is used to access the Instant Messaging server is deprecated. As a result, the following client features are deprecated:
  - **VOIP Support** - This feature enables you to convert a user's chat session into a live voice call over the internet by using Instant Messaging client
  - **Poll** - This feature helps you in surveying a group rapidly by conducting online polls
  - **News** - This feature enables you to access published information such as company announcements, project updates, or event notices on a subscription basis
  - **Moderated Conferences** - This feature enables the moderator to moderate private messages that are sent to conferences
  - **Alerts** - This feature enables you to notify users of time-sensitive information, either in individual messages or as broadcasts to multiple users. You can also specify routing of alerts received when offline
- **Redirect Server** - This feature enables you to balance the load between different servers in a server pool
- **Communications Channel in Portal Server** - This is the channel that is used to launch Instant Messaging in Portal Server
- **Portal Server Archiving** - This feature enables you to archive chat content in the portal server

### Requirements for Instant Messaging 8 Update 2

See [Requirements for Communications Suite 7](#) and [Requirements for Instant Messaging](#).

## Instant Messaging Installation and Uninstallation Notes

This section contains important information about installing and uninstalling Sun Java System Instant Messaging software. If you are using Sun Java System Access Manager with Instant Messaging, install the Legacy (version 6 style) Access Manager by using the Sun Java Enterprise System installer. This version of Instant Messaging is not compatible with the Realm (version 7 style) Access Manager. If you use Access Manager to store policies when configuring Instant Messaging, the following policies are created:

- Ability to administer Instant Messaging and Presence Services
- Ability to change your own Instant Messaging settings
- Ability to manage Instant Messaging Conference Rooms
- Ability to manage Instant Messaging news channels
- Ability to send Instant Messaging alerts
- Ability to watch changes on other Instant Messaging users
- Default Instant Messaging and presence access

## Instant Messaging Compatibility Issues

The following table lists the compatibilities issues in Instant Messaging 8 Update 2.

Table 5-1 Instant Messaging 8 Update 2 Compatibility Issues

Incompatibility	Impact	Comments
Versions of Instant Messenger prior to Sun Java System Instant Messaging 7 2006Q1 do not support XMPP redirection.		If you use a third-party client, ensure that the client supports XMPP redirection before deploying the Instant Messaging redirect server.
The Instant Messaging SDK Java packages are renamed in Sun Java System Instant Messaging software 7 2005Q4 to match the open source community naming conventions. For example, <code>org.netbeans.lib.collab</code> .	Instant Messaging will use the new naming scheme exclusively and deprecate the old scheme.	
Sun Java System Instant Messaging 8 is incompatible with Sun Java System Access Manager version 7 2005Q4.	The supported version of Sun Java System Access Manager is version 7.1.	
Sun Java System Instant Messaging 8 is incompatible with the 2004Q2 versions of Portal Server and Messaging Server.	The supported version of Sun Java System Portal Server are versions 7.1 and 7.1 update 1. The supported version of Sun Java System Messaging Server is version 7.0 Update 1.	

Due to a protocol change the Instant Messaging server 8 Update 2 cannot communicate with a server of a version older than 7.3 in federated deployments.	Instant Messaging federated deployment sites should upgrade all the servers. The existing deployments who do not wish to upgrade the server should explicitly set the property of collaboration session factory object to use the legacy protocol implementation.	Perform the upgrade to limit the length of time during which the servers cannot communicate with each other.
Client-Server Communication	Due to a protocol change the older versions of the client and server (2004Q2 and earlier) cannot communicate with the new versions of client and server.	Upgrade both the client and server at the same time.
Sun Java System Instant Messaging 7 2005Q4 and 2006Q1 are incompatible with the shared components that ship with Sun Java System Instant Messaging 8.	Instant Messaging depends on the Instant Messaging SDK. The Instant Messaging SDK is installed with the shared components.	Upgrade the shared components and then upgrade Instant Messaging. The Communication suite installer upgrades Instant Messaging SDK before installing Instant Messaging 8 Update 2.
The Instant Messaging SDK implementation of the legacy Instant Messaging Presence protocol is now co-packaged.	By default, the Instant Messaging SDK APIs use the implementation based on the XMPP protocol. Applications should explicitly set the property of the collaboration session factory object to use the legacy Instant Messaging Presence protocol implementation.	
The SDK component includes additional JAR files. The Instant Messaging SDK uses the JSO (JABBER Stream Objects) libraries.	To use the XMPP protocol effectively, modify the <code>classpath</code> parameter for older applications that use the Instant Messaging SDK.	
Sun Java System Instant Messaging 6 2004Q2 server is incompatible with the default behavior of the latest version of the SDK.	To use the Instant Messaging 6 2004Q2 server with the current Instant Messaging SDK, set the property of the collaboration session factory object to use the legacy protocol implementation.	
Instant Messaging 8 Multiplexor might not work correctly with the older versions of the server.		Use Instant Messaging 8 for both the Multiplexor and server. Upgrade or patch systems on which the server is installed and then upgrade systems on which only the Multiplexor is enabled.
Instant Messaging 8 server might not work correctly with the previous versions of the Instant Messaging SDK.		Use the 8 version of the server and the SDK.

URL to the default codebase URL for Sun Java System Instant Messaging 8.	The default URL for the codebase is <a href="http://server:port/im">http://server:port/im</a> .	
Default port numbers for Sun Java System Instant Messaging 8	The default server port number is 45222 and the default Multiplexor port number is 5222.	
Instant Messaging 8 server might not work correctly with Multiplexor version 7.3.		Upgrade the Multiplexor to 8 Update 1.
Although the 7.3 client is supported on 8 server, all functionalities might not work.		Upgrade the client to version 8.

## Problems Fixed in Instant Messaging 8 Update 2

This section contains a list of problems fixed in the Instant Messaging 8 Update 2 release.

### 6815949

Embryonic session closures occur in a server pool setup and single server.

### 6812926

When there is high load in a server pool setup, Null Pointer Exceptions are displayed.

### 6812928

Error messages received under load in the following format are only warn messages.

```
[RWLock] releasing lock which is not held!
```

### 6831870

Improve performance of `imadmin/adminrc` scripts.

### 6831870

Refining the `imadmin` and `adminrc` shell scripts can improve the its responsiveness.

### 6848995

IM services fail to come up and displays a "Permission denied" error.

### 6863010

Error Loading native library when you set the `usr/jdk/entsys-j2se` to point to 64-bit jvm or set the `jvm` path in `iim.conf` file.

### 6849001

When IM service is deleted from SMF using `svccfg`, an incorrect message is displayed.

### 6863022

`imadmin start` does not display an error when the correct version of JDK is not found.

**6777840**

MSN gateway does not work on a 64-bit Linux machine.

**6863005**

MSN/Yahoo/AIM gateways fail to work on a Solaris machine when Python 2.3 is used.

**6858621**

MSN/AOL/Yahoo gateways fail to work on a Solaris machine.

**6864236**

Configuration fails with the following error when the `JAVE_HOME` is set to JDK 1.5.

```
UnsupportedClassVersionError
```

**6787948**

In IM 8, gateway package fails to install on Redhat Linux 5.

**6845798**

JDK 1.6 should be supported for IM 8 Update 2 release.

**6830607**

Provide ACL/AM policy support to change the conference ownership from the owner to any user.

**6853422**

Server pool should support automatic discovery of new nodes.

**6837382**

Pidgin client cannot reconnect to a chat room after disconnecting.

**6837841**

Updating conference affiliations should accept `http://jabber.org/protocol/muc#admin` name space.

**6845779**

User with a mixed case `uid` can not enter a member-only conference room.

**6847867**

IM can not be deployed on Glassfish Enterprise Server v2.1 patch02.

**6848348**

Backup files display incorrect file names after upgrading IM to v8 Update 2.

**6765540**

Configurator should create the `sym` link for Yahoo gateway configuration file.

### **6850639**

When logged in through `httpbind`, `SASL auth failure` error is displayed even though the authentication has passed.

### **6797269**

Instant Messaging Server has a memory leak that impacts services and service availability.

### **6782734**

Fix user caches. Problematic when there is not enough free memory to cache to `tempfs`.

### **6821743**

Server hangs in a server pool setup when conferences are used.

## **Known Issues and Limitations in Instant Messaging 8 Update 2**

This section contains a list of known issues at the time of release of Instant Messaging 8 Update 2 in the following categories:

- [Instant Messaging Agent Issues](#)
- [Instant Messaging Installation, Upgrade, and Uninstallation Issues](#)
- [Instant Messenger Issues](#)
- [Instant Messaging Server Issues](#)
- [Instant Messaging Voice Issues](#)
- [Instant Messaging Administration Issues](#)
- [Instant Messaging Archive Issues](#)
- [Instant Messaging Interoperability Issues](#)
- [Instant Messaging Performance Issues](#)
- [Other Known Issues](#)

### **Instant Messaging Agent Issues**

#### **6865601**

**MSN gateway fails to come up on Red Hat AS platform.**

#### **6886522**

**Login through Yahoo transport may not work since Yahoo transport is outdated.**

#### **6821946**

**Yahoo gateway can not connect to the server when TLS is mandated on the server.**

#### **6724472**

**Offline SMS messages are sent to user even after you block messages from a particular user.**

#### **6745138**

**Text formatting changes made in the AIM client do not appear in the Sun Instant Messaging client.**

**6646700**

**Sending an alert from the Instant Messaging client to a user in AIM, MSN, or Yahoo client results in an alert being delivered as a chat conversation. The delivery status of the alert is also not updated correctly.**

**6646702**

**The subject of the alert sent from the Instant Messaging client to an AIM, MSN, or Yahoo client is not displayed.**

**6646704**

**The Offline Alert functionality does not work when alerts are sent from the Sun Java System Instant Messaging client to users in the MSN, Yahoo, and AIM clients.**

**6646712**

**In the Instant Messenger client, the MSN, AIM, or Yahoo transport credentials that a user provides to log in are not displayed.**

### **Instant Messaging Installation, Upgrade, and Uninstallation Issues**

**6878939**

**After upgrading from IM version 8 to IM 8 Update 2, IM fails to start, and the following error message is displayed even though Java 1.6 is installed:**

```
No suitable Java found, exiting.
```

**6868625**

**For `cal-agent` to work when enabled, the configuration parameters have to be modified after upgrade.**

**6869042**

**Shoal parameters are missing and get replaced with old server pool or server-to-server parameters after upgrade.**

## 6869109

The following parameters have to be modified if upgrading from versions earlier than IM 8.0.

```
agent-calendar.imadmin.enable="true"
agent-calendar.iim_server.host=
iim_server.port = "5269".
```

**Workaround:** Modify the values to:

```
agent-calendar.imadmin.enable="true"
agent-calendar.iim_server.host=IM_SERVER_HOSTNAME
iim_server.port = "5269"
```

## 6824676

When you upgrade from Instant Messaging 7.2 or 7.3 to Instant Messaging 8 Update 1, Calendar agent parameters (`jmca`) are incorrect.

## 6818830

When you upgrade from Instant Messaging version 8 to Instant Messaging 8 Update 1, redeployment of client resources fails.

**Workaround:**

Before you redeploy the client resources, edit the `imwebapp.properties` file, and set the `im_WAR_GENERATE_COMMAND` parameter to a valid Java path.

## 6758197

If the server is reconfigured, the `iim.conf` file does not retain the previous configuration details.

## 6768193

The `propstore_migraton.conf` file does not exist when Instant Messaging is upgraded from version 7.2 to 8 Update 1.

## 6643628

The Configurator tool does not connect to the Sun Java System Directory Server SSL port number 636.

**Workaround:**

Manually add the SSL port number as 636 in the `iim.conf` file.

## 6672605

The Instant Messaging server takes the property store migration source from the `iim.conf` file even though the migration options are specified by using the command line.

**6677138**

**The Configurator tool should be able to handle a scenario where Instant Messaging server and web server run as different users.**

The Instant Messaging server defaults to running as `inetuser` and `inetgroup`. Web server defaults to running as `webserverd`. In this case, all the Instant Messaging configuration files that are generated by Configurator are readable only by `inetuser`. The Configurator tool must change the ownership of these files to the web server runtime user, so that they can be read by web applications.

**6689151**

**The `init-config` utility should provide an option to perform Calendar Agent integration with JMQ, ENS, and None.**

The Instant Messaging `init-config` utility provides the option to configure the Calendar Agent configuration settings. The Instant Messaging `configure` utility currently assumes that the integration with the Calendar Server uses the ENS (Event Notification Service) mechanism. As JMQ is also an option for notifications, it would be advantageous to provide the ability to configure JMQ during initial configuration.

Hence, the three options `JMQ` (preferred), `ENS` (legacy), and `None` with the defaults values for each mechanism should be provided during configuration.

**Workaround:**

Do not integrate the calendar agent during initial configuration. After the initial configuration process, manually configure the preferred mechanism, that is, `ENS`, `JMQ`, or `None` in the `iim.conf` file.

**6709951**

**Deploying client resources fails if there are multiple http listeners.**

**6498428**

**The Configurator tool fails if you specify a user ID and a group ID other than `root`.**

If you use any user ID or group ID other than `root` to install Instant Messaging, the user does not have permission to modify the `iim.conf` file. In this situation, when you invoke the Configurator tool after installing the Instant Messaging components, the tool fails.

**Workaround:**

After installing and before starting the Instant Messaging components, manually set permissions for `imuser` and `imgroup`. To do this, type the following command:

```
chown -R imuser:imgroup /var/opt/sun/comms/im/default
chown -R imuser:imgroup /etc/opt/sun/comms/im/default
```

`imuser` and `imgroup` are the user and group that you use to install Instant Messaging.

**6444431**

**The Configurator tool accepts values for Use Assess Manager for Policy and Use Assess Manager for SSO options and succeeds in configuration even when Sun Java System Access Manager is not installed.**

**6900056**

**Configuring an alternate (altroot) installation of Instant Messaging server fails.**

**Instant Messenger Issues**

This section contains a list of known issues at the time of release of Instant Messenger 8 Update 2.

#### **Instant Messenger General and Usability Issues**

**6739173**

If the Alert if user status changes option is set for a MSN user, three alert messages are sent to other users when the status of the MSN user changes.

**6815865**

Status is not getting updated for Yahoo gateway users in the IM client.

**6824201**

If nick is not set, conference history displays messages from different domains as messages from local domain in a server-to-server setup in the IM client.

**6831470**

In MSN and Yahoo clients, chat functionality does not work properly with `httpbind`.

**6770412**

Status of the AIM users is not updated in the Sun Java System Instant Messaging client.

**6766505**

Conference history is not displayed in the Instant Messaging client if a user joins the conference before the owner of the conference.

**6824299**

Conference history does not display all the messages but only those messages from users who have currently joined the conference. This issue is with Sun IM Client only.

**6751392**

Transport name is not consistent.

**6750943**

MSN, AIM, and Yahoo Transport users are not shown in roster on a Red Hat Linux platform.

**6750250**

Entering a conference room with a multibyte nickname sometimes fails.

**6649550**

A Status Unknown message is displayed when offline users re-login in a server-to-server setup.

**6626931**

Users with self-JID (Jabber ID) encounter authorization issues in the Instant Messaging client.

**6626943**

**Subscribe news channel displays an `org.jabberstudio.jso.JIDFormatException` error in a Schema2 hosted domain setup.**

**6486498**

**If you send an alert containing an image of a URL and a text message, the recipient receives only the text message.**

**6576575**

**The Authorize Contact message is not sent when a user is added from the Alert and Chat windows.**

**6727849**

**In a server-to-server installation, the File->Import Contacts option does not work.**

### **Instant Messaging Server Issues**

**6873349**

**IM services fail to start after upgrading the OS from Solaris 9 to Solaris 10 Sparc.**

**Workaround:** Perform the following steps to start the services:

1. Check the status by typing the following command:

```
svcs -a | grep sunim
```

2. If the SMF status is displayed as "maintenance", then execute the following command:

```
- svcadm clear sunim
```

**6777818**

**The following message is displayed when you register a duplicate user to blocked domains:**

```
User already registered
```

**6869048**

**Cannot mandate TLS for specific servers when shoal peer discovery is enabled.**

**6869510**

**The `agent-calendar.iim_server.port` parameter gets replaced with `iim_server.port` after upgrading to IM 8 Update 2.**

**6821779**

**File transfer does not work in a public conference if the user rejoins the conference.**

**6805154**

**IM client settings window is not displayed in a profile with non-default privacy setting and `jid.encoding.compat` value set to 'false'.**

**6794173**

**Can not create conferences with restricted characters.**

**6744631**

**Subscription does not work in a server pool when identity is enabled.**

**6817064**

**Re-subscription does not happen as Yahoo users are not getting deleted from the gateway.**

**Workaround:** Delete the users from the Yahoo gateway and then re-subscribe.

**6742973**

**Only users who are recently added to the IM client are synchronized with the Sun Java System Instant Messaging client. Users who are removed from the AIM client are not synchronized.**

**Workaround:**

If a user is deleted in the AIM client, manually delete the user in the Sun Java System Instant Messaging client.

**6742857**

**SMS messages are not delivered if the SMS gateway is enabled on a single peer in a server pool.**

**Workaround:**

Enable the SMS gateway on all peers. For more details about the SMS gateway, see [SMS Gateway for Instant Messaging](#).

**6740782**

**Private conference communication does not work between users who have the same user names but are on different domains.**

**Workaround:**

Users should log in with a different resource and start a chat session.

**6739134**

**Restarting the Instant Messaging services removes the MSN Transport from the Instant Messaging client compelling the user to register again.**

**6646034**

**The `imadmin assign_services` command fails if Instant Messaging interacts with the LDAP server in the SSL mode.**

**Workaround:**

Ensure that the Instant Messaging interacts with the LDAP server in the non-SSL mode. Invoke the `assign-services` command and change the interaction back to the SSL mode.

**6628423**

**In a server-to-server setup, users that log in through third-party messaging clients are unable to search conferences.**

**6632080**

In a server-to-server setup, users are unable to join the conference rooms on a server that has the TLS (Transport Layer Security) enabled.

**6620273**

Data migration fails for user IDs that contain uppercase characters.

**6724468**

Propstore migration does not migrate the `vcard-temp.xml` file.

**6752716**

Null pointer exception is seen in the `xmppd.log` file when a MSN user is deleted from the Sun Java System Instant Messaging roster.

**6599164**

The Configurator tool should create the `im.war` and `httpbind.war` files if the web container used for Instant Messaging is not a supported web container.

### **Instant Messaging Voice Issues**

**6678951**

Voice chat fails if users do a side chat in a conference.

**6768190**

If VoIP is enabled, the participant list option in the View menu of the Chat window does not work.

**6730494**

Voice call will not work if third user joins a voice conference of two users.

**6727794**

Inconsistent issues with voice chat.

**6714770**

If you use the Instant Messaging VoIP client to communicate with a remote peer that blocks the UDP (User Datagram Protocol) traffic due to a firewall, the VoIP connection is not established.

**6689918**

Voice chat does not work correctly on a Sun Ray machine.

**6665839**

Voice chat status displays as `Connected` even after the server has shut down.

**6723424**

User with `admin` privileges should be able to specify a default port range in the `jnlp` file.

**6705989**

**In one-to-one conversation, the Voice Chat icon should be enabled by default.**

### **Instant Messaging Administration Issues**

**6763462**

**The `imadmin assign_services` and `migratepropstore` commands do not work if the primary LDAP server is down.**

**Workaround:**

Restart the primary LDAP server and rerun the `imadmin assign_services` and `migratepropstore` commands.

**6719455**

**The `./iwadmin redeploy all` command does not redeploy IMPS.**

**Workaround:**

To redeploy IMPS, type the following command:

```
/opt/SUNWiim/sbin/iwadmin -v redeploy imps
```

**6740272**

**ACL file behavior is different for identity and file-based policy management.**

If the policy is `identity`, the Manage Conferences and Manage News Channel options are not enabled by default. However, these options are enabled by default in file-based ACLs (Access Control List).

### **Instant Messaging Archive Issues**

**6738078**

**The Disabling Archive option does not work during a chat session.**

### **Instant Messaging Interoperability Issues**

**6621474**

**Cannot kick the participants from a conference room.**

### **Instant Messaging Performance Issues**

**6837866**

**Embryonic session closures are seen at a high load in the following circumstances:**

- When the following load is generated every ten seconds, and when the number of concurrent users is 60,000 or more:
  - 50 users log into server
  - 50 users logout
  - 1450 presence updates
  - 350 messages sent to offline destinations
  - 2400 messages sent to online destinations
  - 850 messages sent to random destinations
  - 50 roster additions
  - 50 roster rename
  - 50 roster removal
- When there are more than ten chat messages per second across conference rooms
- When there are too many messages sent to fewer conference rooms

**6812313**

**Messages that are added to group chats or conferences are not deleted upon refreshing the setup.**

**6837307**

**Need to configure a separate thread pool for multiplexor to reduce the disk backup of files.**

To reduce the number of files written to disk under high load, the following parameters must be added in the `iim.conf` file:

```
iim_server.port.45222.worker-out="muxout"  
iim_server.port.45222.worker-in="muxin"  
iim_server.threadpool="muxout,muxin"  
iim_server.threadpool.muxout.maxthreads=5  
iim_server.threadpool.muxin.maxthreads=5
```

where

*Maxthreads* value is the number of multiplexers expected to connect to the server in a particular deployment.

## **Other Known Issues**

**6881141**

**(Inconsistent Issue) Manage Conference window is not displayed when connected through MSN gateway.**

**No ID**

**The new URL to download Java Web Start needs to be updated in the following documents.**

- *Instant Messaging 8 Update 2 Online Help* - changed to <http://java.sun.com/javase/technologies/desktop/javawebstart/index.jsp>
- *Instant Messaging 8 Update 2 Quick Reference Guide* - changed to <http://java.sun.com/j2se/downloads/index.html>

6866196

**Configuration fails when 64-bit JVM is used.**

**Workaround:** Set the JVM value to 32-bit.

6742967

**The status of AIM (AOL Instant Messaging) user is always shown as Offline in the Sun Java System Instant Messaging client.**

6740263

**In IMPS, response to a sent message is displayed as 'successfully completed' even when there is an error in the xmpp side.**

6746794

**In IMPS, a user in the virtual domain is not able to send messages to the user in the primary domain.**

6738075

**The Instant Messaging client does not display nicknames that have special characters.**

6726738

**In IMPS, an incorrect message is displayed when a user joins a conference with the duplicate nickname.**

6673225

**The `imadmin start` and `imadmin stop` commands do not invoke the SMF (Service Management Facility) command to start and stop the server or Multiplexor.**

If you require the SMF, disable the SMF by typing the following command:

```
svccfg delete application/sunim
```

6671297

**SMF does not support multiple Instant Messaging instances.**

6641777

**Selecting the Stop Moderating option in a conference room does not remove the moderate conference pane.**

6635262

**Configure parameters are not updated properly when `httpbind` option is enabled in the Configurator tool.**

6726335

**In IMPS, a null pointer exception is displayed when a user with a nickname that has a special character leaves a group.**

**6726347**

**In IMPS, a mobile phone user is listed twice in the member list when the user leaves and joins the group with different nicknames.**

### **Redistributable Files for Instant Messaging**

Sun Java System Instant Messaging software does not contain any files that you can redistribute.

# Messaging Server 7 Update 3 Release Notes

## Sun Java System Messaging Server 7 Update 3 Release Notes

These Release Notes contain important information available at the time of the general release of Sun Java System Messaging Server 7 Update 3 including:

- [About Messaging Server 7 Update 3](#)
- [What's New in This Release of Messaging Server](#)
- [Deprecated and Removed Features for Messaging Server](#)
- [Requirements for Messaging Server 7 Update 3](#)
- [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 3

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](#) document.

### Deprecated and Removed Features for Messaging Server

Support for the following features may be eliminated in a future release, have already been removed in this release, or were removed in a previous release:

- [Removed: Solaris 9, Solaris 10 32-bit, Red Hat Linux 3](#)
- [Red Hat Linux 32-bit version and Red Hat Linux 4](#)
- [Removed: local.servergid and MMP BeTheGroup options](#)
- [Removal of Support for the Sun Java System Monitoring Framework](#)
- [Event Notification Service \(ENS\) and Sun Java System Message Queue \(JMQ\)](#)

#### Removed: Solaris 9, Solaris 10 32-bit, Red Hat Linux 3

Solaris OS 9, Solaris OS 10 32-bit version (on both SPARC and x86), and Red Hat Linux 3 platform support has been removed in this release. Red Hat Linux 5 support was added in this release.

#### 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 may be removed in favor of a 64-bit Red Hat Linux 5 version in a future release.

## Removed: local.servergid and MMP BeTheGroup options

In previous releases, there was an unspecified requirement that these settings be the same as the primary group of the user specified via the `local.serveruid` or `MMP BeTheUser` option. If these settings were different, certain interactions between the MTA and store would fail. In this release, these options are now ignored and the primary group of the user specified via the `local.serveruid` and `MMP BeTheUser` option is used as the process group for server processes. The MTA has always used the primary group of the user specified by the `IMTA_USER imta_tailor` setting as the process group for MTA server processes.

## Removal of Support for the Sun Java System Monitoring Framework

Support for the Sun Java System Monitoring Framework has been removed from the Messaging Server starting with this release.

## Event Notification Service (ENS) and Sun Java System Message Queue (JMQ)

The Java MQ C SDK is not presently available for 64-bit Linux so a future version of the Comms Installer may not include the SDK necessary for Messaging Server to use Java MQ on Linux. Linux customers should consider using ENS instead of JMQ or contact the Java Message Queue product team for further information on 64-bit Linux C SDK availability.

## Requirements for Messaging Server 7 Update 3

See [Requirements for Communications Suite 7](#).



### Note

For information about upgrading to Messaging Server 7 Update 3 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 3 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 7 Installation Guide](#).

Next, you must configure Messaging Server by:

- Running the Directory Server Preparation Tool, `comm_dssetup.pl`.
- Running the Messaging Server configuration program.

For configuration instructions, see the [Communications Suite 7 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 3 requires that you run the version of `comm_dssetup.pl` in Communications Suite 7.
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 3 from an earlier release, follow the upgrade instructions in the [Communications Suite 7 Upgrade Guide](#).

## Messaging Server Documentation Updates

There are no Messaging Server Documentation Updates at this time.

## 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
<p><code>comm_dssetup.pl</code>, the program that prepares the directory server for Messaging Server (Calendar Server and Delegated Administrator) has been modified to work with both Directory Server 6.0 and Directory Server 5.x:</p> <p><b>Interactive Mode: Server-root and Directory Server Instances</b></p>	<p>Directory Server instance(s) reside in the server-root, or an explicit Directory Server instance directory. Previous versions of Directory Server used the notion of a server-root where multiple instances and configuration info would be housed. Directory Server 6 no longer uses a server-root. Instances may be anywhere. In this question, a user needs to: 1) specify the instance directory. Or, if the user is using previous versions of Directory Server, the user can: 2) specify the server-root directory where the instances are housed. You will be prompted with an additional question to pick an instance from the server-root. Or, 3) a user who has used Directory Server 5x and is now using Directory Server 6 might manually put all of her Directory Server instances under a parent directory (what we used to call a server-root).</p> <div style="background-color: #e6f2ff; padding: 10px; margin-top: 10px;"> <p> <b>Note</b></p> <p>Server-root terminology has been removed from Directory Server 6.</p> </div>	<p>no additional comments</p>

<p>comm_dssetup.pl, the program that prepares the directory server for Messaging Server (Calendar Server and Delegated Administrator) has been modified to work with both Directory Server 6.0 and Directory Server 5.x: <b>Silent Installation: server-root directory</b></p>	<p>In previous versions of Silent installation, you would specify both a server-root and an instance directory. If you are using Directory Server 5.x, this still holds true. Since there is no server-root directory in Directory Server 6.0, you will need to specify the parent directory of the Directory Server instance.</p>	<p>no additional comments</p>
<p>The location of the Directory Preparation Tool (comm_dssetup.pl) has changed.</p>	<p>comm_dssetup.pl is now in its own package installed in /opt/sun/comms/dssetup for Solaris and Linux Existing scripts that specify the old path need to be updated.</p>	<p>To install the package, be sure the Directory Preparation Tool is selected in the appropriate installer panel.</p>
<p>In Messaging Server 5.x, an administrator could use the IMAP listcommand to display all folders in the message store. In a typical message store, this caused the server to display an unusually long list. In Messaging Server 6.x, when an administrator runs the IMAP list command, it displays only the explicitly shared folders.</p>	<p>To list all folders in the message store, use the mboxutil utility.</p>	<p>For more information on the mboxutil utility, see the Sun Java System Messaging Server 6.3 Administration Guide.</p>
<p>The configuration program for the Delegated Administrator has changed.</p>	<p>Install Delegated Administrator and run the configuration program. The current program is located at: for Solaris and Linux, opt/sun/comms/da/bin/config-commda</p>	<p>Upgrade to the new Delegated Administrator when installing this version of Messaging Server.</p>
<p>Upgrading Messaging Server with Webmail over IMAP protocol change (6397425, 6397451, 2137362)</p>	<p>The back-end server must be upgraded before upgrading the front-end server. Both the Webmail over IMAP protocol as well as the back-end message stores must be the same product version. See the <i>Sun Java Communications Suite 5 Upgrade Guide</i> for details.</p>	<p>no additional comments</p>

<p>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.</p>	<p>The specific versions of Messaging Server that do not support Java Enterprise System 2004Q2 Access Manager Server are:</p> <ul style="list-style-type: none"> <li>• Messaging Server 6.2-6.01 and later</li> <li>• Messaging Server 6.3</li> </ul>	<p>Upgrade Access Manager (JES 2004Q2) before upgrading Messaging Server.</p>
<p>Access Manager now has two installation types: Realm (version 7.x style) and Legacy (version 6.x style).</p>	<p>If you are installing Access Manager with Messaging Server, Calendar Server, Instant Messaging, Delegated Administrator, or Portal Server, you must select Legacy mode (version 6.x style). See: Sun Java System Access Manager 7 2005Q4 Release Notes</p>	<p>If the wrong Access Manager is installed, you will not be able to run Delegated Administrator.</p>
<p>SNMP MADMAN mib support in Messaging Server 6.3 and later</p>	<p>Running on Solaris 9 or earlier, Messaging Server SNMP support requires the Sun SEA SNMP master agent which comes with Solaris. There are issues with the SEA master agent. The preferred solution is to upgrade to Solaris 10 or later and use the Net-SNMP which comes with the OS. Running on Solaris 10 or later, Messaging Server SNMP support requires the Net-SNMP which comes with the OS.</p>	

## Problems Fixed in This Release of Messaging Server

6796347

**The msgadm tool has a misleading name that conflicts with admin tools of other Comms products.**

The msgadm command has been renamed to msgssh.

6840267

**MMP can wedge due to back-end timeouts after Messaging Server 7 Update 2.**

## Known Issues and Limitations in Messaging Server

This section describes known issues in the Messaging Server product.

### Red Hat Enterprise Linux 5 SNMP

Red Hat Enterprise Linux 5 only supports use of SNMP by 64-bit products. The current Messaging Server Linux build is 32-bit. Customers requiring SNMP support should continue using Red Hat Enterprise Linux 4.

### Elimination of `setuid` binaries 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 will cause `l_master` and `pipe_master` to stop working until the environment is reduced to a reasonable size. The `job_controller` log should have 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 Plug-ins for 64-Bit Messaging Server Do Not Work

32-bit plug-ins from third-party vendors such as Brightmail or Cloudmark generally will not work with the 64-bit Messaging Server. There is very limited support for a single 32-bit Brightmail-interface compatible plugin through the use of a 64-to-32-bit shim. Use of this may result in reduced performance and limited functionality. Please contact your vendor for a 64-bit compatible plug-in for best results.

6860614

### Advice for MMP `default:NumThreads` setting no longer correct, replace with `default:MaxThreads` setting

The MMP's `default:NumThreads` has been documented with the recommended setting equal to the number of CPUs and default setting of 1. This is no longer correct as of Messaging Server 7 Update 2 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.

### SMS Gateway Server fails with assert in NSPR `ptthreads.c` on Red Hat Linux.

SMS Gateway Server does not work on Red Hat Linux.

6852929

### Mail advance search does not work correctly if Messaging Server is configured with `service.imap.indexer.enable`

The results returned by an IMAP SEARCH will differ depending on whether or not 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.

No Issue ID

**Due to an upgrade to the Berkeley Database in Messaging Server 7 Update 1, after an upgrade from a version prior to 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/meauthsdk/expapi.h`
  - `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/meauthsdk/*
  - *msg-svr-base/examples/tpauthsdk/*
  - *msg-svr-base/examples/mtasdk/*

# Sun Convergence 1 Update 3 Release Notes

## Sun Convergence 1 Update 3 Release Notes

These Release Notes contain important information available at the time of the general release of Sun Convergence 1 Update 3, including:

- [About Convergence 1 Update 3](#)
- [What's New in This Release of Convergence](#)
- [Requirements for Convergence 1 Update 3](#)
- [Convergence Installation Notes](#)
- [Problems Fixed in This Release of Convergence](#)
- [Known Issues and Limitations in Convergence](#)
- [Redistributable Files for Convergence](#)

### About Convergence 1 Update 3

See [Introduction to Convergence](#).

### What's New in This Release of Convergence

See the [What's New](#) document.

### Requirements for Convergence 1 Update 3

For Communications Suite requirements, see the [Requirements for Communications Suite 7](#).

For requirements specific to Convergence, see the [Requirements for Convergence 1 Update 3](#).

### Convergence Installation Notes

See the [Communications Suite 7 Installation Guide](#) for information on installing Convergence.

#### Running the Convergence Initial Configuration Program in Secure Mode

In some configurations, the Convergence `init-config` program fails when Convergence uses the `secure=true` option to run the Application Server `asadmin` commands. Specifically, the `asadmin` commands invoked by `init-config` fail in this situation.

**Situation:** This issue occurs when the Application Server is configured to run in non-secure mode, and the Convergence `init-config` program is configured to run the Application Server `asadmin` commands in secure mode. In the Convergence `init-config` program, the **Secure Administration Server** check box is checked by default.

**Solution:** If you are running Application Server in non-secure mode, when you run the `init-config` program, uncheck the **Secure Administration Server** check box in the Application Server: Administration Instance Details panel.

If you are running Application Server `asadmin` in secure mode, you can accept the defaults when you run `init-config`.

### Problems Fixed in This Release of Convergence

6625314

**When the unread message count is disabled, the Convergence mail application selector always shows the message count as zero.**

This issue occurs when the Messaging Server configutil option local.service.http.showunreadcounts is configured not to return the unread message count data (configutil local.service.http.showunreadcounts=0). When this option is disabled, the unread message count appears as **0** in the Convergence mail application selector. This option should not be shown to the end user if Messaging Server is configured not to return the unread message count data.

6654031

**Accented characters are not imported or exported properly, nor are they sorted properly in the address book.**

6772119

**Some messages and other text strings in the Convergence UI are not translated.**

Most of these messages concern S/MIME configurations. One message warns you that a message attachment size exceeds the limits set for this installation.

6780252

**When you compose a message with the RTF editor and switch to plain text, double quotes (") are displayed as follows:**

&quot;

Similarly, an ampersand (&) in RTF is displayed as &amp;. This issue also occurs when you use Reply, Reply All, Forward, and so on.

6779427

**When you save a message as a draft in plain text and then reopen the draft, spaces are displayed as &nbsp;.**

When you first save the message as a draft, the draft is saved correctly. It is only when you open the message again that the &nbsp; characters are inserted in place of spaces.

6763513

**In Firefox 3.0.x, the chat window editor cursor does not appear when you toggle among multiple IM windows.**

This issue occurs only with Firefox 3.0.x.

6679055

**In Internet Explorer 6, logging in to the Convergence client consumes 99% of CPU resources.**

For some time after logging in (for example, for one minute in some cases), the browser is unresponsive.

6698967

**In Safari, after you change the calendar view a few times (for example, from week to day to month view), the button indicating which mode is selected is no longer highlighted.**

6739123

**With Internet Explorer 7, if you send a message larger than 100 KB, the message does not get delivered and the browser stops working.**

This is an IE7 issue; it does not occur with other browsers. It does occur with IE7 in other mail clients as well as Convergence. You must exit and restart the IE7 browser to use it again.

6688269

**Unable to chat with buddy using Instant Messaging if pop-up blockers are enabled.**

If you select a buddy on buddy list, then select the pop-up menu item, "Send message to," does not generate any activity.

6691922

**Changing the days of the work week in your calendar has no effect when you create recurring events.**

For example, if you include Saturday as a work day and create a recurring event that occurs daily, the event does not show up on Saturdays.

6784462

**Multibyte/European characters in the file name of an event or To-do attachment are garbled.**

If you attach a file to a calendar event or to-do list and use multibyte characters in the attachment file name, the file name is garbled.

6775482

**In Firefox 3.0.x, the URL for Convergence 1 Update 3 Help page is not properly loaded and displayed.**

This issue occurs in Firefox 3.0.x only. The URL for the Help page does not escape the "TM" and spaces in the URL string; thus, the URL link does not connect to the actual Help page, and it is not loaded properly. With other browser versions, the URL string in question appears as:

Sun%E2%84%A2%20Convergence%20Help. On Firefox 3.0.x, it appears as: Sun<TM> Convergence Help.

6698876

**Presence information is not shown in an email header (the sender, to:, or cc: list) because the IM Add Buddy icon only accepts the uid@domain in the user name field when you add an IM buddy.**

When you add a buddy in IM, you must use the uid&domain format for the user name. You cannot use the user's email address. However, once the buddy is entered as uid@domain, that user's email address, as shown in the email header, is not recognized, and therefore the presence information does not appear in the email header.

6868597

**No error message is shown when S/MIME is disabled for encrypted messages sent using Thunderbird**

The issue is resolved with MS and for Convergence patch 10/11/12 to work properly with S/MIME enabled the following minimum patch level is required:

- 137203-14 - Messaging Server 7u3-14.01 RHEL4.0 RHEL5.0
- 137204-14 - Messaging Server (64bit) 7u3-14.01
- 137205-14 - Messaging Server (64bit) 7u3-14.01\_x86: core patch

## **Known Issues and Limitations in Convergence**

The Convergence known issues are grouped in the following categories

- [Known Issues: General and Authentication](#)
- [Known Issues: Configuration](#)
- [Known Issues: Mail](#)
- [Known Issues: Calendar](#)
- [Known Issues: Address Book](#)
- [Known Issues: Instant Messaging](#)
- [Known Issues: Options](#)
- [Known Issues: Customization](#)
- [Known Issues: S/MIME](#)

## Known Issues: General and Authentication

6870440

### Single Host with Indexing and Search Server: Switching between attachments and Inbox makes the Application Server unresponsive

If Convergence and ISS are deployed on the same instance of application server, the application server becomes unresponsive when users switch between the Attachments folder and Inbox.

To fix this, perform the following steps:

1. Set number of request processing threads to double the number of CPUs in the system. This can be done by setting the `server.http-service.request-processing.thread-count` parameter in application server using the `asadmin` command.

Here is an example:

```
# asadmin set
server.http-service.request-processing.thread-count=8
```

2. Restart the application server.

6881061

### Performance Issues seen with concurrent users on Convergence with Instant Messaging enabled.

Convergence experiences performance issues when a number of concurrent login and logout operations are performed. The issue is seen when Instant Messaging is enabled in Convergence deployed on Sun Glassfish Enterprise 2.1 patch 02.

6701184

### The Note field in the Create or Edit Contact screen does not highlight a misspelled word in Internet Explorer 6 and 7.

6702002

### Creating a group saves the help text if the user does not enter any values.

6699051

### If pop-up windows are blocked in the user's browser, functions such as printing dialog, IM, timeout warning, and navigate away warnings do not work.

From the user's perspective, it appears that these functions do not work. Convergence does not display a dialog telling users to enable pop-ups.

6691137

**Timeouts are reported in dialogs as formatting errors.**

If you take an action such as creating a mail folder and wait until the action times out, the error dialog tells you there was a formatting error in the folder label. It does not say that your action timed out.

6690719

**Pressing the Tab repeatedly gives usability issues in Create Contact.**

When creating an Address Book contact, click the work email field then keep pressing the Tab key. After the Notes field, if you press the Tab key, focus shifts to the Buddy List.

6686058

**Presence alert does not close completely (or right away) when clicking Close button.**

6686064

**The Show Contact in presence alert should highlight the contact in the roster.**

6610071

**Reloading the page causes the Mail tab to be displayed, no matter which tab was displayed originally.**

For example, if you are viewing the Address Book and reload the page, the Mail view is displayed.

**Known Issues: Configuration**

6806196

**Cannot configure or upgrade Convergence if Application Server is configured with CA signed certificate**

When Convergence is configured or upgraded on application server configured with CA signed certificate or SSL, the configuration step where application server deploys the Convergence web archive stalls and does not complete. This is because application server waits on the administrator input to accept the certificate.

**Workaround:**

Perform the following steps to deploy and configure or upgrade Convergence on Application Server configured with a CA certificate:

1. Execute any of the Application Server's `asadmin` command:  
Here is an example:

```
# /opt/sun/appserver/bin/asadmin list
```

2. Accept the CA certificate when prompted.
3. If you are configuring Convergence for the first time, remove the `/var/opt/sun/comms/iwc` folder and reconfigure Convergence using the `init-config` command.  
If you are upgrading Convergence, re-apply the patch.

**Known Issues: Mail**

6870057

**Convergence mangles rich text pasted in from Microsoft Word**

This issue is seen with emails that have body content copy-pasted from a Microsoft Word document. Users might see garbled text in XML format displaying Microsoft Word specific tags. This happens when

users log in to Convergence using Internet Explorer.

**6794669**

**When composing a mail, the To, Cc, and Bcc labels appear as hyperlinks but do not have any actions associated with them.**

**Workaround** These fields were provided to add contacts from the address book. Click the + symbol adjacent to the fields to add contacts from your address book.

**6824767**

**Filter does not work if folder selected is a subscribed folder**

If a mail filter is created in such a way that emails are filtered into a subscribed folder, the filter does not filter messages correctly even if appropriate permissions are granted.

**No Issue ID**

**In Internet Explorer, if you open a compose window and try to paste a list of addresses into the To: or CC: field that exceeds 4000 characters, the field is populated with blank spaces. If you highlight the field, you can see the addresses.**

This is a known IE issue. It does not occur with other browsers.

**Workaround:** You can fix this problem with a registry modification. For details, see <http://support.microsoft.com/kb/240121>

**6694440**

**When you perform a mail function that takes time to complete, the dialog buttons that handle the function are not disabled, and the cursor does not change to a wait symbol.**

For example, if you select all messages in a folder, the related dialog button should be disabled and the cursor should become a wait symbol until all messages are selected.

**6693443**

**An error message inadequate for end users is displayed when the Messaging Server goes down during a mail session in Convergence.**

If you are using mail in Convergence and the Messaging Server goes down, a pop-up error message states "Mail Service: connection refused" rather than displaying a user-friendly message such as "A temporary problem has occurred. We'll be back soon," or "Working on your request..."

**6692441**

**In Internet Explorer 7, when you compose a message, the cursor does not focus properly in the compose text window.**

For example, if you open compose message, enter information in the To: line, click the Tab key, enter information in the Subject: line, then click the Tab key, the cursor does not focus in the message text area.

**669200**

**A message being composed is not auto-saved if the only change was in message priority or receipt status.**

If you compose a message and make any change since the message was created or since the last save, the message will be saved automatically at the end of the auto-save period (by default, every five minutes). However, auto-save does not occur if the only change is in message priority or receipt status.

**6657490**

**An email message containing more than 170 KB of text is received as an attachment.**

This issue occurs on Solaris SPARC and x86 platforms. It does not occur on Linux. This maximum value is specified with the `maxtext` parameter in the client configuration.

**6630169**

**In certain cases, users can read mail and contact details after they have logged out of Convergence.**

For example, if a user starts Convergence, then opens the Convergence url in a new tab, then logs out of Convergence in the new tab, the user can still read mail and see contact information in the first tab.

**Known Issues: Calendar**

**14023594**

**Inviting Calendars to Events without Invite Permissions Does Not Work Correctly with Calendar Server 6**

If you invite a calendar with **none** or **Check Availability** permissions to an event, the event is saved in the calendar. This behavior is incorrect; instead, your calendar should refuse to invite users without invite permissions.

**6890898**

**Convergence Calendar freebusy lookup does not work for users on Calendar Server 7**

Convergence cannot display the availability (freebusy status) of users configured on Calendar Server 7.

**6840464**

**Quick Add Functionality Does Not Work Correctly in non-English languages**

The Convergence calendar module enables you to quickly add and event by using the quick add event functionality. This functionality enables users to create an event based on the description provided in the quick add callout. For example, if the user provides the description 1pm lunch at the Counter in the quick add callout, the event attributes that are assigned to the time, location, and title are 1pm, the Counter, and lunch respectively. However, for non-English locales, the order in which the description is typed might change as the semantics of the language might differ from English. Users are forced to provide the event description in the English language order for the quick add function to work correctly in non-English locales.

**6780373**

**If you select a subscribed calendar on which you have limited permissions, you cannot create events or edit your own user-owned calendar.**

This issue occurs when you select a calendar to which you have subscribed, when your permissions on the subscribed calendar are limited. When you then try to modify your own calendar by, for example, adding an event or editing event details, you are unable to do so.

**6737224**

**In calendar, in the Next 7 Days view, the Refresh button does not work.**

If you open the Next 7 Days view in calendar, and an action modifies your calendar, clicking the Refresh button does not display the modification. For example, if another user invites you to an event or an event is deleted from the Convergence Server, these changes do not appear after you click Refresh.

**6691971**

**The More link in a calendar continues to be displayed after the calendar is deleted.**

If you add events to a calendar until the **More** link appears, and then delete the calendar, the **More** link

remains displayed until you refresh the browser.

**6691933**

**In Agenda view, if you add an event and change the calendar you are viewing, the new event continues to show up in the second calendar until you refresh the browser.**

In Agenda view, the same event is shown twice, once in the original calendar and once in the second calendar.

**6645274**

**A recurring event specified to end "never" actually ends after 60 recurrences.**

If you specify that a recurring event end "never," Convergence uses the default value for the number of recurring events, which is 60. You can only find out about this limit by scrolling through your calendar, as Convergence does not indicate the limit.

**6641358**

**When you add a new event in month view, using natural language to specify its duration does not yield the correct event duration.**

For example, if you add a new event in the Calendar, specify event details such as "Lunch at 1:15 tomorrow for 45 minutes," the event is created as one hour long (1:15 - 2:15) instead of 45 minutes. Note that if you enter event details using a different format, such as "Lunch tomorrow 1:15 P.M. - 2:00 P.M.," the correct duration is created.

**Workaround:** Change the length of the event in day or week view, or edit the event.

### **Known Issues: Address Book**

**6880611**

**Unable to connect to Convergence address book server through Sun Java System Connector for Microsoft Outlook**

This issue is seen with Sun Java System Connector for Microsoft Outlook (Outlook Connector) configured with Convergence. When Outlook Connector users try to access address book by clicking on the Address Book tab, the connection to Convergence address book server cannot be established. The following error message is displayed:

```
unable to establish a session with Address Book Server
```

**6697453**

**No option to set default photo or delete photo.**

There is no option to set default photo or delete photo from the Address Book. Address Book should have the same kind of option as in Instant Messaging for setting default photo.

**6688678**

**Restoring the default photo from the Avatar properties widget does not ask for confirmation before saving.**

**6704130**

**In Address Book, the Manage Group option does not have a rename option.**

**Workaround:** Right-click on the list of contact groups in the left panel of the UI. This displays the context menu, which includes a rename option.

**6692504**

**In IE7, apostrophes are not accepted in the Group Name text box.**

In IE7, when you create an address-book group and try to use an apostrophe in the group name, the text box does not accept or display the apostrophe. This is not an issue in Firefox.

**6676645**

**The print option does not take all the contents in a contact.**

When you print an address book contact, some fields, such as the country, nickname, and notes, are not printed.

**6654530**

**In the address book, no contact is displayed when the wildcard search value is set to greater than 0.**

By default, the value of the `ab.pstore.wildcardsearch` property is set to 0. This enables the wildcard search function to begin returning results as soon as the end user enters the first character.

The feature does not operate as expected if you set `ab.pstore.wildcardsearch` to greater than 0. For example, if you set the property to 2, the user must enter two characters before the wildcard search returns results. That is, a value of 2 functions as follows: 2 - `entry/displayname=aa*`

**Workaround:** Reset the value of `ab.pstore.wildcardsearch` to 0.

**6649025**

**The Address Book Properties window displays incorrect information.**

**6646169**

**In the Address Book, the Sr/Jr option is not displayed in view mode.**

When you create or edit a contact, you can select the Sr or Jr option to add to the contact's name, but the Sr or Jr does not appear when you view the contact.

**6638802**

**When you create or edit a contact in the Address Book, the contact fields such as email address and phone number are not validated.**

You can enter any text in these fields, such as alpha characters in the phone number field.

**6637775**

**Advanced Search in the Address Book is not working.**

When you select the Advanced Search option in the Address Book, enter search criteria, and press Search, no results are returned.

**6609983**

**Incorrectly formatted address/bad address still shows "map" in address book.**

If you incorrectly specify an address book address entry (home or business), the resultant "map" entry points to an invalid place. The fields are not marked and bogus entries still get mapped.

**6673188**

**User is not able to copy contacts from one address book to another group using drag and drop.**

**6688097**

**Cannot make default address book as corporate address book.**

6690711

**In the corporate address book, details of a contact are displayed in the right pane, though no contact is selected in the search pane.**

6692518

**Pressing the Enter Key opens the Compose Mail screen.**

When selecting an Address Book contact and pressing the Enter key, the Compose Mail screen is opened. Because an Edit screen is associated with the contact, the Edit screen should be opened when pressing the Enter key.

6702142

Though the corporate address book search does not display any contact, the following message is displayed: "Only 100 entries is displayed."\*

### **Known Issues: Instant Messaging**

6830940

**Provide avatar support for Instant Messenger in Server to Server deployment.**

Convergence does not provide avatar support in a server to server deployment. When two Instant Messaging servers are configured with Convergence and server to server communication is enabled between the two Instant Messaging Servers, the avatars are not uploaded when users chat from Convergence Instant Messaging client.

6696906

**The avatar properties widget should indicate the file-size limit or image dimension limit that can be uploaded.**

By default, a text message should indicate these limits, as in the following example: "You can only upload a file size up to 100KB & image dimension up to 2000 x 2000." Without this warning, users are more likely to try to upload oversized pictures for their avatars that will fail to upload properly.

6696027

**In Instant Messaging, adding from the Address Book always adds the buddy to Friends group.**

**Workaround:** Manage the group then add the contact.

6689431

**Buddies in the Instant Messaging roster can be duplicated in the same group.**

You cannot delete the duplicate entry; if you delete one entry, all the entries for that buddy are deleted.

6684054

**Instant Messaging chat window: Click a URL link in chat, opens up new tab in chat window not main browser window.**

6668868

**Users in a buddy list who are in Do Not Disturb or Away status are not sorted.**

If you sort users (for example, in alphabetical order), the users in the following modes are not sorted: Do not disturb; Away; BRB; On the phone; Out to lunch; Gone home.

6665909

**Offline messages do not show up or are not emailed.**

If a user opens a chat session with another user and one user refreshes the browser, messages are not received if messages were sent before the user's browser has been refreshed.

6665897

**When you create a new chat session and refresh or reload the browser, the old chat session remains.**

The old chat session should be closed after a browser reload or refresh.

6664158

**You cannot add the first contact to any group other than Friends.**

When a user adds the first contact to the buddy list, that first contact must be in the Friends group.

6662902

**An IM user cannot receive chat messages if the user started the session with "block pop-up windows" configured.**

**Known Issues: Options**

6694006

**When you create a mail sieve filter, if you want to include special characters in the mail filter name, you must use Character Predeclared Entities.**

For example, a & or < characters are special characters in XML, and if you enter them in the mail filter name without using a Character Predeclared Entity, an "invalid formatting" error will be returned.

6676645

**The Print option does not take all the contents in a contact.**

If you create a contact with all the details then choose Print > Print Group, not all details are displayed.

6654595

**The Mail Forwarding options page displays a warning message that the page contains unsaved changes when no changes were made.**

6648561

**There is no option that allows you to save a custom (or personalized) message.**

**Known Issues: Customization**

6745772

**When adding a new right-to-left language such as Arabic or Hebrew to Convergence, the UI text is not right-to-left.**

This issue occurs if you enable customization and perform the steps to add a custom language to Convergence, then log in as a user created in LDAP with a language preference set to the custom language (for example, Arabic). The UI displays text and aligns widgets left-to-right instead of right-to-left.

6745757

**When adding a new language to Convergence, Convergence hangs if no `resources.js` file is directly under the `allDomain` directory.**

This issue occurs if you enable customization and perform the steps to add a custom language to Convergence, creating a directory structure as shown in this example:

```
/iwc_static/c11n/allDomain/nls/  
/iwc_static/c11n/allDomain/nls/<_new language_>/  
/iwc_static/c11n/allDomain/nls/<_new language_>/resources.js
```

In this situation, Convergence does not load the files; it does not bring up the UI.

**Workaround:** Add an empty `resources.js` file directly under the `/iwc_static/c11n/allDomain/nls/` directory. Note that you still must create the `resources.js` file under the `/iwc_static/c11n/allDomain/nls/<new language>/` directory. For example:

```
/iwc_static/c11n/allDomain/nls/  
/iwc_static/c11n/allDomain/nls/resources.js  
/iwc_static/c11n/allDomain/nls/<_new language_>/  
/iwc_static/c11n/allDomain/nls/<_new language_>/resources.js
```

### Known Issues: S/MIME

6781802

**When using S/MIME on Windows Vista with JDK6u1.1, the browser hangs for CAC-card users if the first message in the user's inbox is encrypted.**

After the user logs in, as soon as the inbox loads, it tries to decrypt the first message and tries to access the Private key of the user from CAC-card. The browser hangs and the user cannot perform any further operations.

### Redistributable Files for Convergence

Sun Convergence 1 Update 3 does not contain any files that you can redistribute.

# 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:

- 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 systems.

For more information about the compatibility between Access Manager, the Java version, and a Communications Suite installation, see [Communications Suite 6 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](http://java.sun.com/products/archive/j2se/5.0_16/index.html)

# Chapter 5. Communications Suite 7 Upgrade Guide

## Sun Java Communications Suite 7 Upgrade Guide

This information describes the best practices for upgrading earlier versions of Communications Suite products to version 7. (For a list of those individual product version numbers see [Communications Suite 7 Products and Components](#).)

Topics:

- [About the Communications Suite Upgrade Process](#)
- [Defining Your Target Communications Suite Deployment](#)
- [Determining the Sequence of Product Upgrades](#)
- [Upgrading Messaging Server](#)
  - [Upgrading Messaging Server in an HA \(High Availability\) Environment](#)
- [Upgrading Calendar Server in Solaris OS](#)
  - [Upgrading Calendar Server in an HA \(High Availability\) Environment](#)
- [Upgrading Instant Messaging Server](#)
  - [Upgrading the Instant Messaging Server in an HA \(High Availability\) Environment](#)
- [Upgrading Sun Convergence](#)
- [Upgrading Delegated Administrator](#)
- [Upgrading `comm\_dssetup.pl`](#)
- [Upgrading Sync](#)
- [Upgrading Outlook Connector](#)



### Terminology

In the information provided here, the term *product* refers to items such as Messaging Server, Calendar Server, Delegated Administrator, and Instant Messaging Server. *Product components* are functional parts of the products. For example, Messaging Server has message stores, relays, and messaging multiplexors. Calendar Server has front-end and back-end servers. *Shared components* refers to software components that are not part of Communications Suite or other support products, but are required for Communications Suite products to operate. Examples include NFS, SASL, and Java.

## About the Communications Suite Upgrade Process

Communications Suite 7 consists of a number of individual products, product components and shared components, and no single system utility upgrades all Communications Suite components at once. Upgrading a Communications Suite deployment consists of upgrading component-by-component and computer-by-computer, using the component-specific upgrade procedures described in this information. Some of these procedures are as simple as adding upgrade patches to the existing software. Other procedures are more complex and require considerably more planning and preparation. Proper upgrading starts with knowing what products you want to upgrade and the order in which to upgrade them.

## Defining Your Target Communications Suite Deployment

A successful upgrade depends on knowing where you are (your current deployment) and where you are

going (your target deployment). By defining your target deployment, you know what products and components you need to upgrade and which ones can remain as is.

The three most common Communications Suite upgrade scenarios are:

1. **Upgrade for a Product Feature.** There is a specific feature you want from a specific product and you are only interested in upgrading the products and components necessary to support that feature.

In this scenario, you simply upgrade the desired product. See the product-specific upgrade section(s) on this page.

2. **Upgrade to use Sun Convergence.** You only want to upgrade the products and components necessary to use Sun Convergence.

The minimum product versions that can still run Convergence are listed in [Product Version Compatibility Requirements for Convergence 1 Update 3](#).

3. **You want to upgrade all products and components to the latest release.**

You upgrade each product individually, host-by-host. See [Requirements for Communications Suite 7](#).

Once you have chosen the scenario that best fits your situation, you know what products to upgrade.



#### Tip

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

## Determining the Sequence of Product Upgrades

The order in which the Communications Suite product and versions are upgraded can be critical. Use the following guidelines to determine the upgrade sequence for Communications Suite products:

- For upgrading a pre-6.3 Messaging Server you must upgrade the messages store components to 6.3 or later before upgrading the webmail server (previously called MEM) to 6.3 or later.

The rest of this guide describes how to upgrade each of the Communications Suite products.

### Upgrading Messaging Server

See [Messaging Server 7 Update 3 Upgrade](#).

### Upgrading Messaging Server in an HA (High Availability) Environment

See [Upgrading to Messaging Server 7 Update 3 in an HA Environment](#).

### Upgrading Calendar Server in Solaris OS

See [Calendar Server 6.3 Upgrade](#).

## Upgrading Calendar Server in an HA (High Availability) Environment

See [Upgrading Calendar Server 6.3 in an HA Environment](#).

## Upgrading Instant Messaging Server

See [Instant Messaging 8 Update 2 Upgrade](#).

## Upgrading the Instant Messaging Server in an HA (High Availability) Environment

See [Upgrading to Instant Messaging 8 Update 2 in an HA Environment](#).

## Upgrading Sun Convergence

To upgrade from Sun Convergence 1 Update 2 to Sun Convergence 1 Update 3, see [Upgrading to Convergence 1 Update 3](#).

## Upgrading Delegated Administrator

See [Delegated Administrator 7 Upgrade](#).

## Upgrading `comm_dssetup.pl`

It is important to run the latest version of `comm_dssetup.pl` to prepare the schema, index, and data in your Directory Server to work with Messaging Server, Calendar Server, Instant Messaging, Delegated Administrator, or any products that depend on the Directory Server.

Run `commpkg upgrade to upgrade comm_dssetup.pl` and then run `perl comm_dssetup.pl`. For upgrade details see [commpkg upgrade Usage](#)

## Upgrading Sync

Using [Sun Java System Communications Sync](#) with Communications Suite 7 and Sun Convergence requires Sun Java System Communications Sync Version 3.1. Sync 3.1 is the same as Sync 3.0 but with additional fixes.

## Upgrading Outlook Connector

See [Connector for Microsoft Outlook 7.3 Update 1 Upgrade Guide](#).

# Calendar Server 6.3 Upgrade

## Upgrading to Calendar Server 6.3 with Convergence

This section describes how to upgrade Calendar Server to use Sun Convergence. The version required is Calendar Server 6.3 with the latest patches installed. Upgrading consists of choosing an upgrade strategy, then upgrading each of the individual servers using that strategy. The procedure for upgrading individual servers depends on the version of Calendar Server you are currently running.

To upgrade the Calendar Server from Communications Suite Release 5 to Release 6 Update 2, you use the `commpkg upgrade` command. Both versions are 6.3, but `commpkg upgrade` installs the required patches. To upgrade from 6.2, see [To Upgrade From Calendar Server 6.2](#). To upgrade from a version earlier than 6.2, first refer to the [Chapter 5, Upgrading Calendar Server, from the Sun Java Communications Suite 5 Upgrade Guide](#) to upgrade to 6.3, then return here for instructions on how to apply the appropriate patches.

This chapter consists of the following sections:

- [Calendar Server Upgrade Strategies](#)
- [Upgrading Individual Calendar Servers](#)
- [Verifying the Upgrade](#)
- [Upgrading Calendar Server With HA](#)
- [Calendar Server Backoff](#)

## Calendar Server Upgrade Strategies

There are two possible Calendar Server upgrade strategies: the *parallel system upgrade* or the *in-place upgrade*.

In an in-place upgrade, the existing software is upgraded to the new version in the same location.

In a parallel system upgrade, the existing software remains operating while the new version is installed in another location. A parallel system upgrade is useful for deployments consisting of multiple servers in a distributed network. The servers interoperate by using adjacent builds (in adjacent directories) so that the network can be upgraded in phases.

Each strategy has its advantages and disadvantages:

- In a parallel system upgrade, users have access to the calendar (though, readonly) throughout the upgrade process. During an in-place upgrade, some downtime is incurred.
- A parallel system upgrade limits the impact on global and distributed services during the upgrades.
- In a parallel system upgrade, a smaller staff is required to administer the upgrades on many distributed machines. Conversely, this approach limits the extended downtime a small staff needs to upgrade many machines together.
- If the upgrade is not successful, parallel system upgrades offer an easier roll-back procedure. Parallel system upgrades reduce the risk of attempting to change all installations at once before being able to verify that the solution is workable. In-place upgrades have a more complex roll-back procedure.
- Parallel system upgrades require additional hardware. In-place upgrades do not require additional hardware.



### **Upgrade Strategy for Calendar Server Deployments Using the DWP Protocol**

For Calendar Server deployments that use the Database Wire Protocol (DWP) protocol, you are *strongly* urged to consider a parallel system upgrade. Here's why:

DWP design constraints require all nodes in a distributed deployment to be upgraded at the same time. With its versionless state, the DWP protocol presumes (requires) the front-end and back-end servers to be the same build/version.

For example, suppose an organization running Calendar Server with DWP has back-end servers in Europe, Asia, and the Americas and front-end servers in a multitude of countries. To perform an in-place upgrade, this deployment would need to shut down the entire Calendar Server network. A parallel system upgrade would enable the existing Calendar Servers to continue running while the network is upgraded in phases.

## **Parallel System Upgrade Procedures**

In a parallel system upgrade, you do the following:

1. Create a separate new Calendar Server environment. Refer to the [Sun Java Communications Suite 5 Deployment Planning Guide](#) for details.

2. Set the existing Calendar server to a read-only mode and inform users that calendar entries cannot be created or modified until the migration is complete.

Set `caldb.berkeleydb.readonly` to `yes` in `ics.conf` and restart the services.

3. Migrate the configuration and calendar data to the new environment. (See the version-specific section.)
4. Switch over to the new system and verify that everything works.

End users, or any applications that depend on this server, will need to connect to this box instead of the old box.

5. Inform users that calendar entries can be created or modified and the migration is complete.
6. Shut down the legacy servers.
7. If the switchover does not work, switch back to the legacy servers.

## **In-place Upgrade Procedures**

In an in-place upgrade, you do the following:

1. Back up your calendar database.

See [csbackup](#).

2. Perform the upgrade procedures as described in the following sections.
3. Verify that the new system works.

For example, check that users can log in and create events and to-do's.

4. If the new system does not work, remove the upgrade patches and then restore the data.

Restore the database save in step 1. See [csrestore](#).



#### Note

You cannot remove the upgrade patches and restore the data in Red Hat Linux by using an in-place upgrade.

The rest of this section describes how to upgrade your individual Calendar Servers by using these two strategies.

## Upgrading Individual Calendar Servers

Whether you are doing an in-place or parallel upgrade, the process for upgrading individual servers is the same. How those individual Servers are upgraded to use Sun Convergence depends on whether you are using the version 6.3 or an earlier version of Calendar Server. To upgrade from a version earlier than 6.2, refer to the [Chapter 5, Upgrading Calendar Server of the Sun Java Communications Suite 5 Upgrade Guide](#) to upgrade to 6.3, then return here for instructions on how to apply the appropriate patches. To upgrade from 6.3 or 6.2 you'll need to install the latest patches listed in [Release Notes](#). Detailed instructions are provided in later sections.

The localization patches and packages are no longer required separately, as localization resources are bundled with core packages. Before applying this patch, remove the old I10n packages if installed. For example:

```
pkgrm -n SUNWics-l10n
```

or

```
pkgrm -n SUNWfrics SUNWdeics SUNWesics SUNWjaics SUNWkoics SUNWzhics  
SUNWtwics
```

for Red Hat Linux:

```
rpm -e sun-calendar-core-l10n
```

or

```
rpm -e sun-calendar-core-fr  
rpm -e sun-calendar-core-de  
rpm -e sun-calendar-core-es  
rpm -e sun-calendar-core-ja  
rpm -e sun-calendar-core-ko  
rpm -e sun-calendar-core-zh  
rpm -e sun-calendar-core-zh_TW
```

### Other Calendar Server Upgrade Notes:

- At some sites, Calendar Server 6.3 might not start after patching. If this problem occurs, follow the procedure [described in the Known Issues section of Calendar Server 6.3 Release Notes](#).
- Calendar Server should be shut down when patches are being applied to the installed image.
- In architectures in which different Calendar Server subcomponents reside on different computers, for example, Calendar Server back-end store on one computer and Calendar Server front-end processes (such as cshttpd) on another, the upgrade must be performed on all such computers.
- The Calendar Server upgrade applies to multiple Calendar Server subcomponents on one computer using the same installed image.
- Data created in the Solaris OS x86 version of Calendar Server 6.3 patch 121658-19 or earlier is corrupted when you upgrade to patch 121658-20 or later. This issue occurs on Solaris OS x86 platforms only (CR 6642958). With patch 121658-20 and later, Calendar Server uses the new

Berkeley Database library, which is incompatible with the database created by earlier versions. In order to use the database created by patch 121658-19 (or prior) with this patch, you must update the database. See [Release Notes](#) for details on how to update the database and further details.

- Calendar Server 6.3 requires has the software dependencies listed in the [Release Notes](#) . For a list of all Communications Suite requirements, see the [Requirements for Communications Suite 6 Update 1](#).

If you want to upgrade Calendar Server 6.3 so that it can be used by Sun Convergence, you can simply run the `commpkg upgrade` command.

### To Upgrade From Calendar Server 6.3

Note that Communications Suite 5 and 6 Update 1 both use Calendar Server 6.3, but Communications Suite 6 Update 1 has the required patches that work with Sun Convergence.

1. Run `commpkg upgrade` command.

### To Upgrade From Calendar Server 6.2 on Solaris OS

To upgrade Calendar Server 6.2 to Convergence-enabled Calendar Server 6.3, use the following directions:

1. Obtain the required patch. See [Release Notes](#) .

You can download patches to `/tmp` from: <http://sunsolve.sun.com>.

2. Log in to the machine where you are upgrading Calendar Server (as superuser or root).

```
> su -
```

3. Stop Calendar Server if it is running.

```
cal-svr-base/cal/sbin/stop-cal
```

4. If you have not already done so, upgrade shared components to Communications Suite 6 Update 1.

See [Communications Suite 6 Update 1 Requirements](#).

5. Apply the Calendar Server core patch (see [Release Notes](#)).

```
patchadd <patch_ID>
```

6. Confirm that the patch upgrades were successful:

```
showrev -p | grep ics
```

The output should return the versions of patch IDs applied in Step 5.

7. Reconfigure Calendar Server.

```
cd cal-svr-base/sbin
./csconfigurator.sh -noconsole -nodisplay -novalidate
```

The `-noconsole -nodisplay -novalidate` arguments pick up the existing Calendar Server 6.x configuration values and perform the necessary reconfiguration for the upgraded software.

If the Calendar Server 6.x installation had been configured in nonhosted domain (legacy) mode, the configurator gives the choice either to stay in that mode or switch to hosted domain mode, the

default for this version of Calendar Server. Switching to hosted domain mode is not reversible.

The `csconfigurator` command is documented in the [Calendar Server Administration Guide](#).

8. Move Calendar Server data files to a temporary location.

```
mkdir /var/cal-svr-base/old_csdb
mv /var/cal-svr-base/csdb/* /var/cal-svr-base/old_csdb
```

The `old_csdb` directory is a temporary location.

9. Change permissions on the temporary location.

```
chown -R icsuser:icsgroup /var/cal-svr-base/oldcsdb
```

10. Migrate the Calendar Server 6.2 (Java Enterprise System 2005Q4) data using the `csmigrate` migration tool.

```
cd cal-svr-base/cal/sbin
./csmigrate -l max /var/cal-svr-base/old_csddb /var/cal-svr-base/csdb
```

The general syntax for `csmigrate` is as follows:

```
csmigrate [-q] [-d] [-l min/max] [-b backup_dir] source_dbdir
target_dbdir
```

Command options and operands are documented in the following table.

TABLE 1. `csmigrate` Command Options and Operands

Option/Operand	Description
<code>-q</code>	Specifies quiet mode, no print statements
<code>-d</code>	Specifies dry run mode, no new db written
<code>-l min or max</code>	Specifies log level. <code>csmigrate</code> creates the following log files: cal-svr-base/logs/csmigrate.log cal-svr-base/logs/csmigrateError.log
<code>-b backup_dir</code>	Specifies directory to which to back up the source database. The program works on the backed-up copy to prevent any damage to the source database. The default location is <code>source_dbdir/backup</code> .
<code>source_dbdir</code>	Directory where pre-migration database files are located.
<code>target_dbdir</code>	Directory where post-migration files will be written

If you choose an arbitrary `target_dbdir` rather than `/var/cal-svr-base/csdb`, then you have to change the value of the `caldb.berkeleydb.homedir.path` property in the Calendar Server configuration file to point to that location.

**Note:** If the `csmigrate` command fails on the Solaris OS 10 platform, set the library path to null when running the command:

```
LD_LIBRARY_PATH= ./csmigrate ...
```

11. Restart the Calendar Server that was stopped in the earlier step.

```
cal-svr-base/cal/sbin/start-cal
```

## To Upgrade From Calendar Server 6.2 on Red Hat Linux

The following procedure applies to Calendar Server on the computer where the upgrade is taking place.

1. Obtain the required patches by using the patch numbers and RPM names from [Release Notes](#) . Use this information to obtain the version numbers for the RPM.

Patches can be downloaded to `/tmp` from: <http://sunsolve.sun.com>.

2. Log in as root or become superuser.

```
su -
```

3. Stop Calendar Server if it is running.

```
cal-svr-base/sbin/stop-cal
```

4. If you have not already done so, synchronize all shared components to Release 6.

See Upgrade Calendar Server Dependencies.

5. Remove the 6.2 calendar-api package

```
rpm -e sun-calendar-api-6.2-10.28
```

Note: The version number on the package name might be different, depending on the version of calendar patch installed. Confirm the package name to be deleted by using `rpm -qa | grep sun-calendar`

6. Apply the core and calendar-api in the following order. (The following \*rpm files are an example. Use the \*rpm files that came with the patch download.)

```
rpm -Fvh sun-calendar-core-6.3-7.03.i386.rpm
```

```
rpm -i sun-calendar-api-6.3-7.03.i386.rpm
```

7. Confirm that the patch upgrades were successful:

```
rpm -qa | grep sun-calendar
```

The new version numbers of the RPMs in Step 5 should be returned.

8. Reconfigure Calendar Server.

```
cd cal-svr-base/sbin
```

```
./csconfigurator.sh
```

If the Calendar Server 6.2 or earlier Calendar Server installation had been configured in non-hosted domain (legacy) mode, the configurator offers the choice of either staying in that mode or switching to hosted domain mode, which is the default for Calendar Server 6.3 with the latest patches. Switching to hosted domain mode is not reversible.

The `csconfigurator` command is documented in the [Calendar Server Administration Guide](#) .

9. Move Calendar Server data files to a temporary location.

```
mkdir /var/cal-svr-base/oldcsdb
```

```
mv /var/cal-svr-base/csdb/* /var/cal-svr-base/oldcsdb
```

where oldcsdb is a temporary location.

10. Change permissions on the temporary location.

```
chown -R icsuser:icsgroup /var/cal-svr-base/oldcsdb
```

11. Migrate the Calendar Server 6.2 or earlier data by using the csmigrate migration tool.

```
cd cal-svr-base/sbin  
./csmigrate -l max /var/cal-svr-base/old_csddb /var/cal-svr-base/csdb
```

The general syntax for csmigrate is as follows:

```
csmigrate [-q] [-d] [-l min|max] [-b backup_dir] source_dbdir  
target_dbdir
```

Command options and operands are documented in Table 1, shown previously.

12. Restart the Calendar Server that was stopped in Step 3.

```
cal-svr-base/sbin/start-cal
```

## Verifying the Upgrade

You can verify the upgrade of Calendar Server by running the following commands:

Solaris OS: `cal-svr-base/cal/sbin/csversion`

Red Hat Linux: `cal-svr-base/sbin/csversion`

See the [Release Notes](#) for the appropriate version values.

## Upgrading Calendar Server With HA

Calendar Server instances running in a cluster environment must share the same configuration. Ensure that the `config` directory is mounted on the node that you are upgrading. Apply Calendar Server upgrade patches to each of the instances as described previously. No reconfiguration is required.

## Calendar Server Backoff

To roll back to the previous version of Calendar Server, install a fresh copy of the old version of Calendar Server and perform a `csrestore` on the database you backed up prior to starting the upgrade.

# commpkg upgrade Usage

## Commpkg Upgrade Usage

The `commpkg upgrade` command, which is available with the Communications Suite installer, `commpkg`, enables you to upgrade the Communications Suite products and shared components.

This command upgrades the Communications Suite components' software installation on your machine, but it does not configure these components. To configure the components after installation, see [Initial Configuration](#).

For information about upgrading components, see the [Communications Suite 7 Upgrade Guide](#).

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

- [Communications Suite Installer: General Syntax and Commands](#)

## Commpkg Upgrade Command: Syntax

```
commpkg upgrade [options] [installroot|name]
```

### Using the `installroot|name` Command-Line Argument

Specify `installroot|name` on the command line to use an alternate root to use for the upgrade. That is, it is equivalent to specifying the `--altroot` and `--installroot` options.

If you specify the `name` command-line argument, it must exist in the software list. If it is not, an error is returned. The `name` is looked up in the software list and is used for the corresponding `installroot`.

For details about these options, see [Commpkg Install Command: Options](#).

## Commpkg Upgrade Command: Options

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

<code>commpkg upgrade</code> Options	Description
<code>--excludeOS</code>	Does not apply operating system patches during product upgrade.
<code>--excludeSC</code>	Does not install, upgrade, or patch any shared components.
<code>--acceptLicense</code>	Accepts the license conditions in the <code>LICENSE.txt</code> file.
<code>--altroot [name]</code>	Specifies an alternate root directory during a multi-host installation. The <code>INSTALLROOT</code> (the top-level installation directory for all products and shared components) is the alternate root. If you specify a <code>name</code> , it is a friendly name associated with the alternate root that is registered in the software list. The <code>name</code> 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.

<code>--distro path</code>	Specifies the <i>path</i> to packages and patches for the products. Default: Location of <code>commpkg</code> script
<code>--installroot path</code>	Specifies the <i>path</i> of <code>INSTALLROOT</code> , the top-level installation directory for Communications Suite products and shared components. Default <code>INSTALLROOT</code> on Solaris OS and Red Hat Linux: <code>/opt/sun/comms</code> The subdirectories for individual Communications Suite products are installed under the <code>INSTALLROOT</code> . For example, Messaging Server (32-bit) software is installed by default in <code>/opt/sun/comms/messaging</code> .
<code>--silent INPUTFILE</code>	Runs silent upgrade, taking the inputs from the <i>INPUTFILE</i> and the command-line arguments. The command-line arguments override entries in the <i>INPUTFILE</i> . Upgrade proceeds without interactive prompts. Use <code>--dry-run</code> to test silent upgrade without actually installing the software. When running a silent upgrade, you must use the <code>--acceptLicense</code> option in the command line or set <code>ACCEPTLICENSE=YES</code> in the <i>INPUTFILE</i> .  Specify <code>NONE</code> for <i>INPUTFILE</i> if you want to run in silent mode without using an input file. When you specify <code>NONE</code> , the upgrade uses default values. For more information about running a silent upgrade, see <a href="#">Upgrading Communications Suite in Silent Mode</a> .
<code>--dry-run</code> or <code>-n</code>	Does not upgrade Communications Suite components. Performs checks. This option creates a silent upgrade file in the <code>/tmp</code> directory.
<code>--upgradeSC [y n]</code>	Indicates whether or not to upgrade shared components as required. Note: If this option is not specified, you are prompted for each shared component that needs to be upgraded. Default: <code>n</code>  <div style="background-color: #ffe6e6; padding: 10px; border: 1px solid #ccc;"><p> <b>Caution</b> Upgrading shared components is irreversible. However, if you do not upgrade required shared components, products might not work as designed.</p></div> The <code>--excludeSC</code> flag has precedence over this flag.
<code>--auditDistro</code>	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 <code>commpkg</code> .
<code>--pkgOverwrite</code>	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.
<code>--components comp1 comp2 ...</code>	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 <code>MS</code> , Messaging Server (64-bit) uses <code>MS64</code> , Calendar Server uses <code>CS</code> , and so on. To display a list of the mnemonics for all the component products, use the <code>commpkg info --listpackages</code> command.

<code>--usePkgUpgrade</code>	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 products:

- Messaging Server, from version 7 Update 2 to version 7 Update 3
- Comms Directory Server Setup Script, from version 6.4-4.04 to version 6.4-5.05

The session uses the `commpkg upgrade` command to perform the upgrade.

This document contains the following topics:

- [Summary of Commands Run](#)
- [Session](#)
- [Upgrade Comments](#)

### Summary of Commands Run

```
138 pwd
139 uname -a
140 ./commpkg upgrade --acceptLicense
141 cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013155840
142 cat
/var/opt/CommsInstaller/logs/CommsInstaller_20091013155840.log
143 ./commpkg info
144 /opt/sun/comms/messaging64/bin/imsimta version
```

### Session

```
(138 root) pwd
/h/megan/wspace/dl111122/releases/ci70
(139 root) uname -a
SunOS limzone-2 5.10 Generic_139556-08 i86pc i386 i86pc
(140 root) ./commpkg upgrade --acceptLicense
-- LOGFILE: /tmp/CommsInstaller_20091013155840.log
NOTICE: Although it is okay to apply OS patches in a whole root zone
        They really should be applied in the global zone

CommsInstaller version 7.0-0.02 built on Wed Sep  9 13:47:08 PDT 2009

Welcome to the Communications Services Products Installer
This program will install Communications Services Products
on your computer. Do note that the installer lays down the
bits, but does not do configuration. Separate configuration
steps for each individual product will be required.

Copyright 2007-2009 Sun Microsystems, Inc. All rights reserved.
```

Use is subject to license terms.

```
=====
Detecting Installed Products...
  NOTICE: CommsInstaller is present with a different pkg VERSION.
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
           has not been applied. Specifically the following
           patches are missing:
           119255-67 120273-26 141415-09
  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 Services Products:

Item	Description
1	Messaging Server (64bit) 7u3 (7.3-11.01) Installed Version 7u2 (7.2-7.02) at /opt/sun/comms/messaging64
2	Comms DSsetup 6.4 (6.4-5.05) Installed Version 6.4 (6.4-4.04) 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...
```

CommsInstaller has a different pkg version installed  
Description: The CommsInstaller installed as a package so it can be  
patched

```
Current pkg Version (SUNWcomms): 6.2,REV=2009.04.16
To be installed pkg version (SUNWcomms): 7.0,REV=2009.09.09
Product Version: 7
```

Note that changing pkg versions is irreversible

Do you wish to change pkg versions for CommsInstaller [n] : y

```
=====
WILL INSTALL: patch 119255-67 for PATCHUTILS
WILL INSTALL: patch 119964-16 for LIBCPLUSPLUS
WILL INSTALL: patch 125359-08 for NSS/NSPR/JSS
WILL INSTALL: patch 119346-07 for Simple Authentication and Security
Layer
WILL INSTALL: patch 125138-17 for JDK
WILL INSTALL: patch 125139-17 for JDK
NOTICE: CommsInstaller will be upgraded...
          Removing the old version is an irreversible process.
WILL REMOVE EXISTING: CommsInstaller 6u2 (6.2-0.06)
WILL INSTALL: CommsInstaller 7 (7.0-0.02)
                to /opt/sun/comms/CommsInstaller
```

```

NOTICE: Upgrading Messaging Server (64bit) 7u2 (7.2-7.02)
        to 7u3 (7.3-11.01 at /opt/sun/comms/messaging64)
        Upgrade will be done by applying a patch
WILL INSTALL: patch 137205-11 for Messaging Server (64bit)
NOTICE: Upgrading Comms DSsetup 6.4 (6.4-4.04)
        to 6.4 (6.4-5.05 at /opt/sun/comms/dssetup)
        Upgrade will be done by applying a patch
WILL INSTALL: patch 118246-21 for Comms DSsetup
=====
Ready to upgrade

Do you want to continue ? [yes] :

=====
Installing patch 119255-67 for PATCHUTILS...
----- Executing Task 1 of 12 ...

=====
Installing patch 119964-16 for LIBCPLUSPLUS...
----- Executing Task 2 of 12 ...

=====
Installing patch 125359-08 for NSS/NSPR/JSS...
----- Executing Task 3 of 12 ...

=====
Installing patch 119346-07 for Simple Authentication and Security
Layer...
----- Executing Task 4 of 12 ...

=====
Installing patch 125138-17 for JDK...
----- Executing Task 5 of 12 ...

=====
Installing patch 125139-17 for JDK...
----- Executing Task 6 of 12 ...

=====
Removing existing CommsInstaller 6u2 (6.2-0.06)...
----- Executing Task 7 of 12 ...

=====
Installing CommsInstaller 7 (7.0-0.02)...
----- Executing Task 8 of 12 ...

=====
Upgrading Messaging Server (64bit) 7u2 (7.2-7.02 at
/opt/sun/comms/messaging64)...
----- Executing Task 9 of 12 ...
-- /h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/preupgrade
7.2-7.02 /opt/sun/comms/messaging64 0 "137205-11"

=====
Installing patch 137205-11 for Messaging Server (64bit)...
----- Executing Task 10 of 12 ...

```

```

----- Executing Task 11 of 12 ...
-- /h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/postupgrade
7.2-7.02 /opt/sun/comms/messaging64 0 "137205-11"
=====
Done Upgrading Messaging Server (64bit) to 7u3 (7.3-11.01 at
/opt/sun/comms/messaging64)

=====
Upgrading Comms DSsetup 6.4 (6.4-4.04 at /opt/sun/comms/dssetup)...

=====
Installing patch 118246-21 for Comms DSsetup...
----- Executing Task 12 of 12 ...
=====
Done Upgrading Comms DSsetup to 6.4 (6.4-5.05 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_20091013155840
NOTICE: LOGFILE created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20091013155840.log
(141 root) cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013155840
#
# Silent File for CommsInstaller 7.0-0.02
# Generated on 20091013155840
#
#
# NOTE: You must set ACCEPTLICENSE=yes below or alternatively
#       use --acceptLicense on the command line
#
#
# 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=/h/megan/wspace/dl111122/releases/ci70

#
# flag to indicate whether to perform pkg overwrite if the pkg already
exists
#

```

```

PKGOVERWRITE=no

#
# flag to indicate whether to exclude OS patches
#
EXCLUDEEOS=no

#
# flag to indicate whether to exclude shared components
#
EXCLUDEESC=no

#
# flag to indicate acceptance of the software license
#
ACCEPTLICENSE=no

#
# flag to indicate that all SC should or should not be upgraded without
prompting
#
UPGRADEESC=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= 7.3 6.4
(142 root) cat
/var/opt/CommsInstaller/logs/CommsInstaller_20091013155840.log
===== LOGFILE started Tue Oct 13 15:58:40 2009 =====
LOGFILE = /tmp/CommsInstaller_20091013155840.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg upgrade --acceptLicense
-- perl version: 5.008004 pid: 19834
-- basetime: 1255474720 Tue Oct 13 15:58:40 2009
-- scriptDir: /h/megan/wspace/dl111122/releases/ci70
-- LOGFILE: /tmp/CommsInstaller_20091013155840.log
-- UNAME = SunOS ARCH = i386 OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS limzone-2 5.10 Generic_139556-08 i86pc i386 i86pc
-- Exit status: 0
!!! ENV
$VAR1 = {
    'SSH_CLIENT' => '192.18.75.229 34686 22',
    'CAPSAVE' => '/etc/termcap',

```

```

'PS1' => '# ',
'LC_COLLATE' => 'en_US.ISO8859-1',
'LINES' => '55',
'LC_NUMERIC' => 'en_US.ISO8859-1',
'COLUMNS' => '80',
'PWD' => '/home/dl111122/wspace/releases/ci70',
'LC_TIME' => 'en_US.ISO8859-1',
'USER' => 'dl111122',
'LANG' => 'C',
'LC_MESSAGES' => 'C',
'VISUAL' => 'gnuclient',
'LOGNAME' => 'dl111122',
'EMACS' => 't',
'REMOTE' => '/home/dl111122/.remote',
'USE_64' => '1',
'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:/usr/sbin:/usr/bin:/usr/dist/exe',
'EMACS_TYPE' => 'pc',
'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
'TERM' => 'emacs',
'SSH_TTY' => '/dev/pts/14',
'PAGER' => 'cat',
'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
'HOME' => '/home/dl111122',
'SSH_CONNECTION' => '192.18.75.229 34686 192.18.75.105 22',
'TERMSAVE' => 'vt100',
'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
'CDPATH' => '.:...:/home/dl111122',
'EDITOR' => 'gnuclient',
'MAIL' => '/var/mail//dl111122',
'TZ' => 'US/Pacific',
'LC_CTYPE' => 'en_US.ISO8859-1',
'ESHELL' => '/bin/csh',
'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info',
'MOTIFHOME' => '/usr/dt',
'CVSROOT' =>
':pserver:dl111122@redcvs.red.ipplanet.com:/m/src',
'LC_MONETARY' => 'en_US.ISO8859-1',
'OPENWINHOME' => '/usr/openwin',
'RCSINIT' => '-zLT',
'SHELL' => '/bin/csh',
'SKIP_UTEST' => '1'
};
cat /etc/release 2>&1

Solaris 10 6/06 s10x_u2wos_09a X86
Copyright 2006 Sun Microsystems, Inc. All Rights Reserved.
Use is subject to license terms.
Assembled 09 June 2006

-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
'MS64',

```

```

        'DSSETUP',
        'DAV',
        'IM',
        'IWC',
        'JISS',
        'DA',
        'MS_SCHA',
        'IM_SCHA',
        'CS',
        'CS_SCHA'
    ];
/usr/bin/pkgcond -n is_what 2>&1
can_add_driver=0
can_remove_driver=0
can_update_driver=0
is_alternative_root=0
is_boot_environment=0
is_diskless_client=0
is_global_zone=0
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=1
is_path_writable=1
is_running_system=0
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=1
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 0
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
NOTICE: Although it is okay to apply OS patches in a whole root zone
        They really should be applied in the global zone
Reading Product Files...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDA
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDA
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.map does

```

```
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SNMP/SNMP.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SNMP/SNMP.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMME...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMME...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.map does
```

```
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.in.
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.map
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.in.
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.in.
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.in.
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/MS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/MS.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/MS_L10N.in
```

```

not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/MS64_L10N
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/CS_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/IM_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/CE.in not
found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/CE_L10N.in
not found, skipping...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.0/IM.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.3/IM.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/0.9/JISS.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/6.4/DA.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/6.0/MS_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/7.0/IM_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/6.0/CS_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/6.3/MS.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/7.2/MS.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.2/MS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.3/MS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/6.3/MS64_
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.2/CS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.3/CS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.0/IM_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.2/IM_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/6.3/CE.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.2/CE_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.3/CE_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/1.5.0/JDK.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/3.7/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/4.1/MQ.in...
Reading OLD

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/3.7/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/4.1/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.0/IMAPI.in.
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.3/IMAPI.in.
QQQ findGetVersion =====
!!! getVersion
$VAR1 = {
    'SASL' => 'none',
    'IWC' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IWC/CI/getVersion',
    'MS64_L10N' => 'none',
    'MS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS/CI/getVersion',
    'DSSETUP' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/CI/getVersion',
    'MQ_L10N' => 'none',
    'ICU' => 'none',
    'MS64' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/getVersion',
    'DAV' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DAV/CI/getVersion',
    'LDAPCSDK6' => 'none',
    'CE' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CE/CI/getVersion',
    'JDK' => 'none',
    'MYSQL' => 'none',
    'PATCHUTILS' => 'none',
    'MQ' => 'none',
    'IMAPI' => 'none',
    'CI' =>
'/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/SunOS_i386/getV
LDAPCSDK6_TOOLS' => 'none',
    'JISS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JISS/CI/getVersion',
    'NSS' => 'none',
    'CS_L10N' => 'none',
    'IM' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/CI/getVersion',
    'ST' => 'none',
    'RECOMMENDED' => 'none',
    'IM_L10N' => 'none',
    'CS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS_SCHA/CI/getVersion',
    'LDAPJDK' => 'none',
    'MYSQL_MARKER' => 'none',
    'BZIP' => 'none',
    'IM_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM_SCHA/CI/getVersion',
    'MS_L10N' => 'none',
    'LIBCPLUSPLUS' => 'none',
    'SNMP' => 'none',
    'MS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS_SCHA/CI/getVersion',

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'CS' =>
'/h/megan/wspace/dll111122/releases/ci70/SunOS_i386/CS/CI/getVersion',
  'JHRT' => 'none',
  'CE_L10N' => 'none',
  'DA' =>
'/h/megan/wspace/dll111122/releases/ci70/SunOS_i386/DA/CI/getVersion'
};
!!! prod_getVers
$VAR1 = {
  'SASL' => 0,
  'IWC' => '1.0-10.01',
  'MS64_L10N' => 0,
  'MS' => '7.2-7.02',
  'DSSETUP' => '6.4-5.05',
  'MQ_L10N' => 0,
  'ICU' => 0,
  'MS64' => '7.3-11.01',
  'DAV' => '7.0-0.26',
  'LDAPCSDK6' => 0,
  'CE' => '6.3-13.01',
  'JDK' => 0,
  'MYSQL' => 0,
  'PATCHUTILS' => 0,
  'MQ' => 0,
  'IMAPI' => 0,
  'CI' => '7.0-0.02',
  'LDAPCSDK6_TOOLS' => 0,
  'JISS' => '1.0-32.01',
  'NSS' => 0,
  'CS_L10N' => 0,
  'IM' => '8.2-02.04',
  'ST' => 0,
  'RECOMMENDED' => 0,
  'IM_L10N' => 0,
  'CS_SCHA' => '6.3-1.01',
  'LDAPJDK' => 0,
  'MYSQL_MARKER' => 0,
  'BZIP' => 0,
  'IM_SCHA' => '7.3-01.02',
  'MS_L10N' => 0,
  'LIBCPLUSPLUS' => 0,
  'SNMP' => 0,
  'MS_SCHA' => '7.0-0.03',
  'CS' => '6.3-19.01',
  'JHRT' => 0,
  'CE_L10N' => 0,
  'DA' => '7.0-1.00'
};
!!! prod_builddate
$VAR1 = {
  'SASL' => 'none',
  'IWC' => '20090906',
  'MS64_L10N' => 'none',
  'MS' => '20090416',
  'DSSETUP' => '20090808',
  'MQ_L10N' => 'none',

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        'ICU' => 'none',
        'MS64' => '20090901',
        'DAV' => '20090827',
        'LDAPCSDK6' => 'none',
        'CE' => '20090327',
        'JDK' => 'none',
        'MYSQL' => 'none',
        'PATCHUTILS' => 'none',
        'MQ' => 'none',
        'IMAPI' => 'none',
        'CI' => '20090909',
        'LDAPCSDK6_TOOLS' => 'none',
        'JISS' => '20090909',
        'NSS' => 'none',
        'CS_L10N' => 'none',
        'IM' => '20090903',
        'ST' => 'none',
        'RECOMMENDED' => 'none',
        'IM_L10N' => 'none',
        'CS_SCHA' => '20080331',
        'LDAPJDK' => 'none',
        'MYSQL_MARKER' => 'none',
        'BZIP' => 'none',
        'IM_SCHA' => '20080403',
        'MS_L10N' => 'none',
        'LIBCPLUSPLUS' => 'none',
        'SNMP' => 'none',
        'MS_SCHA' => '20080519',
        'CS' => '20090826',
        'JHRT' => 'none',
        'CE_L10N' => 'none',
        'DA' => '20090821'
    };

===== End QQQ findGetVersion =====
INFO: prod_mktVers{NSS} (no map) = 4.3
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) = 4.3
INFO: prod_mktVers{MQ_L10N} (no map) = 4.3
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{SNMP} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2009.08.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u3
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4

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INFO: prod_mktVers{DAV} (w/ map) = 7
INFO: prod_mktVers{IM} (w/ map) = 8u2
INFO: prod_mktVers{IWC} (w/ map) = 1u3
INFO: prod_mktVers{JISS} (w/ map) = 1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3
```

CommsInstaller version 7.0-0.02 built on Wed Sep 9 13:47:08 PDT 2009

Welcome to the Communications Services Products Installer  
This program will install Communications Services Products  
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... already present.

LIBCPLUSPLUS 5.9 is already present.

Checking PATCHUTILS Unknown ...

Checking pkg SUNWpkgcmds... already present.

Checking pkg SUNWswmt... already present.

Checking pkg SUNWinstall-patch-utils-root... already present.

Checking pkg SUNWcsr... already present.

Checking pkg SUNWdtrc... already present.

Checking pkg SUNWzoneu... already present.

PATCHUTILS Unknown is already present.

Checking SNMP Unknown ...

Checking pkg SUNWsmagt... already present.

Checking pkg SUNWsmcmd... already present.

Checking pkg SUNWsmmgr... already present.

SNMP Unknown is already present.

Checking BZIP 11.10 ...

Checking pkg SUNWbzip... already present.

BZIP 11.10 is already present.

Checking RECOMMENDED 2009.08.25 ...

RECOMMENDED 2009.08.25 is not present.

Checking ST 1.1.4 ...

Checking pkg SUNWservicetagr... already present.

Checking pkg SUNWservicetagu... already present.

Checking pkg SUNWstosreg... already present.

ST 1.1.4 is already present.

Checking NSS 4.3 ...

Checking pkg SUNWjss... already present.

Checking pkg SUNWpr... already present.

Checking pkg SUNWprd... already present.

Checking pkg SUNWtls... already present.

Checking pkg SUNWtlsd... already present.

Checking pkg SUNWtlisu... already present.

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    NSS 4.3 is already present.
Checking SASL 2.19 ...
    Checking pkg SUNWsas1... already present.
    SASL 2.19 is already present.
Checking LDAPSDK6 6.0 ...
    Checking pkg SUNWldapcsdk-libs... already present.
    Checking pkg SUNWldapcsdk-dev... already present.
    LDAPSDK6 6.0 is already present.
Checking LDAPSDK6_TOOLS 6.0 ...
    Checking pkg SUNWldapcsdk-tools... already present.
    LDAPSDK6_TOOLS 6.0 is already present.
Checking ICU ICU2,ICU3 ...
    Checking pkg SUNWicu... already present.
    ICU ICU2,ICU3 is already present.
Checking JDK 1.6.0 ...
    Checking pkg SUNWj6rt... already present.
    Checking pkg SUNWj6rtx... already present.
    Checking pkg SUNWj6dev... already present.
    Checking pkg SUNWj6dvx... already present.
    Checking pkg SUNWj6cfg... already present.
    JDK 1.6.0 is already present.
Checking JDK 1.5.0 ...
    Checking pkg SUNWj5rt... already present.
    Checking pkg SUNWj5rtx... already present.
    Checking pkg SUNWj5cfg... already present.
    JDK 1.5.0 is already present.
Checking JHRT 2.0 ...
    Checking pkg SUNWjhrt... already present.
    Checking pkg SUNWjhdev... already present.
    Checking pkg SUNWjhdem... already present.
    Checking pkg SUNWjhdoc... already present.
    JHRT 2.0 is already present.
Checking MQ 4.3 ...
    Checking pkg SUNWiqr... already present.
    Checking pkg SUNWiqu... already present.
    Checking pkg SUNWiqdoc... already present.
    Checking pkg SUNWiquc... already present.
    Checking pkg SUNWiqum... already present.
    Checking pkg SUNWiqjx... already present.
    Checking pkg SUNWiqfs... already present.
    Checking pkg SUNWiqcrt... already present.
    Checking pkg SUNWiqcdv... already present.
    Checking pkg SUNWiqflen... already present.
    MQ 4.3 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 SUNWiqtpl... already 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 SUNWiqqlen... present but with a different pkg VERSION.
  checking SUNWiqqlen 3.7,REV=2006.06.18.23.02
NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.1 ...
Checking pkg SUNWiqqr... present but with a different pkg VERSION.
  checking SUNWiqqr 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_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 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.

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Checking pkg SUNWkiqu... not present.
Checking pkg SUNWkiquc... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciquc... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
MQ_L10N 3.7 is not present.
Checking MQ_L10N 4.1 ...
Checking pkg SUNWfiqu... not present.
Checking pkg SUNWfiquc... not present.
Checking pkg SUNWdiqu... not present.
Checking pkg SUNWdiquc... not present.
Checking pkg SUNWjiqu... not present.
Checking pkg SUNWjiquc... not present.
Checking pkg SUNWeiqu... not present.
Checking pkg SUNWeiquc... not present.
Checking pkg SUNWkiqu... not present.
Checking pkg SUNWkiquc... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciquc... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
MQ_L10N 4.1 is not present.
Checking LDAPJDK 4.19 ...
Checking pkg SUNWljdk... already present.
LDAPJDK 4.19 is already present.
Checking IMAPI 8.0 ...
Checking pkg SUNWiimdv... already present.
IMAPI 8.0 is already present.
Checking IMAPI 7.0 ...
Checking pkg SUNWiimdv... present but with a different pkg VERSION.
checking SUNWiimdv 7.0,REV=2004.11.24.05.19.40
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 MYSQL 5.1.36 ...
Checking pkg mysql... already present.
MYSQL 5.1.36 is already present.
Checking CI 7.0 ...
Checking pkg SUNWcomms...
/opt/sun/comms/CommsInstaller/lib/getVersion VERSION BUILDDATE 2>&1
6.2-0.06
20090416
-- Exit status: 0
present but with a different pkg VERSION.
checking SUNWcomms 7.0,REV=2009.09.09
NOTICE: CommsInstaller is present with a different pkg VERSION.
Checking MYSQL_MARKER 1.0 ...
Checking pkg SUNWcomms-mysql-marker... already present.
MYSQL_MARKER 1.0 is already present.
Checking MS64 7.3 ...
Checking pkg SUNWmessaging-server-64...
/opt/sun/comms/messaging64/lib/getVersion VERSION BUILDDATE 2>&1
7.2-7.02

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20090416
-- Exit status: 0
already present.
MS64 7.3 is already present.
Checking DSSETUP 6.4 ...
Checking pkg SUNWcomds...
/opt/sun/comms/dssetup/lib/getVersion VERSION BUILDDATE 2>&1
6.4-4.04
20090402
-- Exit status: 0
already present.
DSSETUP 6.4 is already present.
Checking DAV 7.0 ...
Checking pkg SUNWdavserver... not present.
DAV 7.0 is not present.
Checking IM 8.2 ...
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 8.2 is not present.
Checking IM 7.0 ...
Checking pkg SUNWiimin... not present.
Checking pkg SUNWiim... not present.
Checking pkg SUNWiimm... not present.
Checking pkg SUNWiimjd... not present.
Checking pkg SUNWiimid... not present.
Checking pkg SUNWiimc... not present.
Checking pkg SUNWiimd... not present.
IM 7.0 is not present.
Checking IM 7.3 ...
Checking pkg SUNWiim... not present.
Checking pkg SUNWiimin... not present.
Checking pkg SUNWiimm... not present.
Checking pkg SUNWiimjd... not present.
Checking pkg SUNWiimid... not present.
Checking pkg SUNWiimc... not present.
Checking pkg SUNWiimd... not present.
IM 7.3 is not present.
Checking IWC 1.0 ...
Checking pkg SUNWiwc... not present.
IWC 1.0 is not present.
Checking JISS 1.0 ...
Checking pkg SUNWjiss... not present.
JISS 1.0 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.

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Checking pkg SUNWjiss-search... not present.
Checking pkg SUNWjiss-searchui... not present.
Checking pkg SUNWjiss-store... not present.
Checking pkg SUNWjiss-storeui... not present.
JISS 0.9 is not present.
Checking DA 7.0 ...
  Checking pkg SUNWcommda... not present.
  DA 7.0 is not present.
Checking DA 6.4 ...
  Checking pkg SUNWcomic... not present.
  Checking pkg SUNWcomis... not present.
  DA 6.4 is not present.
Checking MS_SCHA 7.0 ...
  Checking pkg SUNWmessaging-server-scha... not present.
  MS_SCHA 7.0 is not present.
Checking MS_SCHA 6.0 ...
  Checking pkg SUNWscims... not present.
  MS_SCHA 6.0 is not present.
Checking IM_SCHA 7.3 ...
  Checking pkg SUNWiimsc... not present.
  IM_SCHA 7.3 is not present.
Checking IM_SCHA 7.0 ...
  Checking pkg SUNWiimsc... not present.
  IM_SCHA 7.0 is not present.
Checking CS 6.3 ...
  Checking pkg SUNWics5... not present.
  Checking pkg SUNWica5... not present.
  CS 6.3 is not present.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Checking CS_SCHA 6.0 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.0 is not present.
Checking MS 7.3 ...
  MS 7.3 is not present.
Checking MS 6.3 ...
  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 is not present.
Checking MS 7.2 ...
  Checking pkg SUNWmessaging-server... not present.
  MS 7.2 is not present.
Checking MS_L10N 6.2 ...
  Checking pkg SUNWmsgde... not present.
  Checking pkg SUNWmsges... not present.
  Checking pkg SUNWmsgfr... not present.
  Checking pkg SUNWmsgja... not present.
  Checking pkg SUNWmsgko... not present.

```

```

Checking pkg SUNWmsgzh... not present.
Checking pkg SUNWmsgtw... not present.
MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
Checking pkg SUNWmsg-l10n... not present.
MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
Checking pkg SUNWmessaging-server-l10n-64... not present.
MS64_L10N 6.3 is not present.
Checking CS_L10N 6.2 ...
Checking pkg SUNWdeics... not present.
Checking pkg SUNWesics... not present.
Checking pkg SUNWfrics... not present.
Checking pkg SUNWjaics... not present.
Checking pkg SUNWkoics... not present.
Checking pkg SUNWzhics... not present.
Checking pkg SUNWtwics... not present.
CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
Checking pkg SUNWics-l10n... not present.
CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
Checking pkg SUNWdiimc... not present.
Checking pkg SUNWdiimd... not present.
Checking pkg 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.

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IM_L10N 7.2 is not present.
Checking CE 6.3 ...
  Checking pkg SUNWuwc... not present.
  CE 6.3 is not present.
Checking CE_L10N 6.2 ...
  Checking pkg SUNWduwc... not present.
  Checking pkg SUNWeuwc... not present.
  Checking pkg SUNWfuwc... not present.
  Checking pkg SUNWjuwc... not present.
  Checking pkg SUNWkuwc... not present.
  Checking pkg SUNWcuwc... not present.
  Checking pkg SUNWhuwc... not present.
  CE_L10N 6.2 is not present.
Checking CE_L10N 6.3 ...
  Checking pkg SUNWuwc-l10n... not present.
  CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119964-16 /tmp/.patchout_20091013155840.19834
-- Running patchadd -p report...
--   Generating /tmp/.patchout_20091013155840.19834
patchadd -p > /tmp/.patchout_20091013155840.19834 2>>
/tmp/CommsInstaller_20091013155840.log
-- Exit status: 0
-- older version at lineno 263 found 119964-06 - not acceptable
-- older version at lineno 264 found 119964-12 - not acceptable
-- older version at lineno 265 found 119964-13 - not acceptable
-- Final return status: 0
  LIBCPLUSPLUS patch 119964-16 is not present.
-- chk4patch 120901-03 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 85
-- Final return status: 1
  PATCHUTILS patch 120901-03 is already present.
-- chk4patch 121334-04 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 86
-- Final return status: 1
  PATCHUTILS patch 121334-04 is already present.
-- chk4patch 119255-67 /tmp/.patchout_20091013155840.19834
-- older version at lineno 81 found 119255-36 - not acceptable
-- older version at lineno 82 found 119255-24 - not acceptable
-- older version at lineno 104 found 119255-51 - not acceptable
-- older version at lineno 105 found 119255-49 - not acceptable
-- older version at lineno 106 found 119255-45 - not acceptable
-- older version at lineno 119 found 119255-54 - not acceptable
-- older version at lineno 279 found 119255-61 - not acceptable
-- older version at lineno 280 found 119255-64 - not acceptable
-- Final return status: 0
  PATCHUTILS patch 119255-67 is not present.
-- chk4patch 120273-06 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 84
-- Final return status: 1
  SNMP patch 120273-06 is already present.
-- chk4patch 126869-03 /tmp/.patchout_20091013155840.19834
-- older version at lineno 192 found 126869-02 - not acceptable
-- Exact match found at line 193
-- Final return status: 1
  BZIP patch 126869-03 is already present.

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-- chk4patch 137322-01 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 194
-- Final return status: 1
  BZIP patch 137322-01 is already present.
-- chk4patch 119255-67 /tmp/.patchout_20091013155840.19834
-- older version at lineno 81 found 119255-36 - not acceptable
-- older version at lineno 82 found 119255-24 - not acceptable
-- older version at lineno 104 found 119255-51 - not acceptable
-- older version at lineno 105 found 119255-49 - not acceptable
-- older version at lineno 106 found 119255-45 - not acceptable
-- older version at lineno 119 found 119255-54 - not acceptable
-- older version at lineno 279 found 119255-61 - not acceptable
-- older version at lineno 280 found 119255-64 - not acceptable
-- Final return status: 0
  RECOMMENDED patch 119255-67 is not present.
-- chk4patch 118855-36 /tmp/.patchout_20091013155840.19834
-- older version at lineno 9 found 118855-14 - not acceptable
-- older version at lineno 12 found 118855-15 - not acceptable
-- Exact match found at line 13
-- Final return status: 1
  RECOMMENDED patch 118855-36 is already present.
-- chk4patch 120012-14 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 34
-- Final return status: 1
  RECOMMENDED patch 120012-14 is already present.
-- chk4patch 120273-26 /tmp/.patchout_20091013155840.19834
-- older version at lineno 84 found 120273-06 - not acceptable
-- older version at lineno 195 found 120273-25 - not acceptable
-- Final return status: 0
  RECOMMENDED patch 120273-26 is not present.
-- chk4patch 137138-09 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 108
-- Final return status: 1
  RECOMMENDED patch 137138-09 is already present.
-- chk4patch 141415-09 /tmp/.patchout_20091013155840.19834
-- Final return status: 0
  RECOMMENDED patch 141415-09 is not present.
-- chk4patch 125359-08 /tmp/.patchout_20091013155840.19834
-- older version at lineno 339 found 125359-07 - not acceptable
-- Final return status: 0
  NSS patch 125359-08 is not present.
-- chk4patch 119346-07 /tmp/.patchout_20091013155840.19834
-- older version at lineno 494 found 119346-05 - not acceptable
-- older version at lineno 495 found 119346-06 - not acceptable
-- Final return status: 0
  SASL patch 119346-07 is not present.
-- chk4patch 136800-01 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 492
-- Final return status: 1
  LDAPCSDK6_TOOLS patch 136800-01 is already present.
-- chk4patch 119811-05 /tmp/.patchout_20091013155840.19834
-- older version at lineno 335 found 119811-04 - not acceptable
-- older version at lineno 336 found 119811-02 - not acceptable
-- Exact match found at line 337
-- Final return status: 1
  ICU patch 119811-05 is already present.

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-- chk4patch 125138-17 /tmp/.patchout_20091013155840.19834
-- older version at lineno 423 found 125138-14 - not acceptable
-- Final return status: 0
  JDK patch 125138-17 is not present.
-- chk4patch 125139-17 /tmp/.patchout_20091013155840.19834
-- older version at lineno 413 found 125139-14 - not acceptable
-- Final return status: 0
  JDK patch 125139-17 is not present.
-- chk4patch 119725-04 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 4
-- Final return status: 1
  LDAPJDK patch 119725-04 is already present.
-- chk4patch 137205-11 /tmp/.patchout_20091013155840.19834
-- older version at lineno 496 found 137205-07 - not acceptable
-- Final return status: 0
  MS64 patch 137205-11 is not present.
-- chk4patch 118243-03 /tmp/.patchout_20091013155840.19834
-- Exact match found at line 497
-- Final return status: 1
  DSSETUP patch 118243-03 is already present.
-- chk4patch 118246-21 /tmp/.patchout_20091013155840.19834
-- older version at lineno 498 found 118246-20 - not acceptable
-- Final return status: 0
  DSSETUP patch 118246-21 is not present.
-- chk4patch 139894-02 /tmp/.patchout_20091013155840.19834
-- Final return status: 0
  IM patch 139894-02 is not present.
-- chk4patch 137632-10 /tmp/.patchout_20091013155840.19834
-- Final return status: 0
  IWC patch 137632-10 is not present.
-- chk4patch 124582-01 /tmp/.patchout_20091013155840.19834
-- Final return status: 0
  DA patch 124582-01 is not present.
-- chk4patch 137572-01 /tmp/.patchout_20091013155840.19834
-- Final return status: 0
  IM_SCHA patch 137572-01 is not present.
-- chk4patch 121658-40 /tmp/.patchout_20091013155840.19834
-- Final return status: 0
  CS patch 121658-40 is not present.
-- chk4patch 137202-11 /tmp/.patchout_20091013155840.19834
-- Final return status: 0
  MS patch 137202-11 is not present.
===== QQQ detectProducts =====
QQQ Dumper
!!! present
$VAR1 = {
    '126869-03' => 'PRESENT',
    '118246-21' => 'NOT_PRESENT',
    '118855-36' => 'PRESENT',
    'DSSETUP' => {
        '6.4' => 'PRESENT'
    },
    '125359-08' => 'NOT_PRESENT',
    'MQ_L10N' => {
        '3.7' => 'NOT_PRESENT',
        '4.3' => 'NOT_PRESENT',
    }
}

```

```

        '4.1' => 'NOT_PRESENT'
    },
'ICU' => {
    'ICU2,ICU3' => 'PRESENT'
},
'137572-01' => 'NOT_PRESENT',
'MS64' => {
    '7.3' => 'PRESENT'
},
'DAV' => {
    '7.0' => 'NOT_PRESENT'
},
'118243-03' => 'PRESENT',
'125138-17' => 'NOT_PRESENT',
'137138-09' => 'PRESENT',
'CE' => {
    '6.3' => 'NOT_PRESENT'
},
'MYSQL' => {
    '5.1.36' => 'PRESENT'
},
'PATCHUTILS' => {
    'Unknown' => 'PRESENT'
},
'MQ' => {
    '3.7' => 'DIFF_VERSION',
    '4.3' => 'PRESENT',
    '4.1' => 'DIFF_VERSION'
},
'IMAPI' => {
    '8.0' => 'PRESENT',
    '7.0' => 'DIFF_VERSION',
    '7.3' => 'DIFF_VERSION'
},
'LDAPCSK6_TOOLS' => {
    '6.0' => 'PRESENT'
},
'JISS' => {
    '0.9' => 'NOT_PRESENT',
    '1.0' => 'NOT_PRESENT'
},
'119811-05' => 'PRESENT',
'137322-01' => 'PRESENT',
'ST' => {
    '1.1.4' => 'PRESENT'
},
'141415-09' => 'NOT_PRESENT',
'120901-03' => 'PRESENT',
'120273-26' => 'NOT_PRESENT',
'IM_L10N' => {
    '7.2' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT'
},
'119725-04' => 'PRESENT',
'121334-04' => 'PRESENT',
'136800-01' => 'PRESENT',

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```

'LDAPJDK' => {
    '4.19' => 'PRESENT'
},
'BZIP' => {
    '11.10' => 'PRESENT'
},
'119964-16' => 'NOT_PRESENT',
'IM_SCHA' => {
    '7.0' => 'NOT_PRESENT',
    '7.3' => 'NOT_PRESENT'
},
'137632-10' => 'NOT_PRESENT',
'137205-11' => 'NOT_PRESENT',
'119255-67' => 'NOT_PRESENT',
'SNMP' => {
    'Unknown' => 'PRESENT'
},
'MS_SCHA' => {
    '6.0' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT'
},
'JHRT' => {
    '2.0' => 'PRESENT'
},
'CE_L10N' => {
    '6.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT'
},
'121658-40' => 'NOT_PRESENT',
'SASL' => {
    '2.19' => 'PRESENT'
},
'IWC' => {
    '1.0' => 'NOT_PRESENT'
},
'MS64_L10N' => {
    '6.3' => 'NOT_PRESENT'
},
'MS' => {
    '7.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT',
    '7.3' => 'NOT_PRESENT'
},
'120012-14' => 'PRESENT',
'119346-07' => 'NOT_PRESENT',
'125139-17' => 'NOT_PRESENT',
'LDAPCSDK6' => {
    '6.0' => 'PRESENT'
},
'JDK' => {
    '1.6.0' => 'PRESENT',
    '1.5.0' => 'PRESENT'
},
'124582-01' => 'NOT_PRESENT',
'139894-02' => 'NOT_PRESENT',
'CI' => {

```

```

        '7.0' => 'DIFF_VERSION'
    },
    '120273-06' => 'PRESENT',
    'NSS' => {
        '4.3' => 'PRESENT'
    },
    'IM' => {
        '8.2' => 'NOT_PRESENT',
        '7.0' => 'NOT_PRESENT',
        '7.3' => 'NOT_PRESENT'
    },
    'CS_L10N' => {
        '6.2' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    '137202-11' => 'NOT_PRESENT',
    'RECOMMENDED' => {
        '2009.08.25' => 'NOT_PRESENT'
    },
    'CS_SCHA' => {
        '6.0' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    'MYSQL_MARKER' => {
        '1.0' => 'PRESENT'
    },
    'MS_L10N' => {
        '6.2' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    'LIBCPLUSPLUS' => {
        '5.9' => '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' => {},
    'SUNWmessaging-server-110n-64' => {},
    'SUNWics5' => {},
    'SUNWiqlpl' => {
        '3.7,REV=2006.06.18.23.02' => [
'SUNWiqlpl.2',
            '/',
            '3.7.0.1'
        ]
    },
    'SUNWmsgco' => {},
    'SUNWfiquc' => {},
    'SUNWjiss-extjars' => {},
    'SUNWjhdem' => {
        '2.0,REV=2006.10.04' => [
            'SUNWjhdem',
            '/usr',
            '2.0/FCS'
        ]
    },
    'SUNWiqfs' => {
        '4.3,REV=2008.11.07.19.30' => [
            'SUNWiqfs',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWfimid' => {},
    'SUNWcomds' => {
        '6.3,REV=2004.08.12' => [
            'SUNWcomds',
'/opt/sun/comms/dssetup',
            '6.4-4.04'
        ]
    },
    '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_13/1.6.0_13-b03'
                                                    ]
    },
'SUNWiqum' => {
    '4.3,REV=2008.11.07.19.30' => [
        'SUNWiqum',
        '/',
        '4.3.0.0'
    ]
},
'SUNWduwc' => {},
'SUNWhiimin' => {},
'SUNWkiimin' => {},
'SUNWeiimd' => {},
'SUNWj6rt' => {
    '1.6.0,REV=2006.11.29.05.03' => [
        'SUNWj6rt',
        '/usr',
'1.6.0_13/1.6.0_13-b03'
                                                    ]
    },
'SUNWj5rt' => {
    '1.5.0,REV=2004.12.06.22.53' => [
        'SUNWj5rt',
        '/usr',
'1.5.0_19/1.5.0_19-b02'
                                                    ]
    },
'SUNWiimc-l10n' => {},
'SUNWhiimc' => {},
'SUNWmsg-l10n' => {},
'SUNWfrics' => {},
'SUNWciqu' => {},
'SUNWkoics' => {},
'SUNWdimid' => {},
'SUNWjiquc' => {},
'SUNWiimgw' => {},
'SUNWiimd-l10n' => {},
'SUNWhiquc' => {},
'SUNWzhics' => {},
'SUNWkiimd' => {},
'SUNWmsgmp' => {},
'SUNWuwc' => {},
'SUNWscics' => {},
'SUNWiimc' => {},
'SUNWhiimd' => {},
'SUNWmsglb' => {},
'SUNWmessaging-server-scha' => {},
'SUNWt1s' => {
    '3.11.4,REV=2006.11.16.21.41' => [
        'SUNWt1s',

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        '/',
        '3.11.10'
    ]
    },
    'SUNWj6dvx' => {
        '1.6.0,REV=2006.11.29.02.51' => [
'SUNWj6dvx',
        '/usr',
'1.6.0_13/1.6.0_13-b03'
        ]
    },
    'SUNWfuwc' => {},
    'SUNWlibc' => {
        '5.10,REV=2004.12.20' => [
'SUNWlibc',
        '/',
        '5.10'
        ]
    },
    'SUNWjiss-searchui' => {},
    'SUNWjiimin' => {},
    'SUNWcomms-mysql-marker' => {
        '1.0,REV=2009.09.09' => [
'SUNWcomms-mysql-marker',
        '/var/opt/CommsInstaller/Markers/MYSQL',
'1.0-0.01'
        ]
    },
    'SUNWscims' => {},
    'SUNWiimjd' => {},
    'SUNWciimd' => {},
    'SUNWldapcsdk-dev' => {
        '6.00,REV=2006.12.11.00.35' => [
'SUNWldapcsdk-dev',
        '/',
'6.00'
        ]
    },
    'SUNWiqlen' => {
        '4.3,REV=2008.11.07.19.30' => [
'SUNWiqlen',
        '/',
        '4.3.0.0'
        ]
    },
    'SUNWiimid-l10n' => {},
    'SUNWiqr' => {
        '4.3,REV=2008.11.07.19.29' => [
'SUNWiqr',

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        '/',
        '4.3.0.0'
    ]
    },
    'SUNWdiimc' => {},
    'SUNWmsgwm' => {},
    'SUNWmessaging-server-64' => {
        '7.0,REV=2008.06.20' => [
            'SUNWmessaging-server-64',
            '/opt/sun/comms/messaging64',
            '7.2-7.02'
        ]
    },
    'SUNWeiquc' => {},
    'SUNWj5cfg' => {
        '1.5.0,REV=2004.12.06.22.53' => [
            'SUNWj5cfg',
            '/usr',
            '1.5.0_19/1.5.0_19-b02'
        ]
    },
    'SUNWhiqu' => {},
    'SUNWjiss-search' => {},
    'SUNWiimd' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimd',
            '/',
            '8.0-00'
        ]
    },
    'SUNWfiimd' => {},
    'SUNWj5rtx' => {
        '1.5.0,REV=2005.03.04.02.15' => [
            'SUNWj5rtx',
            '/usr',
            '1.5.0_18/1.5.0_18-b02'
        ]
    },
    'SUNWiquc' => {
        '4.3,REV=2008.11.07.19.30' => [
            'SUNWiquc',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWiimid' => {},
    'SUNWmsgmt' => {},
    'SUNWljdk' => {
        '1.0,REV=2004.10.11.06.02' => [

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```

        'SUNWljdk',
        '/',
        '4.19'
    ]
    },
    'SUNWcuwc' => {},
    'SUNWldapcsdk-libs' => {
        '6.00,REV=2006.12.11.00.35' => [
'SUNWldapcsdk-libs',
        '/',
'6.00'
        ]
    },
    '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',
        '/',
        '3.11.10'
        ]
    },
    'SUNWmsgin' => {},
    'SUNWdtrc' => {
        '11.10.0,REV=2005.01.21.16.34' => [
'SUNWdtrc',
        '/',
'5.10/Generic'
        ]
    },
    'SUNWhuwc' => {},
    'mysql' => {
        '5.1.36' => [
        'mysql',
        '/opt/mysql',
        ''
        ]
    }
}

```

```

    },
    'SUNWiqdoc' => {
        '4.3,REV=2008.11.07.19.29' => [
            'SUNWiqdoc',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWjiimd' => {},
    'SUNWjuwc' => {},
    'SUNWiimd' => {},
    'SUNWsmcmd' => {
        '1.0,REV=2005.01.08.01.09' => [
            'SUNWsmcmd',
            '/',
            '5.10/SunOS
Development '
        ]
    },
    'SUNWiqcrt' => {
        '4.3,REV=2008.11.07.19.30' => [
            'SUNWiqcrt',
            '/opt',
            '4.3.0.0'
        ]
    },
    'SUNWmsgzh' => {},
    'SUNWprd' => {
        '4.6.4,REV=2006.11.16.21.41' => [
            'SUNWprd',
            '/',
            '4.7.1'
        ]
    },
    'SUNWdiimin' => {},
    'SUNWjiss-conf' => {},
    'SUNWcommda' => {},
    'SUNWjiss-store' => {},
    'SUNWmsgen' => {},
    '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-110n' => {},
'SUNWmsgst' => {},
'SUNWiqu' => {
    '4.3,REV=2008.11.07.19.29' => [
        'SUNWiqu',
        '/',
        '4.3.0.0'
    ]
},
'SUNWkiimc' => {},
'SUNWiim' => {},
'SUNWeiimin' => {},
'SUNWcimid' => {},
'SUNWiqcdrv' => {
    '4.3,REV=2008.11.07.19.30' => [
        'SUNWiqcdrv',
        '/opt',
        '4.3.0.0'
    ]
},
'SUNWldapcsdk-tools' => {
    '6.00,REV=2006.12.11.00.35' => [
'SUNWldapcsdk-tools',
'/opt/SUNWdsee',
'6.00'
    ]
},
'SUNWjss' => {
    '4.2.4,REV=2006.11.16.21.41' => [
        'SUNWjss',
        '/',
        '4.2.6'
    ]
},
'SUNWdiqu' => {},
'SUNWjiss' => {},
'SUNWj6cfg' => {
    '1.6.0,REV=2006.11.29.05.03' => [
'SUNWj6cfg',
        '/',
'1.6.0_13/1.6.0_13-b03'
    ]
},
'SUNWhimid' => {},
'SUNWciquc' => {},
'SUNWcomms' => {
    '6.2,REV=2009.04.16' => [
        'SUNWcomms',
'/opt/sun/comms/CommsInstaller',
'6.2-0.06'
    ]
}

```

```

]
    },
    'SUNWjiqu' => {},
    'SUNWkiqu' => {},
    'SUNWkuwc' => {},
    'SUNWics-110n' => {},
    'SUNWeiqu' => {},
    'SUNWdavserver' => {},
    'SUNWmessaging-server' => {},
    'SUNWeiimc' => {},
    'SUNWmsgtw' => {},
    'SUNWjaics' => {},
    'SUNWpkgcmdsu' => {
        '11.11,REV=2005.01.09.21.19' => [
'SUNWpkgcmdsu',
        '/',
        'SNAG
Development'
        ]
    },
    'SUNWjiimc' => {},
    'SUNWeimid' => {},
    'SUNWiqjx' => {
        '4.3,REV=2008.11.07.19.30' => [
        'SUNWiqjx',
        '/',
        '4.3.0.0'
        ]
    },
    'SUNWjhdoc' => {
        '2.0,REV=2006.10.04' => [
        'SUNWjhdoc',
        '/usr',
        '2.0/FCS'
        ]
    },
    'SUNWj6dev' => {
        '1.6.0,REV=2006.11.29.05.03' => [
'SUNWj6dev',
        '/usr',
'1.6.0_13/1.6.0_13-b03'
        ]
    },
    'SUNWmsges' => {},
    'SUNWpr' => {
        '4.6.4,REV=2006.11.16.21.41' => [
        'SUNWpr',
        '/',
        '4.7.1'
        ]
    },
    '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' => {},
'SUNWkiqc' => {},
'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 '
    ]
},
'SUNWtisu' => {
    '3.11.4,REV=2006.11.16.21.41' => [

```

```

        'SUNWt1su',
        '/',
        '3.11.10'
    ]
},
'SUNWfigu' => {},
'SUNWsas1' => {
    '2.17,REV=2003.07.18.13.13' => [
        'SUNWsas1',
        '/',
        '2.19'
    ]
},
'SUNWfiimc' => {},
'SUNWzoneu' => {
    '11.10.0,REV=2005.01.21.16.34' => [
'SUNWzoneu',
        '/',
'5.10/Generic'
    ]
},
'SUNWcsr' => {
    '11.10.0,REV=2005.01.21.16.34' => [
        'SUNWcsr',
        '/',
'5.10/Generic'
    ]
},
'SUNWesics' => {},
'SUNWiimm' => {}
};
!!! installedprod
$VAR1 = {
    'SASL' => {
        '2.19' => [
            '/',
            '2.19',
            'none',
            '2.19'
        ]
    },
    'ST' => {
        '1.1.4' => [
            '/',
            '1.1.4.1',
            'none',
            '1.1.4'
        ]
    },
    'DSSETUP' => {
        '6.4' => [
            '/opt/sun/comms/dssetup',
            '6.4-4.04',

```

```

                '20090402',
                '6.4'
            ]
        },
        'LDAPJDK' => {
            '4.19' => [
                '/',
                '4.19',
                'none',
                '4.19'
            ]
        },
        'MYSQL_MARKER' => {
            '1.0' => [
'/var/opt/CommsInstaller/Markers/MYSQL',
                '1.0-0.01',
                'none',
                '1.0'
            ]
        },
        'BZIP' => {
            '11.10' => [
                '/',
                '5.10/SunOS Development',
                'none',
                '11.10'
            ]
        },
        'ICU' => {
            'ICU2,ICU3' => [
                '/usr',
                '10/Generic',
                'none',
                'ICU2,ICU3'
            ]
        },
        'MS64' => {
            '7.3' => [
                '/opt/sun/comms/messaging64',
                '7.2-7.02',
                '20090416',
                '7u2'
            ]
        },
        'LIBCPLUSPLUS' => {
            '5.9' => [
                '/',
                '5.10',
                'none',
                '5.9'
            ]
        },
        'LDAPCSK6' => {
            '6.0' => [
                '/',

```

```

        '6.00',
        'none',
        '6.0'
    ]
},
'SNMP' => {
    'Unknown' => [
        '/',
        '5.10/SunOS Development',
        'none',
        'Unknown'
    ]
},
'JDK' => {
    '1.6.0' => [
        '/usr',
        '1.6.0_13/1.6.0_13-b03',
        'none',
        '1.6.0'
    ]
},
'MYSQL' => {
    '5.1.36' => [
        '/opt/mysql',
        'none',
        'none',
        '5.1.36'
    ]
},
'PATCHUTILS' => {
    'Unknown' => [
        '/',
        'SNAG Development',
        'none',
        'Unknown'
    ]
},
'MQ' => {
    '4.3' => [
        '/',
        '4.3.0.0',
        'none',
        '4.3'
    ]
},
'JHRT' => {
    '2.0' => [
        '/usr',
        '2.0/FCS',
        'none',
        '2.0'
    ]
},
'IMAPI' => {
    '8.0' => [
        '/',

```

```

            '8.0-00',
            'none',
            '8'
        ]
    },
    'CI' => {
        '6.2,REV=2009.04.16' => [
'/opt/sun/comms/CommsInstaller',
            '6.2-0.06',
            '20090416',
            '6u2'
        ]
    },
    'LDAPCSDK6_TOOLS' => {
        '6.0' => [
            '/opt/SUNWdsee',
            '6.00',
            'none',
            '6.0'
        ]
    },
    'NSS' => {
        '4.3' => [
            '/',
            '4.2.6',
            'none',
            '4.3'
        ]
    }
};

===== End QQQ detectProducts =====
-- Checking for RECOMMENDED patch 119255-67
patch 119255-67: NOT_PRESENT
-- Checking for RECOMMENDED patch 118855-36
patch is PRESENT
-- Checking for RECOMMENDED patch 120012-14
patch is PRESENT
-- Checking for RECOMMENDED patch 120273-26
patch 120273-26: NOT_PRESENT
-- Checking for RECOMMENDED patch 137138-09
patch is PRESENT
-- Checking for RECOMMENDED patch 141415-09
patch 141415-09: NOT_PRESENT
NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
        has not been applied. Specifically the following
        patches are missing:
        119255-67 120273-26 141415-09
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 7.3: 1
      This version is upgradable to distro version (7.3-11.01)

```

```
INFO: isUpgradable DSSETUP 6.4: 1
      This version is upgradable to distro version (6.4-5.05)
```

```
===== QQQ =====
```

```
QQQ Dumper
```

```
!!! isUpgradable
```

```
$VAR1 = {
  'MS64' => {
    '7.3' => {
      'status' => '1'
    }
  },
  'DSSETUP' => {
    '6.4' => {
      'status' => '1'
    }
  }
};
```

```
!!! usePkgUpgradeFlag
```

```
$VAR1 = {
  'MS64' => {
    '7.3' => 0
  },
  'DSSETUP' => {
    '6.4' => 0
  }
};
```

```
Product Selection:
```

```
Communication Services Products:
```

Item	Description
1	Messaging Server (64bit) 7u3 (7.3-11.01) Installed Version 7u2 (7.2-7.02) at /opt/sun/comms/messaging64
2	Comms DSsetup 6.4 (6.4-5.05) Installed Version 6.4 (6.4-4.04) 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 7.3 DSSETUP 6.4
```

```
INFO: sc_dependencies - PATCHUTILS BZIP SNMP LIBCPLUSPLUS NSS ICU SASL
```

```
LDAPCSDK6 LDAPCSDK6_TOOLS ST JDK JHRT MQ CI
```

```
Checking for Shared Component Upgrade Requirements...
```

```
CommsInstaller has a different pkg version installed
```

```
Description: The CommsInstaller installed as a package so it can be  
patched
```

```
Current pkg Version (SUNWcomms): 6.2,REV=2009.04.16
```

```
To be installed pkg version (SUNWcomms): 7.0,REV=2009.09.09
```

```
Product Version: 7
```

```
Note that changing pkg versions is irreversible
```

```

Do you wish to change pkg versions for CommsInstaller [n] : y
=====
WILL INSTALL: patch 119255-67 for PATCHUTILS
Task: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/PATCHUTILS/Patches/119255
WILL INSTALL: patch 119964-16 for LIBCPLUSPLUS
Task: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LIBCPLUSPLUS/Patches/1199
WILL INSTALL: patch 125359-08 for NSS/NSPR/JSS
Task: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Patches/125359-08
WILL INSTALL: patch 119346-07 for Simple Authentication and Security
Layer
Task: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/SASL/Patches/119346-07
WILL INSTALL: patch 125138-17 for JDK
Task: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Patches/125138-17
WILL INSTALL: patch 125139-17 for JDK
Task: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Patches/125139-17
NOTICE: CommsInstaller will be upgraded...
Removing the old version is an irreversible process.
WILL REMOVE EXISTING: CommsInstaller 6u2 (6.2-0.06)
-- QQQ30 removeProductPkgs (product=CI pkg=SUNWcomms 6.2,REV=2009.04.16
i=0: realpkg=SUNWcomms base=/opt/sun/comms/CommsInstaller
Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms
WILL INSTALL: CommsInstaller 7 (7.0-0.02)
to /opt/sun/comms/CommsInstaller
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CI/Packages -r
/tmp/.response_CI_20091013155840 SUNWcomms
NOTICE: Upgrading Messaging Server (64bit) 7u2 (7.2-7.02)
to 7u3 (7.3-11.01 at /opt/sun/comms/messaging64)
Upgrade will be done by applying a patch
WILL INSTALL: patch 137205-11 for Messaging Server (64bit)
Task: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/Patches/137205-11
NOTICE: Upgrading Comms DSsetup 6.4 (6.4-4.04)
to 6.4 (6.4-5.05 at /opt/sun/comms/dssetup)
Upgrade will be done by applying a patch
WILL INSTALL: patch 118246-21 for Comms DSsetup
Task: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/Patches/118246-21
to upgrade

Do you want to continue ? [yes] :

=====
Installing patch 119255-67 for PATCHUTILS...
----- Executing Task 1 of 12 ...
patchadd

```

```

/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/PATCHUTILS/Patches/119255
2>&l
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:

119255-67

Checking installed patches...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
/var/sadm/pkg

Patch 119255-67 has been successfully installed.
See /var/sadm/patch/119255-67/log for details
Executing postpatch script...

Patch packages installed:
  SUNWinstall-patch-utils-root
  SUNWpkgcmds
  SUNWswmt

-- Exit status: 0

=====
Installing patch 119964-16 for LIBCPLUSPLUS...
----- Executing Task 2 of 12 ...
patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LIBCPLUSPLUS/Patches/1199
2>&l
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:

119964-16

Checking installed patches...  
Verifying sufficient filesystem capacity (dry run method)...  
Installing patch packages...  
/var/sadm/pkg

Patch 119964-16 has been successfully installed.  
See /var/sadm/patch/119964-16/log for details

Patch packages installed:  
SUNWlibc

-- Exit status: 0

=====  
Installing patch 125359-08 for NSS/NSPR/JSS...  
----- Executing Task 3 of 12 ...  
patchadd  
/h/megan/wspace/dl111122/releases/ci70/SunOS\_i386/NSS/Patches/125359-08  
2>&l  
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:

125359-08

Checking installed patches...  
Verifying sufficient filesystem capacity (dry run method)...  
Installing patch packages...  
/var/sadm/pkg

Patch 125359-08 has been successfully installed.  
See /var/sadm/patch/125359-08/log for details

Patch packages installed:

```

SUNWjss
SUNWpr
SUNWprd
SUNWtls
SUNWtlsd
SUNWtlsu

-- Exit status: 0

=====
Installing patch 119346-07 for Simple Authentication and Security
Layer...
----- Executing Task 4 of 12 ...
patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/SASL/Patches/119346-07
2>&l
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:

119346-07

Checking installed patches...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
/var/sadm/pkg

Patch 119346-07 has been successfully installed.
See /var/sadm/patch/119346-07/log for details

Patch packages installed:
  SUNWsas1

-- Exit status: 0

=====
Installing patch 125138-17 for JDK...
----- Executing Task 5 of 12 ...
patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Patches/125138-17
2>&l
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 SUNWj6jmp from directory SUNWj6jmp in patch 125138-17 is not
installed on the system. Changes for package SUNWj6jmp will not be
applied to the system.
Package SUNWj6dmo from directory SUNWj6dmo in patch 125138-17 is not
installed on the system. Changes for package SUNWj6dmo will not be
applied to the system.
Package SUNWj6man from directory SUNWj6man in patch 125138-17 is not
installed on the system. Changes for package SUNWj6man will not be
applied to the system.

Checking patches that you specified for installation.

Done!

Approved patches will be installed in this order:

125138-17

Checking installed patches...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
/var/sadm/pkg

Patch 125138-17 has been successfully installed.
See /var/sadm/patch/125138-17/log for details

Patch packages installed:
  SUNWj6cfg
  SUNWj6dev
  SUNWj6rt

-- Exit status: 0

=====
Installing patch 125139-17 for JDK...
----- Executing Task 6 of 12 ...
patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Patches/125139-17
2>&l
Validating patches...

Loading patches installed on the system...
```

```

Done!

Loading patches requested to install.

Done!

The following requested patches have packages not installed on the
system
Package SUNWj6dmx from directory SUNWj6dmx in patch 125139-17 is not
installed on the system. Changes for package SUNWj6dmx will not be
applied to the system.

Checking patches that you specified for installation.

Done!

Approved patches will be installed in this order:

125139-17

Checking installed patches...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
/var/sadm/pkg

Patch 125139-17 has been successfully installed.
See /var/sadm/patch/125139-17/log for details

Patch packages installed:
  SUNWj6dvx
  SUNWj6rtx

-- Exit status: 0

=====
Removing existing CommsInstaller 6u2 (6.2-0.06)...
----- Executing Task 7 of 12 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms 2>&1

Removal of <SUNWcomms> was successful.
-- Exit status: 0

=====
Installing CommsInstaller 7 (7.0-0.02)...
----- Executing Task 8 of 12 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CI/Packages -r
/tmp/.response_CI_20091013155840 SUNWcomms 2>&1
Copyright 2007-2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

```

```

Installation of <SUNWcomms> was successful.
-- Exit status: 0

=====
Upgrading Messaging Server (64bit) 7u2 (7.2-7.02 at
/opt/sun/comms/messaging64)...
----- Executing Task 9 of 12 ...
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/preupgrade
7.2-7.02 /opt/sun/comms/messaging64 0 "137205-11" 2>&1
-- Exit status: 0
-- /h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/preupgrade
7.2-7.02 /opt/sun/comms/messaging64 0 "137205-11"

=====
Installing patch 137205-11 for Messaging Server (64bit)...
----- Executing Task 10 of 12 ...
patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/Patches/137205-11
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:

137205-11

Checking installed patches...
Executing prepatch script...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
/var/sadm/pkg

Patch 137205-11 has been successfully installed.
See /var/sadm/patch/137205-11/log for details
Executing postpatch script...

Patch packages installed:
  SUNWmessaging-server-64

-- Exit status: 0
----- Executing Task 11 of 12 ...
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/postupgrade
7.2-7.02 /opt/sun/comms/messaging64 0 "137205-11" 2>&1

```

```

-- Exit status: 0
-- /h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/postupgrade
7.2-7.02 /opt/sun/comms/messaging64 0 "137205-11"
=====
Done Upgrading Messaging Server (64bit) to 7u3 (7.3-11.01 at
/opt/sun/comms/messaging64)

=====
Upgrading Comms DSsetup 6.4 (6.4-4.04 at /opt/sun/comms/dssetup)...

=====
Installing patch 118246-21 for Comms DSsetup...
----- Executing Task 12 of 12 ...
patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/Patches/118246-21
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:

118246-21

Checking installed patches...
Executing prepatch script...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
/var/sadm/pkg

Patch 118246-21 has been successfully installed.
See /var/sadm/patch/118246-21/log for details
Executing postpatch script...

Patch packages installed:
  SUNWcomds

-- Exit status: 0
=====
Done Upgrading Comms DSsetup to 6.4 (6.4-5.05 at /opt/sun/comms/dssetup)
=====
SUMMARY:

PASSED: Task 1: patchadd

```

```

/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/PATCHUTILS/Patches/119255
Task 2: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LIBCPLUSPLUS/Patches/1199
Task 3: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Patches/125359-08
PASSED: Task 4: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/SASL/Patches/119346-07
PASSED: Task 5: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Patches/125138-17
PASSED: Task 6: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Patches/125139-17
PASSED: Task 7: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms
PASSED: Task 8: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CI/Packages -r
/tmp/.response_CI_20091013155840 SUNWcomms
PASSED: Task 9: preupgrade
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/preupgrade
7.2-7.02 /opt/sun/comms/messaging64 0 "137205-11"
PASSED: Task 10: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/Patches/137205-11
PASSED: Task 11: postupgrade
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/postupgrade
7.2-7.02 /opt/sun/comms/messaging64 0 "137205-11"
PASSED: Task 12: patchadd
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/Patches/118246-21
tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx  1 root  other  15 Jun  5 17:00 /usr/java ->
jdk/jdk1.5.0_19

/usr/jdk:
total 14
lrwxrwxrwx  1 root  root  27 Oct  1 2007 entsys-j2se ->
/usr/jdk/instances/jdk1.5.0
drwxr-xr-x  4 root  bin  512 Jan  8 2009 instances
lrwxrwxrwx  1 root  other  7 Mar 27 2007 j2sdk1.4.2_11 ->
../j2se
lrwxrwxrwx  1 root  other  18 Jun  5 17:00 jdk1.5.0_19 ->
instances/jdk1.5.0
lrwxrwxrwx  1 root  other  18 Oct 13 16:04 jdk1.6.0_16 ->
instances/jdk1.6.0
lrwxrwxrwx  1 root  other  11 Oct 13 16:04 latest ->
jdk1.6.0_16
drwxr-xr-x  8 root  bin  512 Jun  3 20:10 packages
-- Exit status: 0
ls -l /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
lrwxrwxrwx  1 root  root  27 Oct  1 2007
/usr/jdk/entsys-j2se -> /usr/jdk/instances/jdk1.5.0
lrwxrwxrwx  1 root  other  11 Oct 13 16:04 /usr/jdk/latest ->
jdk1.6.0_16
-- Exit status: 0
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1

```

```

/usr/jdk/entsys-j2se:
total 34596
drwxr-xr-x   3 root    bin        1024 Jun  5 17:00 bin
-rw-r--r--   1 root    bin        2487 May  4 02:37 COPYRIGHT
drwxr-xr-x   9 root    bin         512 Jun  5 16:58 demo
drwxr-xr-x   3 root    bin         512 Jun  5 16:58 include
drwxr-xr-x   6 root    bin         512 Jun  5 17:00 jre
drwxr-xr-x   2 root    bin         512 Jun  5 16:58 lib
-rw-r--r--   1 root    bin       18272 May  4 02:37 LICENSE
drwxr-xr-x   6 root    bin         512 Oct  1  2007 man
-rw-r--r--   1 root    bin       20415 May  4 02:37 README.html
drwxr-xr-x   4 root    bin         512 Oct  1  2007 sample
-rw-r--r--   1 root    bin     17570604 May  4 02:35 src.zip
-rw-r--r--   1 root    bin        67235 May  4 02:37
THIRDPARTYLICENSEREADME.txt

/usr/jdk/latest:
total 37964
drwxr-xr-x   3 root    bin        1024 Oct 13 16:04 bin
-rw-r--r--   1 root    bin        3767 Jul 31 06:41 COPYRIGHT
drwxr-xr-x   3 root    bin         512 Oct 13 16:00 include
drwxr-xr-x   6 root    bin         512 Oct 13 16:04 jre
drwxr-xr-x   3 root    bin         512 Oct 13 16:00 lib
-rw-r--r--   1 root    bin       17179 Jul 31 06:41 LICENSE
-rw-r--r--   1 root    bin       28329 Jul 31 06:41 README.html
-rw-r--r--   1 root    bin       25390 Jul 31 06:41 README_ja.html
-rw-r--r--   1 root    bin       20768 Jul 31 06:41 README_zh_CN.html
-r--r--r--   1 root    other       5795 Oct 13 16:07 register.html
-r--r--r--   1 root    other       6227 Oct 13 16:07 register_ja.html
-r--r--r--   1 root    other       5405 Oct 13 16:07
register_zh_CN.html
-rw-r--r--   1 root    bin     19029119 Jul 31 06:40 src.zip
-rw-r--r--   1 root    bin       249556 Jul 31 06:41
THIRDPARTYLICENSEREADME.txt
-- Exit status: 0
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=====
-- unlink /tmp/.response_CI_20091013155840
-- unlink /tmp/.patchout_20091013155840.19834
mkdir -p /var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013155840
-- Closing the log at Tue Oct 13 16:09:03 2009
(143 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20091013160925.log
=====
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
           has not been applied. Specifically the following
           patches are missing:

```

120273-26 141415-09

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) 7u3

Version: 7.3-11.01

Basedir: /opt/sun/comms/messaging64

Build Date: 20090901

Product: Comms DSsetup 6.4

Version: 6.4-5.05

Basedir: /opt/sun/comms/dssetup

Build Date: 20090808

```
(144 root) /opt/sun/comms/messaging64/bin/imsimta version
Sun Java(tm) System Messaging Server 7.3-11.01 64bit (built Sep 1 2009)
libimta.so 7.3-11.01 64bit (built 19:44:36, Sep 1 2009)
Unable to locate an MTA configuration file; check the SERVERROOT
environment variable
Unable to retrieve configuration file path information
```

## Upgrade Comments

- Only products that are upgradable are listed. E.g. if MS was already at the latest version, then it would not be displayed as a selection for upgrade.
- Different products may require additional steps after upgrade.
  - Dssetup in particular requires that you run the new version to update the DS. This isn't shown in the sample session.
  - For MS, there are no additional steps required unless you are in a cluster.
- Shared components will be upgraded as required. In this session the CI version is not up to date and is offered for upgrade.
- Note that upgrade will either do a pkgrm/pkgadd or a patchadd for the upgrade depending on what is installed. In the case of MS for this session, patchadd is done. If the original MS installation was 6.3, a pkgrm/pkgadd would have been done. For Dssetup, the new version is a patch, so patchadd is used. Note that you can backout a patch with patchrm, but there is no easy way to backout an upgrade that uses pkgrm/pkgadd. In either case, it is always advisable to have a backup of your system (e.g. using zfs snapshot)

# Connector for Microsoft Outlook 7.3 Update 1 Upgrade Guide

## Upgrading to Sun Java System Connector for Microsoft Outlook 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 7.3 Update 1.

This document includes the following sections:

- [Upgrading to Sun Java System Connector For Microsoft Outlook 7.3 Update 1](#)
- [Upgrading Shared Components](#)
- [Rolling Back to Previous Version](#)

### Upgrading to Connector for Microsoft Outlook 7.3 Update 1

This section explains how you can upgrade from Connector for Microsoft Outlook 7.1 and subsequent versions to Connector for Microsoft Outlook 7.3 Update 1.

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 7.3 Update 1 is a two step process.

#### Step1: Upgrading Sun Java System Connector for Microsoft Outlook Deployment Configuration Program

1. Double-click `setup.exe` from the Sun Java System Connector for Microsoft Outlook 7.3 Update 1 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 Sun Java System Connector for Microsoft Outlook Deployment Configuration Program.
3. Click Yes to confirm or No to exit.  
The wizard starts the installation.
4. Click OK.

#### Step2: Upgrading User Profiles



#### Note:

This step is not required if you are upgrading from Outlook Connector version 7.2 or later.

1. Invoke Sun Java System Connector for Microsoft Outlook 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 Sun Java System 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 Sun Java System Connector for Microsoft Outlook Setup Wizard is displayed.

6. Click Next to start upgrading the user profiles.
7. Click Exit to close the window.  
The user profiles are now upgraded.

## Upgrade Scenarios

- If you are using Communications Express address book server and Outlook Connector for Mail Filters and Out of Office Messages, then you may follow the upgrade procedure as mentioned in Step 2.
- If you are using Convergence's address book server and Communications Express for Mail Filters and Out of Office Messages, perform the following steps after creating the configuration file:
  1. Open the configuration (.ini) file that you created.
  2. Enter the value for Use\_UWC\_Url as 1.
  3. Enter the value for UWC\_Url key in the following format:

```
servername:portnumber/relativepath
```

For example, the value of the key may be:

```
UWC_Url=florizel.com:80/uwc
```

4. Invoke Outlook Connector Deployment Configuration Program.
5. Open the configuration (.ini) file that you modified and click File -> Save to create a new package.
6. Click Yes when prompted to overwrite the existing package.
7. Run the newly created package.

## Upgrading Shared Components

The following table lists the possible combinations of current versions of components that are either required or optional for Sun Java System Connector for Microsoft Outlook 7.3 Update 1.

### Communications Suite Component Requirements for Sun Java System Connector for Microsoft Outlook 7.3 Update 1

Product	Version	Communications Suite Release	Comment
Messaging Server	6.3	5	Required to provide mail service
Messaging Server	7.0, 7 Update 1	6	Required to provide mail service
Calendar Server	6.3, 6.3.1	5	Required to provide calendar service
Convergence	1.0, 1 Update 1	6	Optional (Recommended). Either Communications Express or Convergence can be used to provide address book service, mail filters and out of office message features
Communications Express	6.3	6	Optional
Directory Server	5.2	4	Required for GAL – corporate address book service
Directory Server	at least 6.0	5 (for 6.0 or higher) or 6 (6.3 or higher)	Required for GAL – corporate address book service



#### Note

Calendar Server customers who have deployed previous versions of Sun Java System Calendar Server need to engage with Sun Professional Services to enable their data to be converted and migrated to the new format. A Sun Professional Services offering is available. 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 Sun Java System Connector for Microsoft Outlook 7.3 Update 1.

For more information on upgrading the Communications Suite 6 Update 1 Components, see [Communications Suite 7 Upgrade Guide](#)

### Rolling Back to Previous Version

You cannot roll back to the previous version of Sun Java System 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.

For information about installing Sun Java System Connector for Microsoft Outlook 7.3 Update 1, see the [Connector For Outlook Installation Guide](#) .

# Delegated Administrator 7 Upgrade

## Upgrading to Delegated Administrator 7

This chapter explains how you can upgrade to Delegated Administrator version 7. If you are running Delegated Administrator 6.4, run the `commpkg upgrade` command to upgrade to Delegated Administrator version 7.

For upgrading from versions earlier than 6.4, you need to upgrade to 6.4. See [Sun Java Communications Suite 5 Upgrade Guide, Upgrading Delegated Administrator](#). Then upgrade from 6.4 to 7, using `commpkg upgrade`.

## 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 7](#) if you are upgrading from Delegated Administrator 6.4.

### Preserve an Existing Customized Configuration

This section concerns you only if you previously have installed and configured Delegated Administrator and have customized the Delegated Administrator configuration.

If you have a customized configuration and you rerun the Delegated Administrator configuration program, `config-commda`, the properties in the configuration files are reset to their default values. These files are listed below, in [Delegated Administrator Properties Files](#).

For information about how you can customize Delegated Administrator, see [Customizing Delegated Administrator](#) in the *Sun Java System Delegated Administrator Administration Guide*.

You should preserve your customized configuration before you run Delegated Administrator configuration (`config-commda`) for any reason, including:

- Upgrade Delegated Administrator
- Patch upgrade of Delegated Administrator
- Rerun the Delegated Administrator configuration program for any other reason.

### Delegated Administrator Properties Files

Delegated Administrator installs the following properties files:

- Delegated Administrator utility
  - `cli-usrprefs.properties`  
Location: `da-base/data/config`
- Delegated Administrator console
  - `daconfig.properties`
  - `logger.properties`
  - `Resources.properties`
  - `Security.properties`

For the default location of the Delegated Administrator console files, see [ Configuration

Files and Directories|CommSuite:Delegated Administrator Files and Directories] in the *Sun Java System Delegated Administrator Administration Guide*.

- Delegated Administrator server
    - `resource.properties`
    - `serverconfig.properties`
- Most of the configuration related properties are moved from `resource.properties` to the `serverconfig.properties` file.

For the default location of the `resource.properties` file, see [ Configuration Files and Directories|CommSuite:Delegated Administrator Files and Directories] in the *Sun Java System Delegated Administrator Administration Guide*.

#### To Preserve an Existing Customized Configuration

1. Back up the properties files you have customized.  
For a list of the properties files, see [Delegated Administrator Properties Files](#).
2. Run the `config-commda` program, as described in the following sections.  
The remaining steps use the `resource.properties` file as an example. Repeat these steps for each file you have customized.
3. Edit the new `resource.properties` file created by the `config-commda` program, as follows:
  - a. Open the new `resource.properties` file.
  - b. Open your back-up copy of the `resource.properties` file.
  - c. Locate the properties that were customized in the back-up copy. Apply the customized values to the corresponding properties in the new `resource.properties` file.  
Do not simply overwrite the new `resource.properties` file with the entire back-up copy. The new file may contain new properties created to support this release of Delegated Administrator.
4. Redeploy the edited `resource.properties` file to the Web container used by the Delegated Administrator server.

Before the change can take effect, you must run the script that deploys the customized `resource.properties` file to your Web container.

For instructions on how to deploy a customized properties file to a particular Web container, see [To Deploy a Customized Configuration File](#) in the *Sun Java System Administration Guide*.



If you have customized values in the `resource.properties` file from previous releases, ensure that the same customization is made in the new `serverconfig.properties` file.

## Upgrading Customized Service Packages in Delegated Administrator 6.4

### Upgrading Customized Service Packages in Delegated Administrator 6.4

This page concerns you only if you are 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](#)

#### 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.

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#### 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=mycompanysuffi
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 7

## Upgrading Customized Service Packages in Delegated Administrator 7

This page concerns you only if you are upgrading from Communications Services 6 2005Q4 Delegated Administrator, or an earlier release, to Delegated Administrator 7 (the current release), and you created custom service packages in the earlier 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](#)

### Sample Class-of-Service Templates

When you run the Delegated Administrator configuration program, the previously installed sample Class-of-Service templates installed by the Delegated Administrator configuration program are upgraded automatically. (In the configuration program, you should select **Load sample service packages** in the **Service Package and Organization Samples** panel.)

If you use only the sample templates to assign service packages to users and groups, no action is required.

### Customized Service Packages

The configuration program does not upgrade customized service packages created in the 6 2005Q4 release. You must upgrade your customized service packages manually.

For information on how customized service packages are created, see [CommSuite:Creating Your Own Service Packages](#).

### To Upgrade Customized Service Packages

Perform the following operations on the LDAP directory:

1. Copy your service package templates from this directory node:

```
o=cosTemplates,o=rootsuffix
```

to this directory node:

```
o=service_target,o=cosTemplates,o=rootsuffix
```

where *service\_target* is one of the following:

```
mailuser
calendaruser
mailcalendaruser
mailgroup
calendargroup
mailcalendargroup
```

For example, if a service package template is called `myservicepackage`, and it provides mail service to users, the service package template's new `dn` would be:

```
o=myservicepackage,o=mailuser,o=cosTemplates,o=rootsuffix
```

2. Remove the entries for your service package templates from the original directory node:

```
o=cosTemplates,o=rootsuffix
```

3. Edit each customized service package by adding the following line to the `ldif` file defining the service package:

```
daServiceType: service type target
```



**Note**

If your `ldif` file already contains the `daServiceType` attribute, you can skip this step.

The `daServiceType` attribute defines the type of service provided by the service package and the target for the service package.

The *service* can be `mail` or `calendar`.

The *target* can be `users` or `groups`.

For example:

```
daServiceType: mail user
```

The following example shows what the edited `ldif` file might look like:

```
dn: cn=myservicepackage,o=mailuser,o=cosTemplates,o=mycompanysuffix
changetype: modify
replace: daServiceType
daServiceType: mail user
```

**Note**

The following step assumes that you are familiar with using LDAP directory tools such as `ldapmodify`.

Use the LDAP directory tool `ldapmodify` to update the service package in the directory. For example, you could run the following command:

```
ldapmodify -D <directory manager> -w <password> -f myservicepackagemodldif
```

where

`<directory manager>` is the name of the Directory Server administrator.

`<password>` is the password of the Directory Service administrator.

`myservicepackagemodldif` is the name of the ldif file containing the modifications described in the preceding steps.

# Instant Messaging 8 Update 2 Upgrade

## Upgrading to Instant Messaging 8 Update 2

This section describes how to upgrade Instant Messaging 7.3 and later to version 8 Update 2.

- For information on how to upgrade from the 7.1 or earlier versions of Instant Messaging to Instant Messaging version 7.2, refer to [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, refer to [Upgrading to Instant Messaging 7.3](#).



### Note

You can upgrade to the Instant Messaging 8 Update 2 only by using the Communication Suite installer.

This section contains the following 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 7.3 configuration and data such as notifications, alerts, and conversations to version 8. 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 version 8.

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 communication installer to upgrade Instant Messaging.  
`./commpkg upgrade`
3. Select the components you wish to upgrade.
4. Restart the Instant Messaging server.  
`im_svr_base/sbin/imadmin start`
5. Redeploy the Instant Messaging server by typing  
`/opt/SUNWiim/sbin/iwadmin redeploy all` or  
`/opt/SUNWiim/html/redeploy`  
This step completes the upgrade process and redeploys all client-side components.
6. Optional. Invoke the `configure` utility.  
`./configure`  
Perform step 6 only if you want to configure the server-side components such as SMS, MSN, and AIM gateways.



### Note

When you configure the server, all previous configuration is overwritten.

The old configuration files are backed up in the `config` directory with the string `-pre8.2` suffixed to the

filename. For example, the old `iim.conf` is backed up as `iim.conf-pre8.2`. This file can be used to roll back to the previous working version in case of a upgrade failure.

## Rolling Back to the Legacy Instant Messaging Version

If the upgrade fails or if you need to go back to the previously working version of Instant Messaging, you can roll back to the upgrade process.

To roll back the upgrade process, perform the following steps:

1. Stop all services.
2. Remove the 8.0 Update 2 packages by using the `pkgrm` command.
3. Install the old version of Instant Messaging, for example, version 7.2 or 7.3, by using the Communication Suite installer for that version.



### Note

The pre-8.2 configuration files are backed up in the `config` directory with the string `-pre8.2` suffixed to the filename. For example, the old `iim.conf` is backed up as `iim.conf-pre8.2`.

4. Rename the old configuration files with their correct names. That is, rename `iim.conf-pre8.2` to `iim.conf`.
5. Restart the services.

# Messaging Server 7 Update 3 Upgrade

## Upgrading Messaging Server to Messaging Server 7 Update 3

This information describes the three Messaging Server upgrade strategies to upgrade individual hosts within a deployment. This document assumes that you have chosen a [target deployment](#), and have developed an architectural design and deployment plan for your target deployment.

This document focuses on upgrading single hosts and contains the following sections:

- [Overview](#)
- [Messaging Server Upgrade Strategies](#)
- [Using the Side-by-Side Strategy to Upgrade Messaging Server](#)
- [Using the In-Place Upgrade on Messaging Server](#)



### Note

If you are upgrading from Messaging Server 5.2, refer to [Coexistent Upgrades From iPlanet Messaging Server 5.2](#) for additional information. This article provides good general information for any upgrade.

## 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 3 requires `comm_dssetup.pl` 6.4p5 (6.4-5.05) at a minimum be applied to the Directory Server.
- Define your [upgrade target](#) and the required products and components for that target.
- Design and Plan Your Messaging Server Architecture and Topology. Refer to [Convergence Deployment Planning](#) and [Communications Suite 7 Installation Guide](#) for details on deploying Sun 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 Solaris OS. Thus, if you are upgrading from Messaging Server 32-bit, you must migrate to Messaging Server 64-bit by using either the coexistence or side-by-side upgrade strategies. In particular, [commpkg upgrade](#) does not support upgrading from Messaging Server 32-bit to Messaging Server 64-bit.

## Technical Features Supporting Messaging Server Upgrade

The following features support Messaging Server Upgrade:

- You migrate mailboxes by using the `imsbackup` and `imsrestore` commands. See [Migrating User Mailboxes to a New System](#). These commands support moving mailboxes from old message store versions to new ones (including when the message store database format changes, for example, from Messaging Server 32-bit to Messaging Server 64-bit). These commands also support moving mailboxes from new message store versions to old ones for back out purposes.
- [In-place Upgrade](#) supports changing the old mailbox format to the new format, but it does not support going from the new format back to the old. You **cannot** back out from new data format to old data format by using the In-place Upgrade Strategy. The conversion is done "on-the-fly" as mailboxes are accessed.
- Migrating the Messaging Server configuration from the old system to the new system is done by using the `migrate-config` utility.
- Alternate Root install is supported on solaris. See [Performing Multiple Installations with an Alternate Root](#) for more information.
- In-place server upgrade is by done using `commpkg upgrade`.

## Messaging Server Upgrade Strategies

Messaging Server supports the following three upgrade strategies for individual hosts. These strategies provide a balance between downtime, risk of extended downtime, complexity, and potential hardware costs.

- *In-place Upgrade*. The binaries of the old version are replaced with the binaries of the new version on the same host.
- *Side-by-side Upgrade on the same host*. The new software version is installed on the same host as the old version in a different directory. After you migrate the software configuration to the new version, you switch the deployment over to the new version.
- *Coexistent Upgrade*. You keep existing services online while you construct a new host on separate hardware.

The strategy chosen for any particular host might differ. For example, you might wish to use an in-place or side-by-side 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 3 32-bit (Red Hat Linux only)

From	Online/Coexistence	Side-by-Side Migration	In-place Upgrade via 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 (R6, R6u1, R6u2)	Yes	Yes	Yes

Table 2. Upgrading to Messaging Server 7 Update 3 64-bit (Solaris OS 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 (recommended for MTA relay, MMP, and webmail server)
7, 7u1, 7u2 (32bit)	Yes	Yes	No
7, 7u1, 7u2 (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 Solaris whole root zone on the existing hardware. After the new host/environment is established, you can migrate a small number of friendly users to the new system to verify operations and administrative procedures. For a certain period both systems are accessible to user traffic. This is called a coexistence phase. Messaging access is not disrupted and proceeds invisibly to users. When all users are migrated to the new environment, you can decommission your legacy deployment. This phased approach ensures that the new system is fully prepared to handle production users before making the full migration.



**Note**

Read [Coexistent Upgrades From iPlanet Messaging Server 5.2](#) for useful information on coexistent upgrades.

**Advantages and Disadvantages of Coexistence Migration:**

- Service downtimes are usually rare and short. There is less danger that they will be longer than the off-line windows imposed by service level agreements.
- Allows a gradual adoption of the new software so that you can gain confidence by trying it out with a small group of sympathetic users before migrating production users.
- The risk of upgrade failure is mitigated by the fact that your legacy system remains fully functioning throughout the upgrade process.
- Because the new system is built alongside a functional old one, you do not need to install or

modify anything on the working legacy machines. This is an advantage as there is always a natural reluctance to modify or reconfigure a working legacy system in significant ways.

- Coexistence is the safest upgrade model and has the least amount of user downtime.
- Simpler back off procedure. Anytime you upgrade software, you need to make provisions for backing off from the new system to the old system in case of failure. Other upgrade models might require that you back up and turn off the old system, install, configure, and migrate to the new system. Only when you switch on the new system do you know if the upgrade succeeded. If it turns out, that it did not, then you might have to use your back off plan to put everything back into place. A coexistence migration is much simpler as a working legacy system is already in place.
- You must move user data, i.e mailboxes, from one host to another, typically using `imsbackup/imsrestore`.
- Might require extra hardware to set up a parallel system. (This can be mitigated by upgrading legacy machines after they are no longer used.)

### Specific Steps for Upgrading Messaging Server Using the Coexistence Model

1. Make sure that your hardware is installed as per the deployment plan created from the [Convergence Deployment Planning and Communications Suite Deployment Planning Guide](#). See also the [Requirements for Communications Suite 7](#).
2. Install new version of Messaging Server in the proper sequence on new machine, by using the `commpkg install` command.
3. Configure Messaging Server.  
You must do so manually. Basically you must clone the legacy machine's configuration to this new machine.
4. If you are doing a coexistent migration on a message store, migrate user mailboxes (a few at a time) to the new machine. See [Migrating or Moving Mailboxes to a New System](#). Details on message store internals can be found in [Upgrading the Message Store](#).

### Using the Side-by-Side Strategy to Upgrade Messaging Server

In this model, you install the new software version on the same machine as the old version. After migrating the configuration to the new version, you can switch over to the new version. This upgrade strategy is new starting with Communications Suite 6. The basic steps are as follows:

1. Install Messaging Server 7 Update 3 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 3 by using the `migrate-config` utility.
4. Start Messaging Server 7 Update 3.

### 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/messaging7u3/`).
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/messaging7u3/sbin/migrate-config old-msg-svr-root`. (In the example below `old-msg-svr-root` is `/opt/SUNWmsgsr`)  
For example:

```
/opt/sun/comms/messaging7u3/sbin/migrate-config /opt/SUNWmsgsr
```

4. Run the following command:

```
/opt/sun/comms/messaging7u3/sbin/patch-config
```

5. Run the following command:

```
/opt/sun/comms/messaging7u3/sbin/install-newconfig
```

6. To back out the migration, run the following command:

```
/opt/sun/comms/messaging7u3/sbin/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/messaging7u3/sbin/start-msg`
- If you need to back out the migration, use the `-u` (undo) flag:  
`/opt/sun/comms/messaging64/sbin/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 Calendar Server 6.3 in an HA Environment

## Upgrading to Calendar Server 6.3 in an HA (High Availability) Environment

Upgrading Calendar Server in an HA environment consists of upgrading the Calendar Server software followed by the Calendar Server Sun Cluster Agent.

This document contains the following sections:

- [To Upgrade Calendar Server 6.3 in an HA Environment](#)
- [To Upgrade the Calendar Server Cluster Agent \( CS\\_SCHA\) If Cluster Nodes include Non-Global Zones](#)

### To Upgrade Calendar Server 6.3 in an HA Environment

The following instructions describe how to upgrade Calendar Server in an HA environment.



#### Note

To upgrade a Solaris x86 deployment, make sure that you are running at least Calendar Server 6.3 patch -20. See [Upgrading to Calendar Server 6.3 Patch 12165820 or Later on Solaris x86 Platforms](#) for more information.

1. Disable Calendar server resource.  

```
# scswitch -n -j cal-server-resource
```
2. Run `commpkg upgrade` on all nodes of the cluster.
3. Update with logical host names for following properties in the `ics.conf` file  

```
local.hostname = "logical-host-name"  
local.servername = "logical-host-name"
```
4. For each resource group non-online or non-active node
  - a. Mount the `config` directory by making the file system a global file system, or switch the resource group to non-online or non-active node.
  - b. Run `cconfigurator.sh -nodisplay -noconsole -novalidate`
5. Enable Calendar server resource:  

```
# scswitch -e -j cal-server-resource
```

### To Upgrade the Calendar Server Cluster Agent (CS\_SCHA) If Cluster Nodes include Non-Global Zones

Sun Cluster recently introduced support for Solaris 10 Zones. If a machine that has non-global zones participates in a cluster, all zones on that machine must be in the cluster. Thus the Sun Cluster software and HA agents should be installed in all zones. Thus it follows that CS\_SCHA should be installed in the global zone and automatically propagated into all non-global zones (i.e. don't use the `-G` switch to `pkgadd`). The `CommsInstaller` treats the HA agents like CS\_SCHA as a product that should be propagated to all non-global zones when it is installed in the global zone. In the rare case where you have managed to install the older CS\_SCHA agent in the non-global zones, then an upgrade consists of first uninstalling the older agent from all non-global zones, followed by installing the new agent in the global zone.

To verify that the older agent was installed in the global zone and automatically propagated to all non-global zones, check if `SUNWscics` is listed in `/var/sadm/install/gz-only-packages`. If `SUNWscics` is listed in `/var/sadm/install/gz-only-packages`, then simply run `commpkg`

upgrade in the global zone. If it isn't listed, then `SUNWscics` is either not installed, or installed so that it is propagated to non-global zones. If this is the case, then use the following procedure:

1. Run `commpkg uninstall` and uninstall the `CS_SCHA` in every non-global zone (don't uninstall it in the global zone)
2. In the global zone, run `commpkg upgrade` and `upgrade CS_SCHA`

# Upgrading Communications Suite in Silent Mode

## Upgrading Communications Suite in Silent Mode

If you run the Communications Suite installer to upgrade the products in Silent mode, you are running a non-interactive session. This is useful for upgrading multiple instances of the same software component/configuration without have to manually run an interactive upgrade on each instance. The upgrade inputs are taken from a silent upgrade file (also known as a state file), from command line arguments, or defaults.

To run a silent upgrade, follow these steps:

1. Run an interactive upgrade session. A state file similar to `/var/opt/CommsInstaller/logs/silent_CommsInstaller_20070501135358` is automatically created for every run of the upgrade. You can create a silent state file without actually upgrading the software during the interactive session by using the `--dry-run` option, then modifying the state file. For example:

```
# commpkg upgrade --acceptLicense --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 upgrade on each host. For example:

```
# commpkg upgrade --acceptLicense --silent <Input File>
```

where *Input File* is the path and name of the silent state file. For example:  
`/var/opt/CommsInstaller/logs/silent_CommsInstaller_20070501135358`.

For details about the `--silent` option, see the silent upgrade usage in [commpkg upgrade Usage](#).



### Note

Command-line arguments override the values and arguments in the state file.

### **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`.

The reason to disable upgrading shared components in the silent state file is this: the other hosts on which you are propagating the upgrade may have different shared components installed, or different versions of the shared components. These versions may be required for other applications running on the different hosts. Therefore, it is safer not to upgrade the shared components by default.

You can upgrade shared components when you run a silent upgrade by taking either of these 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: blank 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 <a href="#">commpkg usage</a> , however the <code>-dry-run</code> argument cannot be added to the <code>install</code> function in the state file.	<code>VERB=install</code>
ALTDISTROPATH	Indicates an alternate distro path if <code>-distro</code> is not specified.	<code>ALTDISTROPATH=SunOS5.10_i86pc_DBG.OBJ/release</code>
PKGOVERWRITE	Overwrites the existing installation packages.	<code>PKGOVERWRITE=YES</code>
INSTALLROOT	Specifies installation root.	<code>INSTALLROOT=/opt/sun/comms</code>
ALTROOT	Specifies an alternate root.	<code>ALTROOT=yes</code>
EXCLUDEEOS	Specifies to not upgrade operating system patches.	<code>EXCLUDEEOS=YES</code>
COMPONENTS	Lists the components you want to install.	<code>COMPONENTS=MS64</code> for 64-bit Messaging Server. <code>COMPONENTS=MS64_L10N</code> for localized 64-bit Messaging Server. <code>COMPONENTS=MS</code> for 32-bit Messaging Server. <code>COMPONENTS=MS_L10N</code> for localized 32-bit Messaging Server. <code>COMPONENTS=CS</code> for Calendar Server.
ACCEPTLICENSE	Indicates whether or not to accept license. This property must be specified either in the state file or as a command line argument.	<code>ACCEPTLICENSE=yes.</code>
UPGRADEESC	Indicates whether all shared components should or should not be upgraded without prompting.	<code>UPGRADEESC=no</code>

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.



## Upgrading to Convergence 1 Update 3

Communications Suite

Work in Progress

This information is currently being worked on and has not yet been reviewed for technical accuracy

## Upgrading Sun Convergence 1 Update 2 to Convergence 1 Update 3

This section describes how to upgrade Sun Convergence 1 Update 2 to Sun Convergence 1 Update 3. You can upgrade to Sun Convergence 1 Update 3 only by using the Communication Suite installer. To upgrade the Sun Convergence from Communications Suite Release 6 Update 2 to Release 7, you use the `commpkg upgrade` command.

The following table provides the Communications Suite installer file names for the various supported operating systems and platforms:

Operating System and Platform	Filename
Solaris SPARC	ci-6.2-0.02-SunOS_sparc.zip
Solaris x86	ci-6.2-0.02-SunOS_i386.zip
Linux	ci-6.2-0.02-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 1 Update 3, see [Convergence 1 Update 3: Product Version Compatibility Requirements](#).

## Upgrading Sun Convergence

Before you begin, ensure that the following software is running:

- Application 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 upgrade patch. The `commpkg upgrade` command invokes a `patchadd` command to upgrade Convergence to Convergence 1 Update 3.

To upgrade to Sun Convergence 1 Update 3, perform the following steps:

1. Log in to the machine in which you have installed Convergence.
2. Unzip the Communications Suite installer zip file.
3. Use the communication installer to upgrade Sun 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 will detect the installed components on the server and lists all the components that can be upgraded.

```
. . . . .
. . . . .
Item  Description
----  -
      1  Convergence lu3 (1.0-10.01)
          Installed Version 1 (1.0-0.44) at /opt/sun/comms/iwc

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]:
```

5. Select the number corresponding to Convergence and press Return.

The Communications Suite installer upgrades Convergence 1 Update 2 to Convergence 1 Update 3 by installing the required patches. After upgrading, you must restart the Application Server.

 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 1 Update 3.

## Upgrading to Instant Messaging 8 Update 2 in an HA Environment

### Upgrading to Instant Messaging Server 8 Update 2 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.

This document contains the following sections:

- [To Upgrade to Instant Messaging Server 8 Update 2 in an HA Environment](#)
- [To Upgrade to Instant Messaging Server 8 Update 2 Sun Cluster Agent \( `IM\_SCHA` \)](#)

#### To Upgrade to Instant Messaging Server 8 Update 2 in an HA Environment

1. Disable the Instant Messaging server resource.  
`# scswitch -n -j im-server-resource`
2. Invoke the `commpkg upgrade` command on all nodes of the cluster.
3. Enable the Instant Messaging server resource.  
`# scswitch -e -j im-server-resource`

#### To Upgrade to Instant Messaging Server 8 Update 2 Sun Cluster Agent (`IM_SCHA`)

Invoke the `commpkg upgrade` command on all nodes on the cluster. If cluster node is a non-global zone, invoke `commpkg upgrade` in global zone as well as in non-global zones.

# Upgrading to Messaging Server 7 Update 3 in an HA Environment

## Upgrading to Messaging Server 7 Update 3 in an HA (High Availability) Environment

### Reviewers

This page has only been renamed for Communications Suite 7. Content has not been reviewed.

Upgrading Messaging Server in an HA environment consists of upgrading the Messaging Server software followed by the Messaging Server Sun Cluster Agent.

This document contains the following sections:

- [Upgrading to Messaging Server 7 Update 3 in an HA Environment](#)
  - [To Do a Side-by-side Upgrade to Messaging Server 7 Update 3 in an HA Environment](#)
  - [To Do an In-place Upgrade to Messaging Server 7 Update 3 in an HA Environment](#)
- [Upgrading to the Messaging Server 7 Update 3 Sun Cluster Agent \( MS\\_SCHA\)](#)
  - [To Upgrade to the Messaging Server 7 Update 3 Sun Cluster Agent \( MS\\_SCHA\)](#)
  - [To Upgrade to the Messaging Server 7 Update 3 Sun Cluster Agent \( MS\\_SCHA\) If Cluster Nodes include Non-Global Zones](#)
  - [To Upgrade to the Messaging Server 7 Update 3 Sun Cluster Agent \( MS\\_SCHA\) in a Two-node Symmetric Sun Cluster HA Environment](#)

### Note

After configuring Messaging Server 7 Update 3 for HA or upgrading to Messaging Server 7 Update 3 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 3 in an HA Environment

Each upgrade strategy requires different procedures for upgrading in an HA environment. A coexistent environment would be like a new HA installation (see [Configuring Messaging Server for High Availability](#)). Side-by-side and In-place HA upgrades are described below.

### To Do a Side-by-side Upgrade to Messaging Server 7 Update 3 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 using the side-by-side strategy (see [discussion here](#)). This must be performed only on the Messaging Server resource group online node. Do not start Messaging Server yet.
  - c. Run `hp_ip_config` command on the Messaging Server resource group online node.  

```
# msg_svr_base/sbin/ha_ip_config
```

Note : This command is needed only if the current installed Messaging Server version is older than 7.0.
2. Switchover to other node:

- ```
# scswitch -z -g msg_svr_resource_group -h node-name
```
3. Run `useconfig` command. This is needed if Messaging Server upgrade is from 32-bit to 64-bit, to update library path `/bin/crle-64')`

```
# msg_svr_base/sbin/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 3 in an HA Environment

An in-place upgrade is done by using the `commpkg upgrade` command. This command is not available for upgrading from Messaging Server 32-bit to Messaging Server 64-bit. Side-by-side upgrade supports upgrading from Messaging Server 32-bit to Messaging Server 64-bit.

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
```

Note : This command is needed only if the current installed Messaging Server version is older than 7.0.
4. Enable Messaging Server resource:

```
# scswitch -e -j msg_svr_resource
```

### Upgrading to the Messaging Server 7 Update 3 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 Update 3 Sun Cluster Agent \( `MS\_SCHA` \)](#)
- [To Upgrade to the Messaging Server 7 Update 3 Sun Cluster Agent \( `MS\_SCHA` \) If Cluster Nodes include Non-Global Zones](#)
- [To Upgrade to the Messaging Server 7 Update 3 Sun Cluster Agent \( `MS\_SCHA` \) in a Two-node Symmetric Sun Cluster HA Environment](#)

#### To Upgrade to the Messaging Server 7 Update 3 Sun Cluster Agent (`MS_SCHA`)

1. Run `commpkg upgrade` on all nodes on the cluster. Messaging Server should be upgraded to 7 Update 3 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 Update 3 Sun Cluster Agent (`MS_SCHA`) If Cluster Nodes include Non-Global Zones

Sun Cluster recently introduced support for Solaris 10 Zones. If a machine that has non-global zones participates in a cluster, all zones on that machine must be in the cluster. 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 older 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 Update 3 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 Update 3 Sun Cluster Agent (MS\_SCHA) in a Two-node Symmetric Sun Cluster HA Environment**

1. Upgrade Messaging Server to Version 7 Update 3 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 Update 3 Sun Cluster Agent \(MS\\_SCHA\)](#).



#### **Note**

If user prefers to upgrade Sun Cluster Agent (MS\_SCHA) for only one instance, then follow above steps and correct the resource type version using Sun Cluster commands.

# Chapter 6. Communications Suite 7 Installation Guide

## Sun Java Communications Suite 7 Installation Guide

This document contains the following sections:

- [Sun Java Communications Suite 7 Installation Overview](#)
- [High-Level Steps for Installing Communications Suite](#)
- [Uninstalling Communications Suite](#)
- [Getting Information About Which Products Are Installed](#)

See also:

- [Installing Connector for Microsoft Outlook](#)

## Sun Java Communications Suite 7 Installation Overview

This document describes how to install specific Communications Suite products on a specific machine (a machine can mean either a computer or a Solaris Zone). It is designed to be a low-level document describing the product installation tasks required for new deployments and upgrades. The following table shows the products that are available in the installer:

### Communications Suite 7 Products and Components

| Product                              | Version                     |
|--------------------------------------|-----------------------------|
| Messaging Server                     | 7 Update 3                  |
| Instant Messaging                    | 8 Update 2                  |
| Convergence                          | 1 Update 3                  |
| Calendar Server                      | 7                           |
| Delegated Administrator              | 7 (latest patch)            |
| Outlook Connector                    | 7.3 Update 1 (latest patch) |
| Calendar Server                      | 6.3 (latest patch)          |
| Indexing and Search Service          | 1                           |
| Comms Sync                           | 3.1 (latest patch)          |
| Comms Installer                      | 7                           |
| Messaging Server HA Agent (MS_SCHA)  | 7                           |
| Calendar Server HA Agent (CS_SCHA)   | 6.3                         |
| Instant Messaging HA Agent (IM_SCHA) | 7.3                         |
| comm_dssetup                         | 6.4 (latest patch 6.4p5)    |

The Communications Suite installer does *not* install Sun Java System Connector for Microsoft Outlook nor Sun Java System Communications Sync, although both products are included with the distribution.

- For installation instructions for Connector for Microsoft Outlook, see [Installing Connector for Microsoft Outlook](#).
- For installation instructions for Communications Sync, see [Sun Java System Communications Sync 3.0 Release Notes](#).

This document assumes you have already made your architectural and design decisions: for example, 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, see the following documents:

## Deployment Planning Help

If you do not have an existing architecture or design, refer to [Communications Suite Deployment Planning Guide](#).

## Communications Suite Upgrade Guide

To upgrade your current Communications Suite deployment, refer to [Communications Suite 7 Upgrade Guide](#).

## Evaluating Communications Suite

If you are looking for a document to help you install and evaluate the product, refer to:

- [Deployment Example: Sun Java Communications Suite 7 on a Single Host](#)
- [Deployment Example: Sun Java Communications Suite 7 on a Single Host \(Linux\)](#)

## Communications Suite Multi-Host Deployment

If you are planning a multi-host deployment, you can also take advantage of a tool developed by Sun deployment engineering: [EMRA](#), a multi-host install and configuration tool. You can also refer to [Deployment Example: Sun Java Communications Suite 6 on Multiple Hosts](#).

## Communications Suite Flowchart and Installation Scenarios

Use the [Communications Suite 7 Installation Flowchart](#) to guide you to specific installation scenarios. The flowchart can help in the following ways:

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

Use the [Communications Suite 7 Installation Scenarios](#) to select a product-based or component-based set of high-level instructions.

## High-Level Steps for Installing Communications Suite

The remaining information describes the high-level steps to install Communications Suite products. These steps give a general installation flow to install any or all of the Communications Suite products.

1. [Check That Your Platform and Operating System Support Communications Suite](#).
2. [Install the Sun Java System Software Required to Run Communications Suite](#).

3. Define and Set Up Additional Requirements for Individual Communications Suite Products.
4. Install Communications Suite 7 Products.
5. Prepare Directory Server for Communications Suite (run comm\_dssetup.pl).
6. Gather Information Needed to Configure Communications Suite Products.
7. Create Initial Configurations for the Individual Communications Suite Products.

## 1. Check That Your Platform and Operating System Support Communications Suite.

Recommended platforms for Sun Java Communications Suite 7 are:

| Operating System                  | CPU        | Comments                                                                                                                                                                                |
|-----------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solaris OS 10                     | SPARC, x64 | Minimum recommended version: Solaris OS 10 5/08 (Update 5)<br>See <a href="http://docs.sun.com/app/docs/coll/1236.8">http://docs.sun.com/app/docs/coll/1236.8</a> for more information. |
| Red Hat Linux 5.3 Update 3 64-bit | x64        | See <a href="http://www.redhat.com/docs/manuals/enterprise/">http://www.redhat.com/docs/manuals/enterprise/</a> 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 details, refer to [Memory and Disk Space Requirements for Communications Suite 7](#).



### Note

The following products require that you have Java 1.6 installed: GlassFish Enterprise Server 2.1, Calendar Server 7, Indexing and Search Service 1, and Instant Messaging 8 Update 2.

## 2. Install the Sun Java System Software Required to Run Communications Suite.

The Communications Suite products require other Sun Java System software products to be installed before you install Communications Suite. The dependencies vary among the Communications products, but many have a common set.

### Which Products Do You Need?

- Sun Java System Directory Server Enterprise Edition 5.x or 6.x (6.3.1 is recommended for Communications Suite 7)
- Web container:
  - GlassFish Enterprise Server 2.1 (recommended, required for some Communications Suite 7 products)
  - Sun Java System Web Server 7.0 (supported)
  - Sun Java System Application Server 9.1 Update 2 (supported)  
Download the following version: Application Server 9.1 Update 2 with High Availability Database (HADB) - Zip/File Based. This version provides shared components needed by Application Server and Communications Suite. Note: You can configure this version of Application Server without using the HADB.
- Sun Java System Access Manager  
Access Manager (AM) is optional for Convergence to support AM authentication and/or AM SSO.

The following table shows the software required by each product.

## Software Requirements for Communications Suite 7 Products

| Communications Suite Product  | Directory Server | Web Container                                                                         | Access Manager                                                                           |
|-------------------------------|------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Convergence                   | Yes              | See <a href="#">Sun Java System Product Requirements for Convergence 1 Update 3</a> . | Optional. Required only if you want to use Access Manager for authentication and/or SSO. |
| Messaging Server              | Yes              | No                                                                                    | Optional                                                                                 |
| Calendar Server 7             | Yes              | GlassFish Enterprise Server 2.1                                                       | No                                                                                       |
| Calendar Server 6.3           | Yes              | No                                                                                    | Optional                                                                                 |
| Indexing and Search Service 1 | Yes              | GlassFish Enterprise Server 2.1                                                       | No                                                                                       |
| Instant Messaging             | Yes              | GlassFish Enterprise Server 2.1, Application Server 8.2 P2                            | Optional                                                                                 |
| Delegated Administrator       | Yes              | 1                                                                                     | Optional                                                                                 |

1 - Web Server 7.0 update 1, Application Server 8.2P2, or Application Server 9.1 Update 2 (recommended)

For more information about software product dependencies, see [Product Version Compatibility](#).

For products needed to deploy Convergence, see the [Product Version Compatibility Requirements for Convergence 1 Update 3](#).



### Note

Message Queue 4.3 is a shared component to 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 Security NSS and other shared components.



### Caution

If the Communications Suite installer lists Java Message Queue as a component to be upgraded, you need to redo any changes made to your `/etc/imq/imqbrokerd.conf` file after the upgrade.

## Where Do You Go to Install the Sun Java System Products?

The Communications Suite installer does *not* install these software products. To install these products for Communications Suite 7, perform the following steps:

1. **Download the software.**  
For links to download sites, go to [Get the Software](#).
2. **Install GlassFish Enterprise Server 2.1.**  
Download the GlassFish Enterprise Server 2.1 software zip file from the Communications Suite download site.

**Note**

If you are installing Application Server 9.1 Update 2, do not install the version of Application Server bundled with JES 5 Update 1. That is an older version of Application Server.

3. Follow the instructions in [Communications Suite 7 Installation Scenario - GlassFish Enterprise Server](#).
4. Install Directory Server 6.3.1.

**Note**

Download Directory Server Enterprise Edition 6.3.1 from the Communications Suite download site before you run the JES 5 Update 1 installer. Do not install the Directory Server software bundled with JES 5 Update 1. That is an older version of Directory Server.

If you already started with an older DSEE version, you can still upgrade to the recommended DSEE 6.3.1. You must apply an upgrade patch as well as other patches to upgrade to DSEE 6.3.1.

For example, if you obtained the native package format of DSEE on the Solaris 10 x86 or SPARC platform, you must start by installing the DSEE 6.2 version bundled with JES 5 Update 1, then upgrade to DSEE 6.3.1.

The simplest approach is to download and install the zip file version of DSEE 6.3.1 directly from the Communications Suite download site.

To install Directory Server, follow the instructions in [Communications Suite 7 Installation Scenario - Directory Server](#).

5. Install the following products by running the JES 5 Update 1 installer:

- Access Manager 7.1 (Delegated Administrator 7 no longer requires Access Manager. So, only install Access Manager if you are using it for single sign-on capabilities.)
- Web Server 7.0

To install Access Manager and Web Server, follow the instructions in the [Sun Java Enterprise System 5 Update 1 Installation Guide for UNIX](#).

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

- [Sun Java System Web Server 7.0 Update 1 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 Configuration Guide](#). You can also find installation instructions in this [Access Manager Deployment Example](#).

**Note**

If you are installing Access Manager 7.1 on a Linux system, you should verify that a compatible version of 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 might have specific requirements. For details about individual product requirements, see the [Communications Suite 7 Release Notes](#).

## Messaging Server

- You must ensure 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 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](#).

## Calendar Server 7

Install the Calendar Server 7 back-end database first. Then install the Calendar Server 7 front end.

## Calendar Server 6.3

### **As of Communications Suite 7, Calendar Server 6.3 has been deprecated.**

If you are not installing Sun Convergence, you should no longer be installing Calendar Server 6.3. Instead, install Calendar Server 7.

- Set up Calendar Server 6.3 administrator accounts and plan for Calendar Server hosted domains. For details, see [Calendar Server Pre-Installation Considerations](#).

## 4. Install Communications Suite 7 Products.

After the platform and software requirements have been met (as described previously), take 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. `commpkg` does all the necessary preparation work before installing the product software on the system. Run the following command:

```
./commpkg install
```

For step-by-step instructions, see [To Run the Communications Suite Installer](#).

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

- [commpkg install Usage](#)
- [Install in Silent Mode](#)
- [Perform Multiple Installations with Alt Root](#)
- [Install on Solaris Zones](#)
- [Communications Suite Installer: General Syntax and Verbs](#)

## Sample Sessions: Running `commpkg`

The following examples document the output of running `commpkg`:

- [Sample Session - Communications Suite 7 Simple Install and Uninstall](#).
- [Sample Session - Communications Suite 7 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 detailed instructions, see the following:

- [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 places an outdated version of `comm_dssetup.pl` on your system. You must use the current version of `comm_dssetup.pl` provided by the Communications Suite installer. However, the Comms 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`. If you install `comm_dssetup.pl` with the Comms Suite installer before you install Directory Server, you will have the up-to-date version. The Directory Server installation process does not overwrite the latest version.

## 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:

- [Convergence 1 Update 3 - Configuration Worksheet](#)
- [Messaging Server 7 Update 3 - Configuration Worksheet](#)
- [Calendar Server 7 - Configuration Worksheet](#)
- [Calendar Server 6.3 - Configuration Worksheet](#)
- [Instant Messaging 8 Update 2 - Configuration Worksheet](#)
- [Delegated Administrator 7 - Configuration Worksheet](#)
- [Indexing and Search Service 1 - Configuration Worksheet](#)

## 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 making specific configurations and customizations.

You will typically want to configure the back-end servers before configuring clients. Client configurations require certain server attributes to be defined.

### ***Delegated Administrator 7:***

Run the initial configuration program:

```
INSTALLROOT/da/sbin/config-commda
```

For detailed instructions, see [Delegated Administrator 7 Initial Configuration](#).

### ***Messaging Server 7 Update 3:***

Run the initial configuration program:

```
For 32-bit: INSTALLROOT/messaging/sbin/configure
```

For 64-bit: `INSTALLROOT/messaging64/sbin/configure`

For detailed instructions, see [Messaging Server 7 Update 3 Initial Configuration](#).

***Calendar Server 7:***

Run the initial configuration program:

`INSTALLROOT/sbin/init-config`

For detailed instructions, see [Calendar Server 7 Initial Configuration](#).

***Calendar Server 6.3:***

Run the initial configuration program:

For Solaris OS: `INSTALLROOT/calendar/SUNWics5/cal/sbin/csconfigurator.sh`

For Red hat Linux: `INSTALLROOT/calendar/calendar/sbin/csconfigurator.sh`

For detailed instructions, see [Calendar Server 6.3 Initial Configuration](#).

***Indexing and Search Service 1:***

Run the initial configuration program:

`INSTALLROOT/bin/setup.sh`

For detailed instructions, see [Indexing and Search Service 1 Initial Configuration](#).

***Instant Messaging 8 Update 2:***

Run the initial configuration program:

`INSTALLROOT/im/sbin/configure`

For detailed instructions, see [Instant Messaging 8 Update 2 Initial Configuration](#).

***Convergence 1 Update 3:***

Run the initial configuration program:

`INSTALLROOT/iwc/sbin/init-config`

For detailed instructions, see [Convergence 1 Update 3 Initial Configuration](#).

***Messaging Server Sun Cluster HA Agent 7.0:***

Run the initial configuration program:

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

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

For more information about configuring the Messaging Server Sun Cluster HA agent, see [Configuring Messaging Server for High Availability](#).

### **Calendar Server Sun Cluster HA Agent:**

Run the initial configuration program:

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

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

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

### **Instant Messaging Sun Cluster HA Agent:**

Run the initial configuration program:

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

This command registers the 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 Instant Messaging Sun Cluster HA agent, see [Configuring Instant Messaging for High Availability](#).

## **Uninstalling Communications Suite**

To uninstall the Communications Suite products installed on the local machine, run the following command:

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

For detailed instructions, see the following:

- [commpkg uninstall Usage](#)
- [Uninstall in Silent Mode](#)
- [Communications Suite Installer: General Syntax and Verbs](#)

## **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
```

This command prints product information installed in the *INSTALLROOTS*. To print information about one product, run this command:

```
./commpkg info --verbose installroot|product name
```

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

- [commpkg info Usage](#)
- [Communications Suite Installer: General Syntax and Verbs](#)

To determine which version of Application Server you have installed, see [Verify Application Server Version](#).



# Calendar Server 6.3 Pre-Installation Planning

## Calendar Server 6.3 Pre-Installation Planning

This information describes considerations you need to think about before installing Calendar Server 6.3.

Topics:

- [Planning for Calendar Server Administrators](#)
- [Planning for Calendar Server Hosted Domains](#)

### Planning for Calendar Server Administrators

Administrators for Calendar Server include:

- [Calendar Server Administrator \(calmaster\)](#)
- [Calendar Server User and Group](#)
- [Superuser \(root\)](#)

#### Calendar Server Administrator (calmaster)

The Calendar Server administrator is a specific user name with its associated password that can manage Calendar Server. For example, a Calendar Server administrator can start and stop Calendar Server services, add and delete users, create and delete calendars, and so on. This user has administrator privileges for Calendar Server but not necessarily for the directory server.

The default user ID for the Calendar Server administrator is `calmaster`, but you can specify a different user during Calendar Server configuration, if you prefer. After installation you can also specify a different user in the `service.admin.calmaster.userid` parameter in the `ics.conf` file.

The user ID you specify for the Calendar Server administrator must be a valid user account in your directory server. If the Calendar Server administrator user account does not exist in the directory server during configuration, the configuration program can create it for you.

See the [Sun Java System Calendar Server 6.3 Administration Guide](#) for the complete list of Calendar Server administrator configuration parameters in the `ics.conf` file.

#### Calendar Server User and Group

On Solaris OS systems, these special accounts are the user ID and group ID under which Calendar Server runs. Use the default values, `icsuser` and `icsgroup`, which are automatically created by the configuration program, if they do not exist. If you prefer, however, you can specify values other than `icsuser` and `icsgroup` when you run the Calendar Server configuration program. These values are stored in the `local.serveruid` and `local.servergid` parameters, respectively, in the `ics.conf` file.

#### Superuser (root)

On machines running Solaris OS software, you must log in as or become `superuser (root)` to install Calendar Server. You can also run as `superuser` to manage Calendar Server using the command-line utilities. For some tasks, however, you should run as `icsuser` and `icsgroup` (or the values you have selected) rather than `superuser` to avoid access problems for Calendar Server files.

### Planning for Calendar Server Hosted Domains

Calendar Server supports hosted (or virtual) domains. In a hosted domain installation, each domain shares the same instance of Calendar Server, which enables multiple domains to exist on a single server. Each domain defines a name space within which all users, groups, and resources are unique. Each domain also has a set of attributes and preferences that you specifically set.

To configure hosted domains on a server, you should make these deployment choices:

- Use Schema 2 only.
- Install and configure Directory Server.
- Install and configure a web container: Application Server or Web Server.
- Install and configure Access Manager.
- Install and configure Delegated Administrator as part of the Communications Suite. Use the `compkg` installer to install Delegated Administrator, Calendar Server, and any other Communications Suite components you require.

For instructions on installing and configuring the components listed above, see the related articles in the [Installation Guide](#).

Next, take the following configuration steps:

- Run `comm_dssetup.pl` to prepare Directory Server for Communications Suite before you configure Delegated Administrator and other Communications Suite components.
- Configure Delegated Administrator.  
A default domain is created when you configure Delegated Administrator, but the domain entry must be modified to add Calendar (or Mail) services. For details, see [Delegated Administrator Initial Configuration](#).
- Create the domains for your site by using Delegated Administrator.
- Configure Calendar Server.  
When you configure Calendar Server, you specify a default domain and site calendar administrator (`calmaster`). For information about (`calmaster`), see [Calendar Server Administrator](#). For instructions on how to specify these items, see [Initial Runtime Configuration Program for Calendar Server](#).
- Set domain configuration parameters for Calendar Server.  
For a list of the configuration parameters and their values, see [Calendar Server Domain Configuration Parameters in Sun Java System Calendar Server 6.3 Administration Guide](#).
- Populate your domains with users and resources using Delegated Administrator.
- Start Calendar Server services.  
For instructions, see [Starting and Stopping Calendar Server 6.3 Processes in Sun Java System Calendar Server 6.3 Administration Guide](#).



**Note**

Perform your provisioning for Schema 2 with the Communications Services Delegated Administrator interface.

Schema 1 provisioning tools do not support hosted domains.

# commpkg - General Syntax and Commands

## Communications Suite Installer: General Syntax and Commands

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

### 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]   | Fix an invalid Sun Java Enterprise System (Java ES) <code>entsys</code> symlink, making the link point to the latest Java version upgraded by <code>commpkg</code> . The Java ES symlink is located in <code>/usr/jdk/entsys-j2se</code> . Choose <code>--fixEntsys y</code> to fix the Java ES symlink to the Java files.<br>If you do not specify this switch, <code>commpkg</code> prompts you if the symlink is invalid. However, in silent mode, the default is <i>not</i> to fix the symlink (the equivalent of using a value of <code>n</code> ). To fix the symlink in silent mode, enter <code>commpkg install --fixEntsys y --silent INPUTFILE</code> on the command-line. |

#### 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 verify Usage

### commpkg verify Usage

The `commpkg verify` command enables you to verify the package installation of the Communications Suite products and shared components. It is one of the commands available with the Communications Suite installer, `commpkg`.

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

- [Communications Suite Installer: General Syntax and Commands](#)



#### Tip

Verifying in the altroot: When verifying the package installation in an altroot, be aware that products do use the OS components installed in the default root. Some products may also use shared components in the default root. Thus it is recommended that you verify the package installation in the default root.

### Commpkg verify Command: Syntax

```
commpkg verify [options] [ALTRoot|name]
```

#### Using the ALTRoot / name Command-Line Argument

The [*ALTRoot* / *name*] specifies an *ALTRoot* or *name* from the software list. The *name* from the software list indicates the *ALTRoot* to use. It is an error if *name* does not exist in the software list. If no *ALTRoot* or *name* is specified then the default root is used.

If *ALTRoot* is specified and does not exist in the software list, and is a valid alternate root then it is added to the software list.

To specify the default root, do not specify an *ALTRoot*, or use "/" or "". The friendly name for the default *ALTRoot* is "".

### commpkg verify Command: Options

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

| <code>commpkg verify</code> options       | Description                               |
|-------------------------------------------|-------------------------------------------|
| <code>--help</code> or <code>-?</code>    | Prints help information                   |
| <code>--version</code> or <code>-V</code> | Prints version information                |
| <code>--excludeOS</code>                  | Do not verify operating system components |
| <code>--excludeSC</code>                  | Do not verify shared components           |

## commpkg info Usage

### commpkg info Usage

The `commpkg info` command obtains information about

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

You can also use the command to repair the software list by adding known `installroots` and deleting bogus `installroots` in the software list. It is one of the commands available with the Communications Suite installer, `commpkg`.

### Communications Suite Installer Verbs

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

- [Communications Suite Installer: 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:

| <b>commpkg<br/>install options</b> | <b>Description</b>                                                                                                                                                                                                                                           |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -? or --help                       | Displays Help                                                                                                                                                                                                                                                |
| -V or<br>--version                 | Displays Version of Communications Suite components                                                                                                                                                                                                          |
| --clean                            | Removes entries in the software list.<br>If <i>installroot</i>   <i>name</i> is specified, the option removes the entry from the software list<br>If no <i>installroot</i>   <i>name</i> 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 <code>comm_dssetup.pl</code> .              |

## commpkg install Usage

### Commpkg Install Usage

The `commpkg install` command enables you to install the Communications Suite products and shared components. It is one of the commands available with the Communications Suite installer, `commpkg`.

This command lays down the Communications Suite components' installation bits on your machine, but it does not configure these components. To configure the components after installation, see [Initial Configuration](#).

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

- [Communications Suite Installer: General Syntax and Commands](#)



#### 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 32-bit, at the Product Selection prompt, you would type ~1. You can type multiple selections, using a comma to separate your entries.

### Commpkg Install Command: Syntax

```
commpkg install [options] [installroot|name]
```

#### Using the *installroot|name* Command-Line Argument

If you specify *installroot|name* on the command line, it is equivalent to specifying the `--altroot` and `--installroot` options. That is, the command-line argument implies an `altroot` installation. For example, specifying

```
commpkg install /opt/sun/comms2
```

is equivalent to specifying

```
--altroot --installroot /opt/sun/comms2
```

For details about these options, see [Commpkg Install Command: Options](#).

Specifying an *installroot* of `/` is same as specifying the default root. It is the same as using neither the `--installroot` nor the `--altroot` option, or of not specifying the *installroot|name* command-line argument at all.

If you specify the `--installroot` option in addition to the *installroot|name* command-line argument, they must match.

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

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

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 will be added to the software list.

Specifying any *name* other than "" implies an `--altroot`. A value for *name* of "" is reserved for the default root. Therefore, "" cannot be used with `--altroot`.

## Commpkg Install Command: Options

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

| <code>commpkg install</code> options      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>--help</code> or <code>-?</code>    | Prints help information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <code>--version</code> or <code>-V</code> | Prints version information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <code>--excludeOS</code>                  | Do not apply operating system patches during product installation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <code>--excludeSC</code>                  | Do not install, upgrade, or patch any Shared Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <code>--acceptLicense</code>              | Accepts the license conditions in the <code>LICENSE.txt</code> file                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>--altroot [name]</code>             | <p>Specifies an alternate root directory during a multi-host installation. The <code>INSTALLROOT</code> (the top level installation directory for all products and shared components) will be the alternate root.</p> <p>If you specify a <i>name</i>, it will be a friendly name associated with the <code>altroot</code> that will be registered in the software list. The <i>name</i> option is supported on Solaris OS only (not on Red Hat Linux).</p> <p>You can use this option to install multiple instances of Communications Suite products on the same host or Solaris zone. You use this option to perform a side-by-side upgrade of Communications Suite products.</p> |
| <code>--distro path</code>                | <p>Specify the <i>path</i> to packages/patches for the products</p> <p>Default: Location of <code>commpkg</code> script</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <code>--installroot path</code>           | <p>Specify the <i>path</i> of <code>INSTALLROOT</code>, the top level installation directory for Communications Suite products and shared components.</p> <p>Default <code>INSTALLROOT</code> on Solaris and Linux: <code>opt/sun/comms</code></p> <p>The subdirectories for individual Communications Suite products are installed under the <code>INSTALLROOT</code>. For example, Messaging Server (32-bit) software is installed by default in <code>opt/sun/comms/messaging</code>.</p>                                                                                                                                                                                        |

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>--silent INPUTFILE</pre>                   | <p>Run silent installation, taking the inputs from the <i>INPUTFILE</i> and the command line arguments. The command line arguments override entries in the <i>INPUTFILE</i>. Installation proceeds without interactive prompts.</p> <p>Use <code>--dry-run</code> to test silent installation without actually installing the software.</p> <p>When running a silent installation, you must use the <code>--acceptLicense</code> option in the command line or set <code>ACCEPTLICENSE=YES</code> in the <i>INPUTFILE</i>.</p> <p>Specify <code>NONE</code> for <i>INPUTFILE</i> if you want to run in silent mode without using an input file. When you specify <code>NONE</code>, the installation uses default values.</p> <p>For more information about running a silent installation, see <a href="#">Installing Communications Suite in Silent Mode</a>.</p> |
| <pre>--dry-run or -n</pre>                      | <p>Does not install Communications Suite components. Performs checks.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <pre>--upgradeSC [y n]</pre>                    | <p>Indicate whether or not to upgrade shared components as required.</p> <p>Note: If this option is not specified, you will be prompted for each shared component that needs to be upgraded.</p> <p>Default: <code>n</code></p> <div style="background-color: #ffe6e6; padding: 10px; border: 1px solid #ffe6e6;"> <p> <b>Caution</b><br/>Upgrading shared components is irreversible. However, if you do not upgrade required shared components, products might not work as designed.</p> </div> <p>The <code>--excludeSC</code> flag has precedence over this flag.</p>                                                                                                                                                                           |
| <pre>--auditDistro</pre>                        | <p>Audit 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 <code>commpkg</code>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <pre>--pkgOverwrite</pre>                       | <p>Overwrite 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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <pre>--components &lt;comp1 comp2 ...&gt;</pre> | <p>A space delimited set of component products. Each product has mnemonic associated with it. Use <code>commpkg info --listPackages</code> 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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## commpkg uninstall Usage

### Commpkg Uninstall Usage

The `commpkg uninstall` command enables you to uninstall the Communications Suite products and shared components. It is one of the commands available with the Communications Suite installer, `commpkg`.

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

- [Communications Suite Installer: General Syntax and Commands](#)

### Uninstalling Communications Suite Components

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

This command uninstalls the same products that `commpkg install` installs. However, it does not remove OS patches installed by `commpkg install`. In addition, it does not remove Shared Components.



#### Note

A fast way to uninstall a Communications Suite component in an alternate root is to simply remove the entire alternate root.

### Commpkg Uninstall Command: Syntax

```
commpkg uninstall [options] [installroot|name]
```

If you specify `installroot/name` on the command line, it is equivalent to specifying the `--rootdir` option with either the specified `installroot` or the `installroot` corresponding to `name` in the software list. That is, the value must be consistent.

If you specify `name`, it must exist in the software list. Otherwise, an error is returned immediately. The `name` is looked up in the software list and is used for the `installroot`.

### Commpkg Uninstall Command: Options

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

| <b>commpkg<br/>uninstall<br/>options</b> | <b>Description</b>                                                                                                                                                                                                                                                                              |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --silent<br><i>INPUTFILE</i>             | <p>Runs the uninstaller silently, taking the inputs from the <i>INPUTFILE</i> and the command line arguments. The command line arguments override entries in the <i>INPUTFILE</i>. Uninstallation proceeds without interactive prompts.</p> <p>Use --dry-run to test silent uninstallation.</p> |
| --dry-run<br>or -n                       | <p>Does not uninstall the Communications Suite components. Performs checks. Silent uninstallation <i>INPUTFILE</i> is created in /tmp.</p>                                                                                                                                                      |
| --rootdir<br><i>path</i>                 | <p>This option is deprecated in favor of using the <i>installroot</i> or <i>name</i> command-line argument.</p> <p>This option specifies the <i>path</i> of <i>rootdir</i>, the alternate root used for multi-installation. Supported on Solaris only.</p>                                      |

# Communications Suite Directory Server Setup Script (comm\_dssetup.pl)

## Communications Suite Directory Server Setup Script ( comm\_dssetup.pl)

After you install the Communications Suite products and *before* you create initial configurations for these products, you must prepare Directory Server using the Communications Suite Directory Setup Script, (`comm_dssetup.pl`).

Topics:

- [Before You Run the `comm\_dssetup.pl` Script](#)
- [Running the `comm\_dssetup.pl` Script](#)
- [Manually Updating Schema Files](#)
- [Resolving Conflicting Calendar Server OID's in the LDAP Schema](#)
- [Sample Sessions](#)
- [DSsetup Patches by Release](#)

### Before You Run the `comm_dssetup.pl` Script

This section covers information you need to understand before running the `comm_dssetup.pl` script, and contains the following topics:

- [What the `comm\_dssetup.pl` Script Does](#)
- [Directory Server Considerations for the `comm\_dssetup.pl` Script](#)
- [Information You Need to Gather Before you Run the `comm\_dssetup.pl` Script](#)
- [About the `comm\_dssetup.pl` 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 proceeds through three steps, as follows:

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`](#).
2. Generates a shell script and LDIF file from your options choices that will be used to modify the LDAP directory.  
If you are not using a Sun product for your directory server, or have customized your Directory Server, stop the process here without running the shell script. For further information, see [Directory Server Considerations for the `comm\_dssetup.pl` Script](#).
3. Runs the shell script created from your options choices. Your directory is modified accordingly.

At the end of each step, the utility asks you if you want to continue. No changes are made to the LDAP directory until the third step.

### Directory Server Considerations for the `comm_dssetup.pl` Script

The following is a list of the considerations for your LDAP directory:

`comm_dssetup.pl` is configuration tool that for local LDAP instances servers. Thus,

- You must install the `comm_dssetup.pl` script on every machine on which a Directory Server resides.
  - You can use the Communications Suite installer to install just the `dssetup` package on each of the Directory Server hosts.
  - You can manually copy the `dssetup.zip` file and unzip it on the Directory Server host, for example:

```
scp -R /opt/sun/comms/dssetup/lib/dssetup.zip root@<directory
server host>:/tmp/dssetup/
```

- You must run the `comm_dssetup.pl` script on the same machine as your Directory Server. The tool runs locally for a specific instance (specified by path of directory server or path of instance).
- `comm_dssetup.pl` is installed into the "DirPrepTool-base", but can be run against any Directory Server instance on the local system. If you have multiple DIT's on one system, you can maintain/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 may apply:

- If you have indexed some attributes, you may 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

During the first step of the `comm_dssetup.pl` script, it requests 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 <code>comm_dssetup.pl</code> 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 <code>comm_dssetup.pl</code> 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)<br>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 <code>comm_dssetup.pl</code> script does attempt to heuristically determine the value.                      |
| Schema version? (pick one of the following)<br>1 - Schema 1<br>1.5 - Schema 2 Compatibility Mode<br>2 - Schema 2 Native Mode<br>For more information on how to choose a schema, see <a href="#">About the <code>comm_dssetup.pl</code> script Schema Choices</a> . If you have one version of the schema installed and want to upgrade to a higher level, refer to the <a href="#">Sun Java System Communications Services 6 2005Q4 Schema Migration Guide</a> before running this utility. | 1. However, if you run <code>comm_dssetup</code> 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 <code>comm_dssetup.pl</code> 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.                                                                                                                                                                                                                       | <code>o=internet</code> . However, if you run <code>comm_dssetup</code> again, it defaults to the value that you chose the previous time.                |

### 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 now longer required for Schema 2.



### Note

Do not use the Access Manager console to administer users. Use Delegated Administrator for administering Messaging and Calendar users.

## Attribute Indexes Created by the `comm_dssetup.pl` Script

Attribute indexes improve the performance of search algorithms. The tool offers to index attributes. If you choose to do so, it will add indexes for the all the Communications Suite products.

The following table lists all the attributes the `comm_dssetup.pl` script indexes, grouped by suffix category. It also lists the type of indexes created for each attribute. For more information about Directory Server indexing, see the [Directory Server documentation](#).

| Suffix     | Attributes Indexed                         | Type of Indexes Added |
|------------|--------------------------------------------|-----------------------|
| User/Group | mail                                       | pres, eq, approx, sub |
|            | mailAlternateAddress                       | pres, eq, approx, sub |
|            | mailEquivalentAddress                      | pres, eq, approx, sub |
|            | mailUserStatus                             | pres, eq              |
|            | member                                     | eq                    |
|            | ou                                         | pres                  |
|            | cosspecifier                               | pres                  |
|            | groupid                                    | pres, eq, sub         |
|            | icsCalendar                                | pres, eq, approx, sub |
|            | icsCalendarOwned                           | pres, eq, approx, sub |
|            | uniqueMember                               | eq                    |
|            | memberOf                                   | eq, sub               |
|            | cn                                         | eq                    |
|            | mgrpUniqueId                               | eq                    |
|            | inetCos                                    | eq                    |
|            | User/Group (for Access Manager - Schema 2) | inetDomainBaseDN      |

|                                                                           |                         |               |
|---------------------------------------------------------------------------|-------------------------|---------------|
|                                                                           | sunPreferredDomain      | pres, eq      |
|                                                                           | associatedDomain        | pres, eq      |
|                                                                           | o                       | pres, eq      |
|                                                                           | mailDomainStatus        | pres, eq      |
|                                                                           | sunOrganizationAlias    | pres, eq      |
| <b>DC Tree (for Schema 1)</b>                                             | inetDomainBaseDN        | pres, eq      |
|                                                                           | mailDomainStatus        | pres, eq      |
|                                                                           | inetCanonicalDomainName | pres, eq      |
| <b>Personal Address Book (PAB) (o=pab)<br/>Note: For old Address Book</b> | memberOfManagedGroup    | pres, eq      |
|                                                                           | memberOfPAB             | pres, eq      |
|                                                                           | memberOfPABGroup        | pres, eq      |
|                                                                           | un                      | eq            |
| <b>New PAB (o=PiServerDb)</b>                                             | displayname             | pres, eq, sub |
|                                                                           | MemberOfPiBook          | eq            |
|                                                                           | MemberofPiGroup         | eq            |
| <b>o=mlusers for future mailserv feature</b>                              | 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

1. On the server where Directory Server is installed, login 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?"<br>yes - Add new Directory Server indexes.<br>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 <i>DirectoryServerRoot</i>             | Directory Server root path. For example:<br>/var/opt/sun/directory                                                                                                                                                                                                               |
| -d <i>DirectoryInstance</i>               | Directory Server instance subdirectory. For example:<br>slapd-varrius                                                                                                                                                                                                            |
| -r <i>DCTreeSuffix</i>                    | DC tree root suffix. (for Schema 1 and Schema 2 compatibility modes only)<br>For example: o=internet                                                                                                                                                                             |
| -u <i>UserGroupSuffix</i>                 | User and group root suffix. For example: o=usergroup                                                                                                                                                                                                                             |
| -s yes   no                               | Answers the question: "Do you want to update the schema?"<br>yes - Update the schema.<br>no - Do not update schema.                                                                                                                                                              |
| -D <i>DirectoryManagerDN</i>              | 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.<br>For example: "cn=Directory Manager"                                                   |
| -j<br><i>DirectoryManagerPasswordFile</i> | File containing the Directory Manager DN password.                                                                                                                                                                                                                               |
| -b yes   no                               | Answers the question: "Will this directory server be used for users and groups?"<br>yes - Use this directory to store both configuration and user group data.<br>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?"<br>yes Modify the Directory Server without prompting the user.<br>no Do not modify the Directory Server without prompting the user.                                                                          |
| -S <i>PathtoSchemaFiles</i>               | Path to the directory where the schema files are located. For example: ./schema                                                                                                                                                                                                  |

## Manually Updating Schema Files

If for any reason, you have decided not to run the `comm_dssetup.pl` script generated script, the following directions allow you to manually update your schema files for Sun Java System Directory Server.



### Note

If you update your LDAP directory schema manually and then later upgrade Calendar Server, you must manually update the LDAP server schema again. Calendar Server cannot automatically update the schema after it has previously been updated manually.

#### To Update Your LDAP Directory Manually

1. Install Calendar Server 6.3.
2. Stop Calendar Server, if it is running.
3. Stop Directory Server, if it is running.
4. Copy the `60iplanet-calendar.ldif` file to the following directory on the machine where your Directory Server is running:  
`dir-svr-base/slapd-hostname/config/schema` where `dir-svr-base` is the Directory Server installation directory and `hostname` identifies the machine.
5. If you want to index attributes, as the configuration program does, do it at this point.  
For a list of the attributes the configuration program indexes, see [Attribute Indexes Created by the `comm\_dssetup.pl` Script](#).
6. Restart the Directory Server.

If you receive object identifier (OID) errors, see [Resolving Conflicting Calendar Server OID's in the LDAP Schema](#).

## Resolving Conflicting Calendar Server OID's in the LDAP Schema

If your LDAP schema contains conflicting OID's, the Directory Server does not know which OID to use and returns an error message. For example, the following message indicates a conflicting OID for the `icsCalendarUser` object class:

```
[24/Apr/2004:23:45:28 -0700] dse -
The entry cn=schema in file 99user.ldif is invalid,
error code 20 (Type or value exists) - object class icscalendaruser:
  The name does not match the OID.
  Another object class is already using the name or OID.
[24/Apr/2004:23:45:28 -0700] dse -
Please edit the file to correct the reported problems
and then restart the server.
```

This problem can occur when you install Calendar Server 6.3 and you also had an older Calendar Server release that dynamically updated your Directory Server `99user.ldif` file.

To resolve the conflicting OID's, perform the following two steps:

1. Edit the `99user.ldif` file and remove the older OID's. For Calendar Server 6.3, the following table lists the specific OID's that might cause problems.

| Object Class                     | Old OID                   | New OID                    |
|----------------------------------|---------------------------|----------------------------|
| <code>icsCalendarUser</code>     | 2.16.840.1.113730.3.2.141 | 1.3.6.1.4.1.42.2.27.9.2.44 |
| <code>icsCalendarResource</code> | 2.16.840.1.113730.3.2.143 | 1.3.6.1.4.1.42.2.27.9.2.45 |
| <code>icsCalendarDomain</code>   | 2.16.840.1.113730.3.2.144 | 1.3.6.1.4.1.42.2.27.9.2.4  |

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

## Sample Sessions

- [DSsetup Sample Session - Fresh Directory Server 6.3.1 Instance for Schema 1](#)
- [DSsetup Sample Session - Existing Directory Server 6.3.1 Instance for Schema 1](#)
- [DSsetup Sample Session - Fresh Directory Server 6.3.1 Instance for Schema 2](#)
- [DSsetup Sample Session - Existing Directory Server 6.3.1 Instance for Schema 2](#)

## **DSsetup Patches by Release**

- [DSsetup Patches By Release](#)

# DSsetup Sample Session - Existing Directory Server 6.3.1 Instance for Schema 1

## Table of Contents

- [Introduction](#)
- [Summary of Commands Run](#)
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## Introduction

This page contains a sample session using `comm_dssetup.pl` (6.4p5 aka 6.4-5.05) on a DS 6.3.1 instance where `comm_dssetup.pl` was previously run against it.

## Summary of Commands Run

```
212 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
213 ls /var/tmp/dssetup_20091019163601
214 ls /var/tmp/dssetup_20091019163601/save
215 cat /var/tmp/dssetup_20091019163601/99user_new.ldif
216 cat /var/tmp/dssetup_20091019163601/dssetup.ldif
217 cat /var/tmp/dssetup_20091019163601/dssetup.ldif.rej
218 cat /var/tmp/dssetup_20091019163601/dssetup.sh
219 cat /var/tmp/dssetup_20091019163601/dssetup.log
```

## Session

```
(212 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019163601/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:
```

```
[1] dsins1
[2] dsins2
```

Which instance do you want [1]: 2

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:

```
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389
```

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 6.3 on moe-vmware port 389

Warning: This version of comm\_dssetup.pl (6.4 5.05) has been run previously (6.4 5.05), you do not need to run it again unless you wish to specify different parameters to this program

Do you want to continue [y]:

Will this directory server be used for users/groups [yes]:

A list of suffixes are as follows:

```
o=mlusers
o=PiServerDb
o=pab
o=internet
o=usergroup
o=comms-config
```

Please enter the Users/Groups base suffix [o=usergroup] :

There are 3 possible schema types:

```
1 - schema 1 for systems with iMS 5.x data
1.5 - schema 2 compatibility for systems with iMS 5.x data
      that has been converted with commdirmig
2 - schema 2 native for systems using Access Manager
```

Please enter the Schema Type (1, 1.5, 2) [1]:

Please enter the DC Tree base suffix [o=internet]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

```
Server Root           : /var/opt/sun/directory
Server Instance       : dsins2
Users/Groups Directory : yes
Update Schema         : yes
```

```
Schema Type : 1
DC Root : o=internet
User/Group Root : o=usergroup
Add New Indexes : yes
ReIndex New Indexes Now : yes
Directory Manager DN : cn=Directory Manager
```

Now ready to generate a shell script and ldif file to modify the Directory.

No changes to the Directory Server will be made this time.

Do you want to continue [y]:

Generating files...

Checking to see if Suffixes need to be added

Checking to see that uid uniqueness plugins are turned off  
Plugin is already disabled

Adding indexes

```
Adding Indexes for User/group Tree (backend:usergroupdb2)
  Checking indexes for icsCalendar
    No new indexes required
  Checking indexes for mailAlternateAddress
    New indexes and Reindexing required
    ReIndex will happen for index type mailAlternateAddress
  Checking indexes for ou
    No new indexes required
  Checking indexes for cn
    No new indexes required
  Checking indexes for uniqueMember
    No new indexes required
  Checking indexes for cosspecifier
    No new indexes required
  Checking indexes for member
    No new indexes required
  Checking indexes for mailEquivalentAddress
    No new indexes required
  Checking indexes for mgrpUniqueId
    No new indexes required
  Checking indexes for inetCos
    No new indexes required
  Checking indexes for mailUserStatus
    No new indexes required
  Checking indexes for memberOf
    No new indexes required
  Checking indexes for icsCalendarOwned
    No new indexes required
  Checking indexes for mail
    New indexes and Reindexing required
    ReIndex will happen for index type mail
  Checking indexes for groupid
    No new indexes required
Adding Indexes for DC Tree (backend:internetdb2)
  Checking indexes for inetDomainBaseDN
    No new indexes required
```

```

Checking indexes for mailDomainStatus
  No new indexes required
Checking indexes for inetCanonicalDomainName
  No new indexes required
Adding Indexes for PAB Tree (backend:pabdb2)
Checking indexes for memberOfPAB
  No new indexes required
Checking indexes for memberOfManagedGroup
  No new indexes required
Checking indexes for un
  No new indexes required
Checking indexes for memberOfPABGroup
  No new indexes required
Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
Checking indexes for MemberOfPiBook
  No new indexes required
Checking indexes for MemberofPiGroup
  No new indexes required
Checking indexes for displayname
  No new indexes required
Adding Indexes for Mailing List Tree (backend:mlusersdb2)
Checking indexes for mlsubMail
  No new indexes required
Checking indexes for mlsubListIdentifier
  No new indexes required
Checking indexes for mail
  No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
  /var/tmp/dssetup_20091019163601/dssetup.sh
  /var/tmp/dssetup_20091019163601/dssetup.ldif

Running /var/tmp/dssetup_20091019163601/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20091019163601/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019163601/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif

```

```

-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3519
-- Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019163601/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailAlternateAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mail approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail

```

```

## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mail
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20091019163601/dssetup.log for details

(213 root) ls /var/tmp/dssetup_20091019163601
total 62
  5 99user_new.ldif      28 dssetup.log
  6 dssetup.ldif        16 dssetup.sh*
  2 dssetup.ldif.rej    5 save/
(214 root) ls /var/tmp/dssetup_20091019163601/save
total 931
153 00core.ldif          7 50ns-mcd-li.ldif
16 00ds6pwp.ldif       42 50ns-mcd-mail.ldif
  5 05rfc2247.ldif      3 50ns-media.ldif
  3 05rfc2927.ldif     17 50ns-mlm.ldif
16 11rfc2307.ldif     107 50ns-msg.ldif
10 20subscriber.ldif   7 50ns-netshare.ldif
  7 25java-object.ldif  5 50ns-news.ldif
19 28pilot.ldif        3 50ns-proxy.ldif
25 30ns-common.ldif    7 50ns-value.ldif
  7 50iplanet-servicemgt.ldif 8 50ns-wcal.ldif
14 50ns-admin.ldif     4 50ns-web.ldif
15 50ns-calendar.ldif 20 55ims-ical.ldif
  4 50ns-certificate.ldif 55 56ims-schema.ldif
24 50ns-compass.ldif  36 60iplanet-calendar.ldif
13 50ns-delegated-admin.ldif 14 65im.ldif
33 50ns-directory.ldif 17 70delgated-admin.ldif
67 50ns-iabs.ldif      8 70sun-schema2.ldif
  4 50ns-legacy.ldif   57 71sun-am.ldif
18 50ns-mail.ldif     10 98ns-dummy-uwc.ldif
35 50ns-mcd-browser.ldif 5 99user.ldif
11 50ns-mcd-config.ldif

(215 root) cat /var/tmp/dssetup_20091019163601/99user_new.ldif
dn: cn=schema
objectClass: top
objectClass: ldapSubentry
objectClass: subschema
cn: schema
aci: (target="ldap:///cn=schema")(targetattr !="aci")(version 3.0;acl
"anonymo
  us, no acis"; allow (read, search, compare) userdn = "ldap:///anyone";)
modifiersName: cn=directory manager
modifyTimestamp: 20091019233018Z
attributeTypes: ( sunExcludeServices-oid NAME 'sunExcludeServices' DESC
'servi
ces to be excluded specifically from the services available in the root
suff
ix ' EQUALITY caseIgnoreMatch SYNTAX 1.3.6.1.4.1.1466.115.121.1.26
X-ORIGIN
' user defined' )
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME 'sunkeyvalue' DESC

```

```

'Attribut
e to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.1
15.121.1.26 X-ORIGIN ( 'Sun ONE Identity Management' 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.107 NAME 'sunIMConference' DESC
'Conf
erence Object' SUP top AUXILIARY MAY ( sunIMConferenceAffiliations $
sunIMCo
nferenceConfiguration $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.108 NAME 'sunIMNews' DESC
'Pubsub Cha
nnel Object' SUP top AUXILIARY MAY ( sunIMNewsAffiliations $
sunIMNewsConfig
uration $ sunIMNewsMetaData $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.109 NAME 'sunIMStoredMessage'
DESC 'S
tored Message Object' SUP top AUXILIARY MAY ( sunIMMessageID $
sunIMMessageC
ontent ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.27 NAME 'sunservicecomponent'
DESC 'S
ub-components of the service' SUP top STRUCTURAL MUST ou MAY (
labeledUri $
sunserviceid $ sunsmspriority $ sunkeyvalue $ sunxmlkeyvalue $
description )
X-ORIGIN 'Sun Java System Identity Management' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Obje
ctclass for storing meta data for Sun Communication' SUP top STRUCTURAL
MUST
cn MAY sunkeyvalue X-ORIGIN 'user defined' )
nsSchemaCSN: 4adcf68a000000000000

(216 root) cat /var/tmp/dssetup_20091019163601/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
# cd /opt/SUNWdsee/dsee6/bin
# ./ldapmodify -p 389 -h moe-vmware -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20091019163601/dssetup.ldif

#-----
# This section creates the installer metadata
#-----

#####
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
#####
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

```

```

#####
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
#####
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

#####
# dn: cn=CommServers,o=comms-config
# Update the installer metadata for Comm Servers
#####
dn: cn=CommServers,o=comms-config
changetype: modify
replace: sunkeyvalue
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=5.05
sunkeyvalue: dcsuffix=o=internet
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=1

#####
# dn: cn=CommServers,o=comms-config
# aci for anonymous read access
#####
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(217 root) cat /var/tmp/dssetup_20091019163601/dssetup.ldif.rej
# Error: Type or value exists
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(218 root) cat /var/tmp/dssetup_20091019163601/dssetup.sh
#!/bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{

```

```

    echo "Usage: $0 -D <binddn> -j <passwdfile>"
    echo "  -D binddn          bind dn"
    echo "  -j <passwdfile>    read bind passwd from 'file' for simple
authentication"
    exit 1
}

if [ $# -lt 1 ]
then
    echo "You must specify either -j"
    usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
    case $c in
        D)
            Dflag=1
            BINDDN=$OPTARG;;
        j)
            jflag=1
            pflag=-j
            parg=$OPTARG;;
        \?)
            usage;;
    esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
    echo "You must specify the -D switch"
    usage
fi

if [ $jflag -eq 0 ]
then
    echo "You must specify -j"
    usage
fi

if [ $# -ge 1 ]
then
    echo "Unrecognized argument $*"
    usage
fi

set ` /usr/bin/id `
if [ $1 != "uid=0(root)" ]; then
    echo
    echo "To run this utility you need to be the system's root user. \n"
    echo
    exit 1
fi

```

```

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mail.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mlm.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-msg.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-value.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 55ims-ical.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 56ims-schema.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 65im.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70sun-schema2.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 71sun-am.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-iabs.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 98ns-dummy-uwcl.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwcl.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70delgated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema

echo -- Stopping Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm stop /var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
    echo "Stopping the Directory server failed"
    exit 1
fi
sleep 5

echo -- Starting Directory Server

```

```

/proj/opt/sun/directory/ds6/bin/dsadm start
/var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
    echo "The server may not have restarted properly"
    echo "Please restart it manually"
fi
sleep 5

echo -- Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-vmware -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20091019163601/dssetup.ldif.rej -f
/var/tmp/dssetup_20091019163601/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20091019163601/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
    echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
    echo "-- WARNING: ldapmodify returned $stat"
else
    echo "-- ERROR: ldapmodify returned $stat"
    exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20091019163601/dssetup.ldif
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "pres-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "approx-enabled:on"
echo

```

```

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "sub-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailAlternateAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailAlternateAddress" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mail" "approx-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "mail"
"o=usergroup"
echo
(219 root) cat /var/tmp/dssetup_20091019163601/dssetup.log

```

```

-----

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

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019163601/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]  dsins1
[2]  dsins2

Which instance do you want [1]: 2
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20091019163601/dssetup.pw" -p 389 -h moe-vmware -b
"cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Java(tm)-System-Directory/6.3
B2008.0311.0212
-- Detected DS versions:
    full: 6.3
    major: 6
    minor: 3
    micro: NONE
    patch: NONE

Detected DS version 6.3 on moe-vmware port 389
-- Stored Dssetup data ver=6.4 rev=5.05, dctree=o=internet
    ug=o=usergroup, schematype=1

```

Warning: This version of comm\_dssetup.pl (6.4 5.05) has been run previously (6.4 5.05), you do not need to run it again unless you wish to specify different parameters to this program  
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]: A list of suffixes are as follows:

- o=mlusers
- o=PiServerDb
- o=pab
- o=internet
- o=usergroup
- o=comms-config

Please enter the Users/Groups base suffix [o=usergroup] :

-----

has\_naming\_context\_ds6 get-suffix-prop result:  
db-name : usergroupdb2

-----

There are 3 possible schema types:

- 1 - schema 1 for systems with iMS 5.x data
- 1.5 - schema 2 compatibility for systems with iMS 5.x data that has been converted with commdirmig
- 2 - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]:

Please enter the DC Tree base suffix [o=internet]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

|                         |                          |
|-------------------------|--------------------------|
| Server Root             | : /var/opt/sun/directory |
| Server Instance         | : dsins2                 |
| Users/Groups Directory  | : yes                    |
| Update Schema           | : yes                    |
| Schema Type             | : 1                      |
| DC Root                 | : o=internet             |
| User/Group Root         | : o=usergroup            |
| Add New Indexes         | : yes                    |
| ReIndex New Indexes Now | : yes                    |
| Directory Manager DN    | : cn=Directory Manager   |

Now ready to generate a shell script and ldif file to modify the Directory.

No changes to the Directory Server will be made this time.

Do you want to continue [y]:

Generating files...

Checking to see if Suffixes need to be added

-----

has\_naming\_context\_ds6 get-suffix-prop result:

```

db-name : comms-configdb2

-----

-----

has_naming_context_ds6 get-suffix-prop result:
db-name : usergroupdb2

-----

-----

has_naming_context_ds6 get-suffix-prop result:
db-name : internetdb2

-----

-----

has_naming_context_ds6 get-suffix-prop result:
db-name : pabdb2

-----

-----

has_naming_context_ds6 get-suffix-prop result:
db-name : PiServerDbdb2

-----

-----

has_naming_context_ds6 get-suffix-prop result:
db-name : mlusersdb2

-----

Checking to see that uid uniqueness plugins are turned off
  Plugin is already disabled

Adding indexes
  Adding Indexes for User/group Tree (backend:usergroupdb2)
    Checking indexes for icsCalendar
      Index exists
      Index eq found
      Index pres found
      Index sub found
      Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
      No new indexes required
    Checking indexes for mailAlternateAddress
      Index exists
      Index eq found
        Index pres does not exist
        Index eq exists
        Index approx does not exist

```

```

    Index sub does not exist
    Default index eq found
    New indexes and Reindexing required
    ReIndex will happen for index type mailAlternateAddress
Checking indexes for ou
    Index exists
    Index eq found
    Index pres found
        Index pres exists
    No new indexes required
Checking indexes for cn
    Index exists
    Index eq found
    Index pres found
    Index sub found
        Index eq exists
    Default index pres found
    Default index eq found
    Default index sub found
    No new indexes required
Checking indexes for uniqueMember
    Index exists
    Index eq found
        Index eq exists
    Default index eq found
    No new indexes required
Checking indexes for cosspecifier
    Index exists
    Index eq found
    Index pres found
        Index pres exists
    No new indexes required
Checking indexes for member
    Index exists
    Index eq found
        Index eq exists
    Default index eq found
    No new indexes required
Checking indexes for mailEquivalentAddress
    Index exists
    Index eq found
    Index pres found
    Index sub found
    Index approx found
        Index pres exists
        Index eq exists
        Index approx exists
        Index sub exists
    No new indexes required
Checking indexes for mgrpUniqueId
    Index exists
    Index eq found
    Index pres found
        Index eq exists
    No new indexes required
Checking indexes for inetCos

```

```

Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for mailUserStatus
Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Checking indexes for memberOf
Index exists
Index eq found
Index pres found
Index sub found
  Index eq exists
  Index sub exists
No new indexes required
Checking indexes for icsCalendarOwned
Index exists
Index eq found
Index pres found
Index sub found
Index approx found
  Index pres exists
  Index eq exists
  Index approx exists
  Index sub exists
No new indexes required
Checking indexes for mail
Index exists
Index eq found
Index pres found
Index sub found
  Index pres exists
  Index eq exists
  Index approx does not exist
  Index sub exists
Default index pres found
Default index eq found
Default index sub found
New indexes and Reindexing required
ReIndex will happen for index type mail
Checking indexes for groupid
Index exists
Index eq found
Index pres found
Index sub found
  Index pres exists
  Index eq exists
  Index sub exists
No new indexes required
Adding Indexes for DC Tree (backend:internetdb2)
Checking indexes for inetDomainBaseDN

```

```

Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Checking indexes for mailDomainStatus
Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Checking indexes for inetCanonicalDomainName
Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Adding Indexes for PAB Tree (backend:pabdb2)
Checking indexes for memberOfPAB
Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Checking indexes for memberOfManagedGroup
Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Checking indexes for un
Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for memberOfPABGroup
Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
Checking indexes for MemberOfPiBook
Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for MemberofPiGroup

```

```

    Index exists
    Index eq found
    Index pres found
        Index eq exists
    No new indexes required
Checking indexes for displayname
    Index exists
    Index eq found
    Index pres found
    Index sub found
        Index pres exists
        Index eq exists
        Index sub exists
    No new indexes required
Adding Indexes for Mailing List Tree (backend:mlusersdb2)
Checking indexes for mlsubMail
    Index exists
    Index eq found
    Index pres found
        Index eq exists
    No new indexes required
Checking indexes for mlsubListIdentifier
    Index exists
    Index eq found
    Index pres found
        Index eq exists
    No new indexes required
Checking indexes for mail
    Index exists
    Index eq found
    Index pres found
    Index sub found
        Index eq exists
    Default index pres found
    Default index eq found
    Default index sub found
    No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
    Generating ldif for Adding schema for installer metadata
    Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
    /var/tmp/dssetup_20091019163601/dssetup.sh
    /var/tmp/dssetup_20091019163601/dssetup.ldif

Running /var/tmp/dssetup_20091019163601/dssetup.sh will make changes to
the Directory
    You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20091019163601/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019163601/dssetup.pw
-- Updating Schema files...

```

```

-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3519
-- Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019163601/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20091019163601/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).

```

```
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailAlternateAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mail approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mail
o=usergroup
```

Successful Completion. Consult  
`/var/tmp/dssetup_20091019163601/dssetup.log` for details

# DSsetup Sample Session - Existing Directory Server 6.3.1 Instance for Schema 2

## Table of Contents

- [Introduction](#)
- [Summary of Commands Run](#)
- [Session](#)

## Introduction

This page contains a sample session using `comm_dssetup.pl` on a Directory Server 6.3.1 instance where `comm_dssetup.pl` was previously run against it.

## Summary of Commands Run

```
239 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
240 ls /var/tmp/dssetup_20091019172329/
241 ls /var/tmp/dssetup_20091019172329/save
242 cat /var/tmp/dssetup_20091019172329/99user_new.ldif
243 cat /var/tmp/dssetup_20091019172329/dssetup.ldif
244 cat /var/tmp/dssetup_20091019172329/dssetup.ldif.rej
245 cat /var/tmp/dssetup_20091019172329/dssetup.sh
246 cat /var/tmp/dssetup_20091019172329/dssetup.log
```

## Session

```
(239 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019172329/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:
```

```
[1] dsins1
[2] dsins2
```

Which instance do you want [1]: 2

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:

```
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389
```

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 6.3 on moe-vmware port 389

Warning: This version of comm\_dssetup.pl (6.4 5.05) has been run previously (6.4 5.05), you do not need to run it again unless you wish to specify different parameters to this program

Do you want to continue [y]:

Will this directory server be used for users/groups [yes]:

A list of suffixes are as follows:

```
o=mlusers
o=PiServerDb
o=pab
o=usergroup
o=comms-config
```

Please enter the Users/Groups base suffix [o=usergroup] :

There are 3 possible schema types:

```
1 - schema 1 for systems with iMS 5.x data
1.5 - schema 2 compatibility for systems with iMS 5.x data
that has been converted with commdirmig
2 - schema 2 native for systems using Access Manager
```

Please enter the Schema Type (1, 1.5, 2) [2]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

```

Server Root                : /var/opt/sun/directory
Server Instance            : dsins2
Users/Groups Directory    : yes
Update Schema              : yes
Schema Type                : 2
DC Root                    : o=usergroup
User/Group Root           : o=usergroup
Add New Indexes            : yes
ReIndex New Indexes Now   : yes
Directory Manager DN       : cn=Directory Manager

```

Now ready to generate a shell script and ldif file to modify the Directory.

No changes to the Directory Server will be made this time.  
Do you want to continue [y]:

Generating files...

Checking to see if Suffixes need to be added

Checking to see that uid uniqueness plugins are turned off  
Plugin is already disabled

Adding indexes

```

Adding Indexes for User/group Tree (backend:usergroupdb2)
  Checking indexes for icsCalendar
    No new indexes required
  Checking indexes for mailAlternateAddress
    New indexes and Reindexing required
    ReIndex will happen for index type mailAlternateAddress
  Checking indexes for ou
    No new indexes required
  Checking indexes for cn
    No new indexes required
  Checking indexes for uniqueMember
    No new indexes required
  Checking indexes for cosspecifier
    No new indexes required
  Checking indexes for member
    No new indexes required
  Checking indexes for mailEquivalentAddress
    No new indexes required
  Checking indexes for mgrpUniqueId
    No new indexes required
  Checking indexes for inetCos
    No new indexes required
  Checking indexes for mailUserStatus
    No new indexes required
  Checking indexes for memberOf
    No new indexes required
  Checking indexes for icsCalendarOwned
    No new indexes required
  Checking indexes for mail
    New indexes and Reindexing required

```

```
ReIndex will happen for index type mail
Checking indexes for groupid
No new indexes required
Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
Checking indexes for inetDomainBaseDN
No new indexes required
Checking indexes for mailDomainStatus
No new indexes required
Checking indexes for sunOrganizationAlias
No new indexes required
Checking indexes for sunPreferredDomain
No new indexes required
Checking indexes for o
No new indexes required
Checking indexes for associatedDomain
No new indexes required
Adding Indexes for PAB Tree (backend:pabdb2)
Checking indexes for memberOfPAB
No new indexes required
Checking indexes for memberOfManagedGroup
No new indexes required
Checking indexes for un
No new indexes required
Checking indexes for memberOfPABGroup
No new indexes required
Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
Checking indexes for MemberOfPiBook
No new indexes required
Checking indexes for MemberofPiGroup
No new indexes required
Checking indexes for displayname
No new indexes required
Adding Indexes for Mailing List Tree (backend:mlusersdb2)
Checking indexes for mlsubMail
No new indexes required
Checking indexes for mlsubListIdentifier
No new indexes required
Checking indexes for mail
No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
Generating ldif for Adding schema for installer metadata
Generating ldif for updating DN for cn=CommServers,o=comms-config
The following files have been created:
/var/tmp/dssetup_20091019172329/dssetup.sh
/var/tmp/dssetup_20091019172329/dssetup.ldif

Running /var/tmp/dssetup_20091019172329/dssetup.sh will make changes to
the Directory
You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
```

```

Running /var/tmp/dssetup_20091019172329/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019172329/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=4291
-- Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif
ldap_modify: Type or value exists
modifying entry cn=schema

modifying entry cn=schema

modifying entry cn=CommServers,o=comms-config

modifying entry cn=CommServers,o=comms-config

-- rejects to /var/tmp/dssetup_20091019172329/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup

```

```

## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailAlternateAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mail approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mail
o=usergroup

Successful Completion. Consult
/var/tmp/dssetup_20091019172329/dssetup.log for details
(240 root) ls /var/tmp/dssetup_20091019172329/
total 63
  5 99user_new.ldif      29 dssetup.log
  6 dssetup.ldif        16 dssetup.sh*
  2 dssetup.ldif.rej    5 save/
(241 root) ls /var/tmp/dssetup_20091019172329/save
total 931
153 00core.ldif          7 50ns-mcd-li.ldif
16 00ds6pwp.ldif        42 50ns-mcd-mail.ldif
  5 05rfc2247.ldif       3 50ns-media.ldif
  3 05rfc2927.ldif      17 50ns-mlm.ldif
16 11rfc2307.ldif      107 50ns-msg.ldif
10 20subscriber.ldif    7 50ns-netshare.ldif
  7 25java-object.ldif   5 50ns-news.ldif
19 28pilot.ldif         3 50ns-proxy.ldif
25 30ns-common.ldif     7 50ns-value.ldif
  7 50iplanet-servicemgt.ldif 8 50ns-wcal.ldif
14 50ns-admin.ldif      4 50ns-web.ldif
15 50ns-calendar.ldif  20 55ims-ical.ldif
  4 50ns-certificate.ldif 55 56ims-schema.ldif
24 50ns-compass.ldif   36 60iplanet-calendar.ldif
13 50ns-delegated-admin.ldif 14 65im.ldif
33 50ns-directory.ldif 17 70delgated-admin.ldif
67 50ns-iabs.ldif      8 70sun-schema2.ldif
  4 50ns-legacy.ldif   57 71sun-am.ldif
18 50ns-mail.ldif      10 98ns-dummy-uwc.ldif
35 50ns-mcd-browser.ldif 5 99user.ldif
11 50ns-mcd-config.ldif
(242 root) cat /var/tmp/dssetup_20091019172329/99user_new.ldif
dn: cn=schema
objectClass: top
objectClass: ldapSubentry
objectClass: subschema
cn: schema

```

```

aci: (target="ldap:///cn=schema")(targetattr !="aci")(version 3.0;acl
"anonymo
us, no acis"; allow (read, search, compare) userdn = "ldap:///anyone";)
modifiersName: cn=directory manager
modifyTimestamp: 20091020001626Z
attributeTypes: ( sunExcludeServices-oid NAME 'sunExcludeServices' DESC
'servi
ces to be excluded specifically from the services available in the root
suff
ix ' EQUALITY caseIgnoreMatch SYNTAX 1.3.6.1.4.1.1466.115.121.1.26
X-ORIGIN
'user defined' )
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME 'sunkeyvalue' DESC
'Attribut
e to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.1
15.121.1.26 X-ORIGIN ( 'Sun ONE Identity Management' 'user defined' ) )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.107 NAME 'sunIMConference' DESC
'Conf
erence Object' SUP top AUXILIARY MAY ( sunIMConferenceAffiliations $
sunIMCo
nferenceConfiguration $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.108 NAME 'sunIMNews' DESC
'Pubsub Cha
nnel Object' SUP top AUXILIARY MAY ( sunIMNewsAffiliations $
sunIMNewsConfig
uration $ sunIMNewsMetaData $ cn $ uid ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.109 NAME 'sunIMStoredMessage'
DESC 'S
tored Message Object' SUP top AUXILIARY MAY ( sunIMMessageID $
sunIMMessageC
ontent ) X-ORIGIN 'user defined' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.9.2.27 NAME 'sunservicecomponent'
DESC 'S
ub-components of the service' SUP top STRUCTURAL MUST ou MAY (
labeledUri $
sunserviceid $ sunsmspriority $ sunkeyvalue $ sunxmlkeyvalue $
description )
X-ORIGIN 'Sun Java System Identity Management' )
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Obje
ctclass for storing meta data for Sun Communication' SUP top STRUCTURAL
MUST
cn MAY sunkeyvalue X-ORIGIN 'user defined' )
nsSchemaCSN: 4add015a000000000000

(243 root) cat /var/tmp/dssetup_20091019172329/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
# cd /opt/SUNWdsee/dsee6/bin
# ./ldapmodify -p 389 -h moe-vmware -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20091019172329/dssetup.ldif

#-----
# This section creates the installer metadata
#-----

```

```

#####
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
#####
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

#####
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
#####
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

#####
# dn: cn=CommServers,o=comms-config
# Update the installer metadata for Comm Servers
#####
dn: cn=CommServers,o=comms-config
changetype: modify
replace: sunkeyvalue
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=5.05
sunkeyvalue: dcsuffix=o=usergroup
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=2

#####
# dn: cn=CommServers,o=comms-config
# aci for anonymous read access
#####
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(244 root) cat /var/tmp/dssetup_20091019172329/dssetup.ldif.rej
# Error: Type or value exists
dn: cn=CommServers,o=comms-config
changetype: modify
add: aci
aci:

```

```

(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(245 root) cat /var/tmp/dssetup_20091019172329/dssetup.sh
#!/bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
    echo "Usage: $0 -D <binddn> -j <passwdfile>"
    echo "  -D binddn          bind dn"
    echo "  -j <passwdfile>    read bind passwd from 'file' for simple
authentication"
    exit 1
}

if [ $# -lt 1 ]
then
    echo "You must specify either -j"
    usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
    case $c in
        D)
            Dflag=1
            BINDDN=$OPTARG;;
        j)
            jflag=1
            pflag=-j
            parg=$OPTARG;;
        \?)
            usage;;
    esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
    echo "You must specify the -D switch"
    usage
fi

if [ $jflag -eq 0 ]
then
    echo "You must specify -j"
    usage
fi

if [ $# -ge 1 ]

```

```

then
    echo "Unrecognized argument $*"
    usage
fi

set ` /usr/bin/id `
if [ $1 != "uid=0(root)" ]; then
    echo
    echo "To run this utility you need to be the system's root user. \n"
    echo
    exit 1
fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mail.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mlm.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-msg.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-value.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 55ims-ical.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 56ims-schema.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 65im.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70sun-schema2.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 71sun-am.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-iabs.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 98ns-dummy-uwc.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwc.ldif
/var/opt/sun/directory/dsins2/config/schema

```

```

echo -- Copying 70delgated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema

echo -- Stopping Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm stop /var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
    echo "Stopping the Directory server failed"
    exit 1
fi
sleep 5

echo -- Starting Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm start
/var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
    echo "The server may not have restarted properly"
    echo "Please restart it manually"
fi
sleep 5

echo -- Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-vmware -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20091019172329/dssetup.ldif.rej -f
/var/tmp/dssetup_20091019172329/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20091019172329/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
    echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
    echo "-- WARNING: ldapmodify returned $stat"
else
    echo "-- ERROR: ldapmodify returned $stat"
    exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20091019172329/dssetup.ldif
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "pres-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop

```

```

o=usergroup mailAlternateAddress approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "approx-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailAlternateAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mailAlternateAddress" "sub-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailAlternateAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailAlternateAddress" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mail" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
"o=usergroup" "mail" "approx-enabled:on"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex

```

```

o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mail" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "mail"
"o=usergroup"
echo
(246 root) cat /var/tmp/dssetup_20091019172329/dssetup.log
-----

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

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019172329/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]  dsins1
[2]  dsins2

Which instance do you want [1]: 2
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20091019172329/dssetup.pw" -p 389 -h moe-vmware -b
"cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1

```

```

./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Java(tm)-System-Directory/6.3
B2008.0311.0212
-- Detected DS versions:
  full: 6.3
  major: 6
  minor: 3
  micro: NONE
  patch: NONE

Detected DS version 6.3 on moe-vmware port 389
-- Stored Dssetup data ver=6.4 rev=5.05, dctree=o=usergroup
  ug=o=usergroup, schematype=2

Warning: This version of comm_dssetup.pl (6.4 5.05) has been run
previously (6.4 5.05), you do not need to run it again unless you wish
to specify different parameters to this program
Do you want to continue [y]:

Will this directory server be used for users/groups [yes]: A list of
suffixes are as follows:
  o=mlusers
  o=PiServerDb
  o=pab
  o=usergroup
  o=comms-config

Please enter the Users/Groups base suffix [o=usergroup] :
-----
has_naming_context_ds6 get-suffix-prop result:
db-name : usergroupdb2

-----

There are 3 possible schema types:
  1 - schema 1 for systems with iMS 5.x data
  1.5 - schema 2 compatibility for systems with iMS 5.x data
        that has been converted with commdirmig
  2 - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [2]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

Server Root : /var/opt/sun/directory
Server Instance : dsins2
Users/Groups Directory : yes
Update Schema : yes
Schema Type : 2
DC Root : o=usergroup
User/Group Root : o=usergroup
Add New Indexes : yes
ReIndex New Indexes Now : yes
Directory Manager DN : cn=Directory Manager

```

Now ready to generate a shell script and ldif file to modify the Directory.

No changes to the Directory Server will be made this time.

Do you want to continue [y]:

Generating files...

Checking to see if Suffixes need to be added

```
-----  
has_naming_context_ds6 get-suffix-prop result:  
db-name : comms-configdb2
```

```
-----  
  
-----  
has_naming_context_ds6 get-suffix-prop result:  
db-name : usergroupdb2
```

```
-----  
  
-----  
has_naming_context_ds6 get-suffix-prop result:  
db-name : pabdb2
```

```
-----  
  
-----  
has_naming_context_ds6 get-suffix-prop result:  
db-name : PiServerDbdb2
```

```
-----  
  
-----  
has_naming_context_ds6 get-suffix-prop result:  
db-name : mlusersdb2
```

```
-----  
  
Checking to see that uid uniqueness plugins are turned off  
Plugin is already disabled
```

```
Adding indexes  
Adding Indexes for User/group Tree (backend:usergroupdb2)  
Checking indexes for icsCalendar  
Index exists  
Index eq found  
Index pres found  
Index sub found  
Index approx found  
Index pres exists  
Index eq exists  
Index approx exists  
Index sub exists  
No new indexes required  
Checking indexes for mailAlternateAddress
```

```

Index exists
Index eq found
  Index pres does not exist
  Index eq exists
  Index approx does not exist
  Index sub does not exist
Default index eq found
New indexes and Reindexing required
ReIndex will happen for index type mailAlternateAddress
Checking indexes for ou
Index exists
Index eq found
Index pres found
  Index pres exists
No new indexes required
Checking indexes for cn
Index exists
Index eq found
Index pres found
Index sub found
  Index eq exists
Default index pres found
Default index eq found
Default index sub found
No new indexes required
Checking indexes for uniqueMember
Index exists
Index eq found
  Index eq exists
Default index eq found
No new indexes required
Checking indexes for cosspecifier
Index exists
Index eq found
Index pres found
  Index pres exists
No new indexes required
Checking indexes for member
Index exists
Index eq found
  Index eq exists
Default index eq found
No new indexes required
Checking indexes for mailEquivalentAddress
Index exists
Index eq found
Index pres found
Index sub found
Index approx found
  Index pres exists
  Index eq exists
  Index approx exists
  Index sub exists
No new indexes required
Checking indexes for mgrpUniqueId
Index exists

```

```
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for inetCos
Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for mailUserStatus
Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Checking indexes for memberOf
Index exists
Index eq found
Index pres found
Index sub found
  Index eq exists
  Index sub exists
No new indexes required
Checking indexes for icsCalendarOwned
Index exists
Index eq found
Index pres found
Index sub found
Index approx found
  Index pres exists
  Index eq exists
  Index approx exists
  Index sub exists
No new indexes required
Checking indexes for mail
Index exists
Index eq found
Index pres found
Index sub found
  Index pres exists
  Index eq exists
  Index approx does not exist
  Index sub exists
Default index pres found
Default index eq found
Default index sub found
New indexes and Reindexing required
ReIndex will happen for index type mail
Checking indexes for groupid
Index exists
Index eq found
Index pres found
Index sub found
  Index pres exists
```

```

    Index eq exists
    Index sub exists
    No new indexes required
Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
    Index exists
    Index eq found
    Index pres found
        Index pres exists
        Index eq exists
    No new indexes required
Checking indexes for mailDomainStatus
    Index exists
    Index eq found
    Index pres found
        Index pres exists
        Index eq exists
    No new indexes required
Checking indexes for sunOrganizationAlias
    Index exists
    Index eq found
    Index pres found
        Index pres exists
        Index eq exists
    No new indexes required
Checking indexes for sunPreferredDomain
    Index exists
    Index eq found
    Index pres found
        Index pres exists
        Index eq exists
    No new indexes required
Checking indexes for o
    Index exists
    Index eq found
    Index pres found
        Index pres exists
        Index eq exists
    No new indexes required
Checking indexes for associatedDomain
    Index exists
    Index eq found
    Index pres found
        Index pres exists
        Index eq exists
    No new indexes required
Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
    Index exists
    Index eq found
    Index pres found
        Index pres exists
        Index eq exists
    No new indexes required
Checking indexes for memberOfManagedGroup

```

```

Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Checking indexes for un
Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for memberOfPABGroup
Index exists
Index eq found
Index pres found
  Index pres exists
  Index eq exists
No new indexes required
Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
Checking indexes for MemberOfPiBook
Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for MemberofPiGroup
Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for displayname
Index exists
Index eq found
Index pres found
Index sub found
  Index pres exists
  Index eq exists
  Index sub exists
No new indexes required
Adding Indexes for Mailing List Tree (backend:mlusersdb2)
Checking indexes for mlsubMail
Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for mlsubListIdentifier
Index exists
Index eq found
Index pres found
  Index eq exists
No new indexes required
Checking indexes for mail
Index exists

```

```
Index eq found
Index pres found
Index sub found
  Index eq exists
Default index pres found
Default index eq found
Default index sub found
No new indexes required
```

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata

Generating ldif for Adding schema for installer metadata

Generating ldif for updating DN for cn=CommServers,o=comms-config

The following files have been created:

```
/var/tmp/dssetup_20091019172329/dssetup.sh
/var/tmp/dssetup_20091019172329/dssetup.ldif
```

Running /var/tmp/dssetup\_20091019172329/dssetup.sh will make changes to the Directory

You can run this file now or at a later time

Ready to execute the script now.

Do you want to continue [y]:

```
Running /var/tmp/dssetup_20091019172329/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019172329/dssetup.pw
```

```
-- Updating Schema files...
```

```
-- Copying 20subscriber.ldif
```

```
-- Copying 50ns-delegated-admin.ldif
```

```
-- Copying 50ns-mail.ldif
```

```
-- Copying 50ns-mlm.ldif
```

```
-- Copying 50ns-msg.ldif
```

```
-- Copying 50ns-value.ldif
```

```
-- Copying 55ims-ical.ldif
```

```
-- Copying 56ims-schema.ldif
```

```
-- Copying 65im.ldif
```

```
-- Copying 70sun-schema2.ldif
```

```
-- Copying 71sun-am.ldif
```

```
-- Copying 60iplanet-calendar.ldif
```

```
-- Copying 50ns-iabs.ldif
```

```
-- Copying 98ns-dummy-uwc.ldif
```

```
-- Copying 70delgated-admin.ldif
```

```
-- Stopping Directory Server
```

```
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
```

```
-- Starting Directory Server
```

```
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=4291
```

```
-- Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif
```

```
ldap_modify: Type or value exists
```

```
modifying entry cn=schema
```

```
modifying entry cn=schema
```

```
modifying entry cn=CommServers,o=comms-config
```

```
modifying entry cn=CommServers,o=comms-config
```

```

-- rejects to /var/tmp/dssetup_20091019172329/dssetup.ldif.rej status =
20
-- WARNING: ldapmodify returned 20
-- Done Applying ldif file /var/tmp/dssetup_20091019172329/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailAlternateAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailAlternateAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailAlternateAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailAlternateAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailAlternateAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mail approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mail approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mail reindex o=usergroup
## usergroupdb2: Indexing attribute: mail
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mail
o=usergroup

```

Successful Completion. Consult  
`/var/tmp/dssetup_20091019172329/dssetup.log` for details

# DSsetup Sample Session - Fresh Directory Server 6.3.1 Instance for Schema 1

## Table of Contents

- [Introduction](#)
- [Summary of Commands Run](#)
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## Introduction

This page contains a sample session using `comm_dssetup.pl` on a fresh Directory Server 6.3.1 instance.

## Summary of Commands Run

```
204 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
205 ls /var/tmp/dssetup_20091019162857
206 ls /var/tmp/dssetup_20091019162857/save
207 cat /var/tmp/dssetup_20091019162857/99user_new.ldif
208 cat /var/tmp/dssetup_20091019162857/dssetup.ldif
209 cat /var/tmp/dssetup_20091019162857/dssetup.ldif.rej
210 cat /var/tmp/dssetup_20091019162857/dssetup.sh
211 cat /var/tmp/dssetup_20091019162857/dssetup.log
```

## Comments

To create a pristine DS instance

1. `cd /opt/sun/directory/ds6/bin`
2. `dsadm create /var/opt/sun/directory/dsins2`
3. `dsadm start /var/opt/sun/directory/dsins2`
4. `dsadm delete /var/opt/sun/directory/dsins2`

## Session

```
(204 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019162857/dssetup.log

Do you want to continue [y]:
```

Please enter the full path to the directory where the Directory Server instance(s) reside ("server-root"), or an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

- [1] dsins1
- [2] dsins2

Which instance do you want [1]: 2

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:

- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 6.3 on moe-vmware port 389

Will this directory server be used for users/groups [yes]:

WARNING: No default suffix found in the Directory

A list of suffixes are as follows:

No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :

There are 3 possible schema types:

- 1 - schema 1 for systems with iMS 5.x data
- 1.5 - schema 2 compatibility for systems with iMS 5.x data that has been converted with commdirmig
- 2 - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]:

Please enter the DC Tree base suffix [o=internet]:

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

|                 |                          |
|-----------------|--------------------------|
| Server Root     | : /var/opt/sun/directory |
| Server Instance | : dsins2                 |

```
Users/Groups Directory      : yes
Update Schema               : yes
Schema Type                 : 1
DC Root                     : o=internet
User/Group Root             : o=usergroup
Add New Indexes             : yes
ReIndex New Indexes Now    : yes
Directory Manager DN        : cn=Directory Manager
```

Now ready to generate a shell script and ldif file to modify the Directory.

No changes to the Directory Server will be made this time.

Do you want to continue [y]:

Generating files...

Checking to see if Suffixes need to be added

```
Will Create suffix o=comms-config
Will Create suffix o=usergroup
Will Create suffix o=internet
Will Create suffix o=pab
Will Create suffix o=PiServerDb
Will Create suffix o=mlusers
```

Checking to see that uid uniqueness plugins are turned off

Plugin is already disabled

Adding indexes

Adding Indexes for User/group Tree (backend:usergroupdb2)

```
Checking indexes for icsCalendar
  New indexes and Reindexing required
  ReIndex will happen for index type icsCalendar
Checking indexes for mailAlternateAddress
  No new indexes required
Checking indexes for ou
  New indexes and Reindexing required
  ReIndex will happen for index type ou
Checking indexes for cn
  No new indexes required
Checking indexes for uniqueMember
  No new indexes required
Checking indexes for cosspecifier
  New indexes and Reindexing required
  ReIndex will happen for index type cosspecifier
Checking indexes for member
  No new indexes required
Checking indexes for mailEquivalentAddress
  New indexes and Reindexing required
  ReIndex will happen for index type mailEquivalentAddress
Checking indexes for mgrpUniqueId
  New indexes and Reindexing required
  ReIndex will happen for index type mgrpUniqueId
Checking indexes for inetCos
  New indexes and Reindexing required
  ReIndex will happen for index type inetCos
Checking indexes for mailUserStatus
```

```

    New indexes and Reindexing required
    ReIndex will happen for index type mailUserStatus
Checking indexes for memberOf
    New indexes and Reindexing required
    ReIndex will happen for index type memberOf
Checking indexes for icsCalendarOwned
    New indexes and Reindexing required
    ReIndex will happen for index type icsCalendarOwned
Checking indexes for mail
    No new indexes required
Checking indexes for groupid
    New indexes and Reindexing required
    ReIndex will happen for index type groupid
Adding Indexes for DC Tree (backend:internetdb2)
Checking indexes for inetDomainBaseDN
    New indexes and Reindexing required
    ReIndex will happen for index type inetDomainBaseDN
Checking indexes for mailDomainStatus
    New indexes and Reindexing required
    ReIndex will happen for index type mailDomainStatus
Checking indexes for inetCanonicalDomainName
    New indexes and Reindexing required
    ReIndex will happen for index type inetCanonicalDomainName
Adding Indexes for PAB Tree (backend:pabdb2)
Checking indexes for memberOfPAB
    New indexes and Reindexing required
    ReIndex will happen for index type memberOfPAB
Checking indexes for memberOfManagedGroup
    New indexes and Reindexing required
    ReIndex will happen for index type memberOfManagedGroup
Checking indexes for un
    New indexes and Reindexing required
    ReIndex will happen for index type un
Checking indexes for memberOfPABGroup
    New indexes and Reindexing required
    ReIndex will happen for index type memberOfPABGroup
Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
Checking indexes for MemberOfPiBook
    New indexes and Reindexing required
    ReIndex will happen for index type MemberOfPiBook
Checking indexes for MemberofPiGroup
    New indexes and Reindexing required
    ReIndex will happen for index type MemberofPiGroup
Checking indexes for displayname
    New indexes and Reindexing required
    ReIndex will happen for index type displayname
Adding Indexes for Mailing List Tree (backend:mlusersdb2)
Checking indexes for mlsubMail
    New indexes and Reindexing required
    ReIndex will happen for index type mlsubMail
Checking indexes for mlsubListIdentifier
    New indexes and Reindexing required
    ReIndex will happen for index type mlsubListIdentifier
Checking indexes for mail
    No new indexes required

```

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata

Generating ldif for Adding schema for installer metadata

Generating ldif for Creating DN: o=comms-config

Generating ldif for Creating DN: cn=CommServers,o=comms-config

The following files have been created:

/var/tmp/dssetup\_20091019162857/dssetup.sh

/var/tmp/dssetup\_20091019162857/dssetup.ldif

Running /var/tmp/dssetup\_20091019162857/dssetup.sh will make changes to the Directory

You can run this file now or at a later time

Ready to execute the script now.

Do you want to continue [y]:

Running /var/tmp/dssetup\_20091019162857/dssetup.sh -D "cn=Directory Manager" -j /var/tmp/dssetup\_20091019162857/dssetup.pw

-- Updating Schema files...

-- Copying 20subscriber.ldif

-- Copying 50ns-delegated-admin.ldif

-- Copying 50ns-mail.ldif

-- Copying 50ns-mlm.ldif

-- Copying 50ns-msg.ldif

-- Copying 50ns-value.ldif

-- Copying 55ims-ical.ldif

-- Copying 56ims-schema.ldif

-- Copying 65im.ldif

-- Copying 70sun-schema2.ldif

-- Copying 71sun-am.ldif

-- Copying 60iplanet-calendar.ldif

-- Copying 50ns-iabs.ldif

-- Copying 98ns-dummy-uwc.ldif

-- Copying 70delgated-admin.ldif

-- Stopping Directory Server

Directory Server instance '/var/opt/sun/directory/dsins2' stopped

-- Starting Directory Server

Directory Server instance '/var/opt/sun/directory/dsins2' started:

pid=3085

-- Creating Suffix o=comms-config

-- Done Creating o=comms-config

-- Creating Suffix o=usergroup

-- Done Creating o=usergroup

-- Creating Suffix o=internet

-- Done Creating o=internet

-- Creating Suffix o=pab

-- Done Creating o=pab

-- Creating Suffix o=PiServerDb

-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers

```

-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

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

-- rejects to /var/tmp/dssetup_20091019162857/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t icsCalendar
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup ou
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup ou

```

```

pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t ou o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress

```

```

reindex o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailEquivalentAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t inetCos
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup

```

```

mailUserStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOf
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
icsCalendarOwned o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Finished indexing.

Task completed (slapd exitcode: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t groupid
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet

```

```

inetDomainBaseDN eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN reindex
o=internet
## internetdb2: Indexing attribute: inetDomainBaseDN
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetDomainBaseDN o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus reindex
o=internet
## internetdb2: Indexing attribute: mailDomainStatus
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailDomainStatus o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCanonicalDomainName
reindex o=internet
## internetdb2: Indexing attribute: inetCanonicalDomainName
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).

```

```

-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetCanonicalDomainName o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab memberOfPAB
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOfPAB
o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfManagedGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t un o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup reindex
o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfPABGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
MemberofPiGroup o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t displayname
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Finished indexing.

```

```

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mlsubMail
o=mlusers

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mlsubListIdentifier o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20091019162857/dssetup.log for details
(205 root) ls /var/tmp/dssetup_20091019162857
total 176
  2 99user_new.ldif      63 dssetup.log
  6 dssetup.ldif        98 dssetup.sh*
  2 dssetup.ldif.rej    5 save/
(206 root) ls /var/tmp/dssetup_20091019162857/save
total 636
153 00core.ldif          17 50ns-mail.ldif
 16 00ds6pwp.ldif        35 50ns-mcd-browser.ldif
   5 05rfc2247.ldif       11 50ns-mcd-config.ldif
   3 05rfc2927.ldif        7 50ns-mcd-li.ldif
 16 11rfc2307.ldif       42 50ns-mcd-mail.ldif
 10 20subscriber.ldif     3 50ns-media.ldif
   7 25java-object.ldif  16 50ns-mlm.ldif
 19 28pilot.ldif         100 50ns-msg.ldif
 25 30ns-common.ldif      7 50ns-netshare.ldif
   7 50iplanet-servicemgt.ldif 5 50ns-news.ldif
 14 50ns-admin.ldif       3 50ns-proxy.ldif
 15 50ns-calendar.ldif   7 50ns-value.ldif
   4 50ns-certificate.ldif 8 50ns-wcal.ldif
 24 50ns-compass.ldif    4 50ns-web.ldif
 14 50ns-delegated-admin.ldif 2 99user.ldif
 33 50ns-directory.ldif
   4 50ns-legacy.ldif
(207 root) cat /var/tmp/dssetup_20091019162857/99user_new.ldif
#
# Copyright 2003 Sun Microsystems, Inc. All Rights Reserved
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#
#

```

```

# Use of this product is subject to
# license terms. Copyright (c) 2001 Sun Microsystems, Inc.
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# Corp.
# All rights reserved.
#
#
# User-defined schema
#
dn: cn=schema
(208 root) cat /var/tmp/dssetup_20091019162857/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-vmware -D binddn -j passwdfile -c -f
# /var/tmp/dssetup_20091019162857/dssetup.ldif

#-----
# This section creates the installer metadata
#-----

#####
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
# objectclass
# Note that sunkeyvalue may have already been added by Access Manager
#####
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC
'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

#####
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
#####
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

#####
# dn: o=comms-config
# Create the DN for the root suffix of metadata for Comms Products
#####
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject

#####
# dn: cn=CommServers,o=comms-config

```

```

# Create the DN for the installer metadata for Comm Servers
#####
dn: cn=CommServers,o=comms-config
changetype: add
objectclass: top
objectclass: sunCommsMetaData
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=5.05
sunkeyvalue: dcsuffix=o=internet
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=1
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone";)
(209 root) cat /var/tmp/dssetup_20091019162857/dssetup.ldif.rej
# Error: Already exists
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject
(210 root) cat /var/tmp/dssetup_20091019162857/dssetup.sh
#!/bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#
usage()
{
    echo "Usage: $0 -D <binddn> -j <passwdfile>"
    echo "    -D binddn          bind dn"
    echo "    -j <passwdfile>    read bind passwd from 'file' for simple
authentication"
    exit 1
}

if [ $# -lt 1 ]
then
    echo "You must specify either -j"
    usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
    case $c in
        D)
            Dflag=1
            BINDDN=$OPTARG;;
        j)
            jflag=1
            pflag=-j
            parg=$OPTARG;;
    esac
done

```

```

    \?)
        usage;;
    esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
    echo "You must specify the -D switch"
    usage
fi

if [ $jflag -eq 0 ]
then
    echo "You must specify -j"
    usage
fi

if [ $# -ge 1 ]
then
    echo "Unrecognized argument $*"
    usage
fi

set `/usr/bin/id`
if [ $1 != "uid=0(root)" ]; then
    echo
    echo "To run this utility you need to be the system's root user. \n"
    echo
    exit 1
fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mail.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mlm.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-msg.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-value.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 55ims-ical.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 56ims-schema.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif

```

```

/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 65im.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70sun-schema2.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 71sun-am.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-iabs.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 98ns-dummy-uwu.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwu.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70delgated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema

echo -- Stopping Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm stop /var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
    echo "Stopping the Directory server failed"
    exit 1
fi
sleep 5

echo -- Starting Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm start
/var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
    echo "The server may not have restarted properly"
    echo "Please restart it manually"
fi
sleep 5

echo -- Creating Suffix o=comms-config
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name usergroupdb2 o=usergroup

```

```

stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=internet
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name internetdb2 o=internet
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=internet
echo

echo -- Creating Suffix o=pab
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name pabdb2 o=pab
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=PiServerDb
echo

echo -- Creating Suffix o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=mlusers
echo

```

```

echo -- Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-vmware -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20091019162857/dssetup.ldif.rej -f
/var/tmp/dssetup_20091019162857/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20091019162857/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
    echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
    echo "-- WARNING: ldapmodify returned $stat"
else
    echo "-- ERROR: ldapmodify returned $stat"
    exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20091019162857/dssetup.ldif
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "icsCalendar"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf

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```

set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"icsCalendar" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"icsCalendar" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "ou"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index

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returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "ou"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "ou" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "ou"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "ou"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "cosspecifier"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"cosspecifier" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"cosspecifier" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailEquivalentAddress"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailEquivalentAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailEquivalentAddress" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mgrpUniqueId"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mgrpUniqueId" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mgrpUniqueId" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "inetCos"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "inetCos"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetCos" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "inetCos"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailUserStatus"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailUserStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailUserStatus" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailUserStatus" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "memberOf"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "memberOf"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "memberOf" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOf" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOf" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "icsCalendarOwned"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"icsCalendarOwned" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"icsCalendarOwned" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "groupid"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "groupid"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"groupid" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "groupid"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=internet" "inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=internet" "inetDomainBaseDN"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet inetDomainBaseDN pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet inetDomainBaseDN eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN
reindex o=internet
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetDomainBaseDN" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"inetDomainBaseDN" "o=internet"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=internet" "mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=internet" "mailDomainStatus"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet mailDomainStatus pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "mailDomainStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet mailDomainStatus eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus
reindex o=internet
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailDomainStatus" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailDomainStatus" "o=internet"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=internet" "inetCanonicalDomainName"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=internet" "inetCanonicalDomainName"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "inetCanonicalDomainName" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet inetCanonicalDomainName pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=internet" "inetCanonicalDomainName" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=internet inetCanonicalDomainName eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t
inetCanonicalDomainName reindex o=internet
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetCanonicalDomainName" "o=internet"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"inetCanonicalDomainName" "o=internet"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfPAB"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex
o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfPAB" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfPAB" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfManagedGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfManagedGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfManagedGroup" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"un"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"un"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "un" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
un eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "un"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "un"
"o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfPABGroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"

```

```

"memberOfPABGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup
reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfPABGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfPABGroup" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index

```

```

"o=PiServerDb" "MemberOfPiBook"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"MemberOfPiBook" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"MemberOfPiBook" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "MemberofPiGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "MemberofPiGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop

```

```

o=PiServerDb MemberofPiGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup
reindex o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"MemberofPiGroup" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"MemberofPiGroup" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "displayname"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "displayname"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop

```

```

o=PiServerDb displayname eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"displayname" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"displayname" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=mlusers" "mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=mlusers" "mlsubMail"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=mlusers" "mlsubMail" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop

```

```

o=mlusers mlsuMail eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsuMail reindex
o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mlsuMail" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mlsuMail" "o=mlusers"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsuListIdentifier
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=mlusers" "mlsuListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=mlusers" "mlsuListIdentifier"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsuListIdentifier eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=mlusers" "mlsuListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=mlusers mlsuListIdentifier eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsuListIdentifier
reindex o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mlsuListIdentifier" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t

```

```

"mlsubListIdentifier" "o=mlusers"
echo
(211 root) cat /var/tmp/dssetup_20091019162857/dssetup.log
-----

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

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019162857/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]  dsins1
[2]  dsins2

Which instance do you want [1]: 2
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j
"/var/tmp/dssetup_20091019162857/dssetup.pw" -p 389 -h moe-vmware -b
"cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Java(tm)-System-Directory/6.3
B2008.0311.0212
-- Detected DS versions:
    full: 6.3
    major: 6
    minor: 3
    micro: NONE
    patch: NONE

```

```

Detected DS version 6.3 on moe-vmware port 389
-- Stored Dssetup data ver=0 rev=0, dctree=
   ug=, schematype=

Will this directory server be used for users/groups [yes]: WARNING: No
default suffix found in the Directory
A list of suffixes are as follows:
   No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
-----
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-----
There are 3 possible schema types:
   1 - schema 1 for systems with iMS 5.x data
   1.5 - schema 2 compatibility for systems with iMS 5.x data
         that has been converted with commdirmig
   2 - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]:
Please enter the DC Tree base suffix [o=internet]:
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

Server Root                : /var/opt/sun/directory
Server Instance            : dsins2
Users/Groups Directory     : yes
Update Schema              : yes
Schema Type                : 1
DC Root                    : o=internet
User/Group Root            : o=usergroup
Add New Indexes            : yes
ReIndex New Indexes Now   : yes
Directory Manager DN       : cn=Directory Manager

Now ready to generate a shell script and ldif file to modify the
Directory.
No changes to the Directory Server will be made this time.
Do you want to continue [y]:
Generating files...

Checking to see if Suffixes need to be added

-----
has_naming_context_ds6 get-suffix-prop result:
"o=comms-config": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-----
Will Create suffix o=comms-config

```

```

-----
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-----
    Will Create suffix o=usergroup

-----
has_naming_context_ds6 get-suffix-prop result:
"o=internet": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-----
    Will Create suffix o=internet

-----
has_naming_context_ds6 get-suffix-prop result:
"o=pab": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-----
    Will Create suffix o=pab

-----
has_naming_context_ds6 get-suffix-prop result:
"o=PiServerDb": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-----
    Will Create suffix o=PiServerDb

-----
has_naming_context_ds6 get-suffix-prop result:
"o=mlusers": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-----
    Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off
    Plugin is already disabled

Adding indexes
    Adding Indexes for User/group Tree (backend:usergroupdb2)
        Checking indexes for icsCalendar
            Index does not exist
            Index pres does not exist
            Index eq does not exist
            Index approx does not exist
            Index sub does not exist
            New indexes and Reindexing required
            ReIndex will happen for index type icsCalendar
        Checking indexes for mailAlternateAddress
            Default index DN exists

```

```

    Default index eq found
    No new indexes required
Checking indexes for ou
    Index does not exist
    Index pres does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type ou
Checking indexes for cn
    Default index DN exists
    Default index pres found
    Default index eq found
    Default index sub found
    No new indexes required
Checking indexes for uniqueMember
    Default index DN exists
    Default index eq found
    No new indexes required
Checking indexes for cosspecifier
    Index does not exist
    Index pres does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type cosspecifier
Checking indexes for member
    Default index DN exists
    Default index eq found
    No new indexes required
Checking indexes for mailEquivalentAddress
    Index does not exist
    Index pres does not exist
    Index eq does not exist
    Index approx does not exist
    Index sub does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type mailEquivalentAddress
Checking indexes for mgrpUniqueId
    Index does not exist
    Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type mgrpUniqueId
Checking indexes for inetCos
    Index does not exist
    Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type inetCos
Checking indexes for mailUserStatus
    Index does not exist
    Index pres does not exist
    Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type mailUserStatus
Checking indexes for memberOf
    Index does not exist
    Index eq does not exist
    Index sub does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type memberOf

```

```

Checking indexes for icsCalendarOwned
  Index does not exist
    Index pres does not exist
    Index eq does not exist
    Index approx does not exist
    Index sub does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type icsCalendarOwned
Checking indexes for mail
  Default index DN exists
  Default index pres found
  Default index eq found
  Default index sub found
  No new indexes required
Checking indexes for groupid
  Index does not exist
    Index pres does not exist
    Index eq does not exist
    Index sub does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type groupid
Adding Indexes for DC Tree (backend:internetdb2)
Checking indexes for inetDomainBaseDN
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type inetDomainBaseDN
Checking indexes for mailDomainStatus
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type mailDomainStatus
Checking indexes for inetCanonicalDomainName
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type inetCanonicalDomainName
Adding Indexes for PAB Tree (backend:pabdb2)
Checking indexes for memberOfPAB
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type memberOfPAB
Checking indexes for memberOfManagedGroup
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type memberOfManagedGroup
Checking indexes for un
  Index does not exist
    Index eq does not exist

```

```

New indexes and Reindexing required
ReIndex will happen for index type un
Checking indexes for memberOfPABGroup
Index does not exist
Index pres does not exist
Index eq does not exist
New indexes and Reindexing required
ReIndex will happen for index type memberOfPABGroup
Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
Checking indexes for MemberOfPiBook
Index does not exist
Index eq does not exist
New indexes and Reindexing required
ReIndex will happen for index type MemberOfPiBook
Checking indexes for MemberofPiGroup
Index does not exist
Index eq does not exist
New indexes and Reindexing required
ReIndex will happen for index type MemberofPiGroup
Checking indexes for displayname
Index does not exist
Index pres does not exist
Index eq does not exist
Index sub does not exist
New indexes and Reindexing required
ReIndex will happen for index type displayname
Adding Indexes for Mailing List Tree (backend:mlusersdb2)
Checking indexes for mlsubMail
Index does not exist
Index eq does not exist
New indexes and Reindexing required
ReIndex will happen for index type mlsubMail
Checking indexes for mlsubListIdentifier
Index does not exist
Index eq does not exist
New indexes and Reindexing required
ReIndex will happen for index type mlsubListIdentifier
Checking indexes for mail
Default index DN exists
Default index pres found
Default index eq found
Default index sub found
No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
Generating ldif for Adding schema for installer metadata
Generating ldif for Creating DN: o=comms-config
Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
/var/tmp/dssetup_20091019162857/dssetup.sh
/var/tmp/dssetup_20091019162857/dssetup.ldif

Running /var/tmp/dssetup_20091019162857/dssetup.sh will make changes to
the Directory

```

You can run this file now or at a later time  
Ready to execute the script now.

```
Do you want to continue [y]:
Running /var/tmp/dssetup_20091019162857/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019162857/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3085
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=internet
-- Done Creating o=internet

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

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

-- rejects to /var/tmp/dssetup_20091019162857/dssetup.ldif.rej status =
```

```

0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20091019162857/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t icsCalendar
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup ou
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t ou o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier

```

```

-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailEquivalentAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t inetCos
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mailUserStatus
o=usergroup

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOf
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t

```

```

icsCalendarOwned o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t groupid
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetDomainBaseDN

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetDomainBaseDN eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN reindex
o=internet
## internetdb2: Indexing attribute: inetDomainBaseDN
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetDomainBaseDN o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus

```

```

-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
mailDomainStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
mailDomainStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus reindex
o=internet
## internetdb2: Indexing attribute: mailDomainStatus
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailDomainStatus o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=internet
inetCanonicalDomainName

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=internet
inetCanonicalDomainName eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCanonicalDomainName
reindex o=internet
## internetdb2: Indexing attribute: inetCanonicalDomainName
## internetdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetCanonicalDomainName o=internet

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab memberOfPAB
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab

```

```

memberOfPAB eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOfPAB
o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfManagedGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t un o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup reindex
o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfPABGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
MemberofPiGroup o=PiServerDb

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t displayname
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mlsubMail
o=mlusers

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers

```

```
mlsubListIdentifier eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mlsubListIdentifier o=mlusers
```

Successful Completion. Consult  
`/var/tmp/dssetup_20091019162857/dssetup.log` for details

# DSsetup Sample Session - Fresh Directory Server 6.3.1 Instance for Schema 2

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## Introduction

This page contains a sample session using `comm_dssetup.pl` on a fresh Directory Server 6.3.1 instance.

## Summary of Commands Run

```
229 /opt/sun/comms/dssetup/sbin/comm_dssetup.pl
230 ls /var/tmp/dssetup_20091019165942/
231 ls /var/tmp/dssetup_20091019165942/save
232 cat /var/tmp/dssetup_20091019165942/99user_new.ldif
233 cat /var/tmp/dssetup_20091019165942/dssetup.ldif
234 cat /var/tmp/dssetup_20091019165942/dssetup.ldif.rej
235 cat /var/tmp/dssetup_20091019165942/dssetup.sh
236 cat /var/tmp/dssetup_20091019165942/dssetup.log
```

## Comments

To create a pristine DS instance

1. `cd /opt/sun/directory/ds6/bin`
2. `dsadm create /var/opt/sun/directory/dsins2`
3. `dsadm start /var/opt/sun/directory/dsins2`
4. `dsadm delete /var/opt/sun/directory/dsins2`

## Session

```
(229 root) /opt/sun/comms/dssetup/sbin/comm_dssetup.pl

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019165942/dssetup.log

Do you want to continue [y]:
```

Please enter the full path to the directory where the Directory Server instance(s) reside ("server-root"), or an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

- [1] dsins1
- [2] dsins2

Which instance do you want [1]: 2

Please enter the directory manager DN [cn=Directory Manager]:

Password:

Configuration from DS config file:

- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

Detected DS version 6.3 on moe-vmware port 389

Will this directory server be used for users/groups [yes]:

WARNING: No default suffix found in the Directory

A list of suffixes are as follows:

No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :

There are 3 possible schema types:

- 1 - schema 1 for systems with iMS 5.x data
- 1.5 - schema 2 compatibility for systems with iMS 5.x data that has been converted with commdirmig
- 2 - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]: 2

Access Manager has not been configured for this new user/group suffix  
You can opt to continue, but you will not be able to use features that depend on Access Manager

Are you sure you want this schema type? [n]: y

Do you want to update the schema files [yes]:

Do you want to configure new indexes [yes]:

Do you want to Reindex the new indexes now [yes]:

Here is a summary of the settings that you chose:

```
Server Root                : /var/opt/sun/directory
Server Instance            : dsins2
Users/Groups Directory     : yes
Update Schema              : yes
Schema Type                : 2
DC Root                    : o=usergroup
User/Group Root            : o=usergroup
Add New Indexes            : yes
ReIndex New Indexes Now    : yes
Directory Manager DN       : cn=Directory Manager
```

Now ready to generate a shell script and ldif file to modify the Directory.

No changes to the Directory Server will be made this time.

Do you want to continue [y]:

Generating files...

Checking to see if Suffixes need to be added

Will Create suffix o=comms-config

Will Create suffix o=usergroup

Will Create suffix o=pab

Will Create suffix o=PiServerDb

Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off

Plugin is already disabled

Adding indexes

Adding Indexes for User/group Tree (backend:usergroupdb2)

Checking indexes for icsCalendar

New indexes and Reindexing required

ReIndex will happen for index type icsCalendar

Checking indexes for mailAlternateAddress

No new indexes required

Checking indexes for ou

New indexes and Reindexing required

ReIndex will happen for index type ou

Checking indexes for cn

No new indexes required

Checking indexes for uniqueMember

No new indexes required

Checking indexes for cosspecifier

New indexes and Reindexing required

ReIndex will happen for index type cosspecifier

Checking indexes for member

No new indexes required

Checking indexes for mailEquivalentAddress

New indexes and Reindexing required

ReIndex will happen for index type mailEquivalentAddress

Checking indexes for mgrpUniqueId

New indexes and Reindexing required

ReIndex will happen for index type mgrpUniqueId

Checking indexes for inetCos

```

    New indexes and Reindexing required
    ReIndex will happen for index type inetCos
Checking indexes for mailUserStatus
    New indexes and Reindexing required
    ReIndex will happen for index type mailUserStatus
Checking indexes for memberOf
    New indexes and Reindexing required
    ReIndex will happen for index type memberOf
Checking indexes for icsCalendarOwned
    New indexes and Reindexing required
    ReIndex will happen for index type icsCalendarOwned
Checking indexes for mail
    No new indexes required
Checking indexes for groupid
    New indexes and Reindexing required
    ReIndex will happen for index type groupid
Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
    Checking indexes for inetDomainBaseDN
        New indexes and Reindexing required
        ReIndex will happen for index type inetDomainBaseDN
    Checking indexes for mailDomainStatus
        New indexes and Reindexing required
        ReIndex will happen for index type mailDomainStatus
    Checking indexes for sunOrganizationAlias
        New indexes and Reindexing required
        ReIndex will happen for index type sunOrganizationAlias
    Checking indexes for sunPreferredDomain
        New indexes and Reindexing required
        ReIndex will happen for index type sunPreferredDomain
    Checking indexes for o
        New indexes and Reindexing required
        ReIndex will happen for index type o
    Checking indexes for associatedDomain
        New indexes and Reindexing required
        ReIndex will happen for index type associatedDomain
Adding Indexes for PAB Tree (backend:pabdb2)
    Checking indexes for memberOfPAB
        New indexes and Reindexing required
        ReIndex will happen for index type memberOfPAB
    Checking indexes for memberOfManagedGroup
        New indexes and Reindexing required
        ReIndex will happen for index type memberOfManagedGroup
    Checking indexes for un
        New indexes and Reindexing required
        ReIndex will happen for index type un
    Checking indexes for memberOfPABGroup
        New indexes and Reindexing required
        ReIndex will happen for index type memberOfPABGroup
Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
    Checking indexes for MemberOfPiBook
        New indexes and Reindexing required
        ReIndex will happen for index type MemberOfPiBook
    Checking indexes for MemberofPiGroup
        New indexes and Reindexing required
        ReIndex will happen for index type MemberofPiGroup

```

```

Checking indexes for displayname
  New indexes and Reindexing required
  ReIndex will happen for index type displayname
Adding Indexes for Mailing List Tree (backend:mlusersdb2)
Checking indexes for mlsuMail
  New indexes and Reindexing required
  ReIndex will happen for index type mlsuMail
Checking indexes for mlsuListIdentifier
  New indexes and Reindexing required
  ReIndex will happen for index type mlsuListIdentifier
Checking indexes for mail
  No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
  /var/tmp/dssetup_20091019165942/dssetup.sh
  /var/tmp/dssetup_20091019165942/dssetup.ldif

Running /var/tmp/dssetup_20091019165942/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:

Running /var/tmp/dssetup_20091019165942/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019165942/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3828
-- Creating Suffix o=comms-config
-- Done Creating o=comms-config

```

```

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

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

-- rejects to /var/tmp/dssetup_20091019165942/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Finished indexing.

```

```

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t icsCalendar
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup ou
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t ou o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup

```

```

mailEquivalentAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailEquivalentAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t inetCos
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup

```

```

mailUserStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOf
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
icsCalendarOwned o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t groupid
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetDomainBaseDN
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup

```

```

inetDomainBaseDN

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN reindex
o=usergroup
## usergroupdb2: Indexing attribute: inetDomainBaseDN
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetDomainBaseDN o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailDomainStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailDomainStatus o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup

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```

sunOrganizationAlias eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t sunOrganizationAlias
reindex o=usergroup
## usergroupdb2: Indexing attribute: sunOrganizationAlias
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
sunOrganizationAlias o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t sunPreferredDomain reindex
o=usergroup
## usergroupdb2: Indexing attribute: sunPreferredDomain
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
sunPreferredDomain o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup o
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
o

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t o reindex o=usergroup
## usergroupdb2: Indexing attribute: o
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).

```

```

-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t o o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t associatedDomain reindex
o=usergroup
## usergroupdb2: Indexing attribute: associatedDomain
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
associatedDomain o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab memberOfPAB
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOfPAB
o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

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memberOfManagedGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfManagedGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t un o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup reindex
o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfPABGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb

```

```

MemberOfPiBook
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
MemberofPiGroup o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t displayname
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mlsubMail
o=mlusers

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mlsubListIdentifier o=mlusers

Successful Completion. Consult
/var/tmp/dssetup_20091019165942/dssetup.log for details
(230 root) ls /var/tmp/dssetup_20091019165942/
total 193
  2 99user_new.ldif      69 dssetup.log
  6 dssetup.ldif        109 dssetup.sh*
  2 dssetup.ldif.rej    5 save/
(231 root) ls /var/tmp/dssetup_20091019165942/save
total 636

```

```

153 00core.ldif          17 50ns-mail.ldif
16 00ds6pwp.ldif       35 50ns-mcd-browser.ldif
 5 05rfc2247.ldif      11 50ns-mcd-config.ldif
 3 05rfc2927.ldif      7 50ns-mcd-li.ldif
16 11rfc2307.ldif      42 50ns-mcd-mail.ldif
10 20subscriber.ldif   3 50ns-media.ldif
 7 25java-object.ldif 16 50ns-mlm.ldif
19 28pilot.ldif        100 50ns-msg.ldif
25 30ns-common.ldif    7 50ns-netshare.ldif
 7 50iplanet-servicemgt.ldif 5 50ns-news.ldif
14 50ns-admin.ldif     3 50ns-proxy.ldif
15 50ns-calendar.ldif 7 50ns-value.ldif
 4 50ns-certificate.ldif 8 50ns-wcal.ldif
24 50ns-compass.ldif  4 50ns-web.ldif
14 50ns-delegated-admin.ldif 2 99user.ldif
33 50ns-directory.ldif
 4 50ns-legacy.ldif
(232 root) cat /var/tmp/dssetup_20091019165942/99user_new.ldif
cat /var/tmp/dssetup_20091019165942/99user_new.ldif
#
# Copyright 2003 Sun Microsystems, Inc. All Rights Reserved
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#
#
# Use of this product is subject to
# license terms. Copyright (c) 2001 Sun Microsystems, Inc.
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Corp.
# All rights reserved.
#
#
# User-defined schema
#
dn: cn=schema
(233 root) cat /var/tmp/dssetup_20091019165942/dssetup.ldif
cat /var/tmp/dssetup_20091019165942/dssetup.ldif
# This Ldif file contains the changes to be made to the Directory
# Run it like this:
#   cd /opt/SUNWdsee/dsee6/bin
#   ./ldapmodify -p 389 -h moe-vmware -D binddn -j passwdfile -c -f
/var/tmp/dssetup_20091019165942/dssetup.ldif

#-----
# This section creates the installer metadata
#-----

#####
# dn: cn=schema
# Add the schema for sunkeyvalue. Required by sunCommsMetaData
objectclass
# Note that sunkeyvalue may have already been added by Access Manager
#####
dn: cn=schema
changetype: modify
add: attributeTypes
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.83 NAME ( 'sunkeyvalue' ) DESC

```

```

'Attribute to store the encoded key values of the services' SYNTAX
1.3.6.1.4.1.1466.115.121.1.26 X-ORIGIN 'Sun ONE Identity Management' )

#####
# dn: cn=schema
# Add the schema for the Comm Servers installer metadata information
#####
dn: cn=schema
changetype: modify
add: objectClasses
objectClasses: ( 1.3.6.1.4.1.42.2.27.2.1.39 NAME 'sunCommsMetaData' DESC
'Objectclass for storing meta data for Sun Communication' SUP top
STRUCTURAL MUST ( cn ) MAY ( sunkeyvalue ) )

#####
# dn: o=comms-config
# Create the DN for the root suffix of metadata for Comms Products
#####
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject

#####
# dn: cn=CommServers,o=comms-config
# Create the DN for the installer metadata for Comm Servers
#####
dn: cn=CommServers,o=comms-config
changetype: add
objectclass: top
objectclass: sunCommsMetaData
sunkeyvalue: dssetup_ver=6.4
sunkeyvalue: dssetup_rev=5.05
sunkeyvalue: dcsuffix=o=usergroup
sunkeyvalue: ugsuffix=o=usergroup
sunkeyvalue: mlsuffix=o=mlusers
sunkeyvalue: schematype=2
aci:
(target="ldap:///cn=CommServers,o=comms-config")(targetattr!="aci")(version
3.0; acl "Anonymous access to dssetup config"; allow
(read,search,compare) userdn="ldap:///anyone");
(234 root) cat /var/tmp/dssetup_20091019165942/dssetup.ldif.rej
cat /var/tmp/dssetup_20091019165942/dssetup.ldif.rej
# Error: Already exists
dn: o=comms-config
changetype: add
objectclass: top
objectclass: extensibleObject
(235 root) cat /var/tmp/dssetup_20091019165942/dssetup.sh
#! /bin/sh
# This shell script contains the commands to run against the Directory
#set -x

#
# Usage
#

```

```

usage()
{
    echo "Usage: $0 -D <binddn> -j <passwdfile>"
    echo "  -D binddn          bind dn"
    echo "  -j <passwdfile>   read bind passwd from 'file' for simple
authentication"
    exit 1
}

if [ $# -lt 1 ]
then
    echo "You must specify either -j"
    usage
fi

jflag=0
Dflag=0
while getopts D:j: c; do
    case $c in
        D)
            Dflag=1
            BINDDN=$OPTARG;;
        j)
            jflag=1
            pflag=-j
            parg=$OPTARG;;
        \?)
            usage;;
    esac
done
shift `expr $OPTIND - 1`

if [ $Dflag -eq 0 ]
then
    echo "You must specify the -D switch"
    usage
fi

if [ $jflag -eq 0 ]
then
    echo "You must specify -j"
    usage
fi

if [ $# -ge 1 ]
then
    echo "Unrecognized argument $*"
    usage
fi

set ` /usr/bin/id `
if [ $1 != "uid=0(root)" ]; then
    echo
    echo "To run this utility you need to be the system's root user. \n"
    echo
    exit 1

```

```

fi

echo -- Updating Schema files...
echo -- Copying 20subscriber.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/20subscriber.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-delegated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-delegated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mail.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mail.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-mlm.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-mlm.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-msg.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-msg.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-value.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-value.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 55ims-ical.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/55ims-ical.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 56ims-schema.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/56ims-schema.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 65im.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/65im.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70sun-schema2.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70sun-schema2.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 71sun-am.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/71sun-am.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 60iplanet-calendar.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/60iplanet-calendar.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 50ns-iabs.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/50ns-iabs.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 98ns-dummy-uwu.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/98ns-dummy-uwu.ldif
/var/opt/sun/directory/dsins2/config/schema
echo -- Copying 70delgated-admin.ldif
cp /proj/opt/sun/comms/dssetup/sbin/schema/70delgated-admin.ldif
/var/opt/sun/directory/dsins2/config/schema

echo -- Stopping Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm stop /var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
    echo "Stopping the Directory server failed"
    exit 1
fi
sleep 5

```

```

echo -- Starting Directory Server
/proj/opt/sun/directory/ds6/bin/dsadm start
/var/opt/sun/directory/dsins2
if [ $? != 0 ]; then
    echo "The server may not have restarted properly"
    echo "Please restart it manually"
fi
sleep 5

echo -- Creating Suffix o=comms-config
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name comms-configdb2 o=comms-config
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=comms-config
echo

echo -- Creating Suffix o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name usergroupdb2 o=usergroup
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=usergroup
echo

echo -- Creating Suffix o=pab
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name pabdb2 o=pab
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=pab
echo

echo -- Creating Suffix o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name PiServerDbdb2 o=PiServerDb
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=PiServerDb

```

```

echo

echo -- Creating Suffix o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf create-suffix --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
--db-name mlusersdb2 o=mlusers
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-suffix
returned $stat"
fi
echo -- Done Creating o=mlusers
echo

echo -- Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif
cd /opt/SUNWdsee/dsee6/bin
./ldapmodify -p 389 -h moe-vmware -D "$BINDDN" $pflag "$parg" -c -e
/var/tmp/dssetup_20091019165942/dssetup.ldif.rej -f
/var/tmp/dssetup_20091019165942/dssetup.ldif
stat=$?
echo -- rejects to /var/tmp/dssetup_20091019165942/dssetup.ldif.rej
status = $stat
if [ $stat -eq 0 ]; then
    echo "-- ldapmodify returned $stat"
elif [ $stat -eq 20 ]; then
    echo "-- WARNING: ldapmodify returned $stat"
else
    echo "-- ERROR: ldapmodify returned $stat"
    exit $stat;
fi
echo -- Done Applying ldif file
/var/tmp/dssetup_20091019165942/dssetup.ldif
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "icsCalendar"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "icsCalendar"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf

```

```

set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendar" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"icsCalendar" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex

```

```

returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"icsCalendar" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "ou"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "ou"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "ou" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "ou"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "ou"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "cosspecifier"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "cosspecifier"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "cosspecifier" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"cosspecifier" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"cosspecifier" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailEquivalentAddress"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailEquivalentAddress"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailEquivalentAddress" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailEquivalentAddress" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailEquivalentAddress" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mgrpUniqueId"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mgrpUniqueId"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mgrpUniqueId" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mgrpUniqueId" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mgrpUniqueId" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "inetCos"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "inetCos"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "inetCos" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetCos" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "inetCos"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailUserStatus"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailUserStatus"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailUserStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailUserStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailUserStatus" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailUserStatus" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "memberOf"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "memberOf"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "memberOf" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "memberOf" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOf" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOf" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "icsCalendarOwned"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "icsCalendarOwned"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "approx-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "icsCalendarOwned" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"icsCalendarOwned" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"icsCalendarOwned" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "groupid"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "groupid"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "groupid" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex
o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"groupid" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "groupid"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetDomainBaseDN
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "inetDomainBaseDN"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "inetDomainBaseDN"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "inetDomainBaseDN" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "inetDomainBaseDN" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"inetDomainBaseDN" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"inetDomainBaseDN" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "mailDomainStatus"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "mailDomainStatus"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailDomainStatus" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "mailDomainStatus" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mailDomainStatus" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mailDomainStatus" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "sunOrganizationAlias"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "sunOrganizationAlias"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "sunOrganizationAlias" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "sunOrganizationAlias" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t sunOrganizationAlias
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"sunOrganizationAlias" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"sunOrganizationAlias" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "sunPreferredDomain"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "sunPreferredDomain"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "sunPreferredDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "sunPreferredDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t sunPreferredDomain
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"sunPreferredDomain" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"sunPreferredDomain" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
o
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "o"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "o"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "o" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "o" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"

```

```

fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t o reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "o"
"o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "o"
"o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=usergroup" "associatedDomain"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=usergroup" "associatedDomain"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "associatedDomain" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=usergroup" "associatedDomain" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi

```

```

echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t associatedDomain
reindex o=usergroup
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"associatedDomain" "o=usergroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"associatedDomain" "o=usergroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfPAB"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfPAB"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPAB" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPAB" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi

```

```

echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex
o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfPAB" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfPAB" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfManagedGroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfManagedGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfManagedGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfManagedGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi

```

```

echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfManagedGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfManagedGroup" "o=pab"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"un"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"un"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "un" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
un eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t "un"
"o=pab"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t "un"
"o=pab"

```

```

echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured "o=pab"
"memberOfPABGroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index "o=pab"
"memberOfPABGroup"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPABGroup" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=pab" "memberOfPABGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup
reindex o=pab
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"memberOfPABGroup" "o=pab"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"memberOfPABGroup" "o=pab"

```

```

echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "MemberOfPiBook"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "MemberOfPiBook"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "MemberOfPiBook" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"MemberOfPiBook" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"MemberOfPiBook" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "MemberofPiGroup"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "MemberofPiGroup"

```

```

echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "MemberofPiGroup" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup
reindex o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"MemberofPiGroup" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"MemberofPiGroup" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=PiServerDb" "displayname"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=PiServerDb" "displayname"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "pres-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

```

```

echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=PiServerDb" "displayname" "sub-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"displayname" "o=PiServerDb"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"displayname" "o=PiServerDb"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=mlusers" "mlsubMail"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=mlusers" "mlsubMail"

```

```

echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=mlusers" "mlsubMail" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=mlusers mlsubMail eq-enabled:on
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex
o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mlsubMail" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mlsubMail" "o=mlusers"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
/proj/opt/sun/directory/ds6/bin/dsconf create-index --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured
"o=mlusers" "mlsubListIdentifier"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf create-index
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index
"o=mlusers" "mlsubListIdentifier"
echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
/proj/opt/sun/directory/ds6/bin/dsconf set-index-prop --user-dn
"$BINDDN" --pwd-file "$parg" --port 389 --hostname moe-vmware
--unsecured "o=mlusers" "mlsubListIdentifier" "eq-enabled:on"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf
set-index-prop returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=mlusers mlsubListIdentifier eq-enabled:on

```

```

echo

echo -- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsuBlistIdentifier
reindex o=mlusers
/proj/opt/sun/directory/ds6/bin/dsconf reindex --user-dn "$BINDDN"
--pwd-file "$parg" --port 389 --hostname moe-vmware --unsecured -t
"mlsuBlistIdentifier" "o=mlusers"
stat=$?
if [ $stat -ne 0 ]; then
    echo "-- WARNING: /proj/opt/sun/directory/ds6/bin/dsconf reindex
returned $stat"
fi
echo -- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
"mlsuBlistIdentifier" "o=mlusers"
echo
(236 root) cat /var/tmp/dssetup_20091019165942/dssetup.log
-----

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

Welcome to the Directory Server preparation tool for
Sun Java(tm) System communication services.
dssetup Version 6.4-5.05 (built Sat Aug  8 00:13:09 PDT 2009)

This tool prepares your directory server for use by the
communications services which include Messaging, Calendar and their
components.

The logfile is /var/tmp/dssetup_20091019165942/dssetup.log

Do you want to continue [y]:

Please enter the full path to the directory where the
Directory Server instance(s) reside ("server-root"), or
an explicit Directory Server instance directory

Directory server root [/var/opt/sun/directory] :

Please select a directory server instance from the following list:

[1]  dsins1
[2]  dsins2

Which instance do you want [1]: 2
Please enter the directory manager DN [cn=Directory Manager]:
stty -echo
Password:
stty echoConfiguration from DS config file:
- DS Install location: /proj/opt/sun/directory/ds6
- DS hostname: moe-vmware
- DS port: 389

ldapsearch location: /opt/SUNWdsee/dsee6/bin

./ldapsearch -D "cn=Directory Manager" -j

```

```

"/var/tmp/dssetup_20091019165942/dssetup.pw" -p 389 -h moe-vmware -b
"cn=monitor" -s base objectclass=top version 2>&1
./ldapsearch output: version: 1
./ldapsearch output: dn: cn=monitor
./ldapsearch output: version: Sun-Java(tm)-System-Directory/6.3
B2008.0311.0212
-- Detected DS versions:
    full: 6.3
    major: 6
    minor: 3
    micro: NONE
    patch: NONE

Detected DS version 6.3 on moe-vmware port 389
-- Stored Dssetup data ver=0 rev=0, dctree=
    ug=, schematype=

Will this directory server be used for users/groups [yes]: WARNING: No
default suffix found in the Directory
A list of suffixes are as follows:
    No Suffixes Found

Please enter the Users/Groups base suffix [o=usergroup] :
-----
has_naming_context_ds6 get-suffix-prop result:
"o=usergroup": suffix does not exist.
The "get-suffix-prop" operation failed on "moe-vmware:389".

-----
There are 3 possible schema types:
    1 - schema 1 for systems with iMS 5.x data
    1.5 - schema 2 compatibility for systems with iMS 5.x data
         that has been converted with commdirmig
    2 - schema 2 native for systems using Access Manager

Please enter the Schema Type (1, 1.5, 2) [1]: 2Access Manager has not
been configured for this new user/group suffix
You can opt to continue, but you will not be able to use
features that depend on Access Manager

Are you sure you want this schema type? [n]: y
Do you want to update the schema files [yes]:
Do you want to configure new indexes [yes]:
Do you want to Reindex the new indexes now [yes]:
Here is a summary of the settings that you chose:

    Server Root                : /var/opt/sun/directory
    Server Instance            : dsins2
    Users/Groups Directory     : yes
    Update Schema              : yes
    Schema Type                : 2
    DC Root                    : o=usergroup
    User/Group Root            : o=usergroup
    Add New Indexes            : yes
    ReIndex New Indexes Now    : yes
    Directory Manager DN       : cn=Directory Manager

```

Now ready to generate a shell script and ldif file to modify the Directory.

No changes to the Directory Server will be made this time.

Do you want to continue [y]:

Generating files...

Checking to see if Suffixes need to be added

-----

has\_naming\_context\_ds6 get-suffix-prop result:

"o=comms-config": suffix does not exist.

The "get-suffix-prop" operation failed on "moe-vmware:389".

-----

Will Create suffix o=comms-config

-----

has\_naming\_context\_ds6 get-suffix-prop result:

"o=usergroup": suffix does not exist.

The "get-suffix-prop" operation failed on "moe-vmware:389".

-----

Will Create suffix o=usergroup

-----

has\_naming\_context\_ds6 get-suffix-prop result:

"o=pab": suffix does not exist.

The "get-suffix-prop" operation failed on "moe-vmware:389".

-----

Will Create suffix o=pab

-----

has\_naming\_context\_ds6 get-suffix-prop result:

"o=PiServerDb": suffix does not exist.

The "get-suffix-prop" operation failed on "moe-vmware:389".

-----

Will Create suffix o=PiServerDb

-----

has\_naming\_context\_ds6 get-suffix-prop result:

"o=mlusers": suffix does not exist.

The "get-suffix-prop" operation failed on "moe-vmware:389".

-----

Will Create suffix o=mlusers

Checking to see that uid uniqueness plugins are turned off

Plugin is already disabled

Adding indexes

Adding Indexes for User/group Tree (backend:usergroupdb2)

Checking indexes for icsCalendar

```
Index does not exist
  Index pres does not exist
  Index eq does not exist
  Index approx does not exist
  Index sub does not exist
New indexes and Reindexing required
ReIndex will happen for index type icsCalendar
Checking indexes for mailAlternateAddress
  Default index DN exists
  Default index eq found
  No new indexes required
Checking indexes for ou
  Index does not exist
    Index pres does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type ou
Checking indexes for cn
  Default index DN exists
  Default index pres found
  Default index eq found
  Default index sub found
  No new indexes required
Checking indexes for uniqueMember
  Default index DN exists
  Default index eq found
  No new indexes required
Checking indexes for cosspecifier
  Index does not exist
    Index pres does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type cosspecifier
Checking indexes for member
  Default index DN exists
  Default index eq found
  No new indexes required
Checking indexes for mailEquivalentAddress
  Index does not exist
    Index pres does not exist
    Index eq does not exist
    Index approx does not exist
    Index sub does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type mailEquivalentAddress
Checking indexes for mgrpUniqueId
  Index does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type mgrpUniqueId
Checking indexes for inetCos
  Index does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type inetCos
Checking indexes for mailUserStatus
  Index does not exist
    Index pres does not exist
```

```

    Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type mailUserStatus
Checking indexes for memberOf
    Index does not exist
        Index eq does not exist
        Index sub does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type memberOf
Checking indexes for icsCalendarOwned
    Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index approx does not exist
        Index sub does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type icsCalendarOwned
Checking indexes for mail
    Default index DN exists
    Default index pres found
    Default index eq found
    Default index sub found
    No new indexes required
Checking indexes for groupid
    Index does not exist
        Index pres does not exist
        Index eq does not exist
        Index sub does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type groupid
Adding Schema2 specific Indexes for User/Group Tree
(backend:usergroupdb2)
Checking indexes for inetDomainBaseDN
    Index does not exist
        Index pres does not exist
        Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type inetDomainBaseDN
Checking indexes for mailDomainStatus
    Index does not exist
        Index pres does not exist
        Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type mailDomainStatus
Checking indexes for sunOrganizationAlias
    Index does not exist
        Index pres does not exist
        Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type sunOrganizationAlias
Checking indexes for sunPreferredDomain
    Index does not exist
        Index pres does not exist
        Index eq does not exist
    New indexes and Reindexing required
    ReIndex will happen for index type sunPreferredDomain

```

```

Checking indexes for o
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type o
Checking indexes for associatedDomain
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type associatedDomain
Adding Indexes for PAB Tree (backend:pabdb2)
Checking indexes for memberOfPAB
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type memberOfPAB
Checking indexes for memberOfManagedGroup
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type memberOfManagedGroup
Checking indexes for un
  Index does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type un
Checking indexes for memberOfPABGroup
  Index does not exist
    Index pres does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type memberOfPABGroup
Adding Indexes for New PAB Tree (backend:PiServerDbdb2)
Checking indexes for MemberOfPiBook
  Index does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type MemberOfPiBook
Checking indexes for MemberofPiGroup
  Index does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type MemberofPiGroup
Checking indexes for displayname
  Index does not exist
    Index pres does not exist
    Index eq does not exist
    Index sub does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type displayname
Adding Indexes for Mailing List Tree (backend:mlusersdb2)
Checking indexes for mlsubMail

```

```

Index does not exist
  Index eq does not exist
New indexes and Reindexing required
ReIndex will happen for index type mlsubMail
Checking indexes for mlsubListIdentifier
  Index does not exist
    Index eq does not exist
  New indexes and Reindexing required
  ReIndex will happen for index type mlsubListIdentifier
Checking indexes for mail
  Default index DN exists
  Default index pres found
  Default index eq found
  Default index sub found
  No new indexes required

Checking to see if DN needs to be created for suffixes

Generating ldif for installer metadata
  Generating ldif for Adding schema for installer metadata
  Generating ldif for Creating DN: o=comms-config
  Generating ldif for Creating DN: cn=CommServers,o=comms-config
The following files have been created:
  /var/tmp/dssetup_20091019165942/dssetup.sh
  /var/tmp/dssetup_20091019165942/dssetup.ldif

Running /var/tmp/dssetup_20091019165942/dssetup.sh will make changes to
the Directory
  You can run this file now or at a later time
Ready to execute the script now.

Do you want to continue [y]:
Running /var/tmp/dssetup_20091019165942/dssetup.sh -D "cn=Directory
Manager" -j /var/tmp/dssetup_20091019165942/dssetup.pw
-- Updating Schema files...
-- Copying 20subscriber.ldif
-- Copying 50ns-delegated-admin.ldif
-- Copying 50ns-mail.ldif
-- Copying 50ns-mlm.ldif
-- Copying 50ns-msg.ldif
-- Copying 50ns-value.ldif
-- Copying 55ims-ical.ldif
-- Copying 56ims-schema.ldif
-- Copying 65im.ldif
-- Copying 70sun-schema2.ldif
-- Copying 71sun-am.ldif
-- Copying 60iplanet-calendar.ldif
-- Copying 50ns-iabs.ldif
-- Copying 98ns-dummy-uwc.ldif
-- Copying 70delgated-admin.ldif
-- Stopping Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' stopped
-- Starting Directory Server
Directory Server instance '/var/opt/sun/directory/dsins2' started:
pid=3828
-- Creating Suffix o=comms-config

```

```

-- Done Creating o=comms-config

-- Creating Suffix o=usergroup
-- Done Creating o=usergroup

-- Creating Suffix o=pab
-- Done Creating o=pab

-- Creating Suffix o=PiServerDb
-- Done Creating o=PiServerDb

-- Creating Suffix o=mlusers
-- Done Creating o=mlusers

-- Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif
ldap_add: Already exists
modifying entry cn=schema

modifying entry cn=schema

adding new entry o=comms-config

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

-- rejects to /var/tmp/dssetup_20091019165942/dssetup.ldif.rej status =
0
-- ldapmodify returned 0
-- Done Applying ldif file /var/tmp/dssetup_20091019165942/dssetup.ldif

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendar

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendar sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendar sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendar reindex
o=usergroup

```

```

## usergroupdb2: Indexing attribute: icsCalendar
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t icsCalendar
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup ou
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
ou

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup ou
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup ou pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t ou reindex o=usergroup
## usergroupdb2: Indexing attribute: ou
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t ou o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
cosspecifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
cosspecifier pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup cosspecifier pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t cosspecifier reindex
o=usergroup
## usergroupdb2: Indexing attribute: cosspecifier
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t cosspecifier
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailEquivalentAddress

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress eq-enabled:on

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailEquivalentAddress sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailEquivalentAddress sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailEquivalentAddress
reindex o=usergroup
## usergroupdb2: Indexing attribute: mailEquivalentAddress
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailEquivalentAddress o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mgrpUniqueId

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mgrpUniqueId eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mgrpUniqueId eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mgrpUniqueId reindex
o=usergroup
## usergroupdb2: Indexing attribute: mgrpUniqueId
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mgrpUniqueId
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetCos

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetCos eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetCos eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetCos reindex o=usergroup
## usergroupdb2: Indexing attribute: inetCos
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t inetCos
o=usergroup

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailUserStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailUserStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailUserStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailUserStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailUserStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mailUserStatus
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
memberOf

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
memberOf sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup memberOf sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOf reindex
o=usergroup
## usergroupdb2: Indexing attribute: memberOf
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOf
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
icsCalendarOwned

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned pres-enabled:on

```

```

-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned approx-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned approx-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
icsCalendarOwned sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup icsCalendarOwned sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t icsCalendarOwned reindex
o=usergroup
## usergroupdb2: Indexing attribute: icsCalendarOwned
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
icsCalendarOwned o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
groupid

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
groupid sub-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup groupid sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t groupid reindex o=usergroup
## usergroupdb2: Indexing attribute: groupid
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t groupid
o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup

```

```

inetDomainBaseDN
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
inetDomainBaseDN

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
inetDomainBaseDN eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup inetDomainBaseDN eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t inetDomainBaseDN reindex
o=usergroup
## usergroupdb2: Indexing attribute: inetDomainBaseDN
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
inetDomainBaseDN o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
mailDomainStatus

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailDomainStatus pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
mailDomainStatus eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup mailDomainStatus eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mailDomainStatus reindex
o=usergroup
## usergroupdb2: Indexing attribute: mailDomainStatus
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mailDomainStatus o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunOrganizationAlias

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias pres-enabled:on

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunOrganizationAlias eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunOrganizationAlias eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t sunOrganizationAlias
reindex o=usergroup
## usergroupdb2: Indexing attribute: sunOrganizationAlias
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
sunOrganizationAlias o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
sunPreferredDomain

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
sunPreferredDomain eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup sunPreferredDomain eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t sunPreferredDomain reindex
o=usergroup
## usergroupdb2: Indexing attribute: sunPreferredDomain
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
sunPreferredDomain o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup o
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
o

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup o
pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup o
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup o eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t o reindex o=usergroup
## usergroupdb2: Indexing attribute: o
## usergroupdb2: Finished indexing.

```

```

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t o o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=usergroup
associatedDomain

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
associatedDomain pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=usergroup
associatedDomain eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=usergroup associatedDomain eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t associatedDomain reindex
o=usergroup
## usergroupdb2: Indexing attribute: associatedDomain
## usergroupdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
associatedDomain o=usergroup

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab memberOfPAB
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPAB

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPAB eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPAB reindex o=pab
## pabdb2: Indexing attribute: memberOfPAB
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t memberOfPAB
o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfManagedGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab

```

```

memberOfManagedGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfManagedGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfManagedGroup
reindex o=pab
## pabdb2: Indexing attribute: memberOfManagedGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfManagedGroup o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab un

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab un
eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t un reindex o=pab
## pabdb2: Indexing attribute: un
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t un o=pab

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=pab
memberOfPABGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=pab
memberOfPABGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t memberOfPABGroup reindex
o=pab
## pabdb2: Indexing attribute: memberOfPABGroup
## pabdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
memberOfPABGroup o=pab

```

```

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberOfPiBook

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberOfPiBook eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberOfPiBook eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberOfPiBook reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberOfPiBook
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t MemberOfPiBook
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
MemberofPiGroup

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
MemberofPiGroup eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb MemberofPiGroup eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t MemberofPiGroup reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: MemberofPiGroup
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
MemberofPiGroup o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=PiServerDb
displayname

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname pres-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname pres-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=PiServerDb
displayname sub-enabled:on

```

```

-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop
o=PiServerDb displayname sub-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t displayname reindex
o=PiServerDb
## PiServerDbdb2: Indexing attribute: displayname
## PiServerDbdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t displayname
o=PiServerDb

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubMail

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubMail eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubMail reindex o=mlusers
## mlusersdb2: Indexing attribute: mlsubMail
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t mlsubMail
o=mlusers

-- /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier
-- Done /proj/opt/sun/directory/ds6/bin/dsconf create-index o=mlusers
mlsubListIdentifier

-- /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on
-- Done /proj/opt/sun/directory/ds6/bin/dsconf set-index-prop o=mlusers
mlsubListIdentifier eq-enabled:on

-- /proj/opt/sun/directory/ds6/bin/dsconf -t mlsubListIdentifier reindex
o=mlusers
## mlusersdb2: Indexing attribute: mlsubListIdentifier
## mlusersdb2: Finished indexing.

Task completed (slapd exit code: 0).
-- Done /proj/opt/sun/directory/ds6/bin/dsconf reindex -t
mlsubListIdentifier o=mlusers

```

Successful Completion. Consult  
/var/tmp/dssetup\_20091019165942/dssetup.log for details

# Configuration Worksheets - Calendar Server

## Calendar Server Configuration Script Worksheet

Print and fill out this worksheet to use when responding to the Calendar Server `csconfigurator.sh` script configuration options.

| Option                                  | Default Value                      | Fill in Your Site's Value (to Respond to the Script) |
|-----------------------------------------|------------------------------------|------------------------------------------------------|
| LDAP Server Host Name                   | <i>FQDN of your host</i>           |                                                      |
| LDAP Server Port                        | 389                                |                                                      |
| Directory Manager DN                    | <code>cn=Directory Manager</code>  |                                                      |
| Directory Manager Password              | –                                  |                                                      |
| Enable Virtual Domains support          | Checked                            |                                                      |
| Virtual Domains setting: Default domain | <i>your domain</i>                 |                                                      |
| Calendar Administrator Username         | <code>calmaster</code>             |                                                      |
| Calendar Administrator Password         | –                                  |                                                      |
| Calendar Administrator Email address    | <code>calmaster@your domain</code> |                                                      |
| Site administrator                      | Yes                                |                                                      |
| Set up a Front End/Back End deployment  | Unchecked                          |                                                      |
| Email Alarms                            | Enabled                            |                                                      |
| Administrator Email Address             | <code>calmaster@your domain</code> |                                                      |
| SMTP Host Name                          | <i>your domain</i>                 |                                                      |
| Service Port                            | 80                                 |                                                      |
| Maximum Sessions                        | 5000                               |                                                      |
| Maximum Threads                         | 20                                 |                                                      |
| Number of server processes              | 4                                  |                                                      |
| Runtime User ID                         | <code>icsuser</code>               |                                                      |
| Runtime Group ID                        | <code>icsgroup</code>              |                                                      |

|                                                      |                                           |  |
|------------------------------------------------------|-------------------------------------------|--|
| Start Calendar Server after Successful Configuration | Unchecked                                 |  |
| Start Calendar Serve on System Startup               | Checked                                   |  |
| Configuration Directory                              | /etc/opt/calendar/SUNWics5/config         |  |
| Database Directory                                   | /var/opt/calendar/SUNWics5/csdb           |  |
| Attachment Store Directory                           | /var/opt/calendar/SUNWics5/astore         |  |
| Logs Directory                                       | /var/opt/calendar/SUNWics5/logs           |  |
| Temporary Files Directory                            | /var/opt/calendar/SUNWics5/tmp            |  |
| Enable Archive                                       | Checked                                   |  |
| Archive Directory                                    | /var/opt/calendar/SUNWics5/csdb/archive   |  |
| Enable Hot Backup                                    | Checked                                   |  |
| Hot Backup Directory                                 | /var/opt/calendar/SUNWics5/csdb/hotbackup |  |
| Keep archives for (in days)                          | Minimum: 3, Maximum: 6                    |  |
| Keep hot backups for (in days)                       | Minimum: 3, Maximum: 6                    |  |
| Same as archive checkbox                             | Checked                                   |  |



**Note**

Do not change the location or names of the logs and temporary files directories.

## Configuration Worksheets - Calendar Server 7

### Configuration Worksheets - Calendar Server 7

Print and fill out this worksheet to use when responding to the Calendar Server `init-config` script configuration options.

| Option                                          | Default Value                                           | Fill in Your Site's Value (to Respond to the Script) |
|-------------------------------------------------|---------------------------------------------------------|------------------------------------------------------|
| Directory to store configuration and data files | <code>/var/opt/sun/comms/davserver</code>               |                                                      |
| Server Host                                     | <code>localhost</code>                                  |                                                      |
| MySQL Server Port                               | <code>3306</code>                                       |                                                      |
| MySQL Runtime User                              | <code>caldav</code>                                     |                                                      |
| MySQL Password                                  | <code>-</code>                                          |                                                      |
| Database User ID                                | <code>caldav</code>                                     |                                                      |
| Database User Password                          | <code>-</code>                                          |                                                      |
| Calendar Database Name                          | <code>caldav</code>                                     |                                                      |
| Application Server Installation Directory       | <code>/opt/SUNWappserver</code>                         |                                                      |
| Application Server Domain Directory             | <code>/opt/SUNWappserver/domains/domain1</code>         |                                                      |
| Application Server Document Root Directory      | <code>/opt/SUNWappserver/domains/domain1/docroot</code> |                                                      |
| Application Server Instance Name                | <code>server</code>                                     |                                                      |
| Virtual Server Identifier                       | <code>server</code>                                     |                                                      |
| Application Server Instance HTTP Port           | <code>8080</code>                                       |                                                      |
| Administration Server Port                      | <code>4848</code>                                       |                                                      |
| Administrator User ID                           | <code>admin</code>                                      |                                                      |
| Administrator Password                          |                                                         |                                                      |
| Secure Administration Server Instance           | <code>(selected)</code>                                 |                                                      |

|                                       |                                                                                                                 |  |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------|--|
| URI Path for Calendar Server 7        | /                                                                                                               |  |
| LDAP URL                              | ldap:// <i>hostname</i> :389                                                                                    |  |
| LDAP Server Host Name                 | <i>FQDN of your host</i>                                                                                        |  |
| LDAP Server Port                      | 389                                                                                                             |  |
| Directory Manager DN                  | cn=Directory Manager                                                                                            |  |
| Directory Manager Password            | –                                                                                                               |  |
| DC Tree Suffix                        | –                                                                                                               |  |
| Default Domain (DC Tree Suffix)       | (This value depends on the Directory Server root suffix that is detected at <code>init-config</code> run time.) |  |
| Mail Server Host Name (SMTP Server)   | –                                                                                                               |  |
| Mail Server Port Number (SMTP Server) | 25                                                                                                              |  |
| Calendar Administrator Username       | calmaster                                                                                                       |  |
| Calendar Administrator Password       | –                                                                                                               |  |

# 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 and configure Messaging Server.

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 <code>comm_dssetup.pl</code> script does attempt to heuristically determine the value. |                                                      |
| Directory Manager DN                  | <code>cn=Directory Manager</code>                                                                                                                        |                                                      |
| Directory Manager Password            | –                                                                                                                                                        |                                                      |
| Use directory server for users/groups | Yes                                                                                                                                                      |                                                      |
| Users/Groups base suffix              | The default depends on what is detected. The <code>comm_dssetup.pl</code> script does attempt to heuristically determine the value.                      |                                                      |
| Schema type?                          | 1. However, if you run <code>comm_dssetup.pl</code> 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

## Sun Convergence Configuration Worksheets

Before you configure Convergence, you should gather configuration information.

[Worksheet 1-1](#) lists the configuration options required for Convergence.

[Worksheet 1-2](#) lists the configuration options required by Convergence to be deployed on the Application Server.

Print and fill out these worksheets to use when responding to the Convergence `init-config` script configuration options.

### Worksheet 1-1. 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): <code>/var/opt/sun/comms/iwc</code> . This directory should be different than the <i>iwc-base</i> directory. (On Solaris OS and Red Hat Linux, this is <code>/opt/sun/comms/iwc</code> by default). |                                                      |
| Convergence server host name | Host name of the machine where the Convergence software is installed. For example: <code>mymachine</code> .                                                                                                                                                                                               |                                                      |
| DNS domain name              | The DNS domain for the host machine where the Convergence software is installed. For example: <code>siroe.com</code> .                                                                                                                                                                                    |                                                      |
| Convergence URL              | URL where Convergence will be deployed. Enter the portion of the URI following the <i>host name:port number</i> . For example: <code>/iwc</code> .                                                                                                                                                        |                                                      |
| 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: <code>ldap://LDAP host name with FQDN:LDAP port number</code> . For example: <code>ldap://siroe.com:389</code>                                                                                 |                                                      |
| 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: <code>"cn=Directory Manager"</code> .                                                                                                                   |                                                      |
| 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: <code>o=isp</code> |  |
| 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: <code>sesta.com</code> . In this example, if a user logs in as <code>fred</code> , the user name is qualified as <code>fred@sesta.com</code> .                             |  |
| Webmail host name                          | Host name where Messaging Server is installed. For example: <code>ms.sesta.com</code> .                                                                                                                                                                                                                                                                          |  |
| Webmail port number                        | Messaging Server HTTP ( <code>mshttpd</code> ) port number. For example, the default is: <code>8990</code> .                                                                                                                                                                                                                                                     |  |
| 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: <code>admin</code> .                                                                                                                                                                                                                                                                           |  |
| Calendar Server host name                  | Host name where Calendar Server is installed. For example: <code>cs.siroe.com</code> .                                                                                                                                                                                                                                                                           |  |
| Calendar Server port number                | Calendar Server HTTP port number. For example: <code>8004</code> . Default: <code>80</code> .                                                                                                                                                                                                                                                                    |  |
| Calendar Server SSL port number            | Calendar Server SSL port number. Only needed if you enable login in secure mode.                                                                                                                                                                                                                                                                                 |  |
| Calendar Server Admin user ID and password | Calendar Server administrator user ID and password. For example: <code>calmaster</code> .                                                                                                                                                                                                                                                                        |  |
| IM domain name                             | Domain name of the Instant Messaging Server. For example <code>varrius.com</code> .                                                                                                                                                                                                                                                                              |  |
| IM host name                               | Host name where Instant Messaging is installed. For example: <code>im.varrius.com</code> .                                                                                                                                                                                                                                                                       |  |
| IM port number                             | Instant Messaging HTTP port number. For example: <code>5269</code> . Default: <code>5269</code> .                                                                                                                                                                                                                                                                |  |
| IM Httpbind Component JID                  | Instant Messaging Server <code>httpbind</code> component jid. For example: <code>httpbind.varrius.com</code> .                                                                                                                                                                                                                                                   |  |
| IM Httpbind Component password             | Instant Messaging Server <code>httpbind</code> component password.                                                                                                                                                                                                                                                                                               |  |

|                                    |                                                                                               |  |
|------------------------------------|-----------------------------------------------------------------------------------------------|--|
| IM Avatar Component JID            | Instant Messaging Server avatar component jid. For example: <code>avatar.varrius.com</code> . |  |
| IM Avatar Component password       | Instant Messaging Server avatar component password.                                           |  |
| Convergence administrator username | Administrator username. For example <code>admin</code> .                                      |  |
| Convergence administrator password | Administrator password.                                                                       |  |

**Worksheet 1-2. Application Server Configuration Options**

These are the Application Server specific options you are asked to enter when you run the Convergence `init-config` script. See [Sun Java System Product Requirements for Convergence 1 Update 3](#) for the list of supported web containers.

| 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 <code>/opt/SUNWappserver</code> .                                                                                                                                                                                          |                                                      |
| Application server domain directory          | By default, this directory is <code>/opt/SUNWappserver/domains/domain1</code> .                                                                                                                                                                                                                           |                                                      |
| Application server document root directory   | By default, this directory is <code>/opt/SUNWappserver/domains/domain1/docroot</code>                                                                                                                                                                                                                     |                                                      |
| Application server target name               | Name of the instance. For example: <code>server</code> .                                                                                                                                                                                                                                                  |                                                      |
| Virtual server identifier                    | Name of the application server virtual server identifier. For example: <code>server</code> .                                                                                                                                                                                                              |                                                      |
| Application server instance HTTP port number | HTTP port number for the Application Server server instance (target). Default port number: <code>8080</code> .                                                                                                                                                                                            |                                                      |
| Administration Server port number            | Port number for the Administration Server instance for application server. For example: <code>4848</code> .                                                                                                                                                                                               |                                                      |
| Administrator Server user ID and password.   | User ID and password for the Administration Server administrator. User ID example: <code>admin</code>                                                                                                                                                                                                     |                                                      |
| Secure Administration Server Instance        | You will need to specify whether the HTTP access to the Administration Server instance is secure (HTTPS) or not (HTTP).<br>By default, the Secure Administration Server Instance box shown in the Convergence <code>init-config</code> program is checked. If your access is not secure, uncheck the box. |                                                      |

## Configuration Worksheets - Delegated Administrator

### Configuration Worksheets - Delegated Administrator

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, which provide user management.

| Option                                                | Default Value                    | Fill in Your Site's Value (to Respond to the Script) |
|-------------------------------------------------------|----------------------------------|------------------------------------------------------|
| DA Server Host                                        | <i>FQDN of your host</i>         |                                                      |
| DA Server Port                                        | 8080                             |                                                      |
| Default Domain                                        | <i>your domain</i>               |                                                      |
| Default SSL Port                                      | 443                              |                                                      |
| Web Container                                         | WEB                              |                                                      |
| Web Container Install Root Directory (for DA Console) | <code>/opt/SUNWwbsvr7</code>     |                                                      |
| Instance Root Directory                               | <code>/var/opt/SUNWwbsvr7</code> |                                                      |
| Server Instance Identifier                            | <i>FQDN of your host</i>         |                                                      |
| Virtual Server Identifier                             | <i>FQDN of your host</i>         |                                                      |
| 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                         | <code>/opt/SUNWam</code>         |                                                      |
| Web Container Install Root Directory (for DA Server)  | <code>/opt/SUNWwbsvr7</code>     |                                                      |
| Instance Root Directory                               | <code>/var/opt/SUNWwbsvr7</code> |                                                      |
| Server Instance Identifier                            | <i>FQDN of your host</i>         |                                                      |
| Virtual Server Identifier                             | <i>FQDN of your host</i>         |                                                      |
| 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                                       | <i>this value is hard-coded</i>       |
| DA Server Internal LDAP Password              | –                                             |                                       |
| AM Top level admin                            | amadmin                                       | <i>this value is hard-coded by AM</i> |
| AM admin password                             | –                                             |                                       |
| Access Manager Internal LDAP Auth Username    | amldapuser                                    | <i>this value is hard-coded by AM</i> |
| AM Internal LDAP Auth Password for amldapuser | –                                             |                                       |
| Organization DN                               | <i>o=yourDefaultDomain, o=ug_root_suffix_</i> |                                       |
| Top Level Admin for Delegated Administrator   | admin                                         |                                       |
| Password                                      | –                                             |                                       |
| Load Sample Service Packages                  | Y                                             |                                       |
| Load Sample Organizations                     | Y                                             |                                       |
| Preferred Mailhost for Sample                 | <i>FQDN of your host</i>                      |                                       |

# Configuration Worksheets - Indexing and Search Service

[< Back to Communications Suite 7 Installation Scenario - Indexing and Search Service](#)

## Sun Java Indexing and Search Service Worksheet

Print and fill out this worksheet to use when configuring Indexing and Search Service.

| Option and Example Value                                                                                   | Where Defined on Messaging Server                                                                                        | Where Defined on ISS Server | Fill in Your Site's Value |
|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------|
| Messaging Server store fully qualified host name<br>Example: mailhost.example.com                          | Configutil parameter local.hostname                                                                                      | mail.server                 |                           |
| Comma-delimited list of mail server IPs<br>Example: 10.0.0.1, 10.0.0.2                                     | -                                                                                                                        | mail.server.ip              |                           |
| User/Group Directory LDAP URL<br>Example: ldap://dirhost.example.com:389                                   | Configutil parameters local.ugldaphost and local.ugldapport                                                              | mail.ldap                   |                           |
| User/Group Directory Bind As DN<br>Example: cn=Directory Manager                                           | -                                                                                                                        | mail.searchbind             |                           |
| User/Group Directory Password                                                                              | -                                                                                                                        | mail.searchbind.password    |                           |
| User/Group Base DN<br>Example: dc=example,dc=com                                                           | Configutil parameter local.ugbasedn                                                                                      | mail.basedn                 |                           |
| Read-only mail store administrator username<br>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    |                           |
| IMQ broker host name and port for Messaging Server JMQ notifications<br>Example: mailhost.example.com:7676 | To be defined in configutil parameters local.store.notifyplugin.index.jmqhost and local.store.notifyplugin.index.jmqport | mail.imq                    |                           |
| Username for IMQ broker handling Messaging Server JMQ notifications                                        | 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           |                           |
| ISS server fully qualified host name<br>Example: isshost.example.com                                       | To be set as configutil parameter service.imap.indexer.hostname                                                          | fqdn                        |                           |
| ISS server RESTful web service port number<br>Example: 8080                                                | To be set as configutil parameter service.imap.indexer.port                                                              | appserv.web.port            |                           |

# Configuration Worksheets - Instant Messaging

## Configuration Worksheets - Instant Messaging

You should gather this information before you begin. You will be prompted for some or all of the information depending on the components you installed.

Print out the following worksheet and write the values for your deployment in the space provided. You can reuse this checklist for multiple installations of Instant Messaging. This table contains passwords and other sensitive information, so you should store this information in a safe place.

(Solaris OS Only) If you will be 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                                                     | <i>im-svr-base</i> Directory in which Instant Messaging is installed. By default, Instant Messaging is installed into the <code>/opt</code> directory as follows:<br>Solaris OS and Red Hat Linux: <code>/opt/sun/comms/im</code> (Solaris OS Only) If you will be configuring High Availability service for Instant Messaging, see <a href="#">Selecting the Installation Directory (im-svr-base)</a> for information about choosing an installation directory. |            |
| Instant Messaging Server Domain Name                                       | Domain name for the users being served by this server.<br>Default: None                                                                                                                                                                                                                                                                                                                                                                                          |            |
| Multiplexor Port Number (Multiplexor Configuration Only)                   | The port number on which the Instant Messaging Server listens for incoming requests from Instant Messenger clients.<br>Default: 5222                                                                                                                                                                                                                                                                                                                             |            |
| Multiplexed XMPP Port                                                      | Port on which the server listens for multiplexor connections<br>Default: 45222                                                                                                                                                                                                                                                                                                                                                                                   |            |
| Disable Server                                                             | Select this option if the instance you installed will act 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 <code>localhost</code> . (Solaris OS Only) If you will be configuring High Availability service for Instant Messaging, use the logical host's name.<br>Dependencies: The Disable Server parameter must be selected, that is, server functionality is disabled.                                       |            |

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Enable Email Integration, Enable Email Archiving (Optional) | If selected, enables Instant Messaging email archiving. Sun Java System Portal Server search-based archiving for Instant Messaging.<br>Dependencies: SMTP Server such as Sun Java System Messaging Server<br>Alternatively, you can manually enable Sun Java System Portal Server search-based archiving for Instant Messaging.<br>Dependencies: Sun Java System Portal Server and Sun Java System Access Manager.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| 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, <code>directory.siroe.com</code> .<br>Dependencies: LDAP server such as Sun Java System Directory Server.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| LDAP Port Number                                            | In a deployment with an LDAP server, the port number on which the directory server listens for incoming requests. For example, <code>389</code><br>Dependencies: LDAP server such as Sun Java System Directory Server.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| 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.<br>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 <a href="#">To Configure Bind Credentials for the Instant Messaging Server</a> .<br>Dependencies: LDAP server such as Sun Java System Directory Server. |  |
| Bind Password                                               | In a deployment with an LDAP server, the Bind DN password.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| SMTP Server Host Name (Optional)                            | The host name of the SMTP server used to send email notification of messages to offline users. For example, <code>mail.siroe.com</code> . 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:<br><code>mail.siroe.com:1025</code><br>Dependencies: SMTP server such as Sun Java System Messaging Server.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |

|                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>Database, Logs, and Runtime Files Pathname</p>       | <p>The location where the runtime files, database, and logs are stored. Also referred to as <i>im-runtime-base</i>. Runtime files are read, created, and modified by the server during its normal operations. Some examples include log files, and persistent state information tied to client actions such as alert messages, roster information, conferences, news channels, and so on. If you are configuring High Availability (HA) for Instant Messaging, this path must be globally available. See <a href="#">Chapter 4, Configuring Instant Messaging for High Availability (Solaris OS Only)</a> for more information about HA. The <code>configure</code> utility appends a directory (<code>/default</code>) 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 <code>/secure</code>) and copying over files from the <code>/default</code> instance runtime directory. See <a href="#">Creating Multiple Instances from a Single Instant Messaging Installation</a> for specific instructions. If you accept the following defaults when you run <code>configure</code>:</p> <p><b>Red Hat Linux:</b> <code>/var/opt/sun/comms/im/</code><br/> <b>Solaris OS:</b> <code>/var/opt/SUNWiim/</code></p> <p>The <code>configure</code> utility creates the following directories for the runtime files:</p> <p><b>Red Hat Linux:</b> <code>/var/opt/sun/comms/im/default</code><br/> <b>Solaris OS:</b> <code>/var/opt/SUNWiim/default</code></p> <p>In addition, the following two subdirectories are created under the runtime directory.</p> <p>The database directory (<i>im-db-base</i>) defaults are as follows:</p> <p><b>Red Hat Linux:</b> <code>/var/opt/sun/comms/im/default/db</code><br/> <b>Solaris OS:</b> <code>/var/opt/SUNWiim/default/db</code></p> <p>The log directory defaults are as follows:</p> <p><b>Red Hat Linux:</b> <code>/var/opt/sun/comms/im/default/log</code><br/> <b>Solaris OS:</b> <code>/var/opt/SUNWiim/default/log</code></p> |  |
| <p>Resources, Help Files, and HTTP Gateway Pathname</p> | <p>Resource Directory.</p> <p>The directory in which the resource files, online help, and the XMPP/HTTP Gateway are installed.</p> <p>If you want to customize the resource files for your deployment, you should run <code>configure</code> utility, customize the files, then redeploy the resource files. You need to run <code>configure</code> first because the <code>configure</code> utility creates some of the index and <code>.jnlp</code> files that you can customize. See <a href="#">Redeploying Resource Files</a> for information.</p> <p>Default: <code>im-svr-base/html</code></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <p>XMPP/HTTP Gateway Deployment</p>                     | <p>Determines whether or not the XMPP/HTTP gateway will be deployed. If you choose to deploy the gateway, the <code>configure</code> utility creates a default gateway configuration file (<code>httpbind.conf</code>) in the default Instant Messaging server instance's <i>im-cfg-base</i> directory if one does not already exist. If <code>httpbind.conf</code> already exists, the <code>configure</code> utility does not alter or overwrite the file.</p> <p>Default:<br/> True (gateway is deployed)</p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> <p> <b>Note:</b> If you are configuring the Instant Messaging Server to support Convergence, do not enable the XMPP/HTTP Gateway Deployment here. Set this value to <code>false</code>. The XMPP/HTTP Gateway is deployed through the Convergence server; its value is set when you configure Convergence.</p> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| XMPP/HTTP Gateway URI  | Defines the URI for the HTTP component of the XMPP/HTTP gateway.<br>Default:<br><code>http://web-svr-host:80/httpbind</code>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| 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.<br>From the configurator tool panel:<br>1. Choose the Enable SMS Gateway option by typing <code>yes</code> .<br>2. Choose the Enable Local Component option by typing <code>yes</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| IMPS Gateway           | Enables the Instant Messaging and presence service in mobile devices.<br>When configuring the Instant Messaging server, set the <code>Deploy IM IMPS Gateway</code> option to <code>yes</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| AOL/MSN/Yahoo Gateways | Enables you to communicate with external IM servers.<br>From the configurator panel, choose:<br><b>1. Enable Yahoo Gateway:</b> <code>true</code> if you want to enable the gateway on the server.<br><b>2. Enable Local Component:</b> <code>true</code> to enable the gateway on the local machine (default port and host name is used). Entering <code>false</code> will allow you to enable it on another machine (need to enter the machine's port and host name).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| Codebase               | The URL from which Instant Messenger accesses resources, including the start page for initial downloads of the Instant Messaging client.<br>The installation program installs the resource files into the following locations:<br>Solaris OS and Red Hat Linux: <code>//opt/sun/comms/im/html</code><br>The <code>configure</code> utility uses the codebase to determine which web container instance to use. If it succeeds, the <code>configure</code> utility deploys the Instant Messenger resources as a web application in the web container, according to the URL provided. If no supported web container is detected, you will be prompted for a file system location in which to copy or link the resources.<br>See your web container documentation for more information about deploying resource files as a web application. See <a href="#">Changing the Codebase</a> if you need to modify the location of the resource files after initial configuration. |  |

# Configuration Worksheets - Messaging Server

## Messaging Server configure Script Worksheet

Print and fill out this worksheet to use when responding to the Messaging Server `configure` script configuration options.

| Option                                                           | Default Value                                                                   | Fill in Your Site's Value (to Respond to the Script) |
|------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------|
| Fully Qualified Host Name (FQHN)                                 | <i>your host.your domain</i> For example:<br><code>myhost.west.sesta.com</code> |                                                      |
| Directory to store Messaging Server configuration and data files | <code>/var/msg-svr-base</code>                                                  |                                                      |
| System user name that will own the configuration files           | <code>mailsrv</code>                                                            |                                                      |
| System group that will own the configuration files               | <code>mail</code>                                                               |                                                      |
| User/Group Server LDAP                                           | <code>ldap://your host:389</code>                                               |                                                      |
| Bind As                                                          | <code>cn=Directory Manager</code>                                               |                                                      |
| Password                                                         | -                                                                               |                                                      |
| Postmaster email address                                         | -                                                                               |                                                      |
| Password for Messaging Server accounts                           | -                                                                               |                                                      |
| Default email Domain                                             | <i>your domain</i>                                                              |                                                      |
| Organization DN                                                  | <code>o=your domain,o=suffix</code>                                             |                                                      |

# Configuring a Host to be Multi-Homed

## Configuring a Host to be Multi-Homed

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 use a different IP address for each installation and configure the host to be multi-homed (accepting multiple IP addresses).

### To Change the IP Address for Each Installation

Run the `ha_ip_config` utility. Note that you must configure each installation to use a specific IP address, since the out-of-the-box default is to respond to any IP address (`INADDR_ANY`).

Note: The ENS service that needs a separate step in order to change the IP address it responds to. A workaround for now is to either disable the ENS server for one of the installations (use `local.ens.enable`), or to change the port used by the ENS server. If you don't do this, one of the ENS servers will not start up. This may not be a huge issue at this time since the other ENS server will handle requests.

### To Configure the Host to be Multi-Homed

My guess is to edit `/etc/hosts`. For Solaris 10, also edit `/etc/inet/ipnodes`. Next, plumb the IP addresses to the ethernet addresses by using (`ifconfig`). This procedure would be similar on Linux systems.

Next, update your naming service (`/etc/hosts`, `/etc/inet/ipnodes`, NIS, and/or DNS) to recognize the new IP address.

For more information, see the [Solaris 2 FAQ](#).

### To Configure Multiple Addresses Per Interface

Solaris 2.x provides a feature in `ifconfig` that allows having more than one IP address per interface. This feature is undocumented but prior to Solaris 2.5 but it exists; it is documented in versions 2.5 and later.

#### Syntax

```
# This command is only required in later releases
ifconfig IF:N plumb
ifconfig IF:N ip-address up
```

where "IF" is an interface (for example, `1e0`) and N is a number between 1 and .

To remove the pseudo interface and associated address, perform the following:

```
ifconfig IF:N 0.0.0.0 down
# In newer release you must use the following command, but
# beware that this unplumbs your real interface on older
# releases, so try the above command first.
ifconfig IF:N unplumb
```

As with physical interfaces, all you need to do is make the appropriate `/etc/hostname.IF:X` file.

The maximum number of virtual interfaces, above, is 255 in Solaris releases prior to 2.6. Solaris 2.6 and Solaris 2.5.1 with the Solaris Internet Server Supplement (SISS) allow you to set this value with `ndd`, up to a hard maximum of 8192.

```
/usr/sbin/ndd -set /dev/ip ip_addrs_per_if 4000
```

There is no limit inspired by the code; so if you bring out `adb` you can increase the maximum even further.

### Multi-Home Example

In the following example creates a multi-home on the host `myhost`.

Begin by creating 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 ffffffff80 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 ffffffff80 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
```

Set the IP address for the Messaging Server on the alternate root (on `/var/tmp/altroot/opt/SUNWmsg2` in the following example):

```
# cd /var/tmp/altroot/opt/SUNWmsg2
# sbin/ha_ip_config

Please specify the IP address assigned to the HA logical host name. Use
dotted decimal form, a.b.c.d

Logical IP address: 10.1.110.16

Please specify the path to the top level directory in which iMS is
installed.

iMS server root: /var/tmp/altroot/opt/SUNWmsg2

The iMS server root directory does not contain any slapd-*
subdirectories.
Skipping configuration of LDAP servers.

    Logical IP address: 10.1.110.16
    iMS server root: /var/tmp/altroot/opt/SUNWmsg2

Do you wish to change any of the above choices (yes/no) [no]?

Updating the file /var/tmp/altroot/opt/SUNWmsg2/config/dispatcher.cnf
Updating the file
/var/tmp/altroot/opt/SUNWmsg2/config/job_controller.cnf
Setting the service.listenaddr configutil parameter
Setting the service.http.smtphost configutil parameter
Setting the local.watcher.enable configutil parameter
Setting the local.autorestart configutil parameter
Configuration successfully updated
```

Do the same for the Messaging Server on the default root.

```
# cd /opt/SUNWmsg
# sbin/ha_ip_config

Please specify the IP address assigned to the HA logical host name. Use
dotted decimal form, a.b.c.d

Logical IP address: 10.1.110.114

Please specify the path to the top level directory in which iMS is
installed.

iMS server root: /opt/SUNWmsg

The iMS server root directory does not contain any slapd-*
subdirectories.
Skipping configuration of LDAP servers.

    Logical IP address: 10.1.110.114
    iMS server root: /opt/SUNWmsg

Do you wish to change any of the above choices (yes/no) [no]?

Updating the file /opt/SUNWmsg/config/dispatcher.cnf
Updating the file /opt/SUNWmsg/config/job_controller.cnf
Setting the service.listenaddr configutil parameter
Setting the service.http.smtphost configutil parameter
Setting the local.watcher.enable configutil parameter
Setting the local.autorestart configutil parameter
Configuration successfully updated
```

Disable the ENS server on one of the installation by setting local.ens.enable to 0:

```
sbin/configutil -o local.ens.enable -v 0
```

Configure the netmask and broadcast on the new IP address:

```

# ifconfig e1000g0:1 down
# ifconfig e1000g0:1 netmask 0xffffffff80
# ifconfig e1000g0:1
e1000g0:1: flags=1000842<BROADCAST,RUNNING,MULTICAST,IPv4> mtu 1500
index 2
    inet 10.1.110.16 netmask ffffffff80 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 ffffffff80 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 ffffffff80 broadcast 10.1.110.127
# ifconfig e1000g0:1 up

```

Edit `/etc/hosts` to add the new IP address 10.1.110.16 to it:

```

# cat /etc/hosts
127.0.0.1      localhost
10.1.110.114  myhost.west.sesta.com myhost      loghost
10.1.110.4    elegit.west.sesta.com
# multi-home - second IP address on ethernet port
10.1.110.16   myhost2.west.sesta.com myhost2

```

## Configuring Individual Ports

### Configuring Individual Ports for Multiple Installations of the Same Product on One Host

In a multiple installation of the same Communications Suite product on the same host, the different instances of the product are initially configured to use the same ports. If you run both instances of the product simultaneously, the ports will conflict.

One solution is to configure the individual ports on each installation so that they are different.

For example, for Messaging Server, you need to change the following ports in one instance:

- SMTP
- IMAP
- POP
- HTTPD
- ENS
- job\_controller
- watcher

The ports have SSL versions, too. Also, there may be other ports to use like SMTP SUBMIT.

The best place to look for MTA-related processes is the `dispatcher.cnf` file. `store` and `mshttpd` ports are probably in `configutil`. MMP ports may be in `configutil` and/or its configuration files.

In addition, you can identify ports by taking these actions:

- See [Default Port Numbers](#).
- See [Configuring POP, IMAP, and HTTP Services](#).
- You can `grep` the `masterconfig` file (`lib/config.meta`) for "port".
- Query the following `configutil` variables as shown in the following table:

| Service      | configutil Variable                           | Default Value | Comments |
|--------------|-----------------------------------------------|---------------|----------|
| watcher      | <code>local.watcher.port</code>               | 49994         |          |
| metermaid    | <code>metermaid.config.port</code>            | 63837         |          |
| IMAP         | <code>service.imap.port</code>                | 143           |          |
| IMAP SSL     | <code>service.imap.sslport</code>             | 993           |          |
| POP          | <code>service.pop.port</code>                 | 110           |          |
| POP over SSL | <code>service.pop.sslport</code>              | 995           |          |
| Webmail      | <code>service.http.port</code>                | 80            |          |
| Webmail SSL  | <code>service.http.sslport</code>             | 443           |          |
| ens          | <code>local.store.notifyplugin.ensport</code> | 7997          |          |
| jmq          | <code>local.store.notifyplugin.jmqport</code> | 7676          |          |

# Connector for Microsoft Outlook 7.3 Update 1 Installation Guide

## Sun Java System Connector for Microsoft Outlook 7.3 Update 1 Installation Guide

This guide describes how to install the Sun Java System Connector for Microsoft Outlook. This guide includes the following topics:

- [Installing the Desktop Deployment Toolkit](#)

For upgrade information, refer to [Connector for Microsoft Outlook Upgrade Guide](#) .

# Installation Worksheets - Directory Server

## Directory Server Settings Worksheet

Print and fill out this worksheet to use when responding to the Directory Server configuration options in the Communications Suite Installer.

| Option                       | Default Value                                  | Fill in Your Site's Value (to Respond to the Installer) |
|------------------------------|------------------------------------------------|---------------------------------------------------------|
| Create a Directory Instance? | Yes                                            |                                                         |
| Instance Directory           | <code>/var/opt/SUNWdsee/dsins1</code>          |                                                         |
| Directory Instance Port      | 389                                            |                                                         |
| Directory Instance SSL Port  | 636                                            |                                                         |
| Directory Manager DN         | <code>cn=Directory Manager</code>              |                                                         |
| System User                  | <code>root</code>                              |                                                         |
| System Group                 | <code>root</code>                              |                                                         |
| Directory Manager Password   | <i>password from Accounts Preference Panel</i> |                                                         |
| Suffix                       | <i>dc=your domain,dc=your suffix</i>           |                                                         |

# Installing Communications Suite in Silent Mode

## Installing Communications Suite in Silent Mode

If you run the installer in Silent mode, you are running a non-interactive session. The installation inputs are taken from a silent installation file (also known as a state file), from command line arguments, or defaults.

You can use silent mode to install multiple instances of the same software component/configuration without having to manually run an interactive installation for each instance.

To run a silent installation, follow these steps:

1. Run an interactive installation session. (See [To Begin Installation](#).) A state file similar to `/var/opt/CommsInstaller/logs/silent_CommsInstaller_20070501135358` is automatically created for every run of the installation.

You can 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 --acceptLicense --dry-run
```

2. Copy the state file to each host machine and edit the file as needed. See [Silent Mode File Format](#).

3. Run the silent installation on each host. For example:

```
# commpkg install --acceptLicense --silent <Input File>
```

where *Input File* is the path and name of the silent state file. For example:

`/var/opt/CommsInstaller/logs/silent_CommsInstaller_20070501135358`.

For details about the `--silent` option, see the silent installation usage in [commpkg usage](#).



### Note

Command-line arguments override the values and arguments in the state file.

### **About Upgrading Shared Components**

By default, shared components 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 `commpkg install --upgradeSC y`.

The reason to disable upgrading shared components in the silent state file is this: the other hosts on which you are propagating the installation might have different shared components installed, or different versions of the shared components. These versions might be required for other applications running on the different hosts. Therefore, it is safer not to 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`.

### **Silent Mode File Format**

The silent mode file (also known as a state file) is formatted like a property file: blank 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. You can add CLI arguments described in <a href="#">commpkg usage</a> , however the <code>-dry-run</code> argument cannot be added to the <code>install</code> function in the state file. | <code>VERB=install</code>                                                                                                                                                                                                                                                                                                     |
| ALTDISTROPATH | Indicates an alternate distro path if <code>-distro</code> is not specified.                                                                                                                                                   | <code>ALTDISTROPATH=SunOS5.10_i86pc_DBG.OBJ/release</code>                                                                                                                                                                                                                                                                    |
| PKGOVERWRITE  | Overwrites the existing installation packages.                                                                                                                                                                                 | <code>PKGOVERWRITE=YES</code>                                                                                                                                                                                                                                                                                                 |
| INSTALLROOT   | Specifies installation root.                                                                                                                                                                                                   | <code>INSTALLROOT=/opt/sun/comms</code>                                                                                                                                                                                                                                                                                       |
| ALTROOT       | Specifies an alternate root.                                                                                                                                                                                                   | <code>ALTROOT=yes</code>                                                                                                                                                                                                                                                                                                      |
| EXCLUDEEOS    | Specifies to not upgrade operating system patches.                                                                                                                                                                             | <code>EXCLUDEEOS=YES</code>                                                                                                                                                                                                                                                                                                   |
| COMPONENTS    | Lists the components you want to install.                                                                                                                                                                                      | <code>COMPONENTS=MS64</code> for 64-bit Messaging Server.<br><code>COMPONENTS=MS64_L10N</code> for localized 64-bit Messaging Server.<br><code>COMPONENTS=MS</code> for 32-bit Messaging Server.<br><code>COMPONENTS=MS_L10N</code> for localized 32-bit Messaging Server.<br><code>COMPONENTS=CS</code> for Calendar Server. |
| ACCEPTLICENSE | Indicates whether or not to accept license. This property must be specified either in the state file or as a command line argument.                                                                                            | <code>ACCEPTLICENSE=yes.</code>                                                                                                                                                                                                                                                                                               |
| UPGRADEESC    | Indicates whether all shared components should or should not be upgraded without prompting.                                                                                                                                    | <code>UPGRADEESC=no</code>                                                                                                                                                                                                                                                                                                    |

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 Communications Suite on Solaris Zones

This section explains how to install Communications Suite on Solaris 10 Zones. For an overview of Solaris 10 with Communications Suite, see [Overview of Solaris Zones](#) in *Sun Java Communications Suite 5 Installation Guide*.

This page includes the following topics:

- [Installing on Solaris 10 Zones: Best Practices](#)
- [Solaris 10 Zones Installation Sequences](#)
- [Guidelines for Using SunCluster HA Packages in a Non-Global Zone](#)

### Installing on Solaris 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 there that will be shared among all zones. But don't install and run products from the global zone.
- 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/patch operation in the global zone for a shared component, that operation will be attempted in the whole root zone. So if you really want different shared component versions then an alternate root would be one way to go. Unfortunately, you can't use alternate root for this purpose because of a bug (6548217) in Messaging Server.
- You could try just having whole root zones and never ever installing and patching shared components in the global zone. I don't know how realistic it is to believe that you'll 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. So to say you'll never install and patch it in the global zone seems unrealistic, especially given it is a security component.
- In sparse non-global zones, shared components can not be installed into the default root because many of them install into a readonly shared filesystem (/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 (i.e. shared components). You do not have to install in the global zone first before installing in the sparse zone, the installer will allow you to continue even when you don't install all the dependencies.

### Solaris 10 Zones Installation Sequences

This section describes how to install Communications Suite components in the four Solaris 10 Zone scenarios:

- Global zone with existing non-global zones
- Global zone with no existing non-global zones
- Non-global whole root zone
- Non-global sparse root zone

#### Global Zone with Existing Non-Global Zones



### Note

This Zone scenario is not recommended for Communications Suite implementation. It requires the same version of shared components be running on each zone. Furthermore, the global zone should be reserved for administrative zone support.

If you install Communications Suite components in a global zone with existing non-global zones, you install the appropriate OS patches, shared component patches, and Communications Suite components into the global zone. It will propagate the shared component patches into the non-global zones. To install Communications Suite in a global zone with existing non-global zones:

1. Follow pre-installation requirements as described in [Installation Overview](#).
2. Run the installer in the global zone by following the steps in [To Begin Installation](#).

### Global Zone with No Existing Non-Global Zones

If you install Messaging Server in a global zone with no existing non-global zones, you need to prepare your installation as if you might add non-global zones in the future. Modifying your deployment at a later time becomes difficult if you don't plan for this step. To do this, follow the steps in [Global zone with existing non-global zones](#).

### 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 described in [To Begin Installation](#).



### Caution

Any operations performed in the global zone (such as installations, uninstalls, and patching) affect the whole root zones.

### Non-Global Sparse Root Zone

To install Communications Suite in a non-global sparse root zone, you first need to install/upgrade the applicable OS patches and shared components in the global zone. You are unable to do so in the sparse root zone, because the `/usr` directory (where the shared components reside) is a read-only directory in the sparse root zone.

1. Follow pre-installation requirements as described in [Installation Overview](#).
2. Verify that you are about to install the shared components and OS patches in the global zone and not the sparse root zone.
3. Run the installer in the global zone and only install/upgrade the OS patches and the Shared Components:

```
commpkg install -upgradeSC y
```

4. 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 `~3` during the global zone installation. The installer will know to only install dependencies and not the product itself.
5. Once you have the shared components and OS patches installed, install Communications Suite components in the sparse root zone by following the steps in the [To Begin Installation](#) section.

### Guidelines for Using SunCluster HA Packages in a Non-Global Zone

Take the following steps to install the Communications Suite 6 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.



**Note**

In case of IM\_SCHA, run the command from global and non-global zones.

2. Run the Sun Cluster HA Agent pre-configuration command in the global zone only:

```
# <scha_base>/bin/init-config
```

# Performing Multiple Installations with an Alternate Root

## Performing Multiple Installations with an Alternate Root

The Communications Suite installer allows multiple installations of the same product version on the same machine or Solaris zone by using different *INSTALLROOTS*. By using the `altroot` option of the `commpkg install` command, you can create multiple *INSTALLROOTS* on the same machine.

This document contains the following sections:

- [Using Multiple Installations in a Side-by-Side Upgrade Scenario](#)
- [To Install a Communications Suite Product in an Alternate Root](#)
- [Understanding \*INSTALLROOT\* and Altroot](#)
- [Running Multiple Installations of the Same Product on One Host: Conflicting Ports](#)

## Using Multiple Installations in a Side-by-Side Upgrade Scenario

The multiple-installation feature lets you perform side-by-side upgrades of some Communications Suite products.

In a side-by-side upgrade, the existing software on the host can continue to run while you install the new versions of the products on an alternate root on the same host. This approach minimizes downtime, so that end users can have continuous (or near-continuous) access to their email, calendars, and so on.

### Summary of Side-by-Side Upgrade Steps

In a side-by-side upgrade scenario, you perform the following tasks:

1. Install the new Communications Suite software on the same host as the earlier versions. You can use the `commpkg install` commands shown in [To Install a Communications Suite Product in an Alternate Root](#).
2. Configure the new software. Run the configuration script for the product.
3. Migrate data to the new directories under the alternate root's *INSTALLROOT*.
4. Configure alternate ports for the new installation under the alternate root. Alternatively, configure the host as a multi-home. For details, see [Running Multiple Installations of the Same Product on One Host - Conflicting Ports](#).
5. Test the new software.
6. Switch end users to the new environment.

For more information about the side-by-side upgrade scenario, see [Using the Side-by-Side Strategy to Upgrade Messaging Server](#).

## To Install a Communications Suite Product in an Alternate Root

Install the product in the alternate root with the `-altroot` option:

1. Install OS patches and Shared Components in the default *INSTALLROOT*. See [To Begin Installation](#).

To install only the shared components, you can run `commpkg install` without `--altroot` and select the product you want to install. You select a product by entering the number displayed next to it in the install list. Add a ~ (tilde) in front of the product number.

For example, if you plan to install Messaging Server in the alternate root, you select ~3 during the default installation. This tells the installer to install the dependencies but not the product itself.

**Note**  
OS patches are always applied in the default `INSTALLROOT`, never in the alternate root.

2. Install the product in the `altroot`, as in the following example:

```
commpkg install --altroot --installroot /opt/sun/comms2
```

Be sure to use `--installroot` with `--altroot` to specify the alternate root.

You can also avoid installing the shared components in the `altroot` by using the `--excludeSC` option, as in the following example:

```
commpkg install --excludeSC --altroot --installroot /opt/sun/comms2
```

You may create as many alternate roots as you like. However, you should manually keep track of all the alternate roots you have created.

## Understanding *INSTALLROOT* and *Altroot*

The following concepts define an `altroot`:

- An `altroot` is an alternate root directory.
- The `altroot` is used for multiple installations of Communications Suite products on the same host.
- The default root is the standard root directory, which can be indicated with a `/`.
- An `altroot` implies the existence of a default root.

The following concepts define an *INSTALLROOT*:

- An *INSTALLROOT* is the top-level installation path for the Communications Suite products and shared components.
- There is an *INSTALLROOT* (an installation path) for each instance of the installed products. That is, if your system has a default root and an `altroot`, the default root has one *INSTALLROOT*, and the `altroot` must have a different *INSTALLROOT*.

Now let's put them together:

- You *define* an `altroot` by specifying its `INSTALLROOT` and using the `--altroot` option with the `commpkg install` command.

### What's the Default?

If you use the default root and the default `INSTALLROOT`, the `commpkg install` command installs products under the following top-level directory:

```
/opt/sun/comms/
```

### An Example

Now suppose you want to install one instance of the products in `/opt/sun/mycompany/comms/`; and another instance of the same products in `/opt/sun/mycompany/comms2/`. You would use the following commands:

For the default root:

```
commpkg install --installroot /opt/sun/mycompany/comms/
```

For the `altroot`:

```
commpkg install --altroot --installroot /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](#).



# Sample Session - Communications Suite 7 Install Using altroot

## Sample Session - Communications Suite 7 Install Using altroot

This sample session shows an install and uninstall of Communications Suite 7 by running the Communications Suite installer, `commpkg`, with the `altroot` option. Note that you can uninstall an `altroot` simply by removing the entire `altroot`.

This document contains the following topics:

- [Summary of Commands Run](#)
- [Session](#)
- [Comments](#)

## Summary of Commands Run

```
69 pwd
70 hostname
71 uname -a
72 ./commpkg info
73 cat /etc/softlist.xml
74 ./commpkg install --acceptLicense /opt/altroot
75 cat
/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20091013150936
76 cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_200910131509
cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20091013150936.log
./commpkg info
79 ./commpkg uninstall /opt/altroot
80 cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_200910131518
cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20091013151843.log
./commpkg info
83 cat /etc/softlist.xml
84 ls /opt/altroot
85 ls -l /opt/altroot
86 \rm -rf /opt/altroot
87 ./commpkg info
88 cat /etc/softlist.xml
```

## Session

```
Session
(69 root) pwd
```

```

/h/megan/wspace/dl111122/releases/ci70
(70 root) hostname
limzone-2
(71 root) uname -a
SunOS limzone-2 5.10 Generic_139556-08 i86pc i386 i86pc
(72 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20091013150922.log
=====
Detecting Installed Products...
  NOTICE: Message Queue is present with a different pkg VERSION.
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
  NOTICE: CommsInstaller is present with a different pkg VERSION.
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
has not been applied. Specifically the following
patches are missing:
  120273-26 141415-09
  NOTICE: It is highly recommended that you apply the
latest OS Recommended Patch Cluster. commpkg will
not do this automatically.
ALROOT: /
NAME: ""

(73 root) cat /etc/softlist.xml
<?xml version="1.0" encoding="utf-8"?>
<!-- Do not edit! This file is automatically generated. -->
<!-- Last Update: Tue Oct 13 11:05:15 PDT 2009 -->
<!-- By: /h/megan/wspace/dl111122/releases/ci70 ./commpkg -->

<multi-inst-list>
  <install name="" root="/" suite="comms" />
</multi-inst-list>
(74 root) ./commpkg install --acceptLicense /opt/altroot
-- LOGFILE: /tmp/CommsInstaller_20091013150936.log
NOTICE: Although it is okay to apply OS patches in a whole root zone
They really should be applied in the global zone

CommsInstaller version 7.0-0.02 built on Wed Sep 9 13:47:08 PDT 2009

Welcome to the Communications Services Products Installer
This program will install Communications Services Products
on your computer. Do note that the installer lays down the
bits, but does not do configuration. Separate configuration
steps for each individual product will be required.

Copyright 2007-2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

=====
INFO: altroot mode is activated.
-- Creating /opt/altroot
=====
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)

```

has not been applied. Specifically the following patches are missing:  
120273-26 141415-09

NOTICE: It is highly recommended that you apply the latest OS Recommended Patch Cluster. comppkg 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 Services Products:

| Item | Description                                            |
|------|--------------------------------------------------------|
| 1    | Messaging Server (64bit) 7u3 (7.3-11.01)               |
| 2    | Comms DSsetup 6.4 (6.4-5.05)                           |
| 3    | Calendar Server 7 (7.0-0.26)                           |
| 4    | Instant Messaging 8u2 (8.2-02.04)                      |
| 5    | Convergence 1u3 (1.0-10.01)                            |
| 6    | Indexing and Search Service 1 (1.0-32.01)              |
| 7    | Comms Delegated Administrator 7 (7.0-1.00)             |
| 8    | Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)   |
| 9    | Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02) |
| 10   | Calendar Server 6.3 (6.3-19.01)                        |
| 11   | Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)    |

Enter the items you wish to install. Enter q to quit.

Prefix an item with ~ to indicate you only want

to install shared component dependencies of that product

You can enter multiple items using commas to separate them.

For example: 1,2

Please select the products you wish to install [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]:

=====

Generating list of things to install...

Checking for Shared Component Upgrade Requirements...

=====

WILL INSTALL: MySQL 5.1.36  
WILL INSTALL: Instant Messaging API 8  
WILL INSTALL: LDAPJDK 4.19  
WILL INSTALL: NSS/NSPR/JSS 4.3  
WILL INSTALL: International Components for Unicode ICU2,ICU3  
WILL INSTALL: Simple Authentication and Security Layer 2.19  
WILL INSTALL: LDAPCSDK6 6.0  
WILL INSTALL: LDAPCSDK6 Tools 6.0  
to /opt/altroot/directory  
WILL INSTALL: Messaging Server (64bit) 7u3 (7.3-11.01)  
to /opt/altroot/messaging64  
WILL INSTALL: Comms DSsetup 6.4 (6.4-5.05)  
to /opt/altroot/dssetup

```

WILL INSTALL: Calendar Server 7 (7.0-0.26)
                to /opt/altroot/davserver
WILL INSTALL: Instant Messaging 8u2 (8.2-02.04)
                to /opt/altroot/im
WILL INSTALL: Convergence 1u3 (1.0-10.01)
                to /opt/altroot/iwc
WILL INSTALL: Indexing and Search Service 1 (1.0-32.01)
                to /opt/altroot/jiss
WILL INSTALL: Comms Delegated Administrator 7 (7.0-1.00)
                to /opt/altroot/da
WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                to /opt/altroot/msg_scha
WILL INSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                to /opt/altroot/im_scha
WILL INSTALL: Calendar Server 6.3 (6.3-19.01)
                to /opt/altroot/calendar
WILL INSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                to /opt/altroot/cs_scha
WILL INSTALL: CommsInstaller 7 (7.0-0.02)
                to /opt/altroot/CommsInstaller
WILL INSTALL: JDK 1.6.0
WILL INSTALL: Java Help Runtime 2.0
WILL INSTALL: Message Queue 4.3
=====
Ready to install

Do you want to continue ? [yes] :

=====
Installing MySQL 5.1.36...
----- Executing Task 1 of 53 ...

=====
Installing Instant Messaging API 8...
----- Executing Task 2 of 53 ...

=====
Installing LDAPJDK 4.19...
----- Executing Task 3 of 53 ...

=====
Installing NSS/NSPR/JSS 4.3...
----- Executing Task 4 of 53 ...
----- Executing Task 5 of 53 ...
----- Executing Task 6 of 53 ...
----- Executing Task 7 of 53 ...
----- Executing Task 8 of 53 ...
----- Executing Task 9 of 53 ...

=====
Installing International Components for Unicode ICU2,ICU3...
----- Executing Task 10 of 53 ...

=====
Installing Simple Authentication and Security Layer 2.19...
----- Executing Task 11 of 53 ...

```

```

=====
Installing LDAPCSDK6 6.0...
----- Executing Task 12 of 53 ...
----- Executing Task 13 of 53 ...

=====
Installing LDAPCSDK6 Tools 6.0...
----- Executing Task 14 of 53 ...

=====
Installing Messaging Server (64bit) 7u3 (7.3-11.01)...
----- Executing Task 15 of 53 ...

=====
Installing Comms DSsetup 6.4 (6.4-5.05)...
----- Executing Task 16 of 53 ...

=====
Installing Calendar Server 7 (7.0-0.26)...
----- Executing Task 17 of 53 ...

=====
Installing Instant Messaging 8u2 (8.2-02.04)...
----- Executing Task 18 of 53 ...
----- Executing Task 19 of 53 ...
----- Executing Task 20 of 53 ...
----- Executing Task 21 of 53 ...
----- Executing Task 22 of 53 ...
----- Executing Task 23 of 53 ...
----- Executing Task 24 of 53 ...
----- Executing Task 25 of 53 ...

=====
Installing Convergence 1u3 (1.0-10.01)...
----- Executing Task 26 of 53 ...

=====
Installing Indexing and Search Service 1 (1.0-32.01)...
----- Executing Task 27 of 53 ...

=====
Installing Comms Delegated Administrator 7 (7.0-1.00)...
----- Executing Task 28 of 53 ...

=====
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
----- Executing Task 29 of 53 ...

=====
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
----- Executing Task 30 of 53 ...

=====
Installing Calendar Server 6.3 (6.3-19.01)...
----- Executing Task 31 of 53 ...

```

```

----- Executing Task 32 of 53 ...

=====
Installing Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)...
----- Executing Task 33 of 53 ...

=====
Installing CommsInstaller 7 (7.0-0.02)...
----- Executing Task 34 of 53 ...

=====
Installing JDK 1.6.0...
----- Executing Task 35 of 53 ...
----- Executing Task 36 of 53 ...
----- Executing Task 37 of 53 ...
----- Executing Task 38 of 53 ...
----- Executing Task 39 of 53 ...

=====
Installing Java Help Runtime 2.0...
----- Executing Task 40 of 53 ...
----- Executing Task 41 of 53 ...
----- Executing Task 42 of 53 ...
----- Executing Task 43 of 53 ...

=====
Installing Message Queue 4.3...
----- Executing Task 44 of 53 ...
----- Executing Task 45 of 53 ...
----- Executing Task 46 of 53 ...
----- Executing Task 47 of 53 ...
----- Executing Task 48 of 53 ...
----- Executing Task 49 of 53 ...
----- Executing Task 50 of 53 ...
----- Executing Task 51 of 53 ...
----- Executing Task 52 of 53 ...
----- Executing Task 53 of 53 ...

=====
SUMMARY:

-- Output of Task 1: generic
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/installer
--pkgcmd '-a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'
-- LOGFILE: /tmp/ci-mysql-installer_20091013150948.log
pkgadd -n -r /dev/null -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/./Packages
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc. All rights
reserved.
Use is subject to license terms.
091013 15:10:48 [Warning] Forcing shutdown of 2 plugins
091013 15:10:50 [Warning] Forcing shutdown of 2 plugins

```

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !  
To do so, start the server, then issue the following commands:

```
/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'  
/opt/mysql/mysql/bin/mysqladmin -u root -h limzone-2 password  
'new-password'
```

Alternatively you can run:

```
/opt/mysql/mysql/bin/mysql_secure_installation
```

which will also give you the option of removing the test databases and anonymous user created by default. This is strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug script!

The latest information about MySQL is available at <http://www.mysql.com/>  
Support MySQL by buying support/licenses from <http://shop.mysql.com/>

```
pkgadd -n -d  
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/../../MYSQL_MARKER  
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWcomms-mysql-marker
```

```
Installation of <SUNWcomms-mysql-marker> was successful.  
Copyright 2009 Sun Microsystems, Inc. All rights reserved.  
Use is subject to license terms.  
-- End of command output--
```

```
All tasks PASSED  
Checking JES java symlink...  
INFO: /etc/softlist.xml updated
```

```
Hit Return to Continue:  
=====
```

NOTICE: To undo the installation, run the commands in:

```
/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20091013150936
```

NOTICE: silent file created in:

```
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013150936  
LOGFILE created in:
```

```
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20091013150936.log  
root) cat
```

```
/opt/altroot/var/opt/CommsInstaller/logs/undoCommsInstall_20091013150936
```

```
#!/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
# 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 4.3...
#####
# 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 SUNWcomms
#####
# Finished Undo of: Installing JDK 1.6.0...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWscics
#####
# Finished Undo of: Installing CommsInstaller 7 (7.0-0.02)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWica5
#####
# Finished Undo of: Installing Calendar Server Sun Cluster HA agent 6.3
(6.3-1.01)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWics5
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimsc
#####
# Finished Undo of: Installing Calendar Server 6.3 (6.3-19.01)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWmessaging-server-scha
#####
# Finished Undo of: Installing Instant Messaging Sun Cluster HA agent
7.3 (7.3-01.02)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWcommda
#####
# Finished Undo of: Installing Messaging Server Sun Cluster HA agent 7.0
(7.0-0.03)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWjiss

```

```

#####
# Finished Undo of: Installing Comms Delegated Administrator 7
(7.0-1.00)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiwc
#####
# Finished Undo of: Installing Indexing and Search Service 1
(1.0-32.01)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimgw
#####
# Finished Undo of: Installing Convergence lu3 (1.0-10.01)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimd
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimc
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimid
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimjd
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimm
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimin
pkgrm -R /opt/altroot -n -a $ADMIN SUNWiim
pkgrm -R /opt/altroot -n -a $ADMIN SUNWdavserver
#####
# Finished Undo of: Installing Instant Messaging 8u2 (8.2-02.04)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWcomds
#####
# Finished Undo of: Installing Calendar Server 7 (7.0-0.26)...
#####
pkgrm -R /opt/altroot -n -a $ADMIN SUNWmessaging-server-64
#####
# Finished Undo of: Installing Comms DSsetup 6.4 (6.4-5.05)...
#####
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWldapcsdk-tools
#####
# Finished Undo of: Installing Messaging Server (64bit) 7u3
(7.3-11.01)...
#####
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWldapcsdk-dev
#####
# Finished Undo of: Installing LDAPCSK6 Tools 6.0...
#####
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWldapcsdk-libs
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWsas1
#####
# Finished Undo of: Installing LDAPCSK6 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 SUNWtlsu
#####
# Finished Undo of: Installing International Components for Unicode
ICU2,ICU3...
#####

```

```

# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWt1sd
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWt1s
# 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 SUNWljdk
#####
# Finished Undo of: Installing NSS/NSPR/JSS 4.3...
#####
# IRREVERSIBLE: pkgrm -R /opt/altroot -n -a $ADMIN SUNWiimd
#####
# Finished Undo of: Installing LDAPJDK 4.19...
#####
# IRREVERSIBLE:
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/uninstaller
-a $ADMIN
#####
# Finished Undo of: Installing Instant Messaging API 8...
#####
# Finished Undo of: Installing MySQL 5.1.36...
#####
(76 root) cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_200910131509
Silent File for CommsInstaller 7.0-0.02
# Generated on 20091013150936
#
#
# NOTE: You must set ACCEPTLICENSE=yes below or alternatively
#       use --acceptLicense on the command line
#
#
# verb used to create this silent file
#
VERB=install

#
# alternate distro path if not found where commpkg resides
#   and no --distro switch specified is
#
ALTDISTROPATH=/h/megan/wspace/dl111122/releases/ci70

#
# 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
#
EXCLUDEEOS=no

#
# flag to indicate whether to exclude shared components
#
EXCLUDEESC=no

#
# flag to indicate acceptance of the software license
#
ACCEPTLICENSE=no

#
# flag to indicate that all SC should or should not be upgraded without
prompting
#
UPGRADEESC=no

#
# INSTALLROOT friendly name
#
INSTALLNAME=

#
# list of components (using mnemonics)
# A ~ in front of the product indicates that only the shared
# components are installed
#
COMPONENTS=MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA
COMPONENT_VERSIONS=
(77 root) cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20091013150936.log
LOGFILE started Tue Oct 13 15:09:36 2009 =====
LOGFILE = /tmp/CommsInstaller_20091013150936.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg install --acceptLicense /opt/altroot
-- perl version: 5.008004 pid: 29960
-- basetime: 1255471776 Tue Oct 13 15:09:36 2009
-- scriptDir: /h/megan/wspace/dl111122/releases/ci70
-- LOGFILE: /tmp/CommsInstaller_20091013150936.log
-- UNAME = SunOS ARCH = i386 OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS limzone-2 5.10 Generic_139556-08 i86pc i386 i86pc
-- Exit status: 0
!!! ENV
$VAR1 = {
    'SSH_CLIENT' => '192.18.75.229 34686 22',
    'CAPSAVE' => '/etc/termcap',
    'PS1' => '# ',
    'LC_COLLATE' => 'en_US.ISO8859-1',

```

```

'LINES' => '55',
'LC_NUMERIC' => 'en_US.ISO8859-1',
'COLUMNS' => '80',
'PWD' => '/home/dl111122/wspace/releases/ci70',
'LC_TIME' => 'en_US.ISO8859-1',
'USER' => 'dl111122',
'LANG' => 'C',
'LC_MESSAGES' => 'C',
'VISUAL' => 'gnuclient',
'LOGNAME' => 'dl111122',
'EMACS' => 't',
'REMOTE' => '/home/dl111122/.remote',
'USE_64' => '1',
'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:/usr/sbin:/usr/bin:/usr/dist/exe',
'EMACS_TYPE' => 'pc',
'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
'TERM' => 'emacs',
'SSH_TTY' => '/dev/pts/14',
'PAGER' => 'cat',
'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
'HOME' => '/home/dl111122',
'SSH_CONNECTION' => '192.18.75.229 34686 192.18.75.105 22',
'TERMSAVE' => 'vt100',
'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
'CDPATH' => '.:...:/home/dl111122',
'EDITOR' => 'gnuclient',
'MAIL' => '/var/mail//dl111122',
'TZ' => 'US/Pacific',
'LC_CTYPE' => 'en_US.ISO8859-1',
'ESHELL' => '/bin/csh',
'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info'
'MOTIFHOME' => '/usr/dt',
'CVSROOT' =>
':pserver:dl111122@redcvs.red.iplanet.com:/m/src',
'LC_MONETARY' => 'en_US.ISO8859-1',
'OPENWINHOME' => '/usr/openwin',
'RCSINIT' => '-zLT',
'SHELL' => '/bin/csh',
'SKIP_UTEST' => '1'
};
cat /etc/release 2>&1
Solaris 10 6/06 s10x_u2wos_09a X86
Copyright 2006 Sun Microsystems, Inc. All Rights Reserved.
Use is subject to license terms.
Assembled 09 June 2006

-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
'MS64',
'DSSETUP',
'DAV',

```

```

        'IM',
        'IWC',
        'JISS',
        'DA',
        'MS_SCHA',
        'IM_SCHA',
        'CS',
        'CS_SCHA'
    ];
/usr/bin/pkgcond -n is_what 2>&1
can_add_driver=0
can_remove_driver=0
can_update_driver=0
is_alternative_root=0
is_boot_environment=0
is_diskless_client=0
is_global_zone=0
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=1
is_path_writable=1
is_running_system=0
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=1
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 0
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
NOTICE: Although it is okay to apply OS patches in a whole root zone
        They really should be applied in the global zone
Reading Product Files...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDAP
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDAP
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.map does
not exist...
Reading

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SNMP/SNMP.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SNMP/SNMP.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMME
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMME
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.map does
not exist...
Reading

```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.in.
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.map
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.in.
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.in.
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.in.
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/MS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/MS.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/MS_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/MS64_L10N
```

```
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/CS_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/IM_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/CE.in not
found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/CE_L10N.in
not found, skipping...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.0/IM.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.3/IM.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/0.9/JISS.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/6.4/DA.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/6.0/MS_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/7.0/IM_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/6.0/CS_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/6.3/MS.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/7.2/MS.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.2/MS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.3/MS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/6.3/MS64_
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.2/CS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.3/CS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.0/IM_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.2/IM_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/6.3/CE.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.2/CE_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.3/CE_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/1.5.0/JDK.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/3.7/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/4.1/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/3.7/MQ_L10N
OLD
```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/4.1/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.0/IMAPI.in
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.3/IMAPI.in
QQQ findGetVersion =====
!!! getVersion
$VAR1 = {
    'SASL' => 'none',
    'IWC' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IWC/CI/getVersion',
    'MS64_L10N' => 'none',
    'MS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS/CI/getVersion',
    'DSSETUP' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/CI/getVersion',
    'MQ_L10N' => 'none',
    'ICU' => 'none',
    'MS64' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/getVersion',
    'DAV' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DAV/CI/getVersion',
    'LDAPCSDK6' => 'none',
    'CE' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CE/CI/getVersion',
    'JDK' => 'none',
    'MYSQL' => 'none',
    'PATCHUTILS' => 'none',
    'MQ' => 'none',
    'IMAPI' => 'none',
    'CI' =>
'/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/SunOS_i386/getV
LDAPCSDK6_TOOLS' => 'none',
    'JISS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JISS/CI/getVersion',
    'NSS' => 'none',
    'CS_L10N' => 'none',
    'IM' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/CI/getVersion',
    'ST' => 'none',
    'RECOMMENDED' => 'none',
    'IM_L10N' => 'none',
    'CS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS_SCHA/CI/getVersion',
    'LDAPJDK' => 'none',
    'MYSQL_MARKER' => 'none',
    'BZIP' => 'none',
    'IM_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM_SCHA/CI/getVersion',
    'MS_L10N' => 'none',
    'LIBCPLUSPLUS' => 'none',
    'SNMP' => 'none',
    'MS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS_SCHA/CI/getVersion',
    'CS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/CI/getVersion',

```

```

        'JHRT' => 'none',
        'CE_L10N' => 'none',
        'DA' =>
'/h/megan/wspace/dll111122/releases/ci70/SunOS_i386/DA/CI/getVersion'
    };
!!! prod_getVers
$VAR1 = {
    'SASL' => 0,
    'IWC' => '1.0-10.01',
    'MS64_L10N' => 0,
    'MS' => '7.2-7.02',
    'DSSETUP' => '6.4-5.05',
    'MQ_L10N' => 0,
    'ICU' => 0,
    'MS64' => '7.3-11.01',
    'DAV' => '7.0-0.26',
    'LDAPCSDK6' => 0,
    'CE' => '6.3-13.01',
    'JDK' => 0,
    'MYSQL' => 0,
    'PATCHUTILS' => 0,
    'MQ' => 0,
    'IMAPI' => 0,
    'CI' => '7.0-0.02',
    'LDAPCSDK6_TOOLS' => 0,
    'JISS' => '1.0-32.01',
    'NSS' => 0,
    'CS_L10N' => 0,
    'IM' => '8.2-02.04',
    'ST' => 0,
    'RECOMMENDED' => 0,
    'IM_L10N' => 0,
    'CS_SCHA' => '6.3-1.01',
    'LDAPJDK' => 0,
    'MYSQL_MARKER' => 0,
    'BZIP' => 0,
    'IM_SCHA' => '7.3-01.02',
    'MS_L10N' => 0,
    'LIBCPLUSPLUS' => 0,
    'SNMP' => 0,
    'MS_SCHA' => '7.0-0.03',
    'CS' => '6.3-19.01',
    'JHRT' => 0,
    'CE_L10N' => 0,
    'DA' => '7.0-1.00'
};
!!! prod_builddate
$VAR1 = {
    'SASL' => 'none',
    'IWC' => '20090906',
    'MS64_L10N' => 'none',
    'MS' => '20090416',
    'DSSETUP' => '20090808',
    'MQ_L10N' => 'none',
    'ICU' => 'none',
    'MS64' => '20090901',

```

```

    'DAV' => '20090827',
    'LDAPCSDK6' => 'none',
    'CE' => '20090327',
    'JDK' => 'none',
    'MYSQL' => 'none',
    'PATCHUTILS' => 'none',
    'MQ' => 'none',
    'IMAPI' => 'none',
    'CI' => '20090909',
    'LDAPCSDK6_TOOLS' => 'none',
    'JISS' => '20090909',
    'NSS' => 'none',
    'CS_L10N' => 'none',
    'IM' => '20090903',
    'ST' => 'none',
    'RECOMMENDED' => 'none',
    'IM_L10N' => 'none',
    'CS_SCHA' => '20080331',
    'LDAPJDK' => 'none',
    'MYSQL_MARKER' => 'none',
    'BZIP' => 'none',
    'IM_SCHA' => '20080403',
    'MS_L10N' => 'none',
    'LIBCPLUSPLUS' => 'none',
    'SNMP' => 'none',
    'MS_SCHA' => '20080519',
    'CS' => '20090826',
    'JHRT' => 'none',
    'CE_L10N' => 'none',
    'DA' => '20090821'
};

===== End QQQ findGetVersion =====
INFO: prod_mktVers{NSS} (no map) = 4.3
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) = 4.3
INFO: prod_mktVers{MQ_L10N} (no map) = 4.3
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{SNMP} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2009.08.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u3
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7
INFO: prod_mktVers{IM} (w/ map) = 8u2

```

```
INFO: prod_mktVers{IWC} (w/ map) = 1u3
INFO: prod_mktVers{JISS} (w/ map) = 1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3
```

CommsInstaller version 7.0-0.02 built on Wed Sep 9 13:47:08 PDT 2009

Welcome to the Communications Services Products Installer  
This program will install Communications Services Products  
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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Use is subject to license terms.

```
=====
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
Detecting Installed Products...
Checking LIBCPLUSPLUS 5.9 ...
  Checking pkg SUNWlibc... already present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmds... already present.
  Checking pkg SUNWswmt... already present.
  Checking pkg SUNWinstall-patch-utils-root... already present.
  Checking pkg SUNWcsr... already present.
  Checking pkg SUNWdtrc... already present.
  Checking pkg SUNWzoneu... already present.
  PATCHUTILS Unknown is already present.
Checking SNMP Unknown ...
  Checking pkg SUNWsmagt... already present.
  Checking pkg SUNWsmcmd... already present.
  Checking pkg SUNWsmmgr... already present.
  SNMP Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... already present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2009.08.25 ...
  RECOMMENDED 2009.08.25 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... already present.
  Checking pkg SUNWservicetagu... already present.
```

```
Checking pkg SUNWstosreg... already present.
ST 1.1.4 is already present.
Checking NSS 4.3 ...
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 4.3 is not present.
Checking SASL 2.19 ...
Checking pkg SUNWsas1... 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 4.3 ...
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 3.7 ...
Checking pkg SUNWiqr... not present.
Checking pkg SUNWiqu... not present.
```

```
Checking pkg SUNWiq1pl... 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 SUNWiq1len... not present.
MQ 3.7 is not present.
Checking MQ 4.1 ...
Checking pkg SUNWiqr... not present.
Checking pkg SUNWiqu... not present.
Checking pkg SUNWiqdoc... not present.
Checking pkg SUNWiquc... not present.
Checking pkg SUNWiqum... not present.
Checking pkg SUNWiqjx... not present.
Checking pkg SUNWiqfs... not present.
Checking pkg SUNWiqcrt... not present.
Checking pkg SUNWiqcdv... not present.
MQ 4.1 is not present.
Checking MQ_L10N 4.3 ...
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 MQ_L10N 3.7 ...
Checking pkg SUNWfiqu... not present.
Checking pkg SUNWfiquc... not present.
Checking pkg SUNWdiqu... not present.
Checking pkg SUNWdiquc... not present.
Checking pkg SUNWjiqu... not present.
Checking pkg SUNWjiquc... not present.
Checking pkg SUNWeiqu... not present.
Checking pkg SUNWeiquc... not present.
Checking pkg SUNWkiqu... not present.
Checking pkg SUNWkiquc... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciquc... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
MQ_L10N 3.7 is not present.
Checking MQ_L10N 4.1 ...
Checking pkg SUNWfiqu... not present.
Checking pkg SUNWfiquc... not present.
```

```
Checking pkg SUNWdiqu... not present.
Checking pkg SUNWdiquc... not present.
Checking pkg SUNWjiqu... not present.
Checking pkg SUNWjiquc... not present.
Checking pkg SUNWeiQU... not present.
Checking pkg SUNWeiQUc... not present.
Checking pkg SUNWkiqu... not present.
Checking pkg SUNWkiquc... not present.
Checking pkg SUNWciQU... not present.
Checking pkg SUNWciQUc... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
MQ_L10N 4.1 is not present.
Checking LDAPJDK 4.19 ...
Checking pkg SUNWljdk... not present.
LDAPJDK 4.19 is not present.
Checking IMAPI 8.0 ...
Checking pkg SUNWiimdV... not present.
IMAPI 8.0 is not present.
Checking IMAPI 7.0 ...
Checking pkg SUNWiimdV... not present.
IMAPI 7.0 is not present.
Checking IMAPI 7.3 ...
Checking pkg SUNWiimdV... not present.
IMAPI 7.3 is not present.
Checking MYSQL 5.1.36 ...
Checking pkg mysql... not present.
MYSQL 5.1.36 is not present.
Checking CI 7.0 ...
Checking pkg SUNWcomms... not present.
CI 7.0 is not present.
Checking MYSQL_MARKER 1.0 ...
Checking pkg SUNWcomms-mysql-marker... not present.
MYSQL_MARKER 1.0 is not present.
Checking MS64 7.3 ...
Checking pkg SUNWmessaging-server-64... not present.
MS64 7.3 is not present.
Checking DSSETUP 6.4 ...
Checking pkg SUNWcomds... not present.
DSSETUP 6.4 is not present.
Checking DAV 7.0 ...
Checking pkg SUNWdavserver... not present.
DAV 7.0 is not present.
Checking IM 8.2 ...
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 8.2 is not present.
Checking IM 7.0 ...
Checking pkg SUNWiimin... not present.
Checking pkg SUNWiim... not present.
```

```

Checking pkg SUNWiimm... not present.
Checking pkg SUNWiimjd... not present.
Checking pkg SUNWiimid... not present.
Checking pkg SUNWiimc... not present.
Checking pkg SUNWiimd... not present.
IM 7.0 is not present.
Checking IM 7.3 ...
Checking pkg SUNWiim... not present.
Checking pkg SUNWiimin... not present.
Checking pkg SUNWiimm... not present.
Checking pkg SUNWiimjd... not present.
Checking pkg SUNWiimid... not present.
Checking pkg SUNWiimc... not present.
Checking pkg SUNWiimd... not present.
IM 7.3 is not present.
Checking IWC 1.0 ...
Checking pkg SUNWiwc... not present.
IWC 1.0 is not present.
Checking JISS 1.0 ...
Checking pkg SUNWjiss... not present.
JISS 1.0 is not present.
Checking JISS 0.9 ...
Checking pkg SUNWjiss-common... not present.
Checking pkg SUNWjiss-conf... not present.
Checking pkg SUNWjiss-extjars... not present.
Checking pkg SUNWjiss-indexapi... not present.
Checking pkg SUNWjiss-jmqc... not present.
Checking pkg SUNWjiss-rest... not present.
Checking pkg SUNWjiss-search... not present.
Checking pkg SUNWjiss-searchui... not present.
Checking pkg SUNWjiss-store... not present.
Checking pkg SUNWjiss-storeui... not present.
JISS 0.9 is not present.
Checking DA 7.0 ...
Checking pkg SUNWcommda... not present.
DA 7.0 is not present.
Checking DA 6.4 ...
Checking pkg SUNWcomic... not present.
Checking pkg SUNWcomis... not present.
DA 6.4 is not present.
Checking MS_SCHA 7.0 ...
Checking pkg SUNWmessaging-server-scha... not present.
MS_SCHA 7.0 is not present.
Checking MS_SCHA 6.0 ...
Checking pkg SUNWscims... not present.
MS_SCHA 6.0 is not present.
Checking IM_SCHA 7.3 ...
Checking pkg SUNWiimsc... not present.
IM_SCHA 7.3 is not present.
Checking IM_SCHA 7.0 ...
Checking pkg SUNWiimsc... not present.
IM_SCHA 7.0 is not present.
Checking CS 6.3 ...
Checking pkg SUNWics5... not present.
Checking pkg SUNWica5... not present.
CS 6.3 is not present.

```

```

Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.3 is not present.
Checking CS_SCHA 6.0 ...
  Checking pkg SUNWscics... not present.
  CS_SCHA 6.0 is not present.
Checking MS 7.3 ...
  MS 7.3 is not present.
Checking MS 6.3 ...
  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 is not present.
Checking MS 7.2 ...
  Checking pkg SUNWmessaging-server... not present.
  MS 7.2 is not present.
Checking MS_L10N 6.2 ...
  Checking pkg SUNWmsgde... not present.
  Checking pkg SUNWmsges... not present.
  Checking pkg SUNWmsgfr... not present.
  Checking pkg SUNWmsgja... not present.
  Checking pkg SUNWmsgko... not present.
  Checking pkg SUNWmsgzh... not present.
  Checking pkg SUNWmsgtw... not present.
  MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
  Checking pkg SUNWmsg-l10n... not present.
  MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
  Checking pkg SUNWmessaging-server-l10n-64... not present.
  MS64_L10N 6.3 is not present.
Checking CS_L10N 6.2 ...
  Checking pkg SUNWdeics... not present.
  Checking pkg SUNWesics... not present.
  Checking pkg SUNWfrics... not present.
  Checking pkg SUNWjaics... not present.
  Checking pkg SUNWkoics... not present.
  Checking pkg SUNWzhics... not present.
  Checking pkg SUNWtwics... not present.
  CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
  Checking pkg SUNWics-l10n... not present.
  CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
  Checking pkg SUNWdiimc... not present.
  Checking pkg SUNWdiimd... not present.
  Checking pkg 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.
Detecting Installed Patches...
-- chk4patch 119964-16 /tmp/.patchout_20091013150936.29960
-- Running patchadd -p report...
-- Generating /tmp/.patchout_20091013150936.29960
patchadd -p > /tmp/.patchout_20091013150936.29960 2>>
/tmp/CommsInstaller_20091013150936.log
-- Exit status: 0
-- older version at lineno 263 found 119964-06 - not acceptable
-- older version at lineno 264 found 119964-12 - not acceptable
-- older version at lineno 265 found 119964-13 - not acceptable
-- Exact match found at line 266
-- Final return status: 1

```

```

LIBCPLUSPLUS patch 119964-16 is already present.
-- chk4patch 120901-03 /tmp/.patchout_20091013150936.29960
-- Exact match found at line 85
-- Final return status: 1
PATCHUTILS patch 120901-03 is already present.
-- chk4patch 121334-04 /tmp/.patchout_20091013150936.29960
-- Exact match found at line 86
-- Final return status: 1
PATCHUTILS patch 121334-04 is already present.
-- chk4patch 119255-67 /tmp/.patchout_20091013150936.29960
-- older version at lineno 81 found 119255-36 - not acceptable
-- older version at lineno 82 found 119255-24 - not acceptable
-- older version at lineno 104 found 119255-51 - not acceptable
-- older version at lineno 105 found 119255-49 - not acceptable
-- older version at lineno 106 found 119255-45 - not acceptable
-- older version at lineno 119 found 119255-54 - not acceptable
-- older version at lineno 280 found 119255-61 - not acceptable
-- older version at lineno 281 found 119255-64 - not acceptable
-- older version at lineno 282 found 119255-65 - not acceptable
-- older version at lineno 283 found 119255-66 - not acceptable
-- Exact match found at line 284
-- Final return status: 1
PATCHUTILS patch 119255-67 is already present.
-- chk4patch 120273-06 /tmp/.patchout_20091013150936.29960
-- Exact match found at line 84
-- Final return status: 1
SNMP patch 120273-06 is already present.
-- chk4patch 126869-03 /tmp/.patchout_20091013150936.29960
-- older version at lineno 192 found 126869-02 - not acceptable
-- Exact match found at line 193
-- Final return status: 1
BZIP patch 126869-03 is already present.
-- chk4patch 137322-01 /tmp/.patchout_20091013150936.29960
-- Exact match found at line 194
-- Final return status: 1
BZIP patch 137322-01 is already present.
-- chk4patch 119255-67 /tmp/.patchout_20091013150936.29960
-- older version at lineno 81 found 119255-36 - not acceptable
-- older version at lineno 82 found 119255-24 - not acceptable
-- older version at lineno 104 found 119255-51 - not acceptable
-- older version at lineno 105 found 119255-49 - not acceptable
-- older version at lineno 106 found 119255-45 - not acceptable
-- older version at lineno 119 found 119255-54 - not acceptable
-- older version at lineno 280 found 119255-61 - not acceptable
-- older version at lineno 281 found 119255-64 - not acceptable
-- older version at lineno 282 found 119255-65 - not acceptable
-- older version at lineno 283 found 119255-66 - not acceptable
-- Exact match found at line 284
-- Final return status: 1
RECOMMENDED patch 119255-67 is already present.
-- chk4patch 118855-36 /tmp/.patchout_20091013150936.29960
-- older version at lineno 9 found 118855-14 - not acceptable
-- older version at lineno 12 found 118855-15 - not acceptable
-- Exact match found at line 13
-- Final return status: 1
RECOMMENDED patch 118855-36 is already present.

```

```

-- chk4patch 120012-14 /tmp/.patchout_20091013150936.29960
-- Exact match found at line 34
-- Final return status: 1
  RECOMMENDED patch 120012-14 is already present.
-- chk4patch 120273-26 /tmp/.patchout_20091013150936.29960
-- older version at lineno 84 found 120273-06 - not acceptable
-- older version at lineno 195 found 120273-25 - not acceptable
-- Final return status: 0
  RECOMMENDED patch 120273-26 is not present.
-- chk4patch 137138-09 /tmp/.patchout_20091013150936.29960
-- Exact match found at line 108
-- Final return status: 1
  RECOMMENDED patch 137138-09 is already present.
-- chk4patch 141415-09 /tmp/.patchout_20091013150936.29960
-- Final return status: 0
  RECOMMENDED patch 141415-09 is not present.
-- chk4patch 125359-08 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Running patchadd -R /opt/altroot -p report...
-- Generating /tmp/.patchout_altroot_20091013150936.29960
patchadd -R /opt/altroot -p >
/tmp/.patchout_altroot_20091013150936.29960 2>>
/tmp/CommsInstaller_20091013150936.log
Cannot check name /opt/altroot/var/sadm/pkg.
Cannot open input /opt/altroot
-- Exit status: 0
-- Final return status: 0
  NSS patch 125359-08 is not present.
-- chk4patch 119346-07 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
  SASL patch 119346-07 is not present.
-- chk4patch 136800-01 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
  LDAPCSDK6_TOOLS patch 136800-01 is not present.
-- chk4patch 119811-05 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
  ICU patch 119811-05 is not present.
-- chk4patch 125138-17 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
  JDK patch 125138-17 is not present.
-- chk4patch 125139-17 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
  JDK patch 125139-17 is not present.
-- chk4patch 119725-04 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
  LDAPJDK patch 119725-04 is not present.
-- chk4patch 137205-11 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
  MS64 patch 137205-11 is not present.

```

```

-- chk4patch 118243-03 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
   DSSETUP patch 118243-03 is not present.
-- chk4patch 118246-21 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
   DSSETUP patch 118246-21 is not present.
-- chk4patch 139894-02 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
   IM patch 139894-02 is not present.
-- chk4patch 137632-10 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
   IWC patch 137632-10 is not present.
-- chk4patch 124582-01 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
   DA patch 124582-01 is not present.
-- chk4patch 137572-01 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
   IM_SCHA patch 137572-01 is not present.
-- chk4patch 121658-40 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
   CS patch 121658-40 is not present.
-- chk4patch 137202-11 /tmp/.patchout_altroot_20091013150936.29960
/opt/altroot -R /opt/altroot
-- Final return status: 0
   MS patch 137202-11 is not present.
===== QQQ detectProducts =====
QQQ Dumper
!!! present
$VAR1 = {
    '126869-03' => 'PRESENT',
    '118246-21' => 'NOT_PRESENT',
    '118855-36' => 'PRESENT',
    'DSSETUP' => {
        '6.4' => 'NOT_PRESENT'
    },
    '125359-08' => 'NOT_PRESENT',
    'MQ_L10N' => {
        '3.7' => 'NOT_PRESENT',
        '4.3' => 'NOT_PRESENT',
        '4.1' => 'NOT_PRESENT'
    },
    'ICU' => {
        'ICU2,ICU3' => 'NOT_PRESENT'
    },
    '137572-01' => 'NOT_PRESENT',
    'MS64' => {
        '7.3' => 'NOT_PRESENT'
    },
    'DAV' => {

```

```

        '7.0' => 'NOT_PRESENT'
    },
    '118243-03' => 'NOT_PRESENT',
    '125138-17' => 'NOT_PRESENT',
    '137138-09' => 'PRESENT',
    'CE' => {
        '6.3' => 'NOT_PRESENT'
    },
    'MYSQL' => {
        '5.1.36' => 'NOT_PRESENT'
    },
    'PATCHUTILS' => {
        'Unknown' => 'PRESENT'
    },
    'MQ' => {
        '3.7' => 'NOT_PRESENT',
        '4.3' => 'NOT_PRESENT',
        '4.1' => 'NOT_PRESENT'
    },
    'IMAPI' => {
        '8.0' => 'NOT_PRESENT',
        '7.0' => 'NOT_PRESENT',
        '7.3' => 'NOT_PRESENT'
    },
    'LDAPSDK6_TOOLS' => {
        '6.0' => 'NOT_PRESENT'
    },
    'JISS' => {
        '0.9' => 'NOT_PRESENT',
        '1.0' => 'NOT_PRESENT'
    },
    '119811-05' => 'NOT_PRESENT',
    '137322-01' => 'PRESENT',
    'ST' => {
        '1.1.4' => 'PRESENT'
    },
    '141415-09' => 'NOT_PRESENT',
    '120901-03' => 'PRESENT',
    '120273-26' => 'NOT_PRESENT',
    'IM_L10N' => {
        '7.2' => 'NOT_PRESENT',
        '7.0' => 'NOT_PRESENT'
    },
    '119725-04' => 'NOT_PRESENT',
    '121334-04' => 'PRESENT',
    '136800-01' => 'NOT_PRESENT',
    'LDAPJDK' => {
        '4.19' => 'NOT_PRESENT'
    },
    'BZIP' => {
        '11.10' => 'PRESENT'
    },
    '119964-16' => 'PRESENT',
    'IM_SCHA' => {
        '7.0' => 'NOT_PRESENT',
        '7.3' => 'NOT_PRESENT'
    }

```

```

    },
'137632-10' => 'NOT_PRESENT',
'137205-11' => 'NOT_PRESENT',
'119255-67' => 'PRESENT',
'SNMP' => {
    'Unknown' => 'PRESENT'
},
'MS_SCHA' => {
    '6.0' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT'
},
'JHRT' => {
    '2.0' => 'NOT_PRESENT'
},
'CE_L10N' => {
    '6.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT'
},
'121658-40' => 'NOT_PRESENT',
'SASL' => {
    '2.19' => 'NOT_PRESENT'
},
'IWC' => {
    '1.0' => 'NOT_PRESENT'
},
'MS64_L10N' => {
    '6.3' => 'NOT_PRESENT'
},
'MS' => {
    '7.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT',
    '7.3' => 'NOT_PRESENT'
},
'120012-14' => 'PRESENT',
'119346-07' => 'NOT_PRESENT',
'125139-17' => 'NOT_PRESENT',
'LDAPCSDK6' => {
    '6.0' => 'NOT_PRESENT'
},
'JDK' => {
    '1.6.0' => 'NOT_PRESENT',
    '1.5.0' => 'NOT_PRESENT'
},
'124582-01' => 'NOT_PRESENT',
'139894-02' => 'NOT_PRESENT',
'CI' => {
    '7.0' => 'NOT_PRESENT'
},
'120273-06' => 'PRESENT',
'NSS' => {
    '4.3' => 'NOT_PRESENT'
},
'IM' => {
    '8.2' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT',
    '7.3' => 'NOT_PRESENT'
}

```

```

    },
    'CS_L10N' => {
        '6.2' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    '137202-11' => 'NOT_PRESENT',
    'RECOMMENDED' => {
        '2009.08.25' => 'NOT_PRESENT'
    },
    'CS_SCHA' => {
        '6.0' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    'MYSQL_MARKER' => {
        '1.0' => 'NOT_PRESENT'
    },
    'MS_L10N' => {
        '6.2' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    'LIBCPLUSPLUS' => {
        '5.9' => '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' => {}
};

```

```

'SUNWmessaging-server-110n-64' => {},
'SUNWics5' => {},
'SUNWiq1pl' => {},
'SUNWmsgco' => {},
'SUNWfiquc' => {},
'SUNWjiss-extjars' => {},
'SUNWjhdem' => {},
'SUNWiqfs' => {},
'SUNWfimid' => {},
'SUNWcomds' => {},
'SUNWjhdev' => {},
'SUNWj6rtx' => {},
'SUNWiqum' => {},
'SUNWduwc' => {},
'SUNWhiimin' => {},
'SUNWkiimin' => {},
'SUNWeiimd' => {},
'SUNWj6rt' => {},
'SUNWj5rt' => {},
'SUNWiimc-110n' => {},
'SUNWhiimc' => {},
'SUNWmsg-110n' => {},
'SUNWfrics' => {},
'SUNWciqu' => {},
'SUNWkoics' => {},
'SUNWdimid' => {},
'SUNWjiquc' => {},
'SUNWiimgw' => {},
'SUNWiimd-110n' => {},
'SUNWhiquc' => {},
'SUNWzhics' => {},
'SUNWkiimd' => {},
'SUNWmsgmp' => {},
'SUNWuwc' => {},
'SUNWscics' => {},
'SUNWiimc' => {},
'SUNWhiimd' => {},
'SUNWmsglb' => {},
'SUNWmessaging-server-scha' => {},
'SUNWt1s' => {},
'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' => {},
'SUNWmessaging-server-64' => {},
'SUNWeiquc' => {},
'SUNWj5cfg' => {},
'SUNWhiqu' => {},
'SUNWjiss-search' => {},
'SUNWiimd' => {},
'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'
    ]
    },
'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' => {},
'SUNWjiss-store' => {},
'SUNWmsgen' => {},
'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' => {},
'SUNWdavserver' => {},
'SUNWmessaging-server' => {},
'SUNWeiimc' => {},
'SUNWmsgtw' => {},
'SUNWjaics' => {},
'SUNWpkgcmds' => {

'11.11,REV=2005.01.09.21.19' => [

'SUNWpkgcmds',

'/',

'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' => {},
    'SUNWkiqc' => {},
    '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',
            '/',

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```

'5.10/SunOS Development'
]
    },
    'SUNWt1su' => {},
    'SUNWfiq' => {},
    'SUNWsas1' => {},
    'SUNWfiimc' => {},
    'SUNWzoneu' => {
        '11.10.0,REV=2005.01.21.16.34' => [
            'SUNWzoneu',
            '/',
        ]
    }
]
'5.10/Generic'
]
    },
    'SUNWcsr' => {
        '11.10.0,REV=2005.01.21.16.34' => [
            'SUNWcsr',
            '/',
        ]
    }
]
'5.10/Generic'
]
    },
    'SUNWesics' => {},
    'SUNWiimm' => {}
};
!!! installedprod
$VAR1 = {
    'PATCHUTILS' => {
        'Unknown' => [
            '/opt/altroot/',
            'SNAG Development',
            'none',
            'Unknown'
        ]
    },
    'ST' => {
        '1.1.4' => [
            '/opt/altroot/',
            '1.1.4.1',
            'none',
            '1.1.4'
        ]
    },
    'LIBCPLUSPLUS' => {
        '5.9' => [
            '/opt/altroot/',
            '5.10',
            'none',
            '5.9'
        ]
    },
    'SNMP' => {
        'Unknown' => [

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        '/opt/altroot/',
        '5.10/SunOS Development',
        'none',
        'Unknown'
    ]
},
'BZIP' => {
    '11.10' => [
        '/opt/altroot/',
        '5.10/SunOS Development',
        'none',
        '11.10'
    ]
}
};
===== End QQQ detectProducts =====
-- Checking for RECOMMENDED patch 119255-67
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 120273-26
patch 120273-26: NOT_PRESENT
-- Checking for RECOMMENDED patch 137138-09
patch is PRESENT
-- Checking for RECOMMENDED patch 141415-09
patch 141415-09: NOT_PRESENT
NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
        has not been applied. Specifically the following
        patches are missing:
        120273-26 141415-09
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 Services Products:

Item  Description
----  -
1     Messaging Server (64bit) 7u3 (7.3-11.01)
2     Comms DSsetup 6.4 (6.4-5.05)
3     Calendar Server 7 (7.0-0.26)

```

- 4 Instant Messaging 8u2 (8.2-02.04)
- 5 Convergence 1u3 (1.0-10.01)
- 6 Indexing and Search Service 1 (1.0-32.01)
- 7 Comms Delegated Administrator 7 (7.0-1.00)
- 8 Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
- 9 Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
- 10 Calendar Server 6.3 (6.3-19.01)
- 11 Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)

Enter the items you wish to install. Enter q to quit.

Prefix an item with ~ to indicate you only want

to install shared component dependencies of that product

You can enter multiple items using commas to separate them.

For example: 1,2

Please select the products you wish to install [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]:

```
=====
QQQ selections: 0 MS64 0 DSSETUP 0 DAV 0 IM 0 IWC 0 JISS 0 DA 0 MS_SCHA
0 IM_SCHA 0 CS 0 CS_SCHA
```

Generating list of things to install...

```
NOTICE: toInstall - MYSQL PATCHUTILS IMAPI LDAPJDK BZIP SNMP
LIBCPLUSPLUS NSS ICU SASL LDAPCSDK6 LDAPCSDK6_TOOLS MS64 DSSETUP DAV IM
IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA CI ST JDK JHRT MQ
```

Checking for Shared Component Upgrade Requirements...

```
=====
WILL INSTALL: MySQL 5.1.36
Task:
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/installer
--pkgcmd '-a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'
WILL INSTALL: Instant Messaging API 8
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IMAPI/Packages -r
/tmp/.response_IMAPI_20091013150936 SUNWiimdV
WILL INSTALL: LDAPJDK 4.19
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPJDK/Packages -r
/tmp/.response_LDAPJDK_20091013150936 SUNWljdk
WILL INSTALL: NSS/NSPR/JSS 4.3
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWjss
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWpr
Task: pkgadd -a
```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWprd
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWtls
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWtlsd
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWtlsu
  WILL INSTALL: International Components for Unicode ICU2,ICU3
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/ICU/Packages/SunOS5.10_i3
-r /tmp/.response_ICU_20091013150936 SUNWicu
  WILL INSTALL: Simple Authentication and Security Layer 2.19
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/SASL/Packages/SunOS5.10_i3
-r /tmp/.response_SASL_20091013150936 SUNWsas1
  WILL INSTALL: LDAPCSDK6 6.0
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPCSDK6/Packages/SunOS5
-r /tmp/.response_LDAPCSDK6_20091013150936 SUNWldapcsdk-libs
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPCSDK6/Packages/SunOS5
-r /tmp/.response_LDAPCSDK6_20091013150936 SUNWldapcsdk-dev
  WILL INSTALL: LDAPCSDK6 Tools 6.0
                  to /opt/altroot/directory
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPCSDK6_TOOLS/Packages
-r /tmp/.response_LDAPCSDK6_TOOLS_20091013150936 SUNWldapcsdk-tools
  WILL INSTALL: Messaging Server (64bit) 7u3 (7.3-11.01)
                  to /opt/altroot/messaging64
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/Packages -r
/tmp/.response_MS64_20091013150936 SUNWmessaging-server-64

```

```

WILL INSTALL: Comms DSsetup 6.4 (6.4-5.05)
                to /opt/altroot/dssetup
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/Packages -r
/tmp/.response_DSSETUP_20091013150936 SUNWcomds
WILL INSTALL: Calendar Server 7 (7.0-0.26)
                to /opt/altroot/davserver
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DAV/Packages -r
/tmp/.response_DAV_20091013150936 SUNWdavserver
WILL INSTALL: Instant Messaging 8u2 (8.2-02.04)
                to /opt/altroot/im
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiim
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimin
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimm
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimjd
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimid
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimc
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimd
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimgw

```

```

WILL INSTALL: Convergence lu3 (1.0-10.01)
                to /opt/altroot/iwc
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IWC/Packages -r
/tmp/.response_IWC_20091013150936 SUNWiwc
WILL INSTALL: Indexing and Search Service 1 (1.0-32.01)
                to /opt/altroot/jiss
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JISS/Packages -r
/tmp/.response_JISS_20091013150936 SUNWjiss
WILL INSTALL: Comms Delegated Administrator 7 (7.0-1.00)
                to /opt/altroot/da
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DA/Packages -r
/tmp/.response_DA_20091013150936 SUNWcommda
WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                to /opt/altroot/msg_scha
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS_SCHA/Packages -r
/tmp/.response_MS_SCHA_20091013150936 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
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM_SCHA/Packages -r
/tmp/.response_IM_SCHA_20091013150936 SUNWiimsc
WILL INSTALL: Calendar Server 6.3 (6.3-19.01)
                to /opt/altroot/calendar
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/Packages -r
/tmp/.response_CS_20091013150936 SUNWics5
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/Packages -r
/tmp/.response_CS_20091013150936 SUNWica5
WILL INSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                to /opt/altroot/cs_scha
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS_SCHA/Packages -r
/tmp/.response_CS_SCHA_20091013150936 SUNWscics
WILL INSTALL: CommsInstaller 7 (7.0-0.02)
                to /opt/altroot/CommsInstaller

```

```

Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CI/Packages -r
/tmp/.response_CI_20091013150936 SUNWcomms
WILL INSTALL: JDK 1.6.0
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6rt
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6rtx
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6dev
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6dvx
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6cfg
WILL INSTALL: Java Help Runtime 2.0
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhrt
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdev
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdem
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdoc
WILL INSTALL: Message Queue 4.3
Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d

```

```

/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqr
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqu
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqdoc
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiquc
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqum
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqjx
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqfs
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqcrt
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqcdv
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqlen
=====
Ready to install

Do you want to continue ? [yes] :

=====
Installing MySQL 5.1.36...
----- Executing Task 1 of 53 ...
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/installer

```

```
--pkgcmd '-a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet' 2>&1
-- LOGFILE: /tmp/ci-mysql-installer_20091013150948.log
pkgadd -n -r /dev/null -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/../../Packages
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
mysql
```

Installation of <mysql> was successful.

Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc. All rights reserved.

Use is subject to license terms.

091013 15:10:48 [Warning] Forcing shutdown of 2 plugins

091013 15:10:50 [Warning] Forcing shutdown of 2 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !

To do so, start the server, then issue the following commands:

```
/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h limzone-2 password
'new-password'
```

Alternatively you can run:

```
/opt/mysql/mysql/bin/mysql_secure_installation
```

which will also give you the option of removing the test databases and anonymous user created by default. This is strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug script!

The latest information about MySQL is available at <http://www.mysql.com/>  
Support MySQL by buying support/licenses from <http://shop.mysql.com/>

```
pkgadd -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/../../MYSQL_MARKER
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms-mysql-marker
```

Installation of <SUNWcomms-mysql-marker> was successful.

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-- Exit status: 0

-- /h/megan/wspace/dl111122/releases/ci70/SunOS\_i386/MYSQL/CI/installer

--pkgcmd '-a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'

-- LOGFILE: /tmp/ci-mysql-installer\_20091013150948.log

pkgadd -n -r /dev/null -d

/h/megan/wspace/dl111122/releases/ci70/SunOS\_i386/MYSQL/CI/../../Packages

-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet

mysql

Installation of <mysql> was successful.

Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc. All rights reserved.

Use is subject to license terms.

091013 15:10:48 [Warning] Forcing shutdown of 2 plugins

091013 15:10:50 [Warning] Forcing shutdown of 2 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !

To do so, start the server, then issue the following commands:

```
/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
```

```
/opt/mysql/mysql/bin/mysqladmin -u root -h limzone-2 password
```

```
'new-password'
```

Alternatively you can run:

```
/opt/mysql/mysql/bin/mysql_secure_installation
```

which will also give you the option of removing the test databases and anonymous user created by default. This is strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the `/opt/mysql/mysql/scripts/mysqlbug` script!

The latest information about MySQL is available at <http://www.mysql.com/Support> MySQL by buying support/licenses from <http://shop.mysql.com/>

```
pkgadd -n -d
```

```
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/../../MYSQL_MARKER
```

```
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
```

```
SUNWcomms-mysql-marker
```

Installation of `<SUNWcomms-mysql-marker>` was successful.

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```
=====
```

Installing Instant Messaging API 8...

----- Executing Task 2 of 53 ...

```
pkgadd -a
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
```

```
/opt/altroot -d
```

```
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IMAPI/Packages -r
```

```
/tmp/.response_IMAPI_20091013150936 SUNWiimdv 2>&1
```

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Installation of `<SUNWiimdv>` was successful.

```
-- Exit status: 0
```

```
=====
```

Installing LDAPJDK 4.19...

----- Executing Task 3 of 53 ...

```
pkgadd -a
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
```

```

/opt/altroot -d
/h/megan/wspace/dll11122/releases/ci70/SunOS_i386/LDAPJDK/Packages -r
/tmp/.response_LDAPJDK_20091013150936 SUNWljdk 2>&1
516 blocks

Installation of <SUNWljdk> was successful.
-- Exit status: 0

=====
Installing NSS/NSPR/JSS 4.3...
----- Executing Task 4 of 53 ...
pkgadd -a
/h/megan/wspace/dll11122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dll11122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWjss 2>&1
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```

delete

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Installation of <SUNWjss> was successful.

-- Exit status: 0

----- Executing Task 5 of 53 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R /opt/altroot -d

/h/megan/wspace/dl111122/releases/ci70/SunOS\_i386/NSS/Packages -r /tmp/.response\_NSS\_20091013150936 SUNWpr 2>&1

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Installation of <SUNWpr> was successful.

-- Exit status: 0

----- Executing Task 6 of 53 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R  
/opt/altroot -d

/h/megan/wspace/dl111122/releases/ci70/SunOS\_i386/NSS/Packages -r  
/tmp/.response\_NSS\_20091013150936 SUNWprd 2>&1

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```
Installation of <SUNWprd> was successful.
-- Exit status: 0
----- Executing Task 7 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWt1s 2>&1
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```

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```
Installation of <SUNWt1s> was successful.
-- Exit status: 0
----- Executing Task 8 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWt1sd 2>&1
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Installation of <SUNWt1sd> was successful.
-- Exit status: 0
```

```
----- Executing Task 9 of 53 ...
pkgadd -a
/h/megan/wspace/dll11122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dll11122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWt1su 2>&1
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Installation of <SUNWt1su> was successful.
-- Exit status: 0

=====
```

```
Installing International Components for Unicode ICU2,ICU3...
----- Executing Task 10 of 53 ...
pkgadd -a
/h/megan/wspace/dll11122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dll11122/releases/ci70/SunOS_i386/ICU/Packages/SunOS5.10_i3
-r /tmp/.response_ICU_20091013150936 SUNWicu 2>&1
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```

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-----
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95324 blocks

Installation of <SUNWicu> was successful.
-- Exit status: 0

=====
Installing Simple Authentication and Security Layer 2.19...
----- Executing Task 11 of 53 ...
pkgadd -a

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/SASL/Packages/SunOS5.10_5
-r /tmp/.response_SASL_20091013150936 SUNWsas1 2>&1
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Installation of <SUNWsas1> was successful.
-- Exit status: 0

=====
Installing LDAPSDK6 6.0...
----- Executing Task 12 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPSDK6/Packages/SunOS5
-r /tmp/.response_LDAPSDK6_20091013150936 SUNWldapcsdk-libs 2>&1
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Installation of <SUNWldapcsdk-libs> was successful.
-- Exit status: 0
----- Executing Task 13 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPSDK6/Packages/SunOS5
-r /tmp/.response_LDAPSDK6_20091013150936 SUNWldapcsdk-dev 2>&1
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Installation of <SUNWldapcsdk-dev> was successful.
-- Exit status: 0

=====
Installing LDAPSDK6 Tools 6.0...
----- Executing Task 14 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPSDK6_TOOLS/Packages/
-r /tmp/.response_LDAPSDK6_TOOLS_20091013150936 SUNWldapcsdk-tools 2>&1
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Installation of <SUNWldapcsdk-tools> was successful.
-- Exit status: 0

=====
Installing Messaging Server (64bit) 7u3 (7.3-11.01)...
----- Executing Task 15 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/Packages -r
/tmp/.response_MS64_20091013150936 SUNWmessaging-server-64 2>&1

```

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Installation of <SUNWmessaging-server-64> was successful.  
-- Exit status: 0

```
=====
Installing Comms DSsetup 6.4 (6.4-5.05)...
----- Executing Task 16 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/Packages -r
/tmp/.response_DSSETUP_20091013150936 SUNWcomds 2>&1
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```

Installation of <SUNWcomds> was successful.  
-- Exit status: 0

```
=====
Installing Calendar Server 7 (7.0-0.26)...
----- Executing Task 17 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DAV/Packages -r
/tmp/.response_DAV_20091013150936 SUNWdavserver 2>&1
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```

Installation of <SUNWdavserver> was successful.  
-- Exit status: 0

```
=====
Installing Instant Messaging 8u2 (8.2-02.04)...
----- Executing Task 18 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiim 2>&1
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```

Installation of <SUNWiim> was successful.  
-- Exit status: 0

```
----- Executing Task 19 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimin 2>&1
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```

```
Installation of <SUNWiimin> was successful.
-- Exit status: 0
----- Executing Task 20 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimm 2>&1
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```

```
Installation of <SUNWiimm> was successful.
-- Exit status: 0
----- Executing Task 21 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimjd 2>&1
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```

```
Installation of <SUNWiimjd> was successful.
-- Exit status: 0
----- Executing Task 22 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimid 2>&1
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```

```
Installation of <SUNWiimid> was successful.
-- Exit status: 0
----- Executing Task 23 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimc 2>&1
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```

```
Installation of <SUNWiimc> was successful.
-- Exit status: 0
----- Executing Task 24 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimd 2>&1
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```

```
Installation of <SUNWiimd> was successful.
```

```

-- Exit status: 0
----- Executing Task 25 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimgw 2>&1
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Installation of <SUNWiimgw> was successful.
-- Exit status: 0

=====
Installing Convergence lu3 (1.0-10.01)...
----- Executing Task 26 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IWC/Packages -r
/tmp/.response_IWC_20091013150936 SUNWiwc 2>&1
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Installation of <SUNWiwc> was successful.
-- Exit status: 0

=====
Installing Indexing and Search Service 1 (1.0-32.01)...
----- Executing Task 27 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JISS/Packages -r
/tmp/.response_JISS_20091013150936 SUNWjiss 2>&1
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Installation of <SUNWjiss> was successful.
-- Exit status: 0

=====
Installing Comms Delegated Administrator 7 (7.0-1.00)...
----- Executing Task 28 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DA/Packages -r
/tmp/.response_DA_20091013150936 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 29 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS_SCHA/Packages -r
/tmp/.response_MS_SCHA_20091013150936 SUNWmessaging-server-scha 2>&1
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Installation of <SUNWmessaging-server-scha> was successful.
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=====
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
----- Executing Task 30 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM_SCHA/Packages -r
/tmp/.response_IM_SCHA_20091013150936 SUNWiimsc 2>&1
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Installation of <SUNWiimsc> was successful.
-- Exit status: 0

=====
Installing Calendar Server 6.3 (6.3-19.01)...
----- Executing Task 31 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/Packages -r
/tmp/.response_CS_20091013150936 SUNWics5 2>&1
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Checking for existence of /calendar/SUNWics5/cal/bin/config
/calendar/SUNWics5/cal/bin/config is clean

Checking for existence of /calendar/SUNWics5/cal/config
/calendar/SUNWics5/cal/config is clean

Checking for existence of /calendar/SUNWics5/cal/bin/html
/calendar/SUNWics5/cal/bin/html is clean

Checking for existence of /calendar/SUNWics5/cal/bin/data
/calendar/SUNWics5/cal/bin/data is clean

Checking for any files in /calendar/SUNWics5/cal/bin/
/calendar/SUNWics5/cal/bin is clean

Installation of <SUNWics5> was successful.

```

```

-- Exit status: 0
----- Executing Task 32 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/Packages -r
/tmp/.response_CS_20091013150936 SUNWica5 2>&1
Copyright 2007 Sun Microsystems, Inc. All rights reserved
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Installation of <SUNWica5> was successful.
-- Exit status: 0

=====
Installing Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)...
----- Executing Task 33 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS_SCHA/Packages -r
/tmp/.response_CS_SCHA_20091013150936 SUNWscics 2>&1
Copyright 2005 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
ln: cannot create /opt/altroot/usr/cluster/lib/rgm/rtreg/SUNW.scics: No
such file or directory

Attempting to set following in ics.conf
    local.server.ha.enabled="yes"
    local.server.ha.agent="SUNWscics"

Sun Cluster 3.0_u1 Agent for iCS 5.1 Note
-----
Remember to add the following to the ics.conf file
    local.server.ha.enabled="yes"
    local.server.ha.agent="SUNWscics"

Installation of <SUNWscics> was successful.
-- Exit status: 0

=====
Installing CommsInstaller 7 (7.0-0.02)...
----- Executing Task 34 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CI/Packages -r
/tmp/.response_CI_20091013150936 SUNWcomms 2>&1
Copyright 2007-2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWcomms> was successful.
-- Exit status: 0

=====

```

```

Installing JDK 1.6.0...
----- Executing Task 35 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6rt 2>&1
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6rt> was successful.
-- Exit status: 0
----- Executing Task 36 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6rtx 2>&1
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6rtx> was successful.
-- Exit status: 0
----- Executing Task 37 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6dev 2>&1
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6dev> was successful.
-- Exit status: 0
----- Executing Task 38 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6dvx 2>&1
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6dvx> was successful.
-- Exit status: 0
----- Executing Task 39 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6cfg 2>&1
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWj6cfg> was successful.
-- Exit status: 0

```

```

=====
Installing Java Help Runtime 2.0...
----- Executing Task 40 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhrt 2>&1
Copyright 2006 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
1127 blocks

Installation of <SUNWjhrt> was successful.
-- Exit status: 0
----- Executing Task 41 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdev 2>&1
Copyright 2006 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
709 blocks

Installation of <SUNWjhdev> was successful.
-- Exit status: 0
----- Executing Task 42 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdem 2>&1
Copyright 2006 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
6466 blocks

Installation of <SUNWjhdem> was successful.
-- Exit status: 0
----- Executing Task 43 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdoc 2>&1
Copyright 2006 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
10385 blocks

Installation of <SUNWjhdoc> was successful.
-- Exit status: 0

=====
Installing Message Queue 4.3...
----- Executing Task 44 of 53 ...
pkgadd -a

```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqr 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
```

Installation of <SUNWiqr> was successful.

-- Exit status: 0

----- Executing Task 45 of 53 ...

pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
```

```
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqu 2>&1
```

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Installation of <SUNWiqu> was successful.

-- Exit status: 0

----- Executing Task 46 of 53 ...

pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
```

```
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqdoc 2>&1
```

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Installation of <SUNWiqdoc> was successful.

-- Exit status: 0

----- Executing Task 47 of 53 ...

pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
```

```
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiquc 2>&1
```

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Installation of <SUNWiquc> was successful.

-- Exit status: 0

----- Executing Task 48 of 53 ...

pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
```

```
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiquq 2>&1
```

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Installation of <SUNWiquq> was successful.

-- Exit status: 0

----- Executing Task 49 of 53 ...

pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
```

```

/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqjx 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqjx> was successful.
-- Exit status: 0
----- Executing Task 50 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqfs 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqfs> was successful.
-- Exit status: 0
----- Executing Task 51 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqcrt 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqcrt> was successful.
-- Exit status: 0
----- Executing Task 52 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqcdv 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Installation of <SUNWiqcdv> was successful.
-- Exit status: 0
----- Executing Task 53 of 53 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqqlen 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
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Installation of <SUNWiqqlen> was successful.
-- Exit status: 0
=====
SUMMARY:

PASSED: Task 1: generic

```

```

/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/installer
--pkgcmd '-a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'
-- Output of Task 1: generic
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/installer
--pkgcmd '-a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'
-- LOGFILE: /tmp/ci-mysql-installer_20091013150948.log
pkgadd -n -r /dev/null -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/./Packages
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc. All rights
reserved.
Use is subject to license terms.
091013 15:10:48 [Warning] Forcing shutdown of 2 plugins
091013 15:10:50 [Warning] Forcing shutdown of 2 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h limzone-2 password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default. This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MYSQL/CI/./../MYSQL_MARKER
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
-- End of command output--
PASSED: Task 2: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IMAPI/Packages -r
/tmp/.response_IMAPI_20091013150936 SUNWiimdv

```

```

PASSED: Task 3: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPJDK/Packages -r
/tmp/.response_LDAPJDK_20091013150936 SUNWljdk
PASSED: Task 4: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWjss
PASSED: Task 5: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWpr
PASSED: Task 6: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWprd
PASSED: Task 7: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWtls
PASSED: Task 8: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWtlsd
PASSED: Task 9: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/NSS/Packages -r
/tmp/.response_NSS_20091013150936 SUNWtlsu
PASSED: Task 10: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/ICU/Packages/SunOS5.10_i3
-r /tmp/.response_ICU_20091013150936 SUNWicu
PASSED: Task 11: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/SASL/Packages/SunOS5.10_i
-r /tmp/.response_SASL_20091013150936 SUNWsas1
PASSED: Task 12: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPCSDK6/Packages/SunOS5
-r /tmp/.response_LDAPCSDK6_20091013150936 SUNWldapcsdk-libs
PASSED: Task 13: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPCSDK6/Packages/SunOS5
-r /tmp/.response_LDAPCSDK6_20091013150936 SUNWldapcsdk-dev
PASSED: Task 14: pkgadd -a

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/LDAPCSDK6_TOOLS/Packages/
-r /tmp/.response_LDAPCSDK6_TOOLS_20091013150936 SUNWldapcsdk-tools
PASSED: Task 15: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/Packages -r
/tmp/.response_MS64_20091013150936 SUNWmessaging-server-64
PASSED: Task 16: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/Packages -r
/tmp/.response_DSSETUP_20091013150936 SUNWcomds
PASSED: Task 17: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DAV/Packages -r
/tmp/.response_DAV_20091013150936 SUNWdavserver
PASSED: Task 18: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiim
PASSED: Task 19: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimin
PASSED: Task 20: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimm
PASSED: Task 21: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimjd
PASSED: Task 22: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimid
PASSED: Task 23: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimc
PASSED: Task 24: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimd
PASSED: Task 25: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n

```

```

-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/Packages -r
/tmp/.response_IM_20091013150936 SUNWiimgw
PASSED: Task 26: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IWC/Packages -r
/tmp/.response_IWC_20091013150936 SUNWiwc
PASSED: Task 27: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JISS/Packages -r
/tmp/.response_JISS_20091013150936 SUNWjiss
PASSED: Task 28: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DA/Packages -r
/tmp/.response_DA_20091013150936 SUNWcommda
PASSED: Task 29: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS_SCHA/Packages -r
/tmp/.response_MS_SCHA_20091013150936 SUNWmessaging-server-scha
PASSED: Task 30: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM_SCHA/Packages -r
/tmp/.response_IM_SCHA_20091013150936 SUNWiimsc
PASSED: Task 31: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/Packages -r
/tmp/.response_CS_20091013150936 SUNWics5
PASSED: Task 32: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/Packages -r
/tmp/.response_CS_20091013150936 SUNWica5
PASSED: Task 33: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS_SCHA/Packages -r
/tmp/.response_CS_SCHA_20091013150936 SUNWscics
PASSED: Task 34: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-R /opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CI/Packages -r
/tmp/.response_CI_20091013150936 SUNWcomms
PASSED: Task 35: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6rt
PASSED: Task 36: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d

```

```

/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6rtx
PASSED: Task 37: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6dev
PASSED: Task 38: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6dvx
PASSED: Task 39: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JDK/Packages -r
/tmp/.response_JDK_20091013150936 SUNWj6cfg
PASSED: Task 40: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhrt
PASSED: Task 41: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdev
PASSED: Task 42: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdem
PASSED: Task 43: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JHRT/Packages -r
/tmp/.response_JHRT_20091013150936 SUNWjhdoc
PASSED: Task 44: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqr
PASSED: Task 45: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqu
PASSED: Task 46: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqdoc
PASSED: Task 47: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r

```

```

/tmp/.response_MQ_20091013150936 SUNWiquc
PASSED: Task 48: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqum
PASSED: Task 49: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqjx
PASSED: Task 50: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqfs
PASSED: Task 51: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqcrt
PASSED: Task 52: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqcdv
PASSED: Task 53: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -R
/opt/altroot -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MQ/Packages -r
/tmp/.response_MQ_20091013150936 SUNWiqlen

```

All tasks PASSED

Checking JES java symlink...

```

ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx  1 root    other           15 Jun  5 17:00 /usr/java ->
jdk/jdk1.5.0_19

/usr/jdk:
total 14
lrwxrwxrwx  1 root    root           27 Oct  1 2007 entsys-j2se ->
/usr/jdk/instances/jdk1.5.0
drwxr-xr-x  4 root    bin           512 Jan  8 2009 instances
lrwxrwxrwx  1 root    other           7 Mar 27 2007 j2sdk1.4.2_11 ->
../j2se
lrwxrwxrwx  1 root    other           18 Jun  5 17:00 jdk1.5.0_19 ->
instances/jdk1.5.0
lrwxrwxrwx  1 root    other           18 Sep  2 15:51 jdk1.6.0_16 ->
instances/jdk1.6.0
lrwxrwxrwx  1 root    other           11 Sep  2 15:51 latest ->
jdk1.6.0_16
drwxr-xr-x  8 root    bin           512 Jun  3 20:10 packages
-- Exit status: 0
ls -l /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
lrwxrwxrwx  1 root    root           27 Oct  1 2007
/usr/jdk/entsys-j2se -> /usr/jdk/instances/jdk1.5.0

```

```

lrwxrwxrwx  1 root      other          11 Sep  2 15:51 /usr/jdk/latest ->
jdk1.6.0_16
-- Exit status: 0
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se:
total 34596
drwxr-xr-x  3 root      bin           1024 Jun  5 17:00 bin
-rw-r--r--  1 root      bin           2487 May  4 02:37 COPYRIGHT
drwxr-xr-x  9 root      bin            512 Jun  5 16:58 demo
drwxr-xr-x  3 root      bin            512 Jun  5 16:58 include
drwxr-xr-x  6 root      bin            512 Jun  5 17:00 jre
drwxr-xr-x  2 root      bin            512 Jun  5 16:58 lib
-rw-r--r--  1 root      bin          18272 May  4 02:37 LICENSE
drwxr-xr-x  6 root      bin            512 Oct  1  2007 man
-rw-r--r--  1 root      bin          20415 May  4 02:37 README.html
drwxr-xr-x  4 root      bin            512 Oct  1  2007 sample
-rw-r--r--  1 root      bin        17570604 May  4 02:35 src.zip
-rw-r--r--  1 root      bin           67235 May  4 02:37
THIRDPARTYLICENSEREADME.txt

/usr/jdk/latest:
total 38014
drwxr-xr-x  3 root      bin           1024 Sep  2 15:50 bin
-rw-r--r--  1 root      bin           3767 Jul 31 06:41 COPYRIGHT
-rw-r--r--  1 root      bin          15320 Mar  9  2009 DistributionREADME
-rw-r--r--  1 root      bin           5450 Mar  9  2009 ENTITLEMENT
drwxr-xr-x  3 root      bin            512 Sep  2 15:49 include
drwxr-xr-x  6 root      bin            512 Sep  2 15:50 jre
drwxr-xr-x  3 root      bin            512 Sep  2 15:49 lib
-rw-r--r--  1 root      bin          17179 Jul 31 06:41 LICENSE
-rw-r--r--  1 root      bin           1637 Mar  9  2009
Perpetual_Entitlement_Desktop
-rw-r--r--  1 root      bin           1795 Mar  9  2009
Perpetual_Entitlement_Server
-rw-r--r--  1 root      bin          28329 Jul 31 06:41 README.html
-rw-r--r--  1 root      bin          25390 Jul 31 06:41 README_ja.html
-rw-r--r--  1 root      bin          20768 Jul 31 06:41 README_zh_CN.html
-r--r--r--  1 root      other           5795 Sep  2 15:53 register.html
-r--r--r--  1 root      other           6227 Sep  2 15:53 register_ja.html
-r--r--r--  1 root      other           5405 Sep  2 15:53
register_zh_CN.html
-rw-r--r--  1 root      bin        19029119 Jul 31 06:40 src.zip
-rw-r--r--  1 root      bin          249556 Jul 31 06:41
THIRDPARTYLICENSEREADME.txt
-- Exit status: 0
INFO: /etc/softlist.xml updated

Hit Return to Continue:
=====
-- unlink /tmp/.response_IMAPI_20091013150936
-- unlink /tmp/.response_LDAPJDK_20091013150936
-- unlink /tmp/.response_NSS_20091013150936
-- unlink /tmp/.response_ICU_20091013150936
-- unlink /tmp/.response_SASL_20091013150936
-- unlink /tmp/.response_LDAPCSK6_20091013150936
-- unlink /tmp/.response_LDAPCSK6_TOOLS_20091013150936

```

```

-- unlink /tmp/.response_MS64_20091013150936
-- unlink /tmp/.response_DSSETUP_20091013150936
-- unlink /tmp/.response_DAV_20091013150936
-- unlink /tmp/.response_IM_20091013150936
-- unlink /tmp/.response_IWC_20091013150936
-- unlink /tmp/.response_JISS_20091013150936
-- unlink /tmp/.response_DA_20091013150936
-- unlink /tmp/.response_MS_SCHA_20091013150936
-- unlink /tmp/.response_IM_SCHA_20091013150936
-- unlink /tmp/.response_CS_20091013150936
-- unlink /tmp/.response_CS_SCHA_20091013150936
-- unlink /tmp/.response_CI_20091013150936
-- unlink /tmp/.response_JDK_20091013150936
-- unlink /tmp/.response_JHRT_20091013150936
-- unlink /tmp/.response_MQ_20091013150936
-- unlink /tmp/.patchout_20091013150936.29960
-- unlink /tmp/.patchout_altroot_20091013150936.29960
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_20091013150936
```

NOTICE: silent file created in:

```
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013150936
```

Closing the log at Tue Oct 13 15:17:35 2009

(78 root) ./commpkg info

```
-- LOGFILE: /tmp/CommsInstaller_20091013151815.log
```

```
=====
```

Detecting Installed Products...

NOTICE: Message Queue is present with a different pkg VERSION.

NOTICE: Message Queue Localization is present with a different pkg VERSION.

NOTICE: CommsInstaller is present with a different pkg VERSION.

Detecting Installed Patches...

NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25) has not been applied. Specifically the following patches are missing:

```
120273-26 141415-09
```

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 2009.08.25) has not been applied. Specifically the following patches are missing:

```
120273-26 141415-09
```

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) 7u3
        Version: 7.3-11.01
        Basedir: /opt/altroot/messaging64
        Build Date: 20090901
Product: Comms DSsetup 6.4
        Version: 6.4-5.05
        Basedir: /opt/altroot/dssetup
        Build Date: 20090808
Product: Calendar Server 7
        Version: 7.0-0.26
        Basedir: /opt/altroot/davserver
        Build Date: 20090827
Product: Instant Messaging 8u2
        Version: 8.2-02.04
        Basedir: /opt/altroot/im
        Build Date: 20090903
Product: Convergence 1u3
        Version: 1.0-10.01
        Basedir: /opt/altroot/iwc
        Build Date: 20090906
Product: Indexing and Search Service 1
        Version: 1.0-32.01
        Basedir: /opt/altroot/jiss
        Build Date: 20090909
Product: Comms Delegated Administrator 7
        Version: 7.0-1.00
        Basedir: /opt/altroot/da
        Build Date: 20090821
Product: Messaging Server Sun Cluster HA agent 7.0
        Version: 7.0-0.03
        Basedir: /opt/altroot/msg_scha
        Build Date: 20080519
Product: Instant Messaging Sun Cluster HA agent 7.3
        Version: 7.3-01.02
        Basedir: /opt/altroot/im_scha
        Build Date: 20080403
Product: Calendar Server 6.3
        Version: 6.3-19.01
        Basedir: /opt/altroot/calendar
        Build Date: 20090826
Product: Calendar Server Sun Cluster HA agent 6.3
        Version: 6.3-1.01
        Basedir: /opt/altroot/cs_scha
        Build Date: 20080331

(79 root) ./commpkg uninstall /opt/altroot
-- LOGFILE: /tmp/CommsInstaller_20091013151843.log
Detecting Installed Products...
Detecting Installed Patches...
=====
Product Selection:

Communication Services Products:

```

| Item | Description                                                                                         |
|------|-----------------------------------------------------------------------------------------------------|
| 1    | Messaging Server (64bit) 7u3 (7.3-11.01)<br>Installed Version at /opt/altroot/messaging64           |
| 2    | Comms DSsetup 6.4 (6.4-5.05)<br>Installed Version at /opt/altroot/dssetup                           |
| 3    | Calendar Server 7 (7.0-0.26)<br>Installed Version at /opt/altroot/davserver                         |
| 4    | Instant Messaging 8u2 (8.2-02.04)<br>Installed Version at /opt/altroot/im                           |
| 5    | Convergence 1u3 (1.0-10.01)<br>Installed Version at /opt/altroot/iwc                                |
| 6    | Indexing and Search Service 1 (1.0-32.01)<br>Installed Version at /opt/altroot/jiss                 |
| 7    | Comms Delegated Administrator 7 (7.0-1.00)<br>Installed Version at /opt/altroot/da                  |
| 8    | Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)<br>Installed Version at /opt/altroot/msg_scha  |
| 9    | Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)<br>Installed Version at /opt/altroot/im_scha |
| 10   | Calendar Server 6.3 (6.3-19.01)<br>Installed Version at /opt/altroot/calendar                       |
| 11   | Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)<br>Installed Version at /opt/altroot/cs_scha    |

Enter the items you wish to uninstall. Enter q to quit.  
You can enter multiple items using commas to separate them.  
For example: 1,2

Please select the products you wish to uninstall [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]:

```

=====
WILL UNINSTALL: Messaging Server (64bit) 7u3 (7.3-11.01)
                  at /opt/altroot/messaging64)
WILL UNINSTALL: Comms DSsetup 6.4 (6.4-5.05)
                  at /opt/altroot/dssetup)
WILL UNINSTALL: Calendar Server 7 (7.0-0.26)
                  at /opt/altroot/davserver)
WILL UNINSTALL: Instant Messaging 8u2 (8.2-02.04)
                  at /opt/altroot/im)
WILL UNINSTALL: Convergence 1u3 (1.0-10.01)
                  at /opt/altroot/iwc)
WILL UNINSTALL: Indexing and Search Service 1 (1.0-32.01)
                  at /opt/altroot/jiss)
WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-1.00)
                  at /opt/altroot/da)
WILL UNINSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                  at /opt/altroot/msg_scha)
WILL UNINSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                  at /opt/altroot/im_scha)
WILL UNINSTALL: Calendar Server 6.3 (6.3-19.01)
                  at /opt/altroot/calendar)
WILL UNINSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                  at /opt/altroot/cs_scha)
=====

```

Ready to uninstall

Do you want to continue ? [yes] :

```
=====
Uninstalling Messaging Server (64bit) 7u3 (7.3-11.01 at
/opt/altroot/messaging64)...
----- Executing Task 1 of 19 ...

=====
Uninstalling Comms DSsetup 6.4 (6.4-5.05 at /opt/altroot/dssetup)...
----- Executing Task 2 of 19 ...

=====
Uninstalling Calendar Server 7 (7.0-0.26 at /opt/altroot/davserver)...
----- Executing Task 3 of 19 ...

=====
Uninstalling Instant Messaging 8u2 (8.2-02.04 at /opt/altroot/im)...
----- Executing Task 4 of 19 ...
----- Executing Task 5 of 19 ...
----- Executing Task 6 of 19 ...
----- Executing Task 7 of 19 ...
----- Executing Task 8 of 19 ...
----- Executing Task 9 of 19 ...
----- Executing Task 10 of 19 ...
----- Executing Task 11 of 19 ...

=====
Uninstalling Convergence 1u3 (1.0-10.01 at /opt/altroot/iwc)...
----- Executing Task 12 of 19 ...

=====
Uninstalling Indexing and Search Service 1 (1.0-32.01 at
/opt/altroot/jiss)...
----- Executing Task 13 of 19 ...

=====
Uninstalling Comms Delegated Administrator 7 (7.0-1.00 at
/opt/altroot/da)...
----- Executing Task 14 of 19 ...

=====
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/altroot/msg_scha)...
----- Executing Task 15 of 19 ...

=====
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/altroot/im_scha)...
----- Executing Task 16 of 19 ...

=====
Uninstalling Calendar Server 6.3 (6.3-19.01 at /opt/altroot/calendar)...
----- Executing Task 17 of 19 ...
----- Executing Task 18 of 19 ...
```

```

=====
Uninstalling Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01 at
/opt/altroot/cs_scha)...
----- Executing Task 19 of 19 ...
=====
SUMMARY:

All tasks PASSED
Checking JES java symlink...
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=====

NOTICE: silent file created in:

/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_200910131518
LOGFILE created in:

/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20091013151843.log
root) cat
/opt/altroot/var/opt/CommsInstaller/logs/silent_CommsInstaller_200910131518
Silent File for CommsInstaller 7.0-0.02
# Generated on 20091013151843
#
#
#
# verb used to create this silent file
VERB=uninstall
#
# root directory
#
ROOTDIR=/opt/altroot
#
# list of components (using mnemonics)
# WARNING: for verb=uninstall, when there are multiple
# instances, the latest known version found is uninstalled
#
COMPONENTS=MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA
COMPONENT_VERSIONS= 7.3 6.4 7.0 8.2 1.0 1.0 7.0 7.0 7.3 6.3 6.3
(81 root) cat
/opt/altroot/var/opt/CommsInstaller/logs/CommsInstaller_20091013151843.log
LOGFILE started Tue Oct 13 15:18:43 2009 =====
LOGFILE = /tmp/CommsInstaller_20091013151843.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg uninstall /opt/altroot
-- perl version: 5.008004 pid: 1356
-- basetime: 1255472323 Tue Oct 13 15:18:43 2009
-- scriptDir: /h/megan/wspace/dl111122/releases/ci70
-- LOGFILE: /tmp/CommsInstaller_20091013151843.log
-- UNAME = SunOS ARCH = i386 OS_VERS = 5.10 BITS = 64

```

```

uname -a 2>&1
SunOS limzone-2 5.10 Generic_139556-08 i86pc i386 i86pc
-- Exit status: 0
!!! ENV
$VAR1 = {
    'SSH_CLIENT' => '192.18.75.229 34686 22',
    'CAPSAVE' => '/etc/termcap',
    'PS1' => '# ',
    'LC_COLLATE' => 'en_US.ISO8859-1',
    'LINES' => '55',
    'LC_NUMERIC' => 'en_US.ISO8859-1',
    'COLUMNS' => '80',
    'PWD' => '/home/dl111122/wspace/releases/ci70',
    'LC_TIME' => 'en_US.ISO8859-1',
    'USER' => 'dl111122',
    'LANG' => 'C',
    'LC_MESSAGES' => 'C',
    'VISUAL' => 'gnuclient',
    'LOGNAME' => 'dl111122',
    'EMACS' => 't',
    'REMOTE' => '/home/dl111122/.remote',
    'USE_64' => '1',
    'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:/usr/sbin:/usr/bin:/usr/dist/exe',
    'EMACS_TYPE' => 'pc',
    'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
    'TERM' => 'emacs',
    'SSH_TTY' => '/dev/pts/14',
    'PAGER' => 'cat',
    'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
    'HOME' => '/home/dl111122',
    'SSH_CONNECTION' => '192.18.75.229 34686 192.18.75.105 22',
    'TERMSAVE' => 'vt100',
    'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
    'CDPATH' => '....:/home/dl111122',
    'EDITOR' => 'gnuclient',
    'MAIL' => '/var/mail//dl111122',
    'TZ' => 'US/Pacific',
    'LC_CTYPE' => 'en_US.ISO8859-1',
    'ESHELL' => '/bin/csh',
    'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info',
    'MOTIFHOME' => '/usr/dt',
    'CVSROOT' =>
':pserver:dl111122@redcvs.red.iplanet.com:/m/src',
    'LC_MONETARY' => 'en_US.ISO8859-1',
    'OPENWINHOME' => '/usr/openwin',
    'RCSINIT' => '-zLT',
    'SHELL' => '/bin/csh',
    'SKIP_UTEST' => '1'
};
cat /etc/release 2>&1

```

Solaris 10 6/06 s10x\_u2wos\_09a X86

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Assembled 09 June 2006

```
-- 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=0
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=1
is_path_writable=1
is_running_system=0
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=1
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 0
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
Reading Product Files...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDA
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDA
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.in...
mapFile
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.in
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.in
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SNMP/SNMP.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SNMP/SNMP.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMME
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMME
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_
does not exist...
```

```

Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/MS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/MS.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/MS_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/MS64_L10N
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/CS_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/IM_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/CE.in not
found, skipping...

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/CE_L10N.in
not found, skipping...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.0/IM.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.3/IM.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/0.9/JISS.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/6.4/DA.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/6.0/MS_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/7.0/IM_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/6.0/CS_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/6.3/MS.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/7.2/MS.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.2/MS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.3/MS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/6.3/MS64_
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.2/CS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.3/CS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.0/IM_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.2/IM_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/6.3/CE.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.2/CE_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.3/CE_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/1.5.0/JDK.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/3.7/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/4.1/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/3.7/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/4.1/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.0/IMAPI.in.
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.3/IMAPI.in.
QQQ findGetVersion =====
!!! getVersion

```

```

$VAR1 = {
    'SASL' => 'none',
    'IWC' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IWC/CI/getVersion',
    'MS64_L10N' => 'none',
    'MS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS/CI/getVersion',
    'DSSETUP' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DSSETUP/CI/getVersion',
'MQ_L10N' => 'none',
    'ICU' => 'none',
    'MS64' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS64/CI/getVersion',
    'DAV' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DAV/CI/getVersion',
    'LDAPCSDK6' => 'none',
    'CE' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CE/CI/getVersion',
    'JDK' => 'none',
    'MYSQL' => 'none',
    'PATCHUTILS' => 'none',
    'MQ' => 'none',
    'IMAPI' => 'none',
    'CI' =>
'/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/SunOS_i386/getV
LDAPCSDK6_TOOLS' => 'none',
    'JISS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/JISS/CI/getVersion',
    'NSS' => 'none',
    'CS_L10N' => 'none',
    'IM' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM/CI/getVersion',
    'ST' => 'none',
    'RECOMMENDED' => 'none',
    'IM_L10N' => 'none',
    'CS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS_SCHA/CI/getVersion',
LDAPJDK' => 'none',
    'MYSQL_MARKER' => 'none',
    'BZIP' => 'none',
    'IM_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/IM_SCHA/CI/getVersion',
'MS_L10N' => 'none',
    'LIBCPLUSPLUS' => 'none',
    'SNMP' => 'none',
    'MS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/MS_SCHA/CI/getVersion',
'CS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/CI/getVersion',
    'JHRT' => 'none',
    'CE_L10N' => 'none',
    'DA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/DA/CI/getVersion'
};
!!! prod_getVers
$VAR1 = {

```

```

'SASL' => 0,
'IWC' => '1.0-10.01',
'MS64_L10N' => 0,
'MS' => '7.2-7.02',
'DSSETUP' => '6.4-5.05',
'MQ_L10N' => 0,
'ICU' => 0,
'MS64' => '7.3-11.01',
'DAV' => '7.0-0.26',
'LDAPCSDK6' => 0,
'CE' => '6.3-13.01',
'JDK' => 0,
'MYSQL' => 0,
'PATCHUTILS' => 0,
'MQ' => 0,
'IMAPI' => 0,
'CI' => '7.0-0.02',
'LDAPCSDK6_TOOLS' => 0,
'JISS' => '1.0-32.01',
'NSS' => 0,
'CS_L10N' => 0,
'IM' => '8.2-02.04',
'ST' => 0,
'RECOMMENDED' => 0,
'IM_L10N' => 0,
'CS_SCHA' => '6.3-1.01',
'LDAPJDK' => 0,
'MYSQL_MARKER' => 0,
'BZIP' => 0,
'IM_SCHA' => '7.3-01.02',
'MS_L10N' => 0,
'LIBCPLUSPLUS' => 0,
'SNMP' => 0,
'MS_SCHA' => '7.0-0.03',
'CS' => '6.3-19.01',
'JHRT' => 0,
'CE_L10N' => 0,
'DA' => '7.0-1.00'
};
!!! prod_builddate
$VAR1 = {
'SASL' => 'none',
'IWC' => '20090906',
'MS64_L10N' => 'none',
'MS' => '20090416',
'DSSETUP' => '20090808',
'MQ_L10N' => 'none',
'ICU' => 'none',
'MS64' => '20090901',
'DAV' => '20090827',
'LDAPCSDK6' => 'none',
'CE' => '20090327',
'JDK' => 'none',
'MYSQL' => 'none',
'PATCHUTILS' => 'none',
'MQ' => 'none',

```

```

        'IMAPI' => 'none',
        'CI' => '20090909',
        'LDAPCSDK6_TOOLS' => 'none',
        'JISS' => '20090909',
        'NSS' => 'none',
        'CS_L10N' => 'none',
        'IM' => '20090903',
        'ST' => 'none',
        'RECOMMENDED' => 'none',
        'IM_L10N' => 'none',
        'CS_SCHA' => '20080331',
        'LDAPJDK' => 'none',
        'MYSQL_MARKER' => 'none',
        'BZIP' => 'none',
        'IM_SCHA' => '20080403',
        'MS_L10N' => 'none',
        'LIBCPLUSPLUS' => 'none',
        'SNMP' => 'none',
        'MS_SCHA' => '20080519',
        'CS' => '20090826',
        'JHRT' => 'none',
        'CE_L10N' => 'none',
        'DA' => '20090821'
    };
===== End QQQ findGetVersion =====
INFO: prod_mktVers{NSS} (no map) = 4.3
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) = 4.3
INFO: prod_mktVers{MQ_L10N} (no map) = 4.3
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{SNMP} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2009.08.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u3
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7
INFO: prod_mktVers{IM} (w/ map) = 8u2
INFO: prod_mktVers{IWC} (w/ map) = 1u3
INFO: prod_mktVers{JISS} (w/ map) = 1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3

```

```
Detecting Installed Products...
Checking LIBCPLUSPLUS 5.9 ...
  Checking pkg SUNWlibc... already present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmds... already present.
  Checking pkg SUNWswmt... already present.
  Checking pkg SUNWinstall-patch-utils-root... already present.
  Checking pkg SUNWcsr... already present.
  Checking pkg SUNWdtrc... already present.
  Checking pkg SUNWzoneu... already present.
  PATCHUTILS Unknown is already present.
Checking SNMP Unknown ...
  Checking pkg SUNWsmagt... already present.
  Checking pkg SUNWsmcmd... already present.
  Checking pkg SUNWsmmgr... already present.
  SNMP Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... already present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2009.08.25 ...
  RECOMMENDED 2009.08.25 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... already present.
  Checking pkg SUNWservicetagu... already present.
  Checking pkg SUNWstosreg... already present.
  ST 1.1.4 is already present.
Checking NSS 4.3 ...
  Checking pkg SUNWjss... already present.
  Checking pkg SUNWpr... already present.
  Checking pkg SUNWprd... already present.
  Checking pkg SUNWtls... already present.
  Checking pkg SUNWtlsd... already present.
  Checking pkg SUNWtlsu... already present.
  NSS 4.3 is already present.
Checking SASL 2.19 ...
  Checking pkg SUNWsas1... already present.
  SASL 2.19 is already present.
Checking LDAPSDK6 6.0 ...
  Checking pkg SUNWldapcsdk-libs... already present.
  Checking pkg SUNWldapcsdk-dev... already present.
  LDAPSDK6 6.0 is already present.
Checking LDAPSDK6_TOOLS 6.0 ...
  Checking pkg SUNWldapcsdk-tools... already present.
  LDAPSDK6_TOOLS 6.0 is already present.
Checking ICU ICU2,ICU3 ...
  Checking pkg SUNWicu... already present.
  ICU ICU2,ICU3 is already present.
Checking JDK 1.6.0 ...
  Checking pkg SUNWj6rt... already present.
  Checking pkg SUNWj6rtx... already present.
  Checking pkg SUNWj6dev... already present.
  Checking pkg SUNWj6dvs... already present.
  Checking pkg SUNWj6cfg... already present.
  JDK 1.6.0 is already present.
Checking JDK 1.5.0 ...
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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... already present.
Checking pkg SUNWjhdev... already present.
Checking pkg SUNWjhdem... already present.
Checking pkg SUNWjhdoc... already present.
JHRT 2.0 is already present.
Checking MQ 4.3 ...
Checking pkg SUNWiqr... already present.
Checking pkg SUNWiqu... already present.
Checking pkg SUNWiqdoc... already present.
Checking pkg SUNWiquc... already present.
Checking pkg SUNWiqum... already present.
Checking pkg SUNWiqjx... already present.
Checking pkg SUNWiqfs... already present.
Checking pkg SUNWiqcrt... already present.
Checking pkg SUNWiqcdv... already present.
Checking pkg SUNWiqflen... already present.
MQ 4.3 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 SUNWiqtpl... 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 SUNWiqflen... present but with a different pkg VERSION.
checking SUNWiqflen 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

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```
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_L10N 4.3 ...
Checking pkg SUNWfiqu... not present.
Checking pkg SUNWfiqic... not present.
Checking pkg SUNWdiqu... not present.
Checking pkg SUNWdiqic... 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 SUNWkiqic... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciqic... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
MQ_L10N 4.3 is not present.
Checking MQ_L10N 3.7 ...
Checking pkg SUNWfiqu... not present.
Checking pkg SUNWfiqic... not present.
Checking pkg SUNWdiqu... not present.
Checking pkg SUNWdiqic... 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 SUNWkiqic... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciqic... 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 SUNWfiqic... not present.
Checking pkg SUNWdiqu... not present.
Checking pkg SUNWdiqic... 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 SUNWkiqic... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciqic... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
```

```

MQ_L10N 4.1 is not present.
Checking LDAPJDK 4.19 ...
  Checking pkg SUNWljdk... already present.
  LDAPJDK 4.19 is already present.
Checking IMAPI 8.0 ...
  Checking pkg SUNWiimdv... already present.
  IMAPI 8.0 is already present.
Checking IMAPI 7.0 ...
  Checking pkg SUNWiimdv... present but with a different pkg VERSION.
  checking SUNWiimdv 7.0,REV=2004.11.24.05.19.40
  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 MYSQL 5.1.36 ...
  Checking pkg mysql... not present.
  MYSQL 5.1.36 is not present.
Checking CI 7.0 ...
  Checking pkg SUNWcomms...
/opt/altroot/CommsInstaller/lib/getVersion VERSION BUILDDATE 2>&1
7.0-0.02
20090909
-- Exit status: 0
  already present.
  CI 7.0 is already present.
Checking MYSQL_MARKER 1.0 ...
  Checking pkg SUNWcomms-mysql-marker... not present.
  MYSQL_MARKER 1.0 is not present.
Checking MS64 7.3 ...
  Checking pkg SUNWmessaging-server-64...
/opt/altroot/messaging64/lib/getVersion VERSION BUILDDATE 2>&1
7.3-11.01
20090901
-- Exit status: 0
  already present.
  MS64 7.3 is already present.
Checking DSSETUP 6.4 ...
  Checking pkg SUNWcomds...
/opt/altroot/dssetup/lib/getVersion VERSION BUILDDATE 2>&1
6.4-5.05
20090808
-- Exit status: 0
  already present.
  DSSETUP 6.4 is already present.
Checking DAV 7.0 ...
  Checking pkg SUNWdavserver...
/opt/altroot/davserver/lib/getVersion VERSION BUILDDATE 2>&1
7.0-0.26
20090827
-- Exit status: 0
  already present.
  DAV 7.0 is already present.
Checking IM 8.2 ...
  Checking pkg SUNWiim...
/opt/altroot/im/lib/getVersion VERSION BUILDDATE 2>&1

```

```

8.2-02.04
20090903
-- Exit status: 0
already present.
Checking pkg SUNWiimin... already present.
Checking pkg SUNWiimm... already present.
Checking pkg SUNWiimjd... already present.
Checking pkg SUNWiimid... already present.
Checking pkg SUNWiimc... already present.
Checking pkg SUNWiimd... already present.
Checking pkg SUNWiimgw... already present.
IM 8.2 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... present but with a different pkg VERSION.
checking SUNWiimc 7.0,REV=2004.11.24.05.19.40
Checking pkg SUNWiimd... present but with a different pkg VERSION.
checking SUNWiimd 7.0,REV=2004.11.24.05.19.40
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... present but with a different pkg VERSION.
checking SUNWiimc 7.3,REV=2008.01.14
Checking pkg SUNWiimd... present but with a different pkg VERSION.
checking SUNWiimd 7.3,REV=2008.01.14
NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IWC 1.0 ...
Checking pkg SUNWiwc...
/opt/altroot/iwc/lib/getVersion VERSION BUILDDATE 2>&1
1.0-10.01
20090906
-- Exit status: 0
already present.
IWC 1.0 is already present.
Checking JISS 1.0 ...
Checking pkg SUNWjiss...
/opt/altroot/jiss/lib/getVersion VERSION BUILDDATE 2>&1
1.0-32.01

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```

20090909
-- Exit status: 0
already present.
  JISS 1.0 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 2>&1
7.0-1.00
20090821
-- Exit status: 0
already 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 2>&1
7.0-0.03
20080519
-- Exit status: 0
already 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 2>&1
7.3-01.02
20080403
-- Exit status: 0
already 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 CS 6.3 ...
  Checking pkg SUNWics5...
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS/CI/getVersion
--installed /opt/altroot/calendar VERSION BUILDDATE 2>&1

```

```

6.3-19.01
20090826
-- Exit status: 0
already present.
  Checking pkg SUNWica5... already present.
  CS 6.3 is already present.
Checking CS_SCHA 6.3 ...
  Checking pkg SUNWscics...
/h/megan/wspace/dl111122/releases/ci70/SunOS_i386/CS_SCHA/CI/getVersion
--installed /opt/altroot/cs_scha VERSION BUILDDATE 2>&1
6.3-1.01
20080331
-- Exit status: 0
already present.
  CS_SCHA 6.3 is already present.
Checking CS_SCHA 6.0 ...
  Checking pkg SUNWscics... present but with a different pkg VERSION.
  checking SUNWscics 6.1,REV=2004.04.28.18.33.01
  NOTICE: Calendar Server Sun Cluster HA agent is present with a
different pkg VERSION.
Checking MS 7.3 ...
  MS 7.3 is not present.
Checking MS 6.3 ...
  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 is not present.
Checking MS 7.2 ...
  Checking pkg SUNWmessaging-server... not present.
  MS 7.2 is not present.
Checking MS_L10N 6.2 ...
  Checking pkg SUNWmsgde... not present.
  Checking pkg SUNWmsges... not present.
  Checking pkg SUNWmsgfr... not present.
  Checking pkg SUNWmsgja... not present.
  Checking pkg SUNWmsgko... not present.
  Checking pkg SUNWmsgzh... not present.
  Checking pkg SUNWmsgtw... not present.
  MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
  Checking pkg SUNWmsg-l10n... not present.
  MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
  Checking pkg SUNWmessaging-server-l10n-64... not present.
  MS64_L10N 6.3 is not present.
Checking CS_L10N 6.2 ...
  Checking pkg SUNWdeics... not present.
  Checking pkg SUNWesics... not present.
  Checking pkg SUNWfrics... not present.
  Checking pkg SUNWjaics... not present.

```

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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 ...
```

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Checking pkg SUNWuwc-110n... not present.
CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119964-16 /tmp/.patchout_20091013151843.1356
-- Running patchadd -p report...
-- Generating /tmp/.patchout_20091013151843.1356
patchadd -p > /tmp/.patchout_20091013151843.1356 2>>
/tmp/CommsInstaller_20091013151843.log
-- Exit status: 0
-- older version at lineno 263 found 119964-06 - not acceptable
-- older version at lineno 264 found 119964-12 - not acceptable
-- older version at lineno 265 found 119964-13 - not acceptable
-- Exact match found at line 266
-- Final return status: 1
LIBCPLUSPLUS patch 119964-16 is already present.
-- chk4patch 120901-03 /tmp/.patchout_20091013151843.1356
-- Exact match found at line 85
-- Final return status: 1
PATCHUTILS patch 120901-03 is already present.
-- chk4patch 121334-04 /tmp/.patchout_20091013151843.1356
-- Exact match found at line 86
-- Final return status: 1
PATCHUTILS patch 121334-04 is already present.
-- chk4patch 119255-67 /tmp/.patchout_20091013151843.1356
-- older version at lineno 81 found 119255-36 - not acceptable
-- older version at lineno 82 found 119255-24 - not acceptable
-- older version at lineno 104 found 119255-51 - not acceptable
-- older version at lineno 105 found 119255-49 - not acceptable
-- older version at lineno 106 found 119255-45 - not acceptable
-- older version at lineno 119 found 119255-54 - not acceptable
-- older version at lineno 280 found 119255-61 - not acceptable
-- older version at lineno 281 found 119255-64 - not acceptable
-- older version at lineno 282 found 119255-65 - not acceptable
-- older version at lineno 283 found 119255-66 - not acceptable
-- Exact match found at line 284
-- Final return status: 1
PATCHUTILS patch 119255-67 is already present.
-- chk4patch 120273-06 /tmp/.patchout_20091013151843.1356
-- Exact match found at line 84
-- Final return status: 1
SNMP patch 120273-06 is already present.
-- chk4patch 126869-03 /tmp/.patchout_20091013151843.1356
-- older version at lineno 192 found 126869-02 - not acceptable
-- Exact match found at line 193
-- Final return status: 1
BZIP patch 126869-03 is already present.
-- chk4patch 137322-01 /tmp/.patchout_20091013151843.1356
-- Exact match found at line 194
-- Final return status: 1
BZIP patch 137322-01 is already present.
-- chk4patch 119255-67 /tmp/.patchout_20091013151843.1356
-- older version at lineno 81 found 119255-36 - not acceptable
-- older version at lineno 82 found 119255-24 - not acceptable
-- older version at lineno 104 found 119255-51 - not acceptable
-- older version at lineno 105 found 119255-49 - not acceptable
-- older version at lineno 106 found 119255-45 - not acceptable

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-- older version at lineno 119 found 119255-54 - not acceptable
-- older version at lineno 280 found 119255-61 - not acceptable
-- older version at lineno 281 found 119255-64 - not acceptable
-- older version at lineno 282 found 119255-65 - not acceptable
-- older version at lineno 283 found 119255-66 - not acceptable
-- Exact match found at line 284
-- Final return status: 1
    RECOMMENDED patch 119255-67 is already present.
-- chk4patch 118855-36 /tmp/.patchout_20091013151843.1356
-- older version at lineno 9 found 118855-14 - not acceptable
-- older version at lineno 12 found 118855-15 - not acceptable
-- Exact match found at line 13
-- Final return status: 1
    RECOMMENDED patch 118855-36 is already present.
-- chk4patch 120012-14 /tmp/.patchout_20091013151843.1356
-- Exact match found at line 34
-- Final return status: 1
    RECOMMENDED patch 120012-14 is already present.
-- chk4patch 120273-26 /tmp/.patchout_20091013151843.1356
-- older version at lineno 84 found 120273-06 - not acceptable
-- older version at lineno 195 found 120273-25 - not acceptable
-- Final return status: 0
    RECOMMENDED patch 120273-26 is not present.
-- chk4patch 137138-09 /tmp/.patchout_20091013151843.1356
-- Exact match found at line 108
-- Final return status: 1
    RECOMMENDED patch 137138-09 is already present.
-- chk4patch 141415-09 /tmp/.patchout_20091013151843.1356
-- Final return status: 0
    RECOMMENDED patch 141415-09 is not present.
-- chk4patch 125359-08 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Running patchadd -R /opt/altroot -p report...
-- Generating /tmp/.patchout_altroot_20091013151843.1356
patchadd -R /opt/altroot -p > /tmp/.patchout_altroot_20091013151843.1356
2>> /tmp/CommsInstaller_20091013151843.log
-- Exit status: 0
-- Exact match found at line 3
-- Final return status: 1
    NSS patch 125359-08 is already present.
-- chk4patch 119346-07 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 5
-- Final return status: 1
    SASL patch 119346-07 is already present.
-- chk4patch 136800-01 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 6
-- Final return status: 1
    LDAPCSDK6_TOOLS patch 136800-01 is already present.
-- chk4patch 119811-05 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 4
-- Final return status: 1
    ICU patch 119811-05 is already present.
-- chk4patch 125138-17 /tmp/.patchout_altroot_20091013151843.1356

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/opt/altroot -R /opt/altroot
-- Exact match found at line 16
-- Final return status: 1
   JDK patch 125138-17 is already present.
-- chk4patch 125139-17 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 17
-- Final return status: 1
   JDK patch 125139-17 is already present.
-- chk4patch 119725-04 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 2
-- Final return status: 1
   LDAPJDK patch 119725-04 is already present.
-- chk4patch 137205-11 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 7
-- Final return status: 1
   MS64 patch 137205-11 is already present.
-- chk4patch 118243-03 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 8
-- Final return status: 1
   DSSETUP patch 118243-03 is already present.
-- chk4patch 118246-21 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 9
-- Final return status: 1
   DSSETUP patch 118246-21 is already present.
-- chk4patch 139894-02 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 10
-- Final return status: 1
   IM patch 139894-02 is already present.
-- chk4patch 137632-10 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 11
-- Final return status: 1
   IWC patch 137632-10 is already present.
-- chk4patch 124582-01 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 12
-- Final return status: 1
   DA patch 124582-01 is already present.
-- chk4patch 137572-01 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 13
-- Final return status: 1
   IM_SCHA patch 137572-01 is already present.
-- chk4patch 121658-40 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot
-- Exact match found at line 14
-- Final return status: 1
   CS patch 121658-40 is already present.
-- chk4patch 137202-11 /tmp/.patchout_altroot_20091013151843.1356
/opt/altroot -R /opt/altroot

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```

-- Final return status: 0
  MS patch 137202-11 is not present.
===== QQQ detectProducts =====
QQQ Dumper
!!! present
$VAR1 = {
    '126869-03' => 'PRESENT',
    '118246-21' => 'PRESENT',
    '118855-36' => 'PRESENT',
    'DSSETUP' => {
        '6.4' => 'PRESENT'
    },
    '125359-08' => 'PRESENT',
    'MQ_L10N' => {
        '3.7' => 'NOT_PRESENT',
        '4.3' => 'NOT_PRESENT',
        '4.1' => 'NOT_PRESENT'
    },
    'ICU' => {
        'ICU2,ICU3' => 'PRESENT'
    },
    '137572-01' => 'PRESENT',
    'MS64' => {
        '7.3' => 'PRESENT'
    },
    'DAV' => {
        '7.0' => 'PRESENT'
    },
    '118243-03' => 'PRESENT',
    '125138-17' => 'PRESENT',
    '137138-09' => 'PRESENT',
    'CE' => {
        '6.3' => 'NOT_PRESENT'
    },
    'MYSQL' => {
        '5.1.36' => 'NOT_PRESENT'
    },
    'PATCHUTILS' => {
        'Unknown' => 'PRESENT'
    },
    'MQ' => {
        '3.7' => 'DIFF_VERSION',
        '4.3' => 'PRESENT',
        '4.1' => 'DIFF_VERSION'
    },
    'IMAPI' => {
        '8.0' => 'PRESENT',
        '7.0' => 'DIFF_VERSION',
        '7.3' => 'DIFF_VERSION'
    },
    'LDAPCSDK6_TOOLS' => {
        '6.0' => 'PRESENT'
    },
    'JISS' => {
        '0.9' => 'NOT_PRESENT',
        '1.0' => 'PRESENT'
    }
}

```

```

    },
    '119811-05' => 'PRESENT',
    '137322-01' => 'PRESENT',
    'ST' => {
        '1.1.4' => 'PRESENT'
    },
    '141415-09' => 'NOT_PRESENT',
    '120901-03' => 'PRESENT',
    '120273-26' => 'NOT_PRESENT',
    'IM_L10N' => {
        '7.2' => 'NOT_PRESENT',
        '7.0' => 'NOT_PRESENT'
    },
    '119725-04' => 'PRESENT',
    '121334-04' => 'PRESENT',
    '136800-01' => 'PRESENT',
    'LDAPJDK' => {
        '4.19' => 'PRESENT'
    },
    'BZIP' => {
        '11.10' => 'PRESENT'
    },
    '119964-16' => 'PRESENT',
    'IM_SCHA' => {
        '7.0' => 'DIFF_VERSION',
        '7.3' => 'PRESENT'
    },
    '137632-10' => 'PRESENT',
    '137205-11' => 'PRESENT',
    '119255-67' => 'PRESENT',
    'SNMP' => {
        'Unknown' => 'PRESENT'
    },
    'MS_SCHA' => {
        '6.0' => 'NOT_PRESENT',
        '7.0' => 'PRESENT'
    },
    'JHRT' => {
        '2.0' => 'PRESENT'
    },
    'CE_L10N' => {
        '6.2' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    '121658-40' => 'PRESENT',
    'SASL' => {
        '2.19' => 'PRESENT'
    },
    'IWC' => {
        '1.0' => 'PRESENT'
    },
    'MS64_L10N' => {
        '6.3' => 'NOT_PRESENT'
    },
    'MS' => {
        '7.2' => 'NOT_PRESENT',

```

```

        '6.3' => 'NOT_PRESENT',
        '7.3' => 'NOT_PRESENT'
    },
    '120012-14' => 'PRESENT',
    '119346-07' => 'PRESENT',
    '125139-17' => 'PRESENT',
    'LDAPCSDK6' => {
        '6.0' => 'PRESENT'
    },
    'JDK' => {
        '1.6.0' => 'PRESENT',
        '1.5.0' => 'NOT_PRESENT'
    },
    '124582-01' => 'PRESENT',
    '139894-02' => 'PRESENT',
    'CI' => {
        '7.0' => 'PRESENT'
    },
    '120273-06' => 'PRESENT',
    'NSS' => {
        '4.3' => 'PRESENT'
    },
    'IM' => {
        '8.2' => 'PRESENT',
        '7.0' => 'DIFF_VERSION',
        '7.3' => 'DIFF_VERSION'
    },
    'CS_L10N' => {
        '6.2' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    '137202-11' => 'NOT_PRESENT',
    'RECOMMENDED' => {
        '2009.08.25' => 'NOT_PRESENT'
    },
    'CS_SCHA' => {
        '6.0' => 'DIFF_VERSION',
        '6.3' => 'PRESENT'
    },
    'MYSQL_MARKER' => {
        '1.0' => 'NOT_PRESENT'
    },
    'MS_L10N' => {
        '6.2' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    'LIBCPLUSPLUS' => {
        '5.9' => 'PRESENT'
    },
    'CS' => {
        '6.3' => 'PRESENT'
    },
    'DA' => {
        '6.4' => 'NOT_PRESENT',
        '7.0' => 'PRESENT'
    }
}

```

```

};
!!! pkgparams
$VAR1 = {
    'SUNWica5' => {
        '6.0,REV=2003.11.14.17.38.10' => [
            'SUNWica5',
            '/calendar',
            '6.3-19.01'
        ]
    },
    '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' => {},
    'SUNWmessaging-server-110n-64' => {},
    'SUNWics5' => {
        '6.0,REV=2003.11.14.17.38.10' => [
            'SUNWics5',
            '/calendar',
            '6.3-19.01'
        ]
    },
    'SUNWiqlpl' => {},
    'SUNWmsgco' => {},
    'SUNWfiquc' => {},
    'SUNWjiss-extjars' => {},
    'SUNWjhdem' => {
        '2.0,REV=2006.10.04' => [
            'SUNWjhdem',
            '/usr',
            '2.0/FCS'
        ]
    },
    'SUNWiqfs' => {
        '4.3,REV=2008.11.07.19.30' => [
            'SUNWiqfs',

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        '/',
        '4.3.0.0'
    ]
},
'SUNWfimid' => {},
'SUNWcomds' => {
    '6.3,REV=2004.08.12' => [
        'SUNWcomds',
        '/dssetup',
        '6.4-5.05'
    ]
},
'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_16/1.6.0_16-b01'
    ]
},
'SUNWiqum' => {
    '4.3,REV=2008.11.07.19.30' => [
        'SUNWiqum',
        '/',
        '4.3.0.0'
    ]
},
'SUNWduwc' => {},
'SUNWhiimin' => {},
'SUNWkiimin' => {},
'SUNWeiimd' => {},
'SUNWj6rt' => {
    '1.6.0,REV=2006.11.29.05.03' => [
        'SUNWj6rt',
        '/usr',
'1.6.0_16/1.6.0_16-b01'
    ]
},
'SUNWj5rt' => {},
'SUNWiimc-110n' => {},
'SUNWhiimc' => {},
'SUNWmsg-110n' => {},
'SUNWfrics' => {},
'SUNWciqu' => {},
'SUNWkoics' => {},
'SUNWdimid' => {},
'SUNWjiquc' => {},

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'SUNWiimgw' => {
    '8.0,REV=2008.12.04' => [
        'SUNWiimgw',
        '/im',
        '8.0-02'
    ]
},
'SUNWiimd-l10n' => {},
'SUNWhiquc' => {},
'SUNWzhics' => {},
'SUNWkiimd' => {},
'SUNWmsgmp' => {},
'SUNWuwc' => {},
'SUNWscics' => {
    '6.3,REV=2008.03.31.18.09.39' => [
'SUNWscics',
'/cs_scha',
        '6.3-1.01'
    ]
},
'SUNWiimc' => {
    '8.0,REV=2008.12.04' => [
        'SUNWiimc',
        '/im',
        '8.0-02'
    ]
},
'SUNWhiimd' => {},
'SUNWmsglb' => {},
'SUNWmessaging-server-scha' => {
    '7.0,REV=2008.05.19' => [
'SUNWmessaging-server-scha',
'/msg_scha',
    '7.0-0.03'
    ]
},
'SUNWt1s' => {
    '3.11.4,REV=2006.11.16.21.41' => [
        'SUNWt1s',
        '/',
        '3.12.3'
    ]
},
'SUNWj6dvx' => {
    '1.6.0,REV=2006.11.29.02.51' => [
'SUNWj6dvx',
        '/usr',
    '1.6.0_16/1.6.0_16-b01'
    ]
}

```

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    },
    'SUNWfuwc' => {},
    'SUNWlibC' => {
        '5.10,REV=2004.12.20' => [
            'SUNWlibC',
            '/',
            '5.10'
        ]
    },
    'SUNWjiss-searchui' => {},
    'SUNWjiimin' => {},
    'SUNWcomms-mysql-marker' => {},
    'SUNWscims' => {},
    'SUNWiimjd' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimjd',
            '/im',
            '8.0-02'
        ]
    },
    'SUNWciimd' => {},
    'SUNWldapcsdk-dev' => {
        '6.00,REV=2006.12.11.00.35' => [
            'SUNWldapcsdk-dev',
            '/',
            '6.00'
        ]
    },
    'SUNWiqlen' => {
        '4.3,REV=2008.11.07.19.30' => [
            'SUNWiqlen',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWiimid-l10n' => {},
    'SUNWiqr' => {
        '4.3,REV=2008.11.07.19.29' => [
            'SUNWiqr',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWdiimc' => {},
    'SUNWmsgwm' => {},
    'SUNWmessaging-server-64' => {
        '7.0,REV=2008.06.20' => [
            'SUNWmessaging-server-64',
            '/messaging64',
            '7.3-11.01'
        ]
    }

```

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    },
    'SUNWeiquc' => {},
    'SUNWj5cfg' => {},
    'SUNWhiqu' => {},
    'SUNWjiss-search' => {},
    'SUNWiimd' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimd',
            '/',
            '8.0-00'
        ]
    },
    'SUNWfiimd' => {},
    'SUNWj5rtx' => {},
    'SUNWiquc' => {
        '4.3,REV=2008.11.07.19.30' => [
            'SUNWiquc',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWiimid' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimid',
            '/im',
            '8.0-02'
        ]
    },
    'SUNWmsgmt' => {},
    'SUNWljdk' => {
        '1.0,REV=2004.10.11.06.02' => [
            'SUNWljdk',
            '/',
            '4.19'
        ]
    },
    'SUNWcuwc' => {},
    'SUNWldapcsdk-libs' => {
        '6.00,REV=2006.12.11.00.35' => [
            'SUNWldapcsdk-libs',
            '/',
            '6.00'
        ]
    },
    'SUNWservicetagr' => {
        '1.1.4,REV=2008.03.21.07.56' => [
            'SUNWservicetagr',
            '/',
            '1.1.4.1'
        ]
    },
    'SUNWciimc' => {},

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'SUNWjhrt' => {
    '2.0,REV=2006.10.31' => [
        'SUNWjhrt',
        '/usr',
        '2.0/FCS'
    ]
},
'SUNWt1sd' => {
    '3.11.4,REV=2006.11.16.21.41' => [
        'SUNWt1sd',
        '/',
        '3.12.3'
    ]
},
'SUNWmsgin' => {},
'SUNWdtrc' => {
    '11.10.0,REV=2005.01.21.16.34' => [
'SUNWdtrc',
        '/',
'5.10/Generic'
    ]
},
'SUNWhuwc' => {},
'mysql' => {},
'SUNWiqdoc' => {
    '4.3,REV=2008.11.07.19.29' => [
        'SUNWiqdoc',
        '/',
        '4.3.0.0'
    ]
},
'SUNWjiimd' => {},
'SUNWjuwc' => {},
'SUNWiimd' => {
    '8.0,REV=2008.12.04' => [
        'SUNWiimd',
        '/im',
        '8.0-02'
    ]
},
'SUNWsmcmd' => {
    '1.0,REV=2005.01.08.01.09' => [
        'SUNWsmcmd',
        '/',
        '5.10/SunOS
Development'
    ]
},
'SUNWiqcrt' => {
    '4.3,REV=2008.11.07.19.30' => [
        'SUNWiqcrt',
        '/opt',
        '4.3.0.0'
    ]
}

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```

    },
    'SUNWmsgzh' => {},
    'SUNWprd' => {
        '4.6.4,REV=2006.11.16.21.41' => [
            'SUNWprd',
            '/',
            '4.7.4'
        ]
    },
    'SUNWdiimin' => {},
    'SUNWjiss-conf' => {},
    'SUNWcommda' => {
        '7.0,REV=2009.03.31' => [
            'SUNWcommda',
            '/da',
            '7.0-1.00'
        ]
    },
    'SUNWjiss-store' => {},
    'SUNWmsgen' => {},
    'SUNWiwc' => {
        '1.0,REV=2008.07.07' => [
            'SUNWiwc',
            '/iwc',
            '1.0-10.01'
        ]
    },
    'SUNWjiss-storeui' => {},
    'SUNWiimin-l10n' => {},
    'SUNWiimsc' => {
        '7.3,REV=2008.01.07.20.24.17' => [
            'SUNWiimsc',
            '/im_scha',
            '7.3-01'
        ]
    },
    'SUNWinstall-patch-utils-root' => {
        '11.10,REV=2005.01.09.21.19' => [
            'SUNWinstall-patch-utils-root',
            '/',
            'SNAG Development'
        ]
    },
    'SUNWiimin' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimin',
            '/im',
            '8.0-02'
        ]
    }
}

```

```

    },
    'SUNWuwc-110n' => {},
    'SUNWmsgst' => {},
    'SUNWiqu' => {
        '4.3,REV=2008.11.07.19.29' => [
            'SUNWiqu',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWkiimc' => {},
    'SUNWiim' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiim',
            '/im',
            '8.0-02'
        ]
    },
    'SUNWeiimin' => {},
    'SUNWcimid' => {},
    'SUNWiqcdrv' => {
        '4.3,REV=2008.11.07.19.30' => [
            'SUNWiqcdrv',
            '/opt',
            '4.3.0.0'
        ]
    },
    'SUNWldapcsdk-tools' => {
        '6.00,REV=2006.12.11.00.35' => [
            'SUNWldapcsdk-tools',
            '/directory',
            '6.00'
        ]
    },
    'SUNWjss' => {
        '4.2.4,REV=2006.11.16.21.41' => [
            'SUNWjss',
            '/',
            '4.3'
        ]
    },
    'SUNWdiqu' => {},
    'SUNWjiss' => {
        '1.0,REV=2009.09.09' => [
            'SUNWjiss',
            '/jiss',
            '1.0-32.01'
        ]
    },
    'SUNWj6cfg' => {
        '1.6.0,REV=2006.11.29.05.03' => [
            'SUNWj6cfg',

```

```

  '/',
'1.6.0_16/1.6.0_16-b01'
  ]
    },
    'SUNWhimid' => {},
    'SUNWciquc' => {},
    'SUNWcomms' => {
        '7.0,REV=2009.09.09' => [
            'SUNWcomms',
            '/CommsInstaller',
            '7.0-0.02'
        ]
    },
    },
    'SUNWjiqu' => {},
    'SUNWkiqu' => {},
    'SUNWkuwc' => {},
    'SUNWics-110n' => {},
    'SUNWeiqu' => {},
    'SUNWdavserver' => {
        '7.0,REV=2009.08.27' => [
'SUNWdavserver',
  '/davserver',
  '7.0-0.26'
  ]
    },
    },
    'SUNWmessaging-server' => {},
    'SUNWeiimc' => {},
    'SUNWmsgtw' => {},
    'SUNWjaics' => {},
    'SUNWpkgcmdsu' => {
        '11.11,REV=2005.01.09.21.19' => [
'SUNWpkgcmdsu',
  '/',
  'SNAG
Development'
  ]
    },
    },
    'SUNWjiimc' => {},
    'SUNWeimid' => {},
    'SUNWiqjx' => {
        '4.3,REV=2008.11.07.19.30' => [
            'SUNWiqjx',
            '/',
            '4.3.0.0'
        ]
    },
    },
    'SUNWjhdoc' => {
        '2.0,REV=2006.10.04' => [
            'SUNWjhdoc',
            '/usr',
            '2.0/FCS'
        ]
    },
    },

```

```

        'SUNWj6dev' => {
            '1.6.0,REV=2006.11.29.05.03' => [
'SUNWj6dev',
  '/usr',
'1.6.0_16/1.6.0_16-b01'
  ]
        },
        'SUNWmsges' => {},
        'SUNWpr' => {
            '4.6.4,REV=2006.11.16.21.41' => [
                'SUNWpr',
                '/',
                '4.7.4'
            ]
        },
        'SUNWmsgmf' => {},
        'SUNWkimid' => {},
        'SUNWicu' => {
            '1.2,REV=2005.01.06.14.13' => [
                'SUNWicu',
                '/usr',
                '10/Generic'
            ]
        },
        'SUNWjiss-rest' => {},
        'SUNWfiimin' => {},
        'SUNWswmt' => {
            '11.10,REV=2005.01.10.15.35' => [
                'SUNWswmt',
                '/',
                'SNAG'
            ]
        },
        'Development'
    ],
    'SUNWcomis' => {},
    'SUNWdeics' => {},
    'SUNWtwics' => {},
    'SUNWciimin' => {},
    'SUNWmsgfr' => {},
    'SUNWdiimd' => {},
    'SUNWjiss-common' => {},
    'SUNWeuwc' => {},
    'SUNWkiqc' => {},
    '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' => [

```





```

        '4.19',
        'none',
        '4.19'
    ]
},
'BZIP' => {
    '11.10' => [
        '/opt/altroot/',
        '5.10/SunOS Development',
        'none',
        '11.10'
    ]
},
'IM_SCHA' => {
    '7.3' => [
        '/opt/altroot/im_scha',
        '7.3-01.02',
        '20080403',
        '7.3'
    ]
},
'ICU' => {
    'ICU2,ICU3' => [
        '/opt/altroot/usr',
        '10/Generic',
        'none',
        'ICU2,ICU3'
    ]
},
'MS64' => {
    '7.3' => [
        '/opt/altroot/messaging64',
        '7.3-11.01',
        '20090901',
        '7u3'
    ]
},
'DAV' => {
    '7.0' => [
        '/opt/altroot/davserver',
        '7.0-0.26',
        '20090827',
        '7'
    ]
},
'LIBCPLUSPLUS' => {
    '5.9' => [
        '/opt/altroot/',
        '5.10',
        'none',
        '5.9'
    ]
},
'LDAPCSK6' => {
    '6.0' => [
        '/opt/altroot/',

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```

        '6.00',
        'none',
        '6.0'
    ]
},
'SNMP' => {
    'Unknown' => [
        '/opt/altroot/',
        '5.10/SunOS Development',
        'none',
        'Unknown'
    ]
},
'JDK' => {
    '1.6.0' => [
        '/opt/altroot/usr',
        '1.6.0_16/1.6.0_16-b01',
        'none',
        '1.6.0'
    ]
},
'MS_SCHA' => {
    '7.0' => [
        '/opt/altroot/msg_scha',
        '7.0-0.03',
        '20080519',
        '7.0'
    ]
},
'CS' => {
    '6.3' => [
        '/opt/altroot/calendar',
        '6.3-19.01',
        '20090826',
        '6.3'
    ]
},
'PATCHUTILS' => {
    'Unknown' => [
        '/opt/altroot/',
        'SNAG Development',
        'none',
        'Unknown'
    ]
},
'MQ' => {
    '4.3' => [
        '/opt/altroot/',
        '4.3.0.0',
        'none',
        '4.3'
    ]
},
'JHRT' => {
    '2.0' => [
        '/opt/altroot/usr',

```

```

        '2.0/FCS',
        'none',
        '2.0'
    ]
},
'IMAPI' => {
    '8.0' => [
        '/opt/altroot/',
        '8.0-00',
        'none',
        '8'
    ]
},
'CI' => {
    '7.0' => [
        '/opt/altroot/CommsInstaller',
        '7.0-0.02',
        '20090909',
        '7'
    ]
},
'DA' => {
    '7.0' => [
        '/opt/altroot/da',
        '7.0-1.00',
        '20090821',
        '7'
    ]
},
'LDAPCSDK6_TOOLS' => {
    '6.0' => [
        '/opt/altroot/directory',
        '6.00',
        'none',
        '6.0'
    ]
},
'JISS' => {
    '1.0' => [
        '/opt/altroot/jiss',
        '1.0-32.01',
        '20090909',
        '1'
    ]
},
'NSS' => {
    '4.3' => [
        '/opt/altroot/',
        '4.3',
        'none',
        '4.3'
    ]
}
};

```

```
==== End QQQ detectProducts =====
```

```
=====
```

Product Selection:

Communication Services Products:

| Item | Description                                                                                         |
|------|-----------------------------------------------------------------------------------------------------|
| 1    | Messaging Server (64bit) 7u3 (7.3-11.01)<br>Installed Version at /opt/altroot/messaging64           |
| 2    | Comms DSsetup 6.4 (6.4-5.05)<br>Installed Version at /opt/altroot/dssetup                           |
| 3    | Calendar Server 7 (7.0-0.26)<br>Installed Version at /opt/altroot/davserver                         |
| 4    | Instant Messaging 8u2 (8.2-02.04)<br>Installed Version at /opt/altroot/im                           |
| 5    | Convergence 1u3 (1.0-10.01)<br>Installed Version at /opt/altroot/iwc                                |
| 6    | Indexing and Search Service 1 (1.0-32.01)<br>Installed Version at /opt/altroot/jiss                 |
| 7    | Comms Delegated Administrator 7 (7.0-1.00)<br>Installed Version at /opt/altroot/da                  |
| 8    | Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)<br>Installed Version at /opt/altroot/msg_scha  |
| 9    | Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)<br>Installed Version at /opt/altroot/im_scha |
| 10   | Calendar Server 6.3 (6.3-19.01)<br>Installed Version at /opt/altroot/calendar                       |
| 11   | Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)<br>Installed Version at /opt/altroot/cs_scha    |

Enter the items you wish to uninstall. Enter q to quit.  
You can enter multiple items using commas to separate them.  
For example: 1,2

Please select the products you wish to uninstall [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]:

```
=====
QQQ selections: MS64 7.3 DSSETUP 6.4 DAV 7.0 IM 8.2 IWC 1.0 JISS 1.0 DA
7.0 MS_SCHA 7.0 IM_SCHA 7.3 CS 6.3 CS_SCHA 6.3
WILL UNINSTALL: Messaging Server (64bit) 7u3 (7.3-11.01)
                  at /opt/altroot/messaging64)
Task: pkgrm -n -a
/h/megan/wspace/dll11122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWmessaging-server-64
WILL UNINSTALL: Comms DSsetup 6.4 (6.4-5.05)
                  at /opt/altroot/dssetup)
Task: pkgrm -n -a
/h/megan/wspace/dll11122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWcomds
WILL UNINSTALL: Calendar Server 7 (7.0-0.26)
                  at /opt/altroot/davserver)
Task: pkgrm -n -a
/h/megan/wspace/dll11122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWdavserver
WILL UNINSTALL: Instant Messaging 8u2 (8.2-02.04)
                  at /opt/altroot/im)
Task: pkgrm -n -a
```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimgw
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimd
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimc
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimid
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimjd
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimm
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimin
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiim
  WILL UNINSTALL: Convergence lu3 (1.0-10.01)
                    at /opt/altroot/iwc)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiwc
  WILL UNINSTALL: Indexing and Search Service 1 (1.0-32.01)
                    at /opt/altroot/jiss)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWjiss
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-1.00)
                    at /opt/altroot/da)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -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
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -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
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimsc
  WILL UNINSTALL: Calendar Server 6.3 (6.3-19.01)
                    at /opt/altroot/calendar)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWica5
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWics5

```

```

WILL UNINSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                  at /opt/altroot/cs_scha)
Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWscics
=====
Ready to uninstall

Do you want to continue ? [yes] :

=====
Uninstalling Messaging Server (64bit) 7u3 (7.3-11.01 at
/opt/altroot/messaging64)...
----- Executing Task 1 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWmessaging-server-64 2>&1

Removal of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

=====
Uninstalling Comms DSsetup 6.4 (6.4-5.05 at /opt/altroot/dssetup)...
----- Executing Task 2 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWcomds 2>&1

Removal of <SUNWcomds> was successful.
-- Exit status: 0

=====
Uninstalling Calendar Server 7 (7.0-0.26 at /opt/altroot/davserver)...
----- Executing Task 3 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWdavserver 2>&1

Removal of <SUNWdavserver> was successful.
-- Exit status: 0

=====
Uninstalling Instant Messaging 8u2 (8.2-02.04 at /opt/altroot/im)...
----- Executing Task 4 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimgw 2>&1

Removal of <SUNWiimgw> was successful.
-- Exit status: 0
----- Executing Task 5 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimd 2>&1

Removal of <SUNWiimd> was successful.

```

```

-- Exit status: 0
----- Executing Task 6 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimc 2>&1

Removal of <SUNWiimc> was successful.
-- Exit status: 0
----- Executing Task 7 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimid 2>&1

Removal of <SUNWiimid> was successful.
-- Exit status: 0
----- Executing Task 8 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimjd 2>&1

Removal of <SUNWiimjd> was successful.
-- Exit status: 0
----- Executing Task 9 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimm 2>&1

Removal of <SUNWiimm> was successful.
-- Exit status: 0
----- Executing Task 10 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimin 2>&1

Removal of <SUNWiimin> was successful.
-- Exit status: 0
----- Executing Task 11 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiim 2>&1

Removal of <SUNWiim> was successful.
-- Exit status: 0

=====
Uninstalling Convergence lu3 (1.0-10.01 at /opt/altroot/iwc)...
----- Executing Task 12 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiwc 2>&1

Removal of <SUNWiwc> was successful.
-- Exit status: 0

=====
Uninstalling Indexing and Search Service 1 (1.0-32.01 at

```

```

/opt/altroot/jiss)...
----- Executing Task 13 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWjiss 2>&1

Removal of <SUNWjiss> was successful.
-- Exit status: 0

=====
Uninstalling Comms Delegated Administrator 7 (7.0-1.00 at
/opt/altroot/da)...
----- Executing Task 14 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWcommda 2>&1

Removal of <SUNWcommda> was successful.
-- Exit status: 0

=====
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/altroot/msg_scha)...
----- Executing Task 15 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWmessaging-server-scha 2>&1

Removal of <SUNWmessaging-server-scha> was successful.
-- Exit status: 0

=====
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/altroot/im_scha)...
----- Executing Task 16 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimsc 2>&1

Removal of <SUNWiimsc> was successful.
-- Exit status: 0

=====
Uninstalling Calendar Server 6.3 (6.3-19.01 at /opt/altroot/calendar)...
----- Executing Task 17 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWica5 2>&1

Removal of <SUNWica5> was successful.
-- Exit status: 0
----- Executing Task 18 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWics5 2>&1
Replacing current install root with /.

```

```

pkgparam: ERROR: unable to locate parameter information for "SUNWics5"
Replacing current install root with /.
pkgparam: ERROR: unable to locate parameter information for "SUNWics5"

Removal of <SUNWics5> was successful.
-- Exit status: 0

=====
Uninstalling Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01 at
/opt/altroot/cs_scha)...
----- Executing Task 19 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWscics 2>&1

Attempting to change the following in ics.conf
    local.server.ha.enabled="no"
    local.server.ha.agent="none"
Done...

Removal of <SUNWscics> was successful.
-- Exit status: 0
=====
SUMMARY:

PASSED: Task 1: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWmessaging-server-64
PASSED: Task 2: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWcomds
PASSED: Task 3: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWdavserver
PASSED: Task 4: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimgw
PASSED: Task 5: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimd
PASSED: Task 6: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimc
PASSED: Task 7: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimid
PASSED: Task 8: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimjd
PASSED: Task 9: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimm
PASSED: Task 10: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimin
PASSED: Task 11: pkgrm -n -a

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiim
PASSED: Task 12: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiwc
PASSED: Task 13: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWjiss
PASSED: Task 14: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWcommda
PASSED: Task 15: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWmessaging-server-scha
PASSED: Task 16: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWiimsc
PASSED: Task 17: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWica5
PASSED: Task 18: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWics5
PASSED: Task 19: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -R
/opt/altroot SUNWscics

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx 1 root other 15 Jun 5 17:00 /usr/java ->
jdk/jdk1.5.0_19

/usr/jdk:
total 14
lrwxrwxrwx 1 root root 27 Oct 1 2007 entsys-j2se ->
/usr/jdk/instances/jdk1.5.0
drwxr-xr-x 4 root bin 512 Jan 8 2009 instances
lrwxrwxrwx 1 root other 7 Mar 27 2007 j2sdk1.4.2_11 ->
../j2se
lrwxrwxrwx 1 root other 18 Jun 5 17:00 jdk1.5.0_19 ->
instances/jdk1.5.0
lrwxrwxrwx 1 root other 18 Sep 2 15:51 jdk1.6.0_16 ->
instances/jdk1.6.0
lrwxrwxrwx 1 root other 11 Sep 2 15:51 latest ->
jdk1.6.0_16
drwxr-xr-x 8 root bin 512 Jun 3 20:10 packages
-- Exit status: 0
ls -l /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
lrwxrwxrwx 1 root root 27 Oct 1 2007
/usr/jdk/entsys-j2se -> /usr/jdk/instances/jdk1.5.0
lrwxrwxrwx 1 root other 11 Sep 2 15:51 /usr/jdk/latest ->
jdk1.6.0_16
-- Exit status: 0
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se:

```

```

total 34596
drwxr-xr-x  3 root    bin      1024 Jun  5 17:00 bin
-rw-r--r--  1 root    bin      2487 May  4 02:37 COPYRIGHT
drwxr-xr-x  9 root    bin       512 Jun  5 16:58 demo
drwxr-xr-x  3 root    bin       512 Jun  5 16:58 include
drwxr-xr-x  6 root    bin       512 Jun  5 17:00 jre
drwxr-xr-x  2 root    bin       512 Jun  5 16:58 lib
-rw-r--r--  1 root    bin     18272 May  4 02:37 LICENSE
drwxr-xr-x  6 root    bin       512 Oct  1  2007 man
-rw-r--r--  1 root    bin     20415 May  4 02:37 README.html
drwxr-xr-x  4 root    bin       512 Oct  1  2007 sample
-rw-r--r--  1 root    bin    17570604 May  4 02:35 src.zip
-rw-r--r--  1 root    bin     67235 May  4 02:37
THIRDPARTYLICENSEREADME.txt

/usr/jdk/latest:
total 38014
drwxr-xr-x  3 root    bin      1024 Sep  2 15:50 bin
-rw-r--r--  1 root    bin     3767 Jul 31 06:41 COPYRIGHT
-rw-r--r--  1 root    bin    15320 Mar  9  2009 DistributionREADME
-rw-r--r--  1 root    bin     5450 Mar  9  2009 ENTITLEMENT
drwxr-xr-x  3 root    bin       512 Sep  2 15:49 include
drwxr-xr-x  6 root    bin       512 Sep  2 15:50 jre
drwxr-xr-x  3 root    bin       512 Sep  2 15:49 lib
-rw-r--r--  1 root    bin    17179 Jul 31 06:41 LICENSE
-rw-r--r--  1 root    bin     1637 Mar  9  2009
Perpetual_Entitlement_Desktop
-rw-r--r--  1 root    bin     1795 Mar  9  2009
Perpetual_Entitlement_Server
-rw-r--r--  1 root    bin    28329 Jul 31 06:41 README.html
-rw-r--r--  1 root    bin    25390 Jul 31 06:41 README_ja.html
-rw-r--r--  1 root    bin    20768 Jul 31 06:41 README_zh_CN.html
-r--r--r--  1 root    other    5795 Sep  2 15:53 register.html
-r--r--r--  1 root    other    6227 Sep  2 15:53 register_ja.html
-r--r--r--  1 root    other    5405 Sep  2 15:53
register_zh_CN.html
-rw-r--r--  1 root    bin    19029119 Jul 31 06:40 src.zip
-rw-r--r--  1 root    bin    249556 Jul 31 06:41
THIRDPARTYLICENSEREADME.txt
-- Exit status: 0
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=====
-- unlink /tmp/.patchout_20091013151843.1356
-- unlink /tmp/.patchout_altroot_20091013151843.1356
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_200910131518
Closing the log at Tue Oct 13 15:19:02 2009
(82 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20091013151922.log
=====

```

```

Detecting Installed Products...
  NOTICE: Message Queue is present with a different pkg VERSION.
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
  NOTICE: CommsInstaller is present with a different pkg VERSION.
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
        has not been applied. Specifically the following
        patches are missing:
        120273-26 141415-09
  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 2009.08.25)
        has not been applied. Specifically the following
        patches are missing:
        120273-26 141415-09
  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>

```

```

(83 root) cat /etc/softlist.xml
<?xml version="1.0" encoding="utf-8"?>
<!-- Do not edit! This file is automatically generated. -->
<!-- Last Update: Tue Oct 13 15:12:59 PDT 2009 -->
<!-- By: /h/megan/wspace/dl111122/releases/ci70 ./commpkg -->

```

```

<multi-inst-list>
  <install name="" root="/" suite="comms" />
  <install root="/opt/altroot" suite="comms" />
</multi-inst-list>

```

```

(84 root) ls /opt/altroot
calendar      davserver      im              messaging64     var
CommsInstaller  directory      im_scha         msg_scha
cs_scha        dssetup        iwc             opt
da             etc            jiss            usr
(85 root) ls -l /opt/altroot
total 34
drwxr-xr-x  3 root    root    512 Oct 13 15:11 calendar
drwxr-xr-x  6 root    root    512 Oct 13 15:12 CommsInstaller
drwxr-xr-x  2 root    root    512 Oct 13 15:18 cs_scha
drwxr-xr-x  3 root    root    512 Oct 13 15:18 da
drwxr-xr-x  2 root    root    512 Oct 13 15:18 davserver
drwxr-xr-x  3 root    root    512 Oct 13 15:11 directory
drwxr-xr-x  2 root    root    512 Oct 13 15:18 dssetup
drwxr-xr-x 10 root    sys     512 Oct 13 15:12 etc
drwxr-xr-x  4 root    root    512 Oct 13 15:18 im
drwxr-xr-x  4 root    root    512 Oct 13 15:18 im_scha

```

```

drwxr-xr-x  2 root    root      512 Oct 13 15:18 iwc
drwxr-xr-x  2 root    root      512 Oct 13 15:18 jiss
drwxr-xr-x  2 root    root      512 Oct 13 15:18 messaging64
drwxr-xr-x  2 root    root      512 Oct 13 15:18 msg_scha
drwxr-xr-x  3 root    root      512 Oct 13 15:12 opt
drwxr-xr-x  9 root    sys      512 Oct 13 15:12 usr
drwxr-xr-x  6 root    sys      512 Oct 13 15:17 var
(86 root) \rm -rf /opt/altroot
(87 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20091013151956.log
=====
Detecting Installed Products...
  NOTICE: Message Queue is present with a different pkg VERSION.
  NOTICE: Message Queue Localization is present with a different pkg
VERSION.
  NOTICE: CommsInstaller is present with a different pkg VERSION.
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
has not been applied. Specifically the following
patches are missing:
120273-26 141415-09
  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
(88 root) cat /etc/softlist.xml
<?xml version="1.0" encoding="utf-8"?>
<!-- Do not edit! This file is automatically generated. -->
<!-- Last Update: Tue Oct 13 15:19:59 PDT 2009 -->
<!-- By: /h/megan/wspace/dl111122/releases/ci70 ./commpkg -->

<multi-inst-list>
  <install name="" root="/" suite="comms" />

```

```
</multi-inst-list>
```

## Comments

- The /etc/softlist.xml file contains the "known" altroots to CI. It is not authoritative. The file is updated when CI finds changes on the system.
- Note the use of --acceptLicense for the install command. CI's philosophy is to do the right thing when you do not specify any switches. switches are for "power-user" options.
- When installing into an altroot, products and SCs are installed, but OS components are not installed.
- altroot install is available on solaris only, it uses the -R switch to pkgadd
- The --rootdir switch to "commpkg uninstall" is deprecated in favor of just specifying the altroot on the command line as an argument. 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)
- 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.

# Sample Session - Communications Suite 7 Simple Install and Uninstall

## Sample Session - Communications Suite 7 Simple Install and Uninstall

This sample session performs a "simple" install and uninstall of Communications Suite 7 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:

- [Summary of Commands Run](#)
- [Session](#)
- [Installation Comments](#)
- [Uninstall Comments](#)

### Summary of Commands Run

```
187 pwd
188 hostname
189 uname -a
190 ./commpkg info
191 ./commpkg install
192 cat /var/opt/CommsInstaller/logs/undoCommsInstall_20091013085226
193 cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013085226
194 ls -l /var/opt/CommsInstaller/logs/CommsInstaller_20091013085226.log
195 ./commpkg info
196 /bin/ls /opt/sun/comms
197 /bin/ls -l /opt/sun/comms
198 ./commpkg uninstall
199 cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013091635
200 cat /var/opt/CommsInstaller/logs/CommsInstaller_20091013085226.log
201 cat /var/opt/CommsInstaller/logs/CommsInstaller_20091013091635.log
```

### Session

```
(187 root) pwd
/h/megan/wspace/dl111122/releases/ci70
(188 root) hostname
worfin-1
(189 root) uname -a
SunOS worfin-1 5.10 Generic_139555-08 sun4u sparc SUNW,Sun-Fire-V210
(190 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20091013085214.log
=====
Detecting Installed Products...
```

```

Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
           has not been applied. Specifically the following
           patches are missing:
           120272-24 141414-09
  NOTICE: It is highly recommended that you apply the
           latest OS Recommended Patch Cluster. commpkg will
           not do this automatically.
ALTRoot: /
  NAME: ""

(191 root) ./commpkg install
-- LOGFILE: /tmp/CommsInstaller_20091013085226.log
NOTICE: Although it is okay to apply OS patches in a whole root zone
        They really should be applied in the global zone

CommsInstaller version 7.0-0.02 built on Wed Sep  9 13:47:08 PDT 2009

Welcome to the Communications Services Products Installer
This program will install Communications Services Products
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 2009.08.25)
           has not been applied. Specifically the following
           patches are missing:
           120272-24 141414-09
  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 Services Products:

  Item  Description
  ----  -
  1  Messaging Server (64bit) 7u3 (7.3-11.01)
  2  Comms DSsetup 6.4 (6.4-5.05)
  3  Calendar Server 7 (7.0-0.26)
  4  Instant Messaging 8u2 (8.2-02.04)
  5  Convergence 1u3 (1.0-10.01)
  6  Indexing and Search Service 1 (1.0-32.01)
  7  Comms Delegated Administrator 7 (7.0-1.00)
  8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
  9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
  10 Calendar Server 6.3 (6.3-19.01)
  11 Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)

Enter the items you wish to install. Enter q to quit.
Prefix an item with ~ to indicate you only want
  to install shared component dependencies of that product
You can enter multiple items using commas to separate them.
For example: 1,2

Please select the products you wish to install [1, 2, 3, 4, 5, 6, 7, 8,
9, 10, 11]:
=====
Generating list of things to install...
Checking for Shared Component Upgrade Requirements...
=====
WILL INSTALL: MySQL 5.1.36
WILL INSTALL: Messaging Server (64bit) 7u3 (7.3-11.01)
                to /opt/sun/comms/messaging64
WILL INSTALL: Comms DSsetup 6.4 (6.4-5.05)
                to /opt/sun/comms/dssetup
WILL INSTALL: Calendar Server 7 (7.0-0.26)

```

```

to /opt/sun/comms/davserver
WILL INSTALL: Instant Messaging 8u2 (8.2-02.04)
to /opt/sun/comms/im
WILL INSTALL: Convergence 1u3 (1.0-10.01)
to /opt/sun/comms/iwc
WILL INSTALL: Indexing and Search Service 1 (1.0-32.01)
to /opt/sun/comms/jiss
WILL INSTALL: Comms Delegated Administrator 7 (7.0-1.00)
to /opt/sun/comms/da
WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
to /opt/sun/comms/msg_scha
WILL INSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
to /opt/sun/comms/im_scha
WILL INSTALL: Calendar Server 6.3 (6.3-19.01)
to /opt/sun/comms/calendar
WILL INSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
to /opt/sun/comms/cs_scha
WILL INSTALL: CommsInstaller 7 (7.0-0.02)
to /opt/sun/comms/CommsInstaller
WILL INSTALL: Message Queue 4.3
=====

```

Ready to install

Do you want to continue ? [yes] :

```

=====
Installing MySQL 5.1.36...
----- Executing Task 1 of 31 ...

=====
Installing Messaging Server (64bit) 7u3 (7.3-11.01)...
----- Executing Task 2 of 31 ...

=====
Installing Comms DSsetup 6.4 (6.4-5.05)...
----- Executing Task 3 of 31 ...

=====
Installing Calendar Server 7 (7.0-0.26)...
----- Executing Task 4 of 31 ...

=====
Installing Instant Messaging 8u2 (8.2-02.04)...
----- Executing Task 5 of 31 ...
----- Executing Task 6 of 31 ...
----- Executing Task 7 of 31 ...
----- Executing Task 8 of 31 ...
----- Executing Task 9 of 31 ...
----- Executing Task 10 of 31 ...
----- Executing Task 11 of 31 ...
----- Executing Task 12 of 31 ...

=====
Installing Convergence 1u3 (1.0-10.01)...
----- Executing Task 13 of 31 ...

```

```

=====
Installing Indexing and Search Service 1 (1.0-32.01)...
----- Executing Task 14 of 31 ...

=====
Installing Comms Delegated Administrator 7 (7.0-1.00)...
----- Executing Task 15 of 31 ...

=====
Installing Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)...
----- Executing Task 16 of 31 ...

=====
Installing Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)...
----- Executing Task 17 of 31 ...

=====
Installing Calendar Server 6.3 (6.3-19.01)...
----- Executing Task 18 of 31 ...
----- Executing Task 19 of 31 ...

=====
Installing Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)...
----- Executing Task 20 of 31 ...

=====
Installing CommsInstaller 7 (7.0-0.02)...
----- Executing Task 21 of 31 ...

=====
Installing Message Queue 4.3...
----- Executing Task 22 of 31 ...
----- Executing Task 23 of 31 ...
----- Executing Task 24 of 31 ...
----- Executing Task 25 of 31 ...
----- Executing Task 26 of 31 ...
----- Executing Task 27 of 31 ...
----- Executing Task 28 of 31 ...
----- Executing Task 29 of 31 ...
----- Executing Task 30 of 31 ...
----- Executing Task 31 of 31 ...

=====
SUMMARY:

-- Output of Task 1: generic
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/installer
--pkgcmd '-a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'
-- LOGFILE: /tmp/ci-mysql-installer_20091013085347.log
pkgadd -n -r /dev/null -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/./Packages
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
mysql

Installation of <mysql> was successful.
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc. All rights

```

```

reserved.
Use is subject to license terms.
091013  8:54:44  InnoDB: Started; log sequence number 0 46409
091013  8:54:44  InnoDB: Starting shutdown...
091013  8:54:45  InnoDB: Shutdown completed; log sequence number 0 46409
091013  8:54:45  [Warning] Forcing shutdown of 1 plugins
091013  8:54:45  InnoDB: Started; log sequence number 0 46409
091013  8:54:45  InnoDB: Starting shutdown...
091013  8:54:46  InnoDB: Shutdown completed; log sequence number 0 46409
091013  8:54:46  [Warning] Forcing shutdown of 1 plugins

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h worfin-1 password
'new-password'

Alternatively you can run:
/opt/mysql/mysql/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default. This is
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug
script!

The latest information about MySQL is available at http://www.mysql.com/
Support MySQL by buying support/licenses from http://shop.mysql.com/

pkgadd -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/../../MYSQL_MAR
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms-mysql-marker

Installation of <SUNWcomms-mysql-marker> was successful.
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
-- End of command output--

All tasks PASSED
Checking JES java symlink...
INFO: 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_20091013085226

NOTICE: silent file created in:

        /var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013085226

```

```

NOTICE: LOGFILE created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20091013085226.log
(192 root) cat
/var/opt/CommsInstaller/logs/undoCommsInstall_20091013085226
#! /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
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiqcdv
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiqcrt
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiqfs
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiqjx
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiqum
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiquc
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiqdoc
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiqu
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWiqr
# IRREVERSIBLE: pkgrm -n -a $ADMIN SUNWcomms
#####
# Finished Undo of: Installing Message Queue 4.3...
#####
pkgrm -n -a $ADMIN SUNWscics
#####
# Finished Undo of: Installing CommsInstaller 7 (7.0-0.02)...
#####
pkgrm -n -a $ADMIN SUNWica5
#####
# Finished Undo of: Installing Calendar Server Sun Cluster HA agent 6.3
(6.3-1.01)...
#####
pkgrm -n -a $ADMIN SUNWics5
pkgrm -n -a $ADMIN SUNWiimsc
#####
# Finished Undo of: Installing Calendar Server 6.3 (6.3-19.01)...
#####
pkgrm -n -a $ADMIN SUNWmessaging-server-scha
#####
# Finished Undo of: Installing Instant Messaging Sun Cluster HA agent
7.3 (7.3-01.02)...
#####
pkgrm -n -a $ADMIN SUNWcommda
#####
# Finished Undo of: Installing Messaging Server Sun Cluster HA agent 7.0
(7.0-0.03)...
#####
pkgrm -n -a $ADMIN SUNWjiss
#####
# Finished Undo of: Installing Comms Delegated Administrator 7
(7.0-1.00)...
#####
pkgrm -n -a $ADMIN SUNWiwc
#####
# Finished Undo of: Installing Indexing and Search Service 1

```

```

(1.0-32.01)...
#####
pkgrm -n -a $ADMIN SUNWiimgw
#####
# Finished Undo of: Installing Convergence 1u3 (1.0-10.01)...
#####
pkgrm -n -a $ADMIN SUNWiimd
pkgrm -n -a $ADMIN SUNWiimc
pkgrm -n -a $ADMIN SUNWiimid
pkgrm -n -a $ADMIN SUNWiimjd
pkgrm -n -a $ADMIN SUNWiimm
pkgrm -n -a $ADMIN SUNWiimin
pkgrm -n -a $ADMIN SUNWiim
pkgrm -n -a $ADMIN SUNWdavserver
#####
# Finished Undo of: Installing Instant Messaging 8u2 (8.2-02.04)...
#####
pkgrm -n -a $ADMIN SUNWcomds
#####
# Finished Undo of: Installing Calendar Server 7 (7.0-0.26)...
#####
pkgrm -n -a $ADMIN SUNWmessaging-server-64
#####
# Finished Undo of: Installing Comms DSsetup 6.4 (6.4-5.05)...
#####
# IRREVERSIBLE:
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/uninstaller
-a $ADMIN
#####
# Finished Undo of: Installing Messaging Server (64bit) 7u3
(7.3-11.01)...
#####
#####
# Finished Undo of: Installing MySQL 5.1.36...
#####
(193 root) cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013085226
#
# Silent File for CommsInstaller 7.0-0.02
# Generated on 20091013085226
#
#
# NOTE: You must set ACCEPTLICENSE=yes below or alternatively
#       use --acceptLicense on the command line
#
#
# verb used to create this silent file
#
VERB=install

#
# alternate distro path if not found where commpkg resides
#   and no --distro switch specified is
#
ALTDISTROPATH=/h/megan/wspace/dl111122/releases/ci70

```

```

#
# 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
#
EXCLUDEESC=no

#
# flag to indicate acceptance of the software license
#
ACCEPTLICENSE=no

#
# flag to indicate that all SC should or should not be upgraded without
prompting
#
UPGRADEESC=no

#
# INSTALLROOT friendly name
#
INSTALLNAME=

#
# list of components (using mnemonics)
# A ~ in front of the product indicates that only the shared
# components are installed
#
COMPONENTS=MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA
COMPONENT_VERSIONS=
(194 root) ls -l
/var/opt/CommsInstaller/logs/CommsInstaller_20091013085226.log
517 -rw-r--r-- 1 root root 143400 Oct 13 09:14
/var/opt/CommsInstaller/logs/CommsInstaller_20091013085226.log
(195 root) ./commpkg info
-- LOGFILE: /tmp/CommsInstaller_20091013091531.log

```

```

-----
Detecting Installed Products...
Detecting Installed Patches...
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
           has not been applied. Specifically the following
           patches are missing:
           120272-24 141414-09
  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) 7u3
        Version: 7.3-11.01
        Basedir: /opt/sun/comms/messaging64
        Build Date: 20090901
Product: Comms DSsetup 6.4
        Version: 6.4-5.05
        Basedir: /opt/sun/comms/dssetup
        Build Date: 20090808
Product: Calendar Server 7
        Version: 7.0-0.26
        Basedir: /opt/sun/comms/davserver
        Build Date: 20090827
Product: Instant Messaging 8u2
        Version: 8.2-02.04
        Basedir: /opt/sun/comms/im
        Build Date: 20090903
Product: Convergence 1u3
        Version: 1.0-10.01
        Basedir: /opt/sun/comms/iwc
        Build Date: 20090906
Product: Indexing and Search Service 1
        Version: 1.0-32.01
        Basedir: /opt/sun/comms/jiss
        Build Date: 20090909
Product: Comms Delegated Administrator 7
        Version: 7.0-1.00
        Basedir: /opt/sun/comms/da
        Build Date: 20090821
Product: Messaging Server Sun Cluster HA agent 7.0
        Version: 7.0-0.03
        Basedir: /opt/sun/comms/msg_scha
        Build Date: 20080519
Product: Instant Messaging Sun Cluster HA agent 7.3
        Version: 7.3-01.02
        Basedir: /opt/sun/comms/im_scha
        Build Date: 20080403
Product: Calendar Server 6.3
        Version: 6.3-19.01
        Basedir: /opt/sun/comms/calendar
        Build Date: 20090826
Product: Calendar Server Sun Cluster HA agent 6.3
        Version: 6.3-1.01
        Basedir: /opt/sun/comms/cs_scha
        Build Date: 20080331

```

```

(196 root) /bin/ls /opt/sun/comms
calendar      da          im          jiss
CommsInstaller davserver   im_scha     messaging64
cs_scha       dssetup    iwc         msg_scha
(197 root) /bin/ls -l /opt/sun/comms
total 36
drwxr-xr-x  3 root    root        3 Oct 13 08:56 calendar
drwxr-xr-x  6 root    root        6 Oct 13 08:56 CommsInstaller
drwxr-xr-x  3 root    root        3 Oct 13 08:56 cs_scha
drwxr-xr-x  6 root    root        6 Oct 13 08:55 da
drwxr-xr-x  7 root    root        7 Oct 13 08:55 davserver
drwxr-xr-x  5 root    root        5 Oct 13 08:55 dssetup
drwxr-xr-x  8 root    root        8 Oct 13 08:55 im
drwxr-xr-x  5 root    root        5 Oct 13 08:55 im_scha
drwxr-xr-x  6 root    root        6 Oct 13 08:55 iwc
drwxr-xr-x 14 root    root       15 Oct 13 08:55 jiss
drwxr-xr-x  9 root    root       11 Oct 13 08:54 messaging64
drwxr-xr-x  4 root    root        4 Oct 13 08:55 msg_scha
(198 root) ./commpkg uninstall
-- LOGFILE: /tmp/CommsInstaller_20091013091635.log
Detecting Installed Products...
Detecting Installed Patches...
=====
Product Selection:

Communication Services Products:

  Item  Description
  ----  -
  1  Messaging Server (64bit) 7u3 (7.3-11.01)
     Installed Version at /opt/sun/comms/messaging64
  2  Comms DSsetup 6.4 (6.4-5.05)
     Installed Version at /opt/sun/comms/dssetup
  3  Calendar Server 7 (7.0-0.26)
     Installed Version at /opt/sun/comms/davserver
  4  Instant Messaging 8u2 (8.2-02.04)
     Installed Version at /opt/sun/comms/im
  5  Convergence 1u3 (1.0-10.01)
     Installed Version at /opt/sun/comms/iwc
  6  Indexing and Search Service 1 (1.0-32.01)
     Installed Version at /opt/sun/comms/jiss
  7  Comms Delegated Administrator 7 (7.0-1.00)
     Installed Version at /opt/sun/comms/da
  8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
     Installed Version at /opt/sun/comms/msg_scha
  9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
     Installed Version at /opt/sun/comms/im_scha
 10  Calendar Server 6.3 (6.3-19.01)
     Installed Version at /opt/sun/comms/calendar
 11  Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
     Installed Version at /opt/sun/comms/cs_scha

Enter the items you wish to uninstall. Enter q to quit.
You can enter multiple items using commas to separate them.
For example: 1,2

```

Please select the products you wish to uninstall [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]:

```
=====
WILL UNINSTALL: Messaging Server (64bit) 7u3 (7.3-11.01)
                  at /opt/sun/comms/messaging64)
WILL UNINSTALL: Comms DSsetup 6.4 (6.4-5.05)
                  at /opt/sun/comms/dssetup)
WILL UNINSTALL: Calendar Server 7 (7.0-0.26)
                  at /opt/sun/comms/davserver)
WILL UNINSTALL: Instant Messaging 8u2 (8.2-02.04)
                  at /opt/sun/comms/im)
WILL UNINSTALL: Convergence 1u3 (1.0-10.01)
                  at /opt/sun/comms/iwc)
WILL UNINSTALL: Indexing and Search Service 1 (1.0-32.01)
                  at /opt/sun/comms/jiss)
WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-1.00)
                  at /opt/sun/comms/da)
WILL UNINSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                  at /opt/sun/comms/msg_scha)
WILL UNINSTALL: Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
                  at /opt/sun/comms/im_scha)
WILL UNINSTALL: Calendar Server 6.3 (6.3-19.01)
                  at /opt/sun/comms/calendar)
WILL UNINSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                  at /opt/sun/comms/cs_scha)
=====
```

Ready to uninstall

Do you want to continue ? [yes] :

```
=====
Uninstalling Messaging Server (64bit) 7u3 (7.3-11.01 at
/opt/sun/comms/messaging64)...
----- Executing Task 1 of 19 ...

=====
Uninstalling Comms DSsetup 6.4 (6.4-5.05 at /opt/sun/comms/dssetup)...
----- Executing Task 2 of 19 ...

=====
Uninstalling Calendar Server 7 (7.0-0.26 at /opt/sun/comms/davserver)...
----- Executing Task 3 of 19 ...

=====
Uninstalling Instant Messaging 8u2 (8.2-02.04 at /opt/sun/comms/im)...
----- Executing Task 4 of 19 ...
----- Executing Task 5 of 19 ...
----- Executing Task 6 of 19 ...
----- Executing Task 7 of 19 ...
----- Executing Task 8 of 19 ...
----- Executing Task 9 of 19 ...
----- Executing Task 10 of 19 ...
----- Executing Task 11 of 19 ...

=====
```

```

Uninstalling Convergence lu3 (1.0-10.01 at /opt/sun/comms/iwc)...
----- Executing Task 12 of 19 ...

=====
Uninstalling Indexing and Search Service 1 (1.0-32.01 at
/opt/sun/comms/jiss)...
----- Executing Task 13 of 19 ...

=====
Uninstalling Comms Delegated Administrator 7 (7.0-1.00 at
/opt/sun/comms/da)...
----- Executing Task 14 of 19 ...

=====
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/sun/comms/msg_scha)...
----- Executing Task 15 of 19 ...

=====
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/sun/comms/im_scha)...
----- Executing Task 16 of 19 ...

=====
Uninstalling Calendar Server 6.3 (6.3-19.01 at
/opt/sun/comms/calendar)...
----- Executing Task 17 of 19 ...
----- Executing Task 18 of 19 ...

=====
Uninstalling Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01 at
/opt/sun/comms/cs_scha)...
----- Executing Task 19 of 19 ...
=====
SUMMARY:

All tasks PASSED
Checking JES java symlink...
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=====

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013091635
NOTICE: LOGFILE created in:
        /var/opt/CommsInstaller/logs/CommsInstaller_20091013091635.log
(199 root) cat
/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013091635
#
# Silent File for CommsInstaller 7.0-0.02
# Generated on 20091013091635
#

```

```

#
#
# verb used to create this silent file
VERB=uninstall

#
# root directory
#
ROOTDIR=/

#
# list of components (using mnemonics)
# WARNING: for verb=uninstall, when there are multiple
#         instances, the latest known version found is uninstalled
#
COMPONENTS=MS64 DSSETUP DAV IM IWC JISS DA MS_SCHA IM_SCHA CS CS_SCHA
COMPONENT_VERSIONS= 7.3 6.4 7.0 8.2 1.0 1.0 7.0 7.0 7.3 6.3 6.3
(200 root) cat
/var/opt/CommsInstaller/logs/CommsInstaller_20091013085226.log
===== LOGFILE started Tue Oct 13 08:52:26 2009 =====
LOGFILE = /tmp/CommsInstaller_20091013085226.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg install
-- perl version: 5.008004 pid: 15996
-- basetime: 1255449146 Tue Oct 13 08:52:26 2009
-- scriptDir: /h/megan/wspace/dl111122/releases/ci70
-- LOGFILE: /tmp/CommsInstaller_20091013085226.log
-- UNAME = SunOS ARCH = sparc OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS worfin-1 5.10 Generic_139555-08 sun4u sparc SUNW,Sun-Fire-V210
-- Exit status: 0
!!! ENV
$VAR1 = {
    'SSH_CLIENT' => '192.18.75.229 33423 22',
    'CAPSAVE' => '/home/dl111122/.termcap',
    'PS1' => '# ',
    'LC_COLLATE' => 'en_US.ISO8859-1',
    'LINES' => '55',
    'LC_NUMERIC' => 'en_US.ISO8859-1',
    'COLUMNS' => '80',
    'PWD' => '/home/dl111122/wspace/releases/ci70',
    'LC_TIME' => 'en_US.ISO8859-1',
    'USER' => 'dl111122',
    'LANG' => 'C',
    'LC_MESSAGES' => 'C',
    'VISUAL' => 'gnuclient',
    'LOGNAME' => 'dl111122',
    'EMACS' => 't',
    'REMOTE' => '/home/dl111122/.remote',
    'USE_64' => '1',
    'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:./:/home/dl111122/bin:/new/local/bin
'EMACS_TYPE' => 'pc',
    'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
    'MORE' => '-c',
    'TERM' => 'emacs',

```

```

        'SSH_TTY' => '/dev/pts/3',
        'PAGER' => 'cat',
        'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
        'HOME' => '/home/dl111122',
        'LD_LIBRARY_PATH' => '/usr/dt/lib:/usr/openwin/lib',
        'SSH_CONNECTION' => '192.18.75.229 33423 192.18.75.222 22',
        'TERMSAVE' => 'emacs',
        'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
        'CDPATH' => '.:...:/home/dl111122',
        'EDITOR' => 'gnuclient',
        'MAIL' => '/var/mail//dl111122',
        'TZ' => 'US/Pacific',
        'LC_CTYPE' => 'en_US.ISO8859-1',
        'ESHELL' => '/bin/csh',
        'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info'
'MOTIFHOME' => '/usr/dt',
        'CVSROOT' =>
':pserver:dl111122@redcvs.red.iplanet.com:/m/src',
        'LC_MONETARY' => 'en_US.ISO8859-1',
        'OPENWINHOME' => '/usr/openwin',
        'RCSINIT' => '-zLT',
        'SHELL' => '/bin/csh',
        'SKIP_UTESET' => '1',
        'TERMCAP' => '/home/dl111122/.termcap'
    };
cat /etc/release 2>&1

                Solaris 10 5/09 s10s_u7wos_08 SPARC
                Copyright 2009 Sun Microsystems, Inc. All Rights Reserved.
                Use is subject to license terms.
                Assembled 30 March 2009

-- Exit status: 0
-- Recognized OS_VERS
!!! comms products found in distro
$VAR1 = [
    'MS64',
    'DSSETUP',
    'DAV',
    'IM',
    'IWC',
    'JISS',
    'DA',
    'MS_SCHA',
    'IM_SCHA',
    'CS',
    'CS_SCHA'
];
/usr/bin/pkgcond -n is_what 2>&1
can_add_driver=0
can_remove_driver=0
can_update_driver=0
is_alternative_root=0
is_boot_environment=0
is_diskless_client=0

```

```

is_global_zone=0
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=1
is_path_writable=1
is_running_system=0
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=1
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 0
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
NOTICE: Although it is okay to apply OS patches in a whole root zone
        They really should be applied in the global zone
Reading Product Files...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDAP
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDAP
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.in...

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.in
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.in... F
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.in... r
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMMEN
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMMEN
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_L
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_L
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.in
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.map
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.map...

```

```

Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.map...
does not exist...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/MS.in not
found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/MS_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/MS64_L10N
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/CS_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/IM_L10N.in
not found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/CE.in not
found, skipping...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/CE_L10N.in
not found, skipping...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.0/IM.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.3/IM.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/0.9/JISS.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/6.4/DA.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/6.0/MS_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/7.0/IM_SCHA
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/6.0/CS_SCHA

```

```

OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/6.3/MS.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/7.2/MS.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.2/MS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.3/MS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/6.3/MS64_
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.2/CS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.3/CS_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.0/IM_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.2/IM_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/6.3/CE.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.2/CE_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.3/CE_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/1.5.0/JDK.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/3.7/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/4.1/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/3.7/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/4.1/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.0/IMAPI.in.
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.3/IMAPI.in.
QQQ findGetVersion =====
!!! getVersion
$VAR1 = {
    'SASL' => 'none',
    'IWC' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IWC/CI/getVersion',
    'MS64_L10N' => 'none',
    'MS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS/CI/getVersion',
    'DSSETUP' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DSSETUP/CI/getVersion',
    'MQ_L10N' => 'none',
    'ICU' => 'none',
    'MS64' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS64/CI/getVersion',
    'DAV' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DAV/CI/getVersion',
    'LDAPSDK6' => 'none',

```

```

        'CE' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CE/CI/getVersion',
        'JDK' => 'none',
        'MYSQL' => 'none',
        'PATCHUTILS' => 'none',
        'MQ' => 'none',
        'IMAPI' => 'none',
        'CI' =>
'/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/SunOS_sparc/get
'LDAPCSDK6_TOOLS' => 'none',
        'JISS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/JISS/CI/getVersion',
        'NSS' => 'none',
        'IM' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/CI/getVersion',
        'ST' => 'none',
        'CS_L10N' => 'none',
        'RECOMMENDED' => 'none',
        'IM_L10N' => 'none',
        'CS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS_SCHA/CI/getVersion',
'LDAPJDK' => 'none',
        'MYSQL_MARKER' => 'none',
        'BZIP' => 'none',
        'IM_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM_SCHA/CI/getVersion',
'MS_L10N' => 'none',
        'LIBCPLUSPLUS' => 'none',
        'MS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS_SCHA/CI/getVersion',
'CS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/CI/getVersion',
        'JHRT' => 'none',
        'CE_L10N' => 'none',
        'DA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DA/CI/getVersion'
    };
!!! prod_getVers
$VAR1 = {
    'SASL' => 0,
    'IWC' => '1.0-10.01',
    'MS64_L10N' => 0,
    'MS' => '7.2-7.02',
    'DSSETUP' => '6.4-5.05',
    'MQ_L10N' => 0,
    'ICU' => 0,
    'MS64' => '7.3-11.01',
    'DAV' => '7.0-0.26',
    'LDAPCSDK6' => 0,
    'CE' => '6.3-13.01',
    'JDK' => 0,
    'MYSQL' => 0,
    'PATCHUTILS' => 0,
    'MQ' => 0,
    'IMAPI' => 0,
    'CI' => '7.0-0.02',

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```

'LDAPCSDK6_TOOLS' => 0,
'JISS' => '1.0-32.01',
'NSS' => 0,
'IM' => '8.2-02.04',
'ST' => 0,
'CS_L10N' => 0,
'RECOMMENDED' => 0,
'IM_L10N' => 0,
'CS_SCHA' => '6.3-1.01',
'LDAPJDK' => 0,
'MYSQL_MARKER' => 0,
'BZIP' => 0,
'IM_SCHA' => '7.3-01.02',
'MS_L10N' => 0,
'LIBCPLUSPLUS' => 0,
'MS_SCHA' => '7.0-0.03',
'CS' => '6.3-19.01',
'JHRT' => 0,
'CE_L10N' => 0,
'DA' => '7.0-1.00'
};
!!! prod_builddate
$VAR1 = {
    'SASL' => 'none',
    'IWC' => '20090906',
    'MS64_L10N' => 'none',
    'MS' => '20090416',
    'DSSETUP' => '20090808',
    'MQ_L10N' => 'none',
    'ICU' => 'none',
    'MS64' => '20090901',
    'DAV' => '20090827',
    'LDAPCSDK6' => 'none',
    'CE' => '20090327',
    'JDK' => 'none',
    'MYSQL' => 'none',
    'PATCHUTILS' => 'none',
    'MQ' => 'none',
    'IMAPI' => 'none',
    'CI' => '20090909',
    'LDAPCSDK6_TOOLS' => 'none',
    'JISS' => '20090909',
    'NSS' => 'none',
    'IM' => '20090903',
    'ST' => 'none',
    'CS_L10N' => 'none',
    'RECOMMENDED' => 'none',
    'IM_L10N' => 'none',
    'CS_SCHA' => '20080331',
    'LDAPJDK' => 'none',
    'MYSQL_MARKER' => 'none',
    'BZIP' => 'none',
    'IM_SCHA' => '20080403',
    'MS_L10N' => 'none',
    'LIBCPLUSPLUS' => 'none',
    'MS_SCHA' => '20080519',

```

```

        'CS' => '20090826',
        'JHRT' => 'none',
        'CE_L10N' => 'none',
        'DA' => '20090821'
    };
===== End QQQ findGetVersion =====
INFO: prod_mktVers{NSS} (no map) = 4.3
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) = 4.3
INFO: prod_mktVers{MQ_L10N} (no map) = 4.3
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2009.08.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7
INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u3
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7
INFO: prod_mktVers{IM} (w/ map) = 8u2
INFO: prod_mktVers{IWC} (w/ map) = 1u3
INFO: prod_mktVers{JISS} (w/ map) = 1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3

```

CommsInstaller version 7.0-0.02 built on Wed Sep 9 13:47:08 PDT 2009

Welcome to the Communications Services Products Installer  
This program will install Communications Services Products  
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... already present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmds... already present.
  Checking pkg SUNWswmt... already present.
  Checking pkg SUNWinstall-patch-utils-root... already present.
  Checking pkg SUNWcsr... already present.
  Checking pkg SUNWdtrc... already present.
  Checking pkg SUNWzoneu... already present.
  PATCHUTILS Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... already present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2009.08.25 ...
  RECOMMENDED 2009.08.25 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... already present.
  Checking pkg SUNWservicetagu... already present.
  Checking pkg SUNWstosreg... already present.
  ST 1.1.4 is already present.
Checking NSS 4.3 ...
  Checking pkg SUNWjss... already present.
  Checking pkg SUNWpr... already present.
  Checking pkg SUNWprd... already present.
```

```

Checking pkg SUNWt1s... already present.
Checking pkg SUNWt1sd... already present.
Checking pkg SUNWt1su... already present.
NSS 4.3 is already present.
Checking SASL 2.19 ...
Checking pkg SUNWsas1... already present.
SASL 2.19 is already present.
Checking LDAPCSDK6 6.0 ...
Checking pkg SUNWldapcsdk-libs... already present.
Checking pkg SUNWldapcsdk-dev... already present.
LDAPCSDK6 6.0 is already present.
Checking LDAPCSDK6_TOOLS 6.0 ...
Checking pkg SUNWldapcsdk-tools... already present.
LDAPCSDK6_TOOLS 6.0 is already present.
Checking ICU ICU2,ICU3 ...
Checking pkg SUNWicu... already present.
ICU ICU2,ICU3 is already present.
Checking JDK 1.6.0 ...
Checking pkg SUNWj6rt... already present.
Checking pkg SUNWj6rtx... already present.
Checking pkg SUNWj6dev... already present.
Checking pkg SUNWj6dvx... already present.
Checking pkg SUNWj6cfg... already present.
JDK 1.6.0 is already present.
Checking JDK 1.5.0 ...
Checking pkg SUNWj5rt... already present.
Checking pkg SUNWj5rtx... already present.
Checking pkg SUNWj5cfg... already present.
JDK 1.5.0 is already present.
Checking JHRT 2.0 ...
Checking pkg SUNWjhrt... already present.
Checking pkg SUNWjhdev... already present.
Checking pkg SUNWjhdem... already present.
Checking pkg SUNWjhdoc... already present.
JHRT 2.0 is already 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 3.7 ...
Checking pkg SUNWiqr... not present.
Checking pkg SUNWiqu... not present.
Checking pkg SUNWiq1pl... 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 SUNWiqflen... not present.
MQ 3.7 is not present.
Checking MQ 4.1 ...
Checking pkg SUNWiqr... not present.
Checking pkg SUNWiqu... not present.
Checking pkg SUNWiqdoc... not present.
Checking pkg SUNWiquc... not present.
Checking pkg SUNWiqum... not present.
Checking pkg SUNWiqjx... not present.
Checking pkg SUNWiqfs... not present.
Checking pkg SUNWiqcrt... not present.
Checking pkg SUNWiqcdv... not present.
MQ 4.1 is not present.
Checking MQ_L10N 4.3 ...
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 MQ_L10N 3.7 ...
Checking pkg SUNWfiqu... not present.
Checking pkg SUNWfiquc... not present.
Checking pkg SUNWdiqu... not present.
Checking pkg SUNWdiquc... not present.
Checking pkg SUNWjiqu... not present.
Checking pkg SUNWjiquc... not present.
Checking pkg SUNWeiqu... not present.
Checking pkg SUNWeiquc... not present.
Checking pkg SUNWkiqu... not present.
Checking pkg SUNWkiquc... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciquc... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
MQ_L10N 3.7 is not present.
Checking MQ_L10N 4.1 ...
Checking pkg SUNWfiqu... not present.
Checking pkg SUNWfiquc... not present.
Checking pkg SUNWdiqu... not present.
Checking pkg SUNWdiquc... not present.
Checking pkg SUNWjiqu... not present.
Checking pkg SUNWjiquc... not present.
Checking pkg SUNWeiqu... not present.
Checking pkg SUNWeiquc... not present.
```

```

Checking pkg SUNWkiqu... not present.
Checking pkg SUNWkiquc... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciquc... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
MQ_L10N 4.1 is not present.
Checking LDAPJDK 4.19 ...
Checking pkg SUNWljdk... already present.
LDAPJDK 4.19 is already present.
Checking IMAPI 8.0 ...
Checking pkg SUNWiimdv... already present.
IMAPI 8.0 is already present.
Checking IMAPI 7.0 ...
Checking pkg SUNWiimdv... present but with a different pkg VERSION.
checking SUNWiimdv 7.0,REV=2004.11.24.05.24.36
NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking IMAPI 7.3 ...
Checking pkg SUNWiimdv... present but with a different pkg VERSION.
checking SUNWiimdv 7.3,REV=2008.01.15
NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking MYSQL 5.1.36 ...
Checking pkg mysql... not present.
MYSQL 5.1.36 is not present.
Checking CI 7.0 ...
Checking pkg SUNWcomms... not present.
CI 7.0 is not present.
Checking MYSQL_MARKER 1.0 ...
Checking pkg SUNWcomms-mysql-marker... not present.
MYSQL_MARKER 1.0 is not present.
Checking MS64 7.3 ...
Checking pkg SUNWmessaging-server-64... not present.
MS64 7.3 is not present.
Checking DSSETUP 6.4 ...
Checking pkg SUNWcomds... not present.
DSSETUP 6.4 is not present.
Checking DAV 7.0 ...
Checking pkg SUNWdavserver... not present.
DAV 7.0 is not present.
Checking IM 8.2 ...
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 8.2 is not present.
Checking IM 7.0 ...
Checking pkg SUNWiimin... not present.
Checking pkg SUNWiim... not present.
Checking pkg SUNWiimm... not present.
Checking pkg SUNWiimjd... not present.
Checking pkg SUNWiimid... not present.
Checking pkg SUNWiimc... not present.

```

```
Checking pkg SUNWiimd... not present.
IM 7.0 is not present.
Checking IM 7.3 ...
Checking pkg SUNWiim... not present.
Checking pkg SUNWiimin... not present.
Checking pkg SUNWiimm... not present.
Checking pkg SUNWiimjd... not present.
Checking pkg SUNWiimid... not present.
Checking pkg SUNWiimc... not present.
Checking pkg SUNWiimd... not present.
IM 7.3 is not present.
Checking IWC 1.0 ...
Checking pkg SUNWiwc... not present.
IWC 1.0 is not present.
Checking JISS 1.0 ...
Checking pkg SUNWjiss... not present.
JISS 1.0 is not present.
Checking JISS 0.9 ...
Checking pkg SUNWjiss-common... not present.
Checking pkg SUNWjiss-conf... not present.
Checking pkg SUNWjiss-extjars... not present.
Checking pkg SUNWjiss-indexapi... not present.
Checking pkg SUNWjiss-jmqc... not present.
Checking pkg SUNWjiss-rest... not present.
Checking pkg SUNWjiss-search... not present.
Checking pkg SUNWjiss-searchui... not present.
Checking pkg SUNWjiss-store... not present.
Checking pkg SUNWjiss-storeui... not present.
JISS 0.9 is not present.
Checking DA 7.0 ...
Checking pkg SUNWcommda... not present.
DA 7.0 is not present.
Checking DA 6.4 ...
Checking pkg SUNWcomic... not present.
Checking pkg SUNWcomis... not present.
DA 6.4 is not present.
Checking MS_SCHA 7.0 ...
Checking pkg SUNWmessaging-server-scha... not present.
MS_SCHA 7.0 is not present.
Checking MS_SCHA 6.0 ...
Checking pkg SUNWscims... not present.
MS_SCHA 6.0 is not present.
Checking IM_SCHA 7.3 ...
Checking pkg SUNWiimsc... not present.
IM_SCHA 7.3 is not present.
Checking IM_SCHA 7.0 ...
Checking pkg SUNWiimsc... not present.
IM_SCHA 7.0 is not present.
Checking CS 6.3 ...
Checking pkg SUNWics5... not present.
Checking pkg SUNWica5... not present.
CS 6.3 is not present.
Checking CS_SCHA 6.3 ...
Checking pkg SUNWscics... not present.
CS_SCHA 6.3 is not present.
Checking CS_SCHA 6.0 ...
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Checking pkg SUNWscics... not present.
CS_SCHA 6.0 is not present.
Checking MS 6.3 ...
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 is not present.
Checking MS 7.2 ...
Checking pkg SUNWmessaging-server... not present.
MS 7.2 is not present.
Checking MS_L10N 6.2 ...
Checking pkg SUNWmsgde... not present.
Checking pkg SUNWmsges... not present.
Checking pkg SUNWmsgfr... not present.
Checking pkg SUNWmsgja... not present.
Checking pkg SUNWmsgko... not present.
Checking pkg SUNWmsgzh... not present.
Checking pkg SUNWmsgtw... not present.
MS_L10N 6.2 is not present.
Checking MS_L10N 6.3 ...
Checking pkg SUNWmsg-l10n... not present.
MS_L10N 6.3 is not present.
Checking MS64_L10N 6.3 ...
Checking pkg SUNWmessaging-server-l10n-64... not present.
MS64_L10N 6.3 is not present.
Checking CS_L10N 6.2 ...
Checking pkg SUNWdeics... not present.
Checking pkg SUNWesics... not present.
Checking pkg SUNWfrics... not present.
Checking pkg SUNWjaics... not present.
Checking pkg SUNWkoics... not present.
Checking pkg SUNWzhics... not present.
Checking pkg SUNWtwics... not present.
CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
Checking pkg SUNWics-l10n... not present.
CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
Checking pkg SUNWdiimc... not present.
Checking pkg SUNWdiimd... not present.
Checking pkg SUNWdimid... not present.
Checking pkg SUNWeiimc... not present.
Checking pkg SUNWeiimd... not present.
Checking pkg SUNWeiimin... not present.
Checking pkg SUNWeiimid... 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.

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Checking pkg SUNWjiimd... not present.
Checking pkg SUNWjiimin... not present.
Checking pkg SUNWjimid... not present.
Checking pkg SUNWkiimc... not present.
Checking pkg SUNWkiimd... not present.
Checking pkg SUNWkiimin... not present.
Checking pkg SUNWkimid... not present.
Checking pkg SUNWciimc... not present.
Checking pkg SUNWciimd... not present.
Checking pkg SUNWciimin... not present.
Checking pkg SUNWcimid... not present.
Checking pkg SUNWhiimc... not present.
Checking pkg SUNWhiimd... not present.
Checking pkg SUNWhiimin... not present.
Checking pkg SUNWhimid... not present.
IM_L10N 7.0 is not present.
Checking IM_L10N 7.2 ...
Checking pkg SUNWiimc-l10n... not present.
Checking pkg SUNWiimd-l10n... not present.
Checking pkg SUNWiimid-l10n... not present.
Checking pkg SUNWiimin-l10n... not present.
IM_L10N 7.2 is not present.
Checking CE 6.3 ...
Checking pkg SUNWuwc... not present.
CE 6.3 is not present.
Checking CE_L10N 6.2 ...
Checking pkg SUNWduwc... not present.
Checking pkg SUNWeuwc... not present.
Checking pkg SUNWfuwc... not present.
Checking pkg SUNWjuwc... not present.
Checking pkg SUNWkuwc... not present.
Checking pkg SUNWcuwc... not present.
Checking pkg SUNWhuwc... not present.
CE_L10N 6.2 is not present.
Checking CE_L10N 6.3 ...
Checking pkg SUNWuwc-l10n... not present.
CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119963-16 /tmp/.patchout_20091013085226.15996
-- Running patchadd -p report...
-- Generating /tmp/.patchout_20091013085226.15996
patchadd -p > /tmp/.patchout_20091013085226.15996 2>>
/tmp/CommsInstaller_20091013085226.log
-- Exit status: 0
-- older version at lineno 523 found 119963-12 - not acceptable
-- older version at lineno 524 found 119963-13 - not acceptable
-- Exact match found at line 525
-- Final return status: 1
LIBCPLUSPLUS patch 119963-16 is already present.
-- chk4patch 120900-04 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 11
-- Final return status: 1
PATCHUTILS patch 120900-04 is already present.
-- chk4patch 121133-02 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 12
-- Final return status: 1

```

```

    PATCHUTILS patch 121133-02 is already present.
-- chk4patch 119254-67 /tmp/.patchout_20091013085226.15996
-- older version at lineno 419 found 119254-65 - not acceptable
-- older version at lineno 420 found 119254-66 - not acceptable
-- Exact match found at line 421
-- Final return status: 1
    PATCHUTILS patch 119254-67 is already present.
-- chk4patch 126868-02 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 416
-- Final return status: 1
    BZIP patch 126868-02 is already present.
-- chk4patch 137321-01 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 534
-- Final return status: 1
    BZIP patch 137321-01 is already present.
-- chk4patch 119254-67 /tmp/.patchout_20091013085226.15996
-- older version at lineno 419 found 119254-65 - not acceptable
-- older version at lineno 420 found 119254-66 - not acceptable
-- Exact match found at line 421
-- Final return status: 1
    RECOMMENDED patch 119254-67 is already present.
-- chk4patch 118833-36 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 8
-- Final return status: 1
    RECOMMENDED patch 118833-36 is already present.
-- chk4patch 120011-14 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 7
-- Final return status: 1
    RECOMMENDED patch 120011-14 is already present.
-- chk4patch 120272-24 /tmp/.patchout_20091013085226.15996
-- older version at lineno 217 found 120272-23 - not acceptable
-- Final return status: 0
    RECOMMENDED patch 120272-24 is not present.
-- chk4patch 137137-09 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 24
-- Final return status: 1
    RECOMMENDED patch 137137-09 is already present.
-- chk4patch 141414-09 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    RECOMMENDED patch 141414-09 is not present.
-- chk4patch 125358-08 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 39
-- Final return status: 1
    NSS patch 125358-08 is already present.
-- chk4patch 119345-07 /tmp/.patchout_20091013085226.15996
-- older version at lineno 184 found 119345-06 - not acceptable
-- Exact match found at line 185
-- Final return status: 1
    SASL patch 119345-07 is already present.
-- chk4patch 136798-01 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 429
-- Final return status: 1
    LDAPCS SDK6_TOOLS patch 136798-01 is already present.
-- chk4patch 119810-05 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 281
-- Final return status: 1

```

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    ICU patch 119810-05 is already present.
-- chk4patch 125136-17 /tmp/.patchout_20091013085226.15996
-- older version at lineno 204 found 125136-14 - not acceptable
-- older version at lineno 205 found 125136-15 - not acceptable
-- Exact match found at line 206
-- Final return status: 1
    JDK patch 125136-17 is already present.
-- chk4patch 125137-17 /tmp/.patchout_20091013085226.15996
-- older version at lineno 423 found 125137-14 - not acceptable
-- older version at lineno 424 found 125137-15 - not acceptable
-- Exact match found at line 425
-- Final return status: 1
    JDK patch 125137-17 is already present.
-- chk4patch 119725-04 /tmp/.patchout_20091013085226.15996
-- Exact match found at line 565
-- Final return status: 1
    LDAPJDK patch 119725-04 is already present.
-- chk4patch 137204-11 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    MS64 patch 137204-11 is not present.
-- chk4patch 118242-03 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    DSSETUP patch 118242-03 is not present.
-- chk4patch 118245-21 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    DSSETUP patch 118245-21 is not present.
-- chk4patch 139893-02 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    IM patch 139893-02 is not present.
-- chk4patch 137631-10 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    IWC patch 137631-10 is not present.
-- chk4patch 124581-01 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    DA patch 124581-01 is not present.
-- chk4patch 137571-01 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    IM_SCHA patch 137571-01 is not present.
-- chk4patch 121657-40 /tmp/.patchout_20091013085226.15996
-- Final return status: 0
    CS patch 121657-40 is not present.
===== QQQ detectProducts =====
QQQ Dumper
!!! present
$VAR1 = {
    'IWC' => {
        '1.0' => 'NOT_PRESENT'
    },
    'SASL' => {
        '2.19' => 'PRESENT'
    },
    'MS64_L10N' => {
        '6.3' => 'NOT_PRESENT'
    },
    'MS' => {
        '7.2' => 'NOT_PRESENT',

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        '6.3' => 'NOT_PRESENT'
    },
    '137571-01' => 'NOT_PRESENT',
    'DSSETUP' => {
        '6.4' => 'NOT_PRESENT'
    },
    '125137-17' => 'PRESENT',
    '119345-07' => 'PRESENT',
    '120900-04' => 'PRESENT',
    'MQ_L10N' => {
        '3.7' => 'NOT_PRESENT',
        '4.3' => 'NOT_PRESENT',
        '4.1' => 'NOT_PRESENT'
    },
    'ICU' => {
        'ICU2,ICU3' => 'PRESENT'
    },
    '139893-02' => 'NOT_PRESENT',
    '120011-14' => 'PRESENT',
    'MS64' => {
        '7.3' => 'NOT_PRESENT'
    },
    'DAV' => {
        '7.0' => 'NOT_PRESENT'
    },
    'LDAPCSDK6' => {
        '6.0' => 'PRESENT'
    },
    '137137-09' => 'PRESENT',
    'CE' => {
        '6.3' => 'NOT_PRESENT'
    },
    'JDK' => {
        '1.6.0' => 'PRESENT',
        '1.5.0' => 'PRESENT'
    },
    'MYSQL' => {
        '5.1.36' => 'NOT_PRESENT'
    },
    'PATCHUTILS' => {
        'Unknown' => 'PRESENT'
    },
    'MQ' => {
        '3.7' => 'NOT_PRESENT',
        '4.3' => 'NOT_PRESENT',
        '4.1' => 'NOT_PRESENT'
    },
    '141414-09' => 'NOT_PRESENT',
    'CI' => {
        '7.0' => 'NOT_PRESENT'
    },
    'IMAPI' => {
        '8.0' => 'PRESENT',
        '7.0' => 'DIFF_VERSION',
        '7.3' => 'DIFF_VERSION'
    },
    },

```

```

'119254-67' => 'PRESENT',
'137321-01' => 'PRESENT',
'118245-21' => 'NOT_PRESENT',
'119963-16' => 'PRESENT',
'LDAPCSDK6_TOOLS' => {
    '6.0' => 'PRESENT'
},
'JISS' => {
    '0.9' => 'NOT_PRESENT',
    '1.0' => 'NOT_PRESENT'
},
'NSS' => {
    '4.3' => 'PRESENT'
},
'137631-10' => 'NOT_PRESENT',
'ST' => {
    '1.1.4' => 'PRESENT'
},
'IM' => {
    '8.2' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT',
    '7.3' => 'NOT_PRESENT'
},
'CS_L10N' => {
    '6.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT'
},
'RECOMMENDED' => {
    '2009.08.25' => 'NOT_PRESENT'
},
'118833-36' => 'PRESENT',
'IM_L10N' => {
    '7.2' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT'
},
'119725-04' => 'PRESENT',
'125136-17' => 'PRESENT',
'LDAPJDK' => {
    '4.19' => 'PRESENT'
},
'CS_SCHA' => {
    '6.0' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT'
},
'124581-01' => 'NOT_PRESENT',
'120272-24' => 'NOT_PRESENT',
'BZIP' => {
    '11.10' => 'PRESENT'
},
'MYSQL_MARKER' => {
    '1.0' => 'NOT_PRESENT'
},
'IM_SCHA' => {
    '7.0' => 'NOT_PRESENT',
    '7.3' => 'NOT_PRESENT'
},

```

```

'121657-40' => 'NOT_PRESENT',
'MS_L10N' => {
    '6.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT'
},
'126868-02' => 'PRESENT',
'LIBCPLUSPLUS' => {
    '5.9' => 'PRESENT'
},
'137204-11' => 'NOT_PRESENT',
'121133-02' => 'PRESENT',
'118242-03' => 'NOT_PRESENT',
'MS_SCHA' => {
    '6.0' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT'
},
'125358-08' => 'PRESENT',
'CS' => {
    '6.3' => 'NOT_PRESENT'
},
'JHRT' => {
    '2.0' => 'PRESENT'
},
'CE_L10N' => {
    '6.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT'
},
'136798-01' => 'PRESENT',
'119810-05' => 'PRESENT',
'DA' => {
    '6.4' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT'
}
};
!!! pkgparams
$VAR1 = {
    'SUNWica5' => {},
    'SUNWmsgja' => {},
    'SUNWcomic' => {},
    'SUNWservicetagu' => {
        '1.1.4,REV=2008.03.21.07.54' => [
            'SUNWservicetagu',
            '/',
            '1.1.4.1'
        ]
    },
    'SUNWjimid' => {},
    'SUNWdiqic' => {},
    'SUNWmsgko' => {},
    'SUNWmessaging-server-l10n-64' => {},
    'SUNWics5' => {},
    'SUNWiqlpl' => {},
    'SUNWmsgco' => {},
    'SUNWfiqic' => {}
}

```

```

'SUNWjiss-extjars' => {},
'SUNWjhdem' => {
    '2.0,REV=2006.10.04' => [
        'SUNWjhdem',
        '/usr',
        '2.0/FCS'
    ]
},
'SUNWiqfs' => {},
'SUNWfimid' => {},
'SUNWcomds' => {},
'SUNWj6rtx' => {
    '1.6.0,REV=2006.11.29.04.58' => [
'SUNWj6rtx',
        '/usr',
'1.6.0_16/1.6.0_16-b01'
    ]
},
'SUNWjhdev' => {
    '2.0,REV=2006.10.04' => [
        'SUNWjhdev',
        '/usr',
        '2.0/FCS'
    ]
},
'SUNWiqum' => {},
'SUNWduwc' => {},
'SUNWhiimin' => {},
'SUNWkiimin' => {},
'SUNWeiimd' => {},
'SUNWj6rt' => {
    '1.6.0,REV=2006.11.29.05.57' => [
        'SUNWj6rt',
        '/usr',
'1.6.0_16/1.6.0_16-b01'
    ]
},
'SUNWj5rt' => {
    '1.5.0,REV=2004.12.07.00.07' => [
        'SUNWj5rt',
        '/usr',
'1.5.0_17/1.5.0_17-b04'
    ]
},
'SUNWiimc-l10n' => {},
'SUNWhiimc' => {},
'SUNWmsg-l10n' => {},
'SUNWfrics' => {},
'SUNWciqu' => {},
'SUNWkoics' => {},
'SUNWdimid' => {},
'SUNWjiquc' => {},

```

```

'SUNWiimgw' => {},
'SUNWiimd-l10n' => {},
'SUNWhiqlen' => {},
'SUNWzhics' => {},
'SUNWkiimd' => {},
'SUNWmsgmp' => {},
'SUNWuwc' => {},
'SUNWscics' => {},
'SUNWiimc' => {},
'SUNWhiimd' => {},
'SUNWmsglb' => {},
'SUNWmessaging-server-scha' => {},
'SUNWt1s' => {
    '3.11.4,REV=2006.11.16.20.40' => [
        'SUNWt1s',
        '/',
        '3.12.3'
    ]
},
'SUNWj6dvx' => {
    '1.6.0,REV=2006.11.29.04.58' => [
'SUNWj6dvx',
        '/usr',
'1.6.0_16/1.6.0_16-b01'
    ]
},
'SUNWfuwc' => {},
'SUNWlibc' => {
    '5.10,REV=2004.12.22' => [
        'SUNWlibc',
        '/',
        '5.10'
    ]
},
'SUNWjiss-searchui' => {},
'SUNWjiimin' => {},
'SUNWcomms-mysql-marker' => {},
'SUNWscims' => {},
'SUNWiimjd' => {},
'SUNWciimd' => {},
'SUNWldapcsdk-dev' => {
    '6.00,REV=2006.12.11.00.08' => [
'SUNWldapcsdk-dev',
        '/',
'6.00'
    ]
},
'SUNWiqlen' => {},
'SUNWiimid-l10n' => {},
'SUNWiqr' => {},
'SUNWdiimc' => {},
'SUNWmsgwm' => {},

```

```

'SUNWeiqc' => {},
'SUNWmessaging-server-64' => {},
'SUNWj5cfg' => {
    '1.5.0,REV=2004.12.07.00.07' => [
'SUNWj5cfg',
  '/',
'1.5.0_17/1.5.0_17-b04'
  ]
    },
'SUNWhiqu' => {},
'SUNWjiss-search' => {},
'SUNWiimd' => {
    '8.0,REV=2008.12.04' => [
  'SUNWiimd',
  '/',
  '8.0-00'
  ]
    },
'SUNWfiimd' => {},
'SUNWj5rtx' => {
    '1.5.0,REV=2004.12.06.22.09' => [
'SUNWj5rtx',
  '/usr',
'1.5.0_17/1.5.0_17-b04'
  ]
    },
'SUNWiqc' => {},
'SUNWiimid' => {},
'SUNWmsgmt' => {},
'SUNWljdk' => {
    '1.0,REV=2004.10.11.06.02' => [
  'SUNWljdk',
  '/',
  '4.19'
  ]
    },
'SUNWcuwc' => {},
'SUNWldapcsdk-libs' => {
    '6.00,REV=2006.12.11.00.08' => [
'SUNWldapcsdk-libs',
  '/',
'6.00'
  ]
    },
'SUNWservicetagr' => {
    '1.1.4,REV=2008.03.21.07.54' => [
'SUNWservicetagr',
  '/',

```



```

'/',
'SNAG Development'
]
},
'SUNWiimin' => {},
'SUNWuwc-110n' => {},
'SUNWmsgst' => {},
'SUNWiqu' => {},
'SUNWkiimc' => {},
'SUNWiim' => {},
'SUNWeiimin' => {},
'SUNWcimid' => {},
'SUNWiqcdv' => {},
'SUNWldapcsdk-tools' => {
    '6.00,REV=2006.12.11.00.08' => [
'SUNWldapcsdk-tools',
'/opt/SUNWdsee',
'6.00'
    ]
},
'SUNWjss' => {
    '4.2.4,REV=2006.11.16.20.40' => [
        'SUNWjss',
        '/',
        '4.3'
    ]
},
'SUNWdiqu' => {},
'SUNWjiss' => {},
'SUNWj6cfg' => {
    '1.6.0,REV=2006.11.29.05.57' => [
'SUNWj6cfg',
        '/'
    ]
},
'1.6.0_16/1.6.0_16-b01'
],
},
'SUNWhimid' => {},
'SUNWciquc' => {},
'SUNWcomms' => {},
'SUNWjiqu' => {},
'SUNWkiqu' => {},
'SUNWkuwc' => {},
'SUNWics-110n' => {},
'SUNWeiqu' => {},
'SUNWdavserver' => {},
'SUNWmessaging-server' => {},
'SUNWmsgtw' => {},
'SUNWeiimc' => {}

```

```

        'SUNWjaics' => {},
        'SUNWpkgcmdsu' => {
            '11.11,REV=2005.01.09.23.05' => [
                'SUNWpkgcmdsu',
                '/',
                'SNAG
Development'
            ]
        },
        'SUNWjiimc' => {},
        'SUNWeimid' => {},
        'SUNWiqjx' => {},
        'SUNWjhdoc' => {
            '2.0,REV=2006.10.04' => [
                'SUNWjhdoc',
                '/usr',
                '2.0/FCS'
            ]
        },
        'SUNWj6dev' => {
            '1.6.0,REV=2006.11.29.05.57' => [
                'SUNWj6dev',
                '/usr',
                '1.6.0_16/1.6.0_16-b01'
            ]
        },
        'SUNWmsges' => {},
        'SUNWpr' => {
            '4.6.4,REV=2006.11.16.20.40' => [
                'SUNWpr',
                '/',
                '4.7.4'
            ]
        },
        'SUNWmsgmf' => {},
        'SUNWkimid' => {},
        'SUNWicu' => {
            '1.2,REV=2005.01.06.14.13' => [
                'SUNWicu',
                '/usr',
                '10/Generic'
            ]
        },
        'SUNWjiss-rest' => {},
        'SUNWfiimin' => {},
        'SUNWswmt' => {
            '11.10,REV=2005.01.10.17.19' => [
                'SUNWswmt',
                '/',
                'SNAG
Development'
            ]
        },
    },

```

```

'SUNWcomis' => {},
'SUNWdeics' => {},
'SUNWtwics' => {},
'SUNWciimin' => {},
'SUNWmsgfr' => {},
'SUNWdiimd' => {},
'SUNWjiss-common' => {},
'SUNWeuwc' => {},
'SUNWkiquc' => {},
'SUNWstosreg' => {
    '1.1.4,REV=2008.03.21.07.54' => [
'SUNWstosreg',
        '/',
        '1.1.4.1'
    ]
    },
'SUNWmsgde' => {},
'SUNWjiss-jmqc' => {},
'SUNWjiss-indexapi' => {},
'SUNWbzip' => {
    '11.10.0,REV=2005.01.08.05.16' => [
'SUNWbzip',
        '/',
'5.10/SunOS Development'
    ]
    },
'SUNWtisu' => {
    '3.11.4,REV=2006.11.16.20.40' => [
        'SUNWtisu',
        '/',
        '3.12.3'
    ]
    },
'SUNWfiqu' => {},
'SUNWsas1' => {
    '2.17,REV=2004.04.06.15.24' => [
        'SUNWsas1',
        '/',
        '2.19'
    ]
    },
'SUNWfiimc' => {},
'SUNWzoneu' => {
    '11.10.0,REV=2005.01.21.15.53' => [
'SUNWzoneu',
        '/',
'5.10/Generic Patch'
    ]
    },
'SUNWcsr' => {
    '11.10.0,REV=2005.01.21.15.53' => [

```

```

'5.10/Generic Patch'
'5.10/UCS' => {
    'SUNWesics' => {},
    'SUNWiimm' => {}
};
!!! installedprod
$VAR1 = {
    'SASL' => {
        '2.19' => [
            '/',
            '2.19',
            'none',
            '2.19'
        ]
    },
    'ST' => {
        '1.1.4' => [
            '/',
            '1.1.4.1',
            'none',
            '1.1.4'
        ]
    },
    'LDAPCSDK6' => {
        '6.0' => [
            '/',
            '6.00',
            'none',
            '6.0'
        ]
    },
    'LIBCPLUSPLUS' => {
        '5.9' => [
            '/',
            '5.10',
            'none',
            '5.9'
        ]
    },
    'JDK' => {
        '1.6.0' => [
            '/usr',
            '1.6.0_16/1.6.0_16-b01',
            'none',
            '1.6.0'
        ]
    },
    'PATCHUTILS' => {
        'Unknown' => [
            '/',
            'SNAG Development',
            'none',

```

```

        'Unknown'
    ]
},
'LDAPJDK' => {
    '4.19' => [
        '/',
        '4.19',
        'none',
        '4.19'
    ]
},
'JHRT' => {
    '2.0' => [
        '/usr',
        '2.0/FCS',
        'none',
        '2.0'
    ]
},
'IMAPI' => {
    '8.0' => [
        '/',
        '8.0-00',
        'none',
        '8'
    ]
},
'BZIP' => {
    '11.10' => [
        '/',
        '5.10/SunOS Development',
        'none',
        '11.10'
    ]
},
'LDAPCSDK6_TOOLS' => {
    '6.0' => [
        '/opt/SUNWdsee',
        '6.00',
        'none',
        '6.0'
    ]
},
'ICU' => {
    'ICU2,ICU3' => [
        '/usr',
        '10/Generic',
        'none',
        'ICU2,ICU3'
    ]
},
'NSS' => {
    '4.3' => [
        '/',
        '4.3',
        'none',

```

```

                                '4.3'
                                ]
                                }
};
===== End QQQ detectProducts =====
-- Checking for RECOMMENDED patch 119254-67
  patch is PRESENT
-- Checking for RECOMMENDED patch 118833-36
  patch is PRESENT
-- Checking for RECOMMENDED patch 120011-14
  patch is PRESENT
-- Checking for RECOMMENDED patch 120272-24
  patch 120272-24: NOT_PRESENT
-- Checking for RECOMMENDED patch 137137-09
  patch is PRESENT
-- Checking for RECOMMENDED patch 141414-09
  patch 141414-09: NOT_PRESENT
  NOTICE: The OS Recommended Patch Cluster (as of 2009.08.25)
           has not been applied. Specifically the following
           patches are missing:
           120272-24 141414-09
  NOTICE: It is highly recommended that you apply the
           latest OS Recommended Patch Cluster. compkg 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 Services Products:

  Item  Description
  ----  -
  1  Messaging Server (64bit) 7u3 (7.3-11.01)
  2  Comms DSsetup 6.4 (6.4-5.05)
  3  Calendar Server 7 (7.0-0.26)
  4  Instant Messaging 8u2 (8.2-02.04)
  5  Convergence 1u3 (1.0-10.01)
  6  Indexing and Search Service 1 (1.0-32.01)
  7  Comms Delegated Administrator 7 (7.0-1.00)
  8  Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
  9  Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)
  10 Calendar Server 6.3 (6.3-19.01)
  11 Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)

Enter the items you wish to install. Enter q to quit.

```

Prefix an item with ~ to indicate you only want  
to install shared component dependencies of that product  
You can enter multiple items using commas to separate them.  
For example: 1,2

Please select the products you wish to install [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]:

```
=====
QQQ selections: 0 MS64 0 DSSETUP 0 DAV 0 IM 0 IWC 0 JISS 0 DA 0 MS_SCHA
0 IM_SCHA 0 CS 0 CS_SCHA
```

Generating list of things to install...

```
NOTICE: toInstall - MYSQL PATCHUTILS IMAPI LDAPJDK BZIP LIBCPLUSPLUS NSS
ICU SASL LDAPCSDK6 LDAPCSDK6_TOOLS MS64 DSSETUP DAV IM IWC JISS DA
MS_SCHA IM_SCHA CS CS_SCHA CI ST JDK JHRT MQ
```

Checking for Shared Component Upgrade Requirements...

```
=====
```

WILL INSTALL: MySQL 5.1.36

Task:

```
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/installer
```

```
--pkgcmd '-a
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'
```

WILL INSTALL: Messaging Server (64bit) 7u3 (7.3-11.01)

to /opt/sun/comms/messaging64

Task: pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
```

```
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS64/Packages -r
```

```
/tmp/.response_MS64_20091013085226 SUNWmessaging-server-64
```

WILL INSTALL: Comms DSsetup 6.4 (6.4-5.05)

to /opt/sun/comms/dssetup

Task: pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
```

```
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DSSETUP/Packages
```

```
-r /tmp/.response_DSSETUP_20091013085226 SUNWcomds
```

WILL INSTALL: Calendar Server 7 (7.0-0.26)

to /opt/sun/comms/davserver

Task: pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
```

```
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DAV/Packages -r
```

```
/tmp/.response_DAV_20091013085226 SUNWdavserver
```

WILL INSTALL: Instant Messaging 8u2 (8.2-02.04)

to /opt/sun/comms/im

Task: pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
```

```
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
```

```
/tmp/.response_IM_20091013085226 SUNWiim
```

Task: pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
```

```
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
```

```
/tmp/.response_IM_20091013085226 SUNWiimin
```

Task: pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
```

```
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
```

```
/tmp/.response_IM_20091013085226 SUNWiimm
```

Task: pkgadd -a

```
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
```

```
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
```

```

/tmp/.response_IM_20091013085226 SUNWiimjd
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimid
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimc
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimd
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimgw
  WILL INSTALL: Convergence lu3 (1.0-10.01)
                  to /opt/sun/comms/iwc
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IWC/Packages -r
/tmp/.response_IWC_20091013085226 SUNWiwc
  WILL INSTALL: Indexing and Search Service 1 (1.0-32.01)
                  to /opt/sun/comms/jiss
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/JISS/Packages -r
/tmp/.response_JISS_20091013085226 SUNWjiss
  WILL INSTALL: Comms Delegated Administrator 7 (7.0-1.00)
                  to /opt/sun/comms/da
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DA/Packages -r
/tmp/.response_DA_20091013085226 SUNWcommda
  WILL INSTALL: Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)
                  to /opt/sun/comms/msg_scha
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS_SCHA/Packages -r
/tmp/.response_MS_SCHA_20091013085226 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
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM_SCHA/Packages -r
/tmp/.response_IM_SCHA_20091013085226 SUNWiimsc
  WILL INSTALL: Calendar Server 6.3 (6.3-19.01)
                  to /opt/sun/comms/calendar
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/Packages -r
/tmp/.response_CS_20091013085226 SUNWics5
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/Packages -r

```

```

/tmp/.response_CS_20091013085226 SUNWica5
  WILL INSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                 to /opt/sun/comms/cs_scha
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS_SCHA/Packages -r
/tmp/.response_CS_SCHA_20091013085226 SUNWscics
  WILL INSTALL: CommsInstaller 7 (7.0-0.02)
                 to /opt/sun/comms/CommsInstaller
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CI/Packages -r
/tmp/.response_CI_20091013085226 SUNWcomms
  WILL INSTALL: Message Queue 4.3
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqu
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqdoc
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiquc
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqum
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqjx
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqfs
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqcrt
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqcdv
  Task: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqlen
=====
Ready to install

```

Do you want to continue ? [yes] :

```
=====
Installing MySQL 5.1.36...
----- Executing Task 1 of 31 ...
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/installer
--pkgcmd '-a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet' 2>&1
-- LOGFILE: /tmp/ci-mysql-installer_20091013085347.log
pkgadd -n -r /dev/null -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/../../Packages
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
mysql
```

Installation of <mysql> was successful.  
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc. All rights reserved.

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```
091013 8:54:44 InnoDB: Started; log sequence number 0 46409
091013 8:54:44 InnoDB: Starting shutdown...
091013 8:54:45 InnoDB: Shutdown completed; log sequence number 0 46409
091013 8:54:45 [Warning] Forcing shutdown of 1 plugins
091013 8:54:45 InnoDB: Started; log sequence number 0 46409
091013 8:54:45 InnoDB: Starting shutdown...
091013 8:54:46 InnoDB: Shutdown completed; log sequence number 0 46409
091013 8:54:46 [Warning] Forcing shutdown of 1 plugins
```

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !  
To do so, start the server, then issue the following commands:

```
/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h worfin-1 password
'new-password'
```

Alternatively you can run:

```
/opt/mysql/mysql/bin/mysql_secure_installation
```

which will also give you the option of removing the test databases and anonymous user created by default. This is strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug script!

The latest information about MySQL is available at <http://www.mysql.com/>  
Support MySQL by buying support/licenses from <http://shop.mysql.com/>

```
pkgadd -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/../../MYSQL_MAR
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms-mysql-marker
```

Installation of <SUNWcomms-mysql-marker> was successful.

```
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
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-- Exit status: 0
-- /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/installer
--pkgcmd '-a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'
-- LOGFILE: /tmp/ci-mysql-installer_20091013085347.log
pkgadd -n -r /dev/null -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/./Packages
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
mysql
```

Installation of <mysql> was successful.  
Copyright 2000-2008 MySQL AB, 2008 Sun Microsystems, Inc. All rights reserved.

```
Use is subject to license terms.
091013 8:54:44 InnoDB: Started; log sequence number 0 46409
091013 8:54:44 InnoDB: Starting shutdown...
091013 8:54:45 InnoDB: Shutdown completed; log sequence number 0 46409
091013 8:54:45 [Warning] Forcing shutdown of 1 plugins
091013 8:54:45 InnoDB: Started; log sequence number 0 46409
091013 8:54:45 InnoDB: Starting shutdown...
091013 8:54:46 InnoDB: Shutdown completed; log sequence number 0 46409
091013 8:54:46 [Warning] Forcing shutdown of 1 plugins
```

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !  
To do so, start the server, then issue the following commands:

```
/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h worfin-1 password
'new-password'
```

Alternatively you can run:  
/opt/mysql/mysql/bin/mysql\_secure\_installation

which will also give you the option of removing the test databases and anonymous user created by default. This is strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug script!

The latest information about MySQL is available at <http://www.mysql.com/>  
Support MySQL by buying support/licenses from <http://shop.mysql.com/>

```
pkgadd -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/./../MYSQL_MAR
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms-mysql-marker
```

Installation of <SUNWcomms-mysql-marker> was successful.  
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```

=====
Installing Messaging Server (64bit) 7u3 (7.3-11.01)...
----- Executing Task 2 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS64/Packages -r
/tmp/.response_MS64_20091013085226 SUNWmessaging-server-64 2>&1
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Installation of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

=====
Installing Comms DSsetup 6.4 (6.4-5.05)...
----- Executing Task 3 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DSSETUP/Packages
-r /tmp/.response_DSSETUP_20091013085226 SUNWcomds 2>&1
Copyright 2003 Sun Microsystems, Inc. All rights reserved.
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Installation of <SUNWcomds> was successful.
-- Exit status: 0

=====
Installing Calendar Server 7 (7.0-0.26)...
----- Executing Task 4 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DAV/Packages -r
/tmp/.response_DAV_20091013085226 SUNWdavserver 2>&1
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Installation of <SUNWdavserver> was successful.
-- Exit status: 0

=====
Installing Instant Messaging 8u2 (8.2-02.04)...
----- Executing Task 5 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiim 2>&1
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Installation of <SUNWiim> was successful.
-- Exit status: 0
----- Executing Task 6 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimin 2>&1

```

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Installation of <SUNWiimin> was successful.

-- Exit status: 0

----- Executing Task 7 of 31 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n  
-d /h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/IM/Packages -r  
/tmp/.response\_IM\_20091013085226 SUNWiimm 2>&1

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Installation of <SUNWiimm> was successful.

-- Exit status: 0

----- Executing Task 8 of 31 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n  
-d /h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/IM/Packages -r  
/tmp/.response\_IM\_20091013085226 SUNWiimjd 2>&1

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Installation of <SUNWiimjd> was successful.

-- Exit status: 0

----- Executing Task 9 of 31 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n  
-d /h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/IM/Packages -r  
/tmp/.response\_IM\_20091013085226 SUNWiimid 2>&1

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Installation of <SUNWiimid> was successful.

-- Exit status: 0

----- Executing Task 10 of 31 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n  
-d /h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/IM/Packages -r  
/tmp/.response\_IM\_20091013085226 SUNWiimc 2>&1

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Installation of <SUNWiimc> was successful.

-- Exit status: 0

----- Executing Task 11 of 31 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n  
-d /h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/IM/Packages -r  
/tmp/.response\_IM\_20091013085226 SUNWiimd 2>&1

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Installation of <SUNWiimd> was successful.

-- Exit status: 0

----- Executing Task 12 of 31 ...

```

pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimgw 2>&1
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Installation of <SUNWiimgw> was successful.
-- Exit status: 0

=====
Installing Convergence lu3 (1.0-10.01)...
----- Executing Task 13 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IWC/Packages -r
/tmp/.response_IWC_20091013085226 SUNWiwc 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
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Installation of <SUNWiwc> was successful.
-- Exit status: 0

=====
Installing Indexing and Search Service 1 (1.0-32.01)...
----- Executing Task 14 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/JISS/Packages -r
/tmp/.response_JISS_20091013085226 SUNWjiss 2>&1
Copyright (c) 2009 Sun Microsystems, Inc. All rights reserved.
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Installation of <SUNWjiss> was successful.
-- Exit status: 0

=====
Installing Comms Delegated Administrator 7 (7.0-1.00)...
----- Executing Task 15 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DA/Packages -r
/tmp/.response_DA_20091013085226 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 16 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS_SCHA/Packages -r
/tmp/.response_MS_SCHA_20091013085226 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 17 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM_SCHA/Packages -r
/tmp/.response_IM_SCHA_20091013085226 SUNWiimsc 2>&l
Copyright (c) 2006 Sun Microsystems, Inc. All rights reserved.
```

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Installation of <SUNWiimsc> was successful.  
-- Exit status: 0

```
=====
Installing Calendar Server 6.3 (6.3-19.01)...
----- Executing Task 18 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/Packages -r
/tmp/.response_CS_20091013085226 SUNWics5 2>&l
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```

```
Checking for existence of
/opt/sun/comms/calendar/SUNWics5/cal/bin/config
/opt/sun/comms/calendar/SUNWics5/cal/bin/config is clean
```

```
Checking for existence of /opt/sun/comms/calendar/SUNWics5/cal/config
/opt/sun/comms/calendar/SUNWics5/cal/config is clean
```

```
Checking for existence of /opt/sun/comms/calendar/SUNWics5/cal/bin/html
/opt/sun/comms/calendar/SUNWics5/cal/bin/html is clean
```

```
Checking for existence of /opt/sun/comms/calendar/SUNWics5/cal/bin/data
/opt/sun/comms/calendar/SUNWics5/cal/bin/data is clean
```

```
Checking for any files in /opt/sun/comms/calendar/SUNWics5/cal/bin/
/opt/sun/comms/calendar/SUNWics5/cal/bin is clean
```

Installation of <SUNWics5> was successful.  
-- Exit status: 0

```
----- Executing Task 19 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/Packages -r
/tmp/.response_CS_20091013085226 SUNWica5 2>&l
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```

```

Installation of <SUNWica5> was successful.
-- Exit status: 0

=====
Installing Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)...
----- Executing Task 20 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS_SCHA/Packages -r
/tmp/.response_CS_SCHA_20091013085226 SUNWscics 2>&1
Copyright 2005 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
ln: cannot create /usr/cluster/lib/rgm/rtreg/SUNW.scics: No such file or
directory

Attempting to set following in ics.conf
    local.server.ha.enabled="yes"
    local.server.ha.agent="SUNWscics"

Sun Cluster 3.0_u1 Agent for iCS 5.1 Note
-----
Remember to add the following to the ics.conf file
    local.server.ha.enabled="yes"
    local.server.ha.agent="SUNWscics"

Installation of <SUNWscics> was successful.
-- Exit status: 0

=====
Installing CommsInstaller 7 (7.0-0.02)...
----- Executing Task 21 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CI/Packages -r
/tmp/.response_CI_20091013085226 SUNWcomms 2>&1
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Installation of <SUNWcomms> was successful.
-- Exit status: 0

=====
Installing Message Queue 4.3...
----- Executing Task 22 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
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Installation of <SUNWiqr> was successful.
-- Exit status: 0

```

```

----- Executing Task 23 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqu 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
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Installation of <SUNWiqu> was successful.
-- Exit status: 0
----- Executing Task 24 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqdoc 2>&1
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Installation of <SUNWiqdoc> was successful.
-- Exit status: 0
----- Executing Task 25 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiquc 2>&1
Copyright 2008 Sun Microsystems, Inc. All rights reserved.
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Installation of <SUNWiquc> was successful.
-- Exit status: 0
----- Executing Task 26 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiquim 2>&1
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Installation of <SUNWiquim> was successful.
-- Exit status: 0
----- Executing Task 27 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqjx 2>&1
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Installation of <SUNWiqjx> was successful.
-- Exit status: 0
----- Executing Task 28 of 31 ...
pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqfs 2>&1
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```

Use is subject to license terms.

Installation of <SUNWiqfs> was successful.

-- Exit status: 0

----- Executing Task 29 of 31 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d

/h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/MQ/Packages -r

/tmp/.response\_MQ\_20091013085226 SUNWiqcrt 2>&1

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Installation of <SUNWiqcrt> was successful.

-- Exit status: 0

----- Executing Task 30 of 31 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d

/h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/MQ/Packages -r

/tmp/.response\_MQ\_20091013085226 SUNWiqcdv 2>&1

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Installation of <SUNWiqcdv> was successful.

-- Exit status: 0

----- Executing Task 31 of 31 ...

pkgadd -a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d

/h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/MQ/Packages -r

/tmp/.response\_MQ\_20091013085226 SUNWiqlen 2>&1

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Installation of <SUNWiqlen> was successful.

-- Exit status: 0

=====

SUMMARY:

PASSED: Task 1: generic

/h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/MYSQL/CI/installer

--pkgcmd '-a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'

-- Output of Task 1: generic

/h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/MYSQL/CI/installer

--pkgcmd '-a

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet'

-- LOGFILE: /tmp/ci-mysql-installer\_20091013085347.log

pkgadd -n -r /dev/null -d

/h/megan/wspace/dl111122/releases/ci70/SunOS\_sparc/MYSQL/CI/./Packages

-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet

mysql

Installation of <mysql> was successful.

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091013 8:54:44 InnoDB: Started; log sequence number 0 46409

```

091013 8:54:44 InnoDB: Starting shutdown...
091013 8:54:45 InnoDB: Shutdown completed; log sequence number 0 46409
091013 8:54:45 [Warning] Forcing shutdown of 1 plugins
091013 8:54:45 InnoDB: Started; log sequence number 0 46409
091013 8:54:45 InnoDB: Starting shutdown...
091013 8:54:46 InnoDB: Shutdown completed; log sequence number 0 46409
091013 8:54:46 [Warning] Forcing shutdown of 1 plugins

```

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !  
To do so, start the server, then issue the following commands:

```

/opt/mysql/mysql/bin/mysqladmin -u root password 'new-password'
/opt/mysql/mysql/bin/mysqladmin -u root -h worfin-1 password
'new-password'

```

Alternatively you can run:  
/opt/mysql/mysql/bin/mysql\_secure\_installation

which will also give you the option of removing the test  
databases and anonymous user created by default. This is  
strongly recommended for production servers.

See the manual for more instructions.

Please report any problems with the /opt/mysql/mysql/scripts/mysqlbug  
script!

The latest information about MySQL is available at <http://www.mysql.com/Support>  
MySQL by buying support/licenses from <http://shop.mysql.com/>

```

pkgadd -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MYSQL/CI/../../MYSQL_MAR
-a /h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomms-mysql-marker

```

Installation of <SUNWcomms-mysql-marker> was successful.  
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```

-- End of command output--
PASSED: Task 2: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS64/Packages -r
/tmp/.response_MS64_20091013085226 SUNWmessaging-server-64
PASSED: Task 3: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DSSETUP/Packages
-r /tmp/.response_DSSETUP_20091013085226 SUNWcomds
PASSED: Task 4: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DAV/Packages -r
/tmp/.response_DAV_20091013085226 SUNWdavserver
PASSED: Task 5: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiim
PASSED: Task 6: pkgadd -a

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimin
PASSED: Task 7: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimm
PASSED: Task 8: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimjd
PASSED: Task 9: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimid
PASSED: Task 10: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimc
PASSED: Task 11: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimd
PASSED: Task 12: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/Packages -r
/tmp/.response_IM_20091013085226 SUNWiimgw
PASSED: Task 13: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IWC/Packages -r
/tmp/.response_IWC_20091013085226 SUNWiwc
PASSED: Task 14: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/JISS/Packages -r
/tmp/.response_JISS_20091013085226 SUNWjiss
PASSED: Task 15: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DA/Packages -r
/tmp/.response_DA_20091013085226 SUNWcommda
PASSED: Task 16: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS_SCHA/Packages -r
/tmp/.response_MS_SCHA_20091013085226 SUNWmessaging-server-scha
PASSED: Task 17: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM_SCHA/Packages -r
/tmp/.response_IM_SCHA_20091013085226 SUNWiimsc
PASSED: Task 18: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/Packages -r
/tmp/.response_CS_20091013085226 SUNWics5
PASSED: Task 19: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/Packages -r
/tmp/.response_CS_20091013085226 SUNWica5
PASSED: Task 20: pkgadd -a

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS_SCHA/Packages -r
/tmp/.response_CS_SCHA_20091013085226 SUNWscics
PASSED: Task 21: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.instance -n
-d /h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CI/Packages -r
/tmp/.response_CI_20091013085226 SUNWcomms
PASSED: Task 22: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
PASSED: Task 23: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
PASSED: Task 24: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqdoc
PASSED: Task 25: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
PASSED: Task 26: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
PASSED: Task 27: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
PASSED: Task 28: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
PASSED: Task 29: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
PASSED: Task 30: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr
PASSED: Task 31: pkgadd -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet -n -d
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MQ/Packages -r
/tmp/.response_MQ_20091013085226 SUNWiqr

```

All tasks PASSED

Checking JES java symlink...

```
ls -l /usr/jdk /usr/java 2>&1
```

```
lrwxrwxrwx 1 root other 15 Jun 11 14:58 /usr/java ->
jdk/jdk1.5.0_17
```

```
/usr/jdk:
```

```
total 10
```

```

drwxr-xr-x  4 root    bin           4 Jun 16 23:48 instances
lrwxrwxrwx  1 root    other         7 Jun 11 14:51 j2sdk1.4.2_19 ->
../j2se
lrwxrwxrwx  1 root    other         18 Jun 11 14:58 jdk1.5.0_17 ->
instances/jdk1.5.0
lrwxrwxrwx  1 root    other         18 Sep  2 15:50 jdk1.6.0_16 ->
instances/jdk1.6.0
lrwxrwxrwx  1 root    other         11 Sep  2 15:50 latest ->
jdk1.6.0_16
drwxr-xr-x  8 root    bin           8 Sep  2 22:59 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  2 15:50 /usr/jdk/latest ->
jdk1.6.0_16
-- Exit status: 2
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
/usr/jdk/latest:
total 38177
drwxr-xr-x  3 root    bin           49 Sep  2 22:59 bin
-rw-r--r--  1 root    bin          3767 Jul 31 06:58 COPYRIGHT
drwxr-xr-x  3 root    bin           8 Sep  2 15:47 include
drwxr-xr-x  6 root    bin          11 Sep  2 15:49 jre
drwxr-xr-x  3 root    bin          11 Sep  2 15:47 lib
-rw-r--r--  1 root    bin        17179 Jul 31 06:58 LICENSE
-rw-r--r--  1 root    bin       25390 Jul 31 06:58 README_ja.html
-rw-r--r--  1 root    bin       20768 Jul 31 06:58 README_zh_CN.html
-rw-r--r--  1 root    bin       28329 Jul 31 06:58 README.html
-r--r--r--  1 root    other         6324 Sep  2 15:51 register_ja.html
-r--r--r--  1 root    other         5502 Sep  2 15:51
register_zh_CN.html
-r--r--r--  1 root    other         5892 Sep  2 15:51 register.html
-rw-r--r--  1 root    bin      19029272 Jul 31 06:57 src.zip
-rw-r--r--  1 root    bin       249556 Jul 31 06:58
THIRDPARTYLICENSEREADME.txt
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

Hit Return to Continue:
=====
-- unlink /tmp/.response_MS64_20091013085226
-- unlink /tmp/.response_DSSETUP_20091013085226
-- unlink /tmp/.response_DAV_20091013085226
-- unlink /tmp/.response_IM_20091013085226
-- unlink /tmp/.response_IWC_20091013085226
-- unlink /tmp/.response_JISS_20091013085226
-- unlink /tmp/.response_DA_20091013085226
-- unlink /tmp/.response_MS_SCHA_20091013085226
-- unlink /tmp/.response_IM_SCHA_20091013085226
-- unlink /tmp/.response_CS_20091013085226
-- unlink /tmp/.response_CS_SCHA_20091013085226
-- unlink /tmp/.response_CI_20091013085226
-- unlink /tmp/.response_MQ_20091013085226
-- unlink /tmp/.patchout_20091013085226.15996
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_20091013085226

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent_CommsInstaller_20091013085226
-- Closing the log at Tue Oct 13 09:14:29 2009
(201 root) cat
/var/opt/CommsInstaller/logs/CommsInstaller_20091013091635.log
===== LOGFILE started Tue Oct 13 09:16:35 2009 =====
LOGFILE = /tmp/CommsInstaller_20091013091635.log
Running /usr/bin/perl ./commpkg
-- /usr/bin/perl ./commpkg uninstall
-- perl version: 5.008004 pid: 16918
-- basetime: 1255450595 Tue Oct 13 09:16:35 2009
-- scriptDir: /h/megan/wspace/dl111122/releases/ci70
-- LOGFILE: /tmp/CommsInstaller_20091013091635.log
-- UNAME = SunOS ARCH = sparc OS_VERS = 5.10 BITS = 64
uname -a 2>&1
SunOS worfin-1 5.10 Generic_139555-08 sun4u sparc SUNW,Sun-Fire-V210
-- Exit status: 0
!!! ENV
$VAR1 = {
    'SSH_CLIENT' => '192.18.75.229 33423 22',
    'CAPSAVE' => '/home/dl111122/.termcap',
    'PS1' => '# ',
    'LC_COLLATE' => 'en_US.ISO8859-1',
    'LINES' => '55',
    'LC_NUMERIC' => 'en_US.ISO8859-1',
    'COLUMNS' => '80',
    'PWD' => '/home/dl111122/wspace/releases/ci70',
    'LC_TIME' => 'en_US.ISO8859-1',
    'USER' => 'dl111122',
    'LANG' => 'C',
    'LC_MESSAGES' => 'C',
    'VISUAL' => 'gnuclient',
    'LOGNAME' => 'dl111122',
    'EMACS' => 't',
    'REMOTE' => '/home/dl111122/.remote',
    'USE_64' => '1',
    'PATH' =>
'/bin:/usr/bin:/usr/sbin:/sbin:/usr/etc:./home/dl111122/bin:/new/local/bin
'EMACS_TYPE' => 'pc',
    'EMACSPACKAGEPATH' => '/new/local/lib/xemacs/xemacs-packages',
    'MORE' => '-c',
    'TERM' => 'emacs',
    'SSH_TTY' => '/dev/pts/3',
    'PAGER' => 'cat',
    'LM_LICENSE_FILE' =>
'/usr/dist/share/devpro_lic,v1.0/license_dir/sunpro.lic.site,1',
    'HOME' => '/home/dl111122',
    'LD_LIBRARY_PATH' => '/usr/dt/lib:/usr/openwin/lib',
    'SSH_CONNECTION' => '192.18.75.229 33423 192.18.75.222 22',
    'TERMSAVE' => 'emacs',

```

```

        'MANPATH' =>
'/usr/cluster/man:/tools/ns/man:/usr/openwin/man:/usr/man',
        'CDPATH' => '.....:/home/dl111122',
        'EDITOR' => 'gnuclient',
        'MAIL' => '/var/mail//dl111122',
        'TZ' => 'US/Pacific',
        'LC_CTYPE' => 'en_US.ISO8859-1',
        'ESHELL' => '/bin/csh',
        'INFOPATH' =>
'/new/local/info:/new/local-generic/share/emacs/19.34/info:/usr/local/info'
'MOTIFHOME' => '/usr/dt',
        'CVSROOT' =>
':pserver:dl111122@redcvs.red.ipplanet.com:/m/src',
        'LC_MONETARY' => 'en_US.ISO8859-1',
        'OPENWINHOME' => '/usr/openwin',
        'RCSINIT' => '-zLT',
        'SHELL' => '/bin/csh',
        'SKIP_UTESET' => '1',
        'TERMCAP' => '/home/dl111122/.termcap'
};
cat /etc/release 2>&1
                Solaris 10 5/09 s10s_u7wos_08 SPARC
                Copyright 2009 Sun Microsystems, Inc. All Rights Reserved.
                Use is subject to license terms.
                Assembled 30 March 2009

-- 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=0
is_mounted_miniroot=0
is_netinstall_image=0
is_nonglobal_zone=1
is_path_writable=1
is_running_system=0
is_sparse_root_nonglobal_zone=0
is_whole_root_nonglobal_zone=1
-- Exit status: 1
/usr/bin/pkgcond -n is_global_zone 2>&1
-- Exit status: 0
/usr/bin/pkgcond -n is_sparse_root_nonglobal_zone 2>&1
-- Exit status: 0
Reading Product Files...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/NSS/NSS.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.in...
mapFile

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Product/SASL/SASL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6/LDAPCSDK6
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDAP
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPCSDK6_TOOLS/LDAP
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ICU/ICU.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/JDK.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JHRT/JHRT.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/MQ.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/MQ_L10N.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LDAPJDK/LDAPJDK.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.in... F
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/IMAPI.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.in... r
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL/MYSQL.map
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI
/h/megan/wspace/dl111122/releases/ci70/.install/Product/LIBCPLUSPLUS/LIBCPI
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI
/h/megan/wspace/dl111122/releases/ci70/.install/Product/PATCHUTILS/PATCHUTI
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/BZIP/BZIP.map

```

```
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMMENDED.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/RECOMMENDED/RECOMMENDED.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.in...
mapFile
/h/megan/wspace/dl111122/releases/ci70/.install/Product/ST/ST.map does
not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/CI.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_MARKER.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MYSQL_MARKER/MYSQL_MARKER.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64/MS64.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DSSETUP/DSSETUP.map...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DAV/DAV.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/IM.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IWC/IWC.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/JISS.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/DA.map...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/MS_SCHA.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.in...
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/IM_SCHA.map...
does not exist...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.in...
Reading
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS/CS.map...
```

Reading

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.in...  
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/CS_SCHA.mag  
does not exist...
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/MS.in not  
found, skipping...
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/MS_L10N.in  
not found, skipping...
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/MS64_L10N  
not found, skipping...
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/CS_L10N.in  
not found, skipping...
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/IM_L10N.in  
not found, skipping...
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/CE.in not  
found, skipping...
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/CE_L10N.in  
not found, skipping...
```

Reading OLD

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.0/IM.in...
```

Reading OLD

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM/7.3/IM.in...
```

Reading OLD

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JISS/0.9/JISS.in...  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/DA/6.4/DA.in...
```

Reading OLD

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_SCHA/6.0/MS_SCHA  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_SCHA/7.0/IM_SCHA  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_SCHA/6.0/CS_SCHA  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/6.3/MS.in...
```

Reading OLD

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS/7.2/MS.in...
```

Reading OLD

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.2/MS_L10N  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS_L10N/6.3/MS_L10N  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MS64_L10N/6.3/MS64_  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.2/CS_L10N  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CS_L10N/6.3/CS_L10N  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.0/IM_L10N  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IM_L10N/7.2/IM_L10N  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE/6.3/CE.in...
```

Reading OLD

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.2/CE_L10N  
OLD
```

```
/h/megan/wspace/dl111122/releases/ci70/.install/Product/CE_L10N/6.3/CE_L10N
```

```

OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/JDK/1.5.0/JDK.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/3.7/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ/4.1/MQ.in...
Reading OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/3.7/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/MQ_L10N/4.1/MQ_L10N
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.0/IMAPI.in...
OLD
/h/megan/wspace/dl111122/releases/ci70/.install/Product/IMAPI/7.3/IMAPI.in...
QQQ findGetVersion =====
!!! getVersion
$VAR1 = {
    'SASL' => 'none',
    'IWC' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IWC/CI/getVersion',
    'MS64_L10N' => 'none',
    'MS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS/CI/getVersion',
    'DSSETUP' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DSSETUP/CI/getVersion',
'MQ_L10N' => 'none',
    'ICU' => 'none',
    'MS64' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS64/CI/getVersion',
    'DAV' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DAV/CI/getVersion',
    'LDAPCSDK6' => 'none',
    'CE' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CE/CI/getVersion',
    'JDK' => 'none',
    'MYSQL' => 'none',
    'PATCHUTILS' => 'none',
    'MQ' => 'none',
    'IMAPI' => 'none',
    'CI' =>
'/h/megan/wspace/dl111122/releases/ci70/.install/Product/CI/SunOS_sparc/get
LDAPCSDK6_TOOLS' => 'none',
    'JISS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/JISS/CI/getVersion',
    'NSS' => 'none',
    'IM' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM/CI/getVersion',
    'ST' => 'none',
    'CS_L10N' => 'none',
    'RECOMMENDED' => 'none',
    'IM_L10N' => 'none',
    'CS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS_SCHA/CI/getVersion',
LDAPJDK' => 'none',
    'MYSQL_MARKER' => 'none',
    'BZIP' => 'none',

```

```

        'IM_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/IM_SCHA/CI/getVersion'
'MS_L10N' => 'none',
        'LIBCPLUSPLUS' => 'none',
        'MS_SCHA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/MS_SCHA/CI/getVersion'
'CS' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/CI/getVersion',
        'JHRT' => 'none',
        'CE_L10N' => 'none',
        'DA' =>
'/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/DA/CI/getVersion'
    };
!!! prod_getVers
$VAR1 = {
        'SASL' => 0,
        'IWC' => '1.0-10.01',
        'MS64_L10N' => 0,
        'MS' => '7.2-7.02',
        'DSSETUP' => '6.4-5.05',
        'MQ_L10N' => 0,
        'ICU' => 0,
        'MS64' => '7.3-11.01',
        'DAV' => '7.0-0.26',
        'LDAPCSDK6' => 0,
        'CE' => '6.3-13.01',
        'JDK' => 0,
        'MYSQL' => 0,
        'PATCHUTILS' => 0,
        'MQ' => 0,
        'IMAPI' => 0,
        'CI' => '7.0-0.02',
        'LDAPCSDK6_TOOLS' => 0,
        'JISS' => '1.0-32.01',
        'NSS' => 0,
        'IM' => '8.2-02.04',
        'ST' => 0,
        'CS_L10N' => 0,
        'RECOMMENDED' => 0,
        'IM_L10N' => 0,
        'CS_SCHA' => '6.3-1.01',
        'LDAPJDK' => 0,
        'MYSQL_MARKER' => 0,
        'BZIP' => 0,
        'IM_SCHA' => '7.3-01.02',
        'MS_L10N' => 0,
        'LIBCPLUSPLUS' => 0,
        'MS_SCHA' => '7.0-0.03',
        'CS' => '6.3-19.01',
        'JHRT' => 0,
        'CE_L10N' => 0,
        'DA' => '7.0-1.00'
    };
!!! prod_builddate
$VAR1 = {
        'SASL' => 'none',

```

```

        'IWC' => '20090906',
        'MS64_L10N' => 'none',
        'MS' => '20090416',
        'DSSETUP' => '20090808',
        'MQ_L10N' => 'none',
        'ICU' => 'none',
        'MS64' => '20090901',
        'DAV' => '20090827',
        'LDAPCSDK6' => 'none',
        'CE' => '20090327',
        'JDK' => 'none',
        'MYSQL' => 'none',
        'PATCHUTILS' => 'none',
        'MQ' => 'none',
        'IMAPI' => 'none',
        'CI' => '20090909',
        'LDAPCSDK6_TOOLS' => 'none',
        'JISS' => '20090909',
        'NSS' => 'none',
        'IM' => '20090903',
        'ST' => 'none',
        'CS_L10N' => 'none',
        'RECOMMENDED' => 'none',
        'IM_L10N' => 'none',
        'CS_SCHA' => '20080331',
        'LDAPJDK' => 'none',
        'MYSQL_MARKER' => 'none',
        'BZIP' => 'none',
        'IM_SCHA' => '20080403',
        'MS_L10N' => 'none',
        'LIBCPLUSPLUS' => 'none',
        'MS_SCHA' => '20080519',
        'CS' => '20090826',
        'JHRT' => 'none',
        'CE_L10N' => 'none',
        'DA' => '20090821'
    };
===== End QQQ findGetVersion =====
INFO: prod_mktVers{NSS} (no map) = 4.3
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) = 4.3
INFO: prod_mktVers{MQ_L10N} (no map) = 4.3
INFO: prod_mktVers{LDAPJDK} (no map) = 4.19
INFO: prod_mktVers{IMAPI} (w/ map) = 8
INFO: prod_mktVers{MYSQL} (no map) = 5.1.36
INFO: prod_mktVers{LIBCPLUSPLUS} (no map) = 5.9
INFO: prod_mktVers{PATCHUTILS} (no map) = Unknown
INFO: prod_mktVers{BZIP} (no map) = 11.10
INFO: prod_mktVers{RECOMMENDED} (no map) = 2009.08.25
INFO: prod_mktVers{ST} (no map) = 1.1.4
INFO: prod_mktVers{CI} (w/ map) = 7

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INFO: prod_mktVers{MYSQL_MARKER} (no map) = 1.0
INFO: prod_mktVers{MS64} (w/ map) = 7u3
INFO: prod_mktVers{DSSETUP} (w/ map) = 6.4
INFO: prod_mktVers{DAV} (w/ map) = 7
INFO: prod_mktVers{IM} (w/ map) = 8u2
INFO: prod_mktVers{IWC} (w/ map) = 1u3
INFO: prod_mktVers{JISS} (w/ map) = 1
INFO: prod_mktVers{DA} (w/ map) = 7
INFO: prod_mktVers{MS_SCHA} (no map) = 7.0
INFO: prod_mktVers{IM_SCHA} (no map) = 7.3
INFO: prod_mktVers{CS} (w/ map) = 6.3
INFO: prod_mktVers{CS_SCHA} (no map) = 6.3
Detecting Installed Products...
Checking LIBCPLUSPLUS 5.9 ...
  Checking pkg SUNWlibc... already present.
  LIBCPLUSPLUS 5.9 is already present.
Checking PATCHUTILS Unknown ...
  Checking pkg SUNWpkgcmds... already present.
  Checking pkg SUNWswmt... already present.
  Checking pkg SUNWinstall-patch-utils-root... already present.
  Checking pkg SUNWcsr... already present.
  Checking pkg SUNWdtrc... already present.
  Checking pkg SUNWzoneu... already present.
  PATCHUTILS Unknown is already present.
Checking BZIP 11.10 ...
  Checking pkg SUNWbzip... already present.
  BZIP 11.10 is already present.
Checking RECOMMENDED 2009.08.25 ...
  RECOMMENDED 2009.08.25 is not present.
Checking ST 1.1.4 ...
  Checking pkg SUNWservicetagr... already present.
  Checking pkg SUNWservicetagu... already present.
  Checking pkg SUNWstosreg... already present.
  ST 1.1.4 is already present.
Checking NSS 4.3 ...
  Checking pkg SUNWjss... already present.
  Checking pkg SUNWpr... already present.
  Checking pkg SUNWprd... already present.
  Checking pkg SUNWtls... already present.
  Checking pkg SUNWtlsd... already present.
  Checking pkg SUNWtlsu... already present.
  NSS 4.3 is already present.
Checking SASL 2.19 ...
  Checking pkg SUNWsas1... already present.
  SASL 2.19 is already present.
Checking LDAPCSDK6 6.0 ...
  Checking pkg SUNWldapcsdk-libs... already present.
  Checking pkg SUNWldapcsdk-dev... already present.
  LDAPCSDK6 6.0 is already present.
Checking LDAPCSDK6_TOOLS 6.0 ...
  Checking pkg SUNWldapcsdk-tools... already present.
  LDAPCSDK6_TOOLS 6.0 is already present.
Checking ICU ICU2,ICU3 ...
  Checking pkg SUNWicu... already present.
  ICU ICU2,ICU3 is already present.
Checking JDK 1.6.0 ...

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```

Checking pkg SUNWj6rt... already present.
Checking pkg SUNWj6rtx... already present.
Checking pkg SUNWj6dev... already present.
Checking pkg SUNWj6dvx... already present.
Checking pkg SUNWj6cfg... already present.
JDK 1.6.0 is already present.
Checking JDK 1.5.0 ...
Checking pkg SUNWj5rt... already present.
Checking pkg SUNWj5rtx... already present.
Checking pkg SUNWj5cfg... already present.
JDK 1.5.0 is already present.
Checking JHRT 2.0 ...
Checking pkg SUNWjhrt... already present.
Checking pkg SUNWjhdev... already present.
Checking pkg SUNWjhdem... already present.
Checking pkg SUNWjhdoc... already present.
JHRT 2.0 is already present.
Checking MQ 4.3 ...
Checking pkg SUNWiqr... already present.
Checking pkg SUNWiqu... already present.
Checking pkg SUNWiqdoc... already present.
Checking pkg SUNWiquc... already present.
Checking pkg SUNWiqum... already present.
Checking pkg SUNWiqjx... already present.
Checking pkg SUNWiqfs... already present.
Checking pkg SUNWiqcrt... already present.
Checking pkg SUNWiqcdv... already present.
Checking pkg SUNWiqlen... already present.
MQ 4.3 is already present.
Checking MQ 3.7 ...
Checking pkg SUNWiqr... present but with a different pkg VERSION.
checking SUNWiqr 3.7,REV=2006.06.18.22.34
Checking pkg SUNWiqu... present but with a different pkg VERSION.
checking SUNWiqu 3.7,REV=2006.06.18.22.34
Checking pkg SUNWiqtpl... not present.
Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
checking SUNWiqdoc 3.7,REV=2006.06.18.22.35
Checking pkg SUNWiquc... present but with a different pkg VERSION.
checking SUNWiquc 3.7,REV=2006.06.18.22.35
Checking pkg SUNWiqum... present but with a different pkg VERSION.
checking SUNWiqum 3.7,REV=2006.06.18.22.35
Checking pkg SUNWiqjx... present but with a different pkg VERSION.
checking SUNWiqjx 3.7,REV=2006.06.18.22.35
Checking pkg SUNWiqfs... present but with a different pkg VERSION.
checking SUNWiqfs 3.7,REV=2006.06.18.22.35
Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
checking SUNWiqcrt 3.7,REV=2006.06.18.22.35
Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
checking SUNWiqcdv 3.7,REV=2006.06.18.22.35
Checking pkg SUNWiqlen... present but with a different pkg VERSION.
checking SUNWiqlen 3.7,REV=2006.06.18.22.35
NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ 4.1 ...
Checking pkg SUNWiqr... present but with a different pkg VERSION.
checking SUNWiqr 4.1,REV=2007.07.26.10.58
Checking pkg SUNWiqu... present but with a different pkg VERSION.

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```
checking SUNWiqu 4.1,REV=2007.07.26.10.58
Checking pkg SUNWiqdoc... present but with a different pkg VERSION.
checking SUNWiqdoc 4.1,REV=2007.07.26.10.58
Checking pkg SUNWiquc... present but with a different pkg VERSION.
checking SUNWiquc 4.1,REV=2007.07.26.10.59
Checking pkg SUNWiqum... present but with a different pkg VERSION.
checking SUNWiqum 4.1,REV=2007.07.26.10.59
Checking pkg SUNWiqjx... present but with a different pkg VERSION.
checking SUNWiqjx 4.1,REV=2007.07.26.10.59
Checking pkg SUNWiqfs... present but with a different pkg VERSION.
checking SUNWiqfs 4.1,REV=2007.07.26.10.59
Checking pkg SUNWiqcrt... present but with a different pkg VERSION.
checking SUNWiqcrt 4.1,REV=2007.07.26.10.59
Checking pkg SUNWiqcdv... present but with a different pkg VERSION.
checking SUNWiqcdv 4.1,REV=2007.07.26.10.59
NOTICE: Message Queue is present with a different pkg VERSION.
Checking MQ_L10N 4.3 ...
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 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.
```

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Checking pkg SUNWeiqu... not present.
Checking pkg SUNWkiqu... not present.
Checking pkg SUNWkiquc... not present.
Checking pkg SUNWciqu... not present.
Checking pkg SUNWciquc... not present.
Checking pkg SUNWhiqu... not present.
Checking pkg SUNWhiquc... not present.
MQ_L10N 4.1 is not present.
Checking LDAPJDK 4.19 ...
Checking pkg SUNWljdk... already present.
LDAPJDK 4.19 is already present.
Checking IMAPI 8.0 ...
Checking pkg SUNWiimdv... already present.
IMAPI 8.0 is already present.
Checking IMAPI 7.0 ...
Checking pkg SUNWiimdv... present but with a different pkg VERSION.
checking SUNWiimdv 7.0,REV=2004.11.24.05.24.36
NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking IMAPI 7.3 ...
Checking pkg SUNWiimdv... present but with a different pkg VERSION.
checking SUNWiimdv 7.3,REV=2008.01.15
NOTICE: Instant Messaging API is present with a different pkg VERSION.
Checking MYSQL 5.1.36 ...
Checking pkg mysql... already present.
MYSQL 5.1.36 is already present.
Checking CI 7.0 ...
Checking pkg SUNWcomms...
/opt/sun/comms/CommsInstaller/lib/getVersion VERSION BUILDDATE 2>&1
7.0-0.02
20090909
-- Exit status: 0
already present.
CI 7.0 is already present.
Checking MYSQL_MARKER 1.0 ...
Checking pkg SUNWcomms-mysql-marker... already present.
MYSQL_MARKER 1.0 is already present.
Checking MS64 7.3 ...
Checking pkg SUNWmessaging-server-64...
/opt/sun/comms/messaging64/lib/getVersion VERSION BUILDDATE 2>&1
7.3-11.01
20090901
-- Exit status: 0
already present.
MS64 7.3 is already present.
Checking DSSETUP 6.4 ...
Checking pkg SUNWcomds...
/opt/sun/comms/dssetup/lib/getVersion VERSION BUILDDATE 2>&1
6.4-5.05
20090808
-- Exit status: 0
already present.
DSSETUP 6.4 is already present.
Checking DAV 7.0 ...
Checking pkg SUNWdavserver...
/opt/sun/comms/davserver/lib/getVersion VERSION BUILDDATE 2>&1
7.0-0.26

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20090827
-- Exit status: 0
already present.
  DAV 7.0 is already present.
Checking IM 8.2 ...
  Checking pkg SUNWiim...
/opt/sun/comms/im/lib/getVersion VERSION BUILDDATE 2>&1
8.2-02.04
20090903
-- Exit status: 0
already present.
  Checking pkg SUNWiimin... already present.
  Checking pkg SUNWiimm... already present.
  Checking pkg SUNWiimjd... already present.
  Checking pkg SUNWiimid... already present.
  Checking pkg SUNWiimc... already present.
  Checking pkg SUNWiimd... already present.
  Checking pkg SUNWiimgw... already present.
  IM 8.2 is already present.
Checking IM 7.0 ...
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimc... present but with a different pkg VERSION.
    checking SUNWiimc 7.0,REV=2004.11.24.05.24.36
  Checking pkg SUNWiimd... present but with a different pkg VERSION.
    checking SUNWiimd 7.0,REV=2004.11.24.05.24.36
  NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IM 7.3 ...
  Checking pkg SUNWiim... present but with a different pkg VERSION.
    checking SUNWiim 7.3,REV=2008.01.15
  Checking pkg SUNWiimin... present but with a different pkg VERSION.
    checking SUNWiimin 7.3,REV=2008.01.15
  Checking pkg SUNWiimm... present but with a different pkg VERSION.
    checking SUNWiimm 7.3,REV=2008.01.15
  Checking pkg SUNWiimjd... present but with a different pkg VERSION.
    checking SUNWiimjd 7.3,REV=2008.01.15
  Checking pkg SUNWiimid... present but with a different pkg VERSION.
    checking SUNWiimid 7.3,REV=2008.01.15
  Checking pkg SUNWiimc... present but with a different pkg VERSION.
    checking SUNWiimc 7.3,REV=2008.01.15
  Checking pkg SUNWiimd... present but with a different pkg VERSION.
    checking SUNWiimd 7.3,REV=2008.01.15
  NOTICE: Instant Messaging is present with a different pkg VERSION.
Checking IWC 1.0 ...
  Checking pkg SUNWiwc...
/opt/sun/comms/iwc/lib/getVersion VERSION BUILDDATE 2>&1
1.0-10.01
20090906

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-- Exit status: 0
already present.
IWC 1.0 is already present.
Checking JISS 1.0 ...
Checking pkg SUNWjiss...
/opt/sun/comms/jiss/lib/getVersion VERSION BUILDDATE 2>&1
1.0-32.01
20090909
-- Exit status: 0
already present.
JISS 1.0 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 2>&1
7.0-1.00
20090821
-- Exit status: 0
already 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 2>&1
7.0-0.03
20080519
-- Exit status: 0
already 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 2>&1
7.3-01.02
20080403
-- Exit status: 0
already present.
IM_SCHA 7.3 is already present.
Checking IM_SCHA 7.0 ...
Checking pkg SUNWiimsc... present but with a different pkg VERSION.

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    checking SUNWiimsc 7.0,REV=2005.08.03.09.41.41
    NOTICE: Instant Messaging Sun Cluster HA agent is present with a
different pkg VERSION.
Checking CS 6.3 ...
    Checking pkg SUNWics5...
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS/CI/getVersion
--installed /opt/sun/comms/calendar VERSION BUILDDATE 2>&1
6.3-19.01
20090826
-- Exit status: 0
already present.
    Checking pkg SUNWica5... already present.
    CS 6.3 is already present.
Checking CS_SCHA 6.3 ...
    Checking pkg SUNWscics...
/h/megan/wspace/dl111122/releases/ci70/SunOS_sparc/CS_SCHA/CI/getVersion
--installed /opt/sun/comms/cs_scha VERSION BUILDDATE 2>&1
6.3-1.01
20080331
-- Exit status: 0
already present.
    CS_SCHA 6.3 is already present.
Checking CS_SCHA 6.0 ...
    Checking pkg SUNWscics... present but with a different pkg VERSION.
    checking SUNWscics 6.0,REV=2003.11.14
    NOTICE: Calendar Server Sun Cluster HA agent is present with a
different pkg VERSION.
Checking MS 6.3 ...
    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 is not present.
Checking MS 7.2 ...
    Checking pkg SUNWmessaging-server... not present.
    MS 7.2 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.

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Checking CS_L10N 6.2 ...
  Checking pkg SUNWdeics... not present.
  Checking pkg SUNWesics... not present.
  Checking pkg SUNWfrics... not present.
  Checking pkg SUNWjaics... not present.
  Checking pkg SUNWkoics... not present.
  Checking pkg SUNWzhics... not present.
  Checking pkg SUNWtwics... not present.
  CS_L10N 6.2 is not present.
Checking CS_L10N 6.3 ...
  Checking pkg SUNWics-l10n... not present.
  CS_L10N 6.3 is not present.
Checking IM_L10N 7.0 ...
  Checking pkg SUNWdiimc... not present.
  Checking pkg SUNWdiimd... not present.
  Checking pkg SUNWdimid... not present.
  Checking pkg SUNWdiimc... not present.
  Checking pkg SUNWdiimd... not present.
  Checking pkg SUNWdiimin... not present.
  Checking pkg SUNWdiimid... 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.
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Checking pkg SUNWcuwc... not present.
Checking pkg SUNWhuwc... not present.
CE_L10N 6.2 is not present.
Checking CE_L10N 6.3 ...
Checking pkg SUNWuwc-l10n... not present.
CE_L10N 6.3 is not present.
Detecting Installed Patches...
-- chk4patch 119963-16 /tmp/.patchout_20091013091635.16918
-- Running patchadd -p report...
-- Generating /tmp/.patchout_20091013091635.16918
patchadd -p > /tmp/.patchout_20091013091635.16918 2>>
/tmp/CommsInstaller_20091013091635.log
-- Exit status: 0
-- older version at lineno 530 found 119963-12 - not acceptable
-- older version at lineno 531 found 119963-13 - not acceptable
-- Exact match found at line 532
-- Final return status: 1
LIBCPLUSPLUS patch 119963-16 is already present.
-- chk4patch 120900-04 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 11
-- Final return status: 1
PATCHUTILS patch 120900-04 is already present.
-- chk4patch 121133-02 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 12
-- Final return status: 1
PATCHUTILS patch 121133-02 is already present.
-- chk4patch 119254-67 /tmp/.patchout_20091013091635.16918
-- older version at lineno 425 found 119254-65 - not acceptable
-- older version at lineno 426 found 119254-66 - not acceptable
-- Exact match found at line 427
-- Final return status: 1
PATCHUTILS patch 119254-67 is already present.
-- chk4patch 126868-02 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 422
-- Final return status: 1
BZIP patch 126868-02 is already present.
-- chk4patch 137321-01 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 541
-- Final return status: 1
BZIP patch 137321-01 is already present.
-- chk4patch 119254-67 /tmp/.patchout_20091013091635.16918
-- older version at lineno 425 found 119254-65 - not acceptable
-- older version at lineno 426 found 119254-66 - not acceptable
-- Exact match found at line 427
-- Final return status: 1
RECOMMENDED patch 119254-67 is already present.
-- chk4patch 118833-36 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 8
-- Final return status: 1
RECOMMENDED patch 118833-36 is already present.
-- chk4patch 120011-14 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 7
-- Final return status: 1
RECOMMENDED patch 120011-14 is already present.
-- chk4patch 120272-24 /tmp/.patchout_20091013091635.16918
-- older version at lineno 221 found 120272-23 - not acceptable

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-- Final return status: 0
  RECOMMENDED patch 120272-24 is not present.
-- chk4patch 137137-09 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 24
-- Final return status: 1
  RECOMMENDED patch 137137-09 is already present.
-- chk4patch 141414-09 /tmp/.patchout_20091013091635.16918
-- Final return status: 0
  RECOMMENDED patch 141414-09 is not present.
-- chk4patch 125358-08 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 39
-- Final return status: 1
  NSS patch 125358-08 is already present.
-- chk4patch 119345-07 /tmp/.patchout_20091013091635.16918
-- older version at lineno 185 found 119345-06 - not acceptable
-- Exact match found at line 186
-- Final return status: 1
  SASL patch 119345-07 is already present.
-- chk4patch 136798-01 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 435
-- Final return status: 1
  LDAPCSDK6_TOOLS patch 136798-01 is already present.
-- chk4patch 119810-05 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 287
-- Final return status: 1
  ICU patch 119810-05 is already present.
-- chk4patch 125136-17 /tmp/.patchout_20091013091635.16918
-- older version at lineno 206 found 125136-14 - not acceptable
-- older version at lineno 207 found 125136-15 - not acceptable
-- Exact match found at line 208
-- Final return status: 1
  JDK patch 125136-17 is already present.
-- chk4patch 125137-17 /tmp/.patchout_20091013091635.16918
-- older version at lineno 429 found 125137-14 - not acceptable
-- older version at lineno 430 found 125137-15 - not acceptable
-- Exact match found at line 431
-- Final return status: 1
  JDK patch 125137-17 is already present.
-- chk4patch 119725-04 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 572
-- Final return status: 1
  LDAPJDK patch 119725-04 is already present.
-- chk4patch 137204-11 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 440
-- Final return status: 1
  MS64 patch 137204-11 is already present.
-- chk4patch 118242-03 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 594
-- Final return status: 1
  DSSETUP patch 118242-03 is already present.
-- chk4patch 118245-21 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 595
-- Final return status: 1
  DSSETUP patch 118245-21 is already present.
-- chk4patch 139893-02 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 159

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-- Final return status: 1
  IM patch 139893-02 is already present.
-- chk4patch 137631-10 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 236
-- Final return status: 1
  IWC patch 137631-10 is already present.
-- chk4patch 124581-01 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 189
-- Final return status: 1
  DA patch 124581-01 is already present.
-- chk4patch 137571-01 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 284
-- Final return status: 1
  IM_SCHA patch 137571-01 is already present.
-- chk4patch 121657-40 /tmp/.patchout_20091013091635.16918
-- Exact match found at line 216
-- Final return status: 1
  CS patch 121657-40 is already present.
===== QQQ detectProducts =====
QQQ Dumper
!!! present
$VAR1 = {
    'IWC' => {
        '1.0' => 'PRESENT'
    },
    'SASL' => {
        '2.19' => 'PRESENT'
    },
    'MS64_L10N' => {
        '6.3' => 'NOT_PRESENT'
    },
    'MS' => {
        '7.2' => 'NOT_PRESENT',
        '6.3' => 'NOT_PRESENT'
    },
    '137571-01' => 'PRESENT',
    'DSSETUP' => {
        '6.4' => 'PRESENT'
    },
    '125137-17' => 'PRESENT',
    '119345-07' => 'PRESENT',
    '120900-04' => 'PRESENT',
    'MQ_L10N' => {
        '3.7' => 'NOT_PRESENT',
        '4.3' => 'NOT_PRESENT',
        '4.1' => 'NOT_PRESENT'
    },
    'ICU' => {
        'ICU2,ICU3' => 'PRESENT'
    },
    '139893-02' => 'PRESENT',
    '120011-14' => 'PRESENT',
    'MS64' => {
        '7.3' => 'PRESENT'
    },
    'DAV' => {

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        '7.0' => 'PRESENT'
    },
    'LDAPCSDK6' => {
        '6.0' => 'PRESENT'
    },
    '137137-09' => 'PRESENT',
    'CE' => {
        '6.3' => 'NOT_PRESENT'
    },
    'JDK' => {
        '1.6.0' => 'PRESENT',
        '1.5.0' => 'PRESENT'
    },
    'MYSQL' => {
        '5.1.36' => 'PRESENT'
    },
    'PATCHUTILS' => {
        'Unknown' => 'PRESENT'
    },
    'MQ' => {
        '3.7' => 'DIFF_VERSION',
        '4.3' => 'PRESENT',
        '4.1' => 'DIFF_VERSION'
    },
    '141414-09' => 'NOT_PRESENT',
    'CI' => {
        '7.0' => 'PRESENT'
    },
    'IMAPI' => {
        '8.0' => 'PRESENT',
        '7.0' => 'DIFF_VERSION',
        '7.3' => 'DIFF_VERSION'
    },
    '119254-67' => 'PRESENT',
    '137321-01' => 'PRESENT',
    '118245-21' => 'PRESENT',
    '119963-16' => 'PRESENT',
    'LDAPCSDK6_TOOLS' => {
        '6.0' => 'PRESENT'
    },
    'JISS' => {
        '0.9' => 'NOT_PRESENT',
        '1.0' => 'PRESENT'
    },
    'NSS' => {
        '4.3' => 'PRESENT'
    },
    '137631-10' => 'PRESENT',
    'ST' => {
        '1.1.4' => 'PRESENT'
    },
    'IM' => {
        '8.2' => 'PRESENT',
        '7.0' => 'DIFF_VERSION',
        '7.3' => 'DIFF_VERSION'
    },

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```

'CS_L10N' => {
    '6.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT'
},
'RECOMMENDED' => {
    '2009.08.25' => 'NOT_PRESENT'
},
'118833-36' => 'PRESENT',
'IM_L10N' => {
    '7.2' => 'NOT_PRESENT',
    '7.0' => 'NOT_PRESENT'
},
'119725-04' => 'PRESENT',
'125136-17' => 'PRESENT',
'LDAPJDK' => {
    '4.19' => 'PRESENT'
},
'CS_SCHA' => {
    '6.0' => 'DIFF_VERSION',
    '6.3' => 'PRESENT'
},
'124581-01' => 'PRESENT',
'120272-24' => 'NOT_PRESENT',
'BZIP' => {
    '11.10' => 'PRESENT'
},
'MYSQL_MARKER' => {
    '1.0' => 'PRESENT'
},
'IM_SCHA' => {
    '7.0' => 'DIFF_VERSION',
    '7.3' => 'PRESENT'
},
'121657-40' => 'PRESENT',
'MS_L10N' => {
    '6.2' => 'NOT_PRESENT',
    '6.3' => 'NOT_PRESENT'
},
'126868-02' => 'PRESENT',
'LIBCPLUSPLUS' => {
    '5.9' => 'PRESENT'
},
'137204-11' => 'PRESENT',
'121133-02' => 'PRESENT',
'118242-03' => 'PRESENT',
'MS_SCHA' => {
    '6.0' => 'NOT_PRESENT',
    '7.0' => 'PRESENT'
},
'125358-08' => 'PRESENT',
'CS' => {
    '6.3' => 'PRESENT'
},
'JHRT' => {
    '2.0' => 'PRESENT'
},

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        'CE_L10N' => {
            '6.2' => 'NOT_PRESENT',
            '6.3' => 'NOT_PRESENT'
        },
        '136798-01' => 'PRESENT',
        '119810-05' => 'PRESENT',
        'DA' => {
            '6.4' => 'NOT_PRESENT',
            '7.0' => 'PRESENT'
        }
    };
!!! pkgparams
$VAR1 = {
    'SUNWica5' => {
        '6.0,REV=2003.11.14.18.12.58' => [
            'SUNWica5',
            '/opt/sun/comms/calendar',
            '6.3-19.01'
        ]
    },
    'SUNWmsgja' => {},
    'SUNWcomic' => {},
    'SUNWservicetagu' => {
        '1.1.4,REV=2008.03.21.07.54' => [
            'SUNWservicetagu',
            '/',
            '1.1.4.1'
        ]
    },
    'SUNWjimid' => {},
    'SUNWdiquc' => {},
    'SUNWmsgko' => {},
    'SUNWmessaging-server-l10n-64' => {},
    'SUNWics5' => {
        '6.0,REV=2003.11.14.18.12.58' => [
            'SUNWics5',
            '/opt/sun/comms/calendar',
            '6.3-19.01'
        ]
    },
    'SUNWiqlpl' => {},
    'SUNWmsgco' => {},
    'SUNWfiquc' => {},
    'SUNWjiss-extjars' => {},
    'SUNWjhdem' => {
        '2.0,REV=2006.10.04' => [
            'SUNWjhdem',
            '/usr',
            '2.0/FCS'
        ]
    },
    'SUNWiqfs' => {

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        '4.3,REV=2008.11.07.18.44' => [
            'SUNWiqfs',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWfimid' => {},
    'SUNWcomds' => {
        '6.3,REV=2004.08.12' => [
            'SUNWcomds',
            '/opt/sun/comms/dssetup',
            '6.4-5.05'
        ]
    },
    'SUNWj6rtx' => {
        '1.6.0,REV=2006.11.29.04.58' => [
            'SUNWj6rtx',
            '/usr',
            '1.6.0_16/1.6.0_16-b01'
        ]
    },
    'SUNWjhdev' => {
        '2.0,REV=2006.10.04' => [
            'SUNWjhdev',
            '/usr',
            '2.0/FCS'
        ]
    },
    'SUNWiqum' => {
        '4.3,REV=2008.11.07.18.44' => [
            'SUNWiqum',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWduwc' => {},
    'SUNWhiimin' => {},
    'SUNWkiimin' => {},
    'SUNWeiimd' => {},
    'SUNWj6rt' => {
        '1.6.0,REV=2006.11.29.05.57' => [
            'SUNWj6rt',
            '/usr',
            '1.6.0_16/1.6.0_16-b01'
        ]
    },
    'SUNWj5rt' => {
        '1.5.0,REV=2004.12.07.00.07' => [
            'SUNWj5rt',
            '/usr',
            '1.5.0_17/1.5.0_17-b04'
        ]
    }
}

```

```

    },
    'SUNWiimc-l10n' => {},
    'SUNWhiimc' => {},
    'SUNWmsg-l10n' => {},
    'SUNWfrics' => {},
    'SUNWciqu' => {},
    'SUNWkoics' => {},
    'SUNWdimid' => {},
    'SUNWjiquc' => {},
    'SUNWiimgw' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimgw',
            '/opt/sun/comms/im',
            '8.0-02'
        ]
    },
    'SUNWiimd-l10n' => {},
    'SUNWhiquc' => {},
    'SUNWzhics' => {},
    'SUNWkiimd' => {},
    'SUNWmsgmp' => {},
    'SUNWuwc' => {},
    'SUNWscics' => {
        '6.3,REV=2008.03.31.18.10.20' => [
            'SUNWscics',
            '/opt/sun/comms/cs_scha',
            '6.3-1.01'
        ]
    },
    'SUNWiimc' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimc',
            '/opt/sun/comms/im',
            '8.0-02'
        ]
    },
    'SUNWhiimd' => {},
    'SUNWmsglb' => {},
    'SUNWmessaging-server-scha' => {
        '7.0,REV=2008.05.19' => [
            'SUNWmessaging-server-scha',
            '/opt/sun/comms/msg_scha',
            '7.0-0.03'
        ]
    },
    'SUNWtls' => {
        '3.11.4,REV=2006.11.16.20.40' => [
            'SUNWtls',
            '/',

```

```

'3.12.3'
]
},
'SUNWj6dvx' => {
'1.6.0,REV=2006.11.29.04.58' => [
'SUNWj6dvx',
'/usr',
'1.6.0_16/1.6.0_16-b01'
]
},
'SUNWfuwc' => {},
'SUNWlibC' => {
'5.10,REV=2004.12.22' => [
'SUNWlibC',
 '/',
'5.10'
]
},
'SUNWjiss-searchui' => {},
'SUNWjiimin' => {},
'SUNWcomms-mysql-marker' => {
'1.0,REV=2009.09.09' => [
'SUNWcomms-mysql-marker',
'/var/opt/CommsInstaller/Markers/MYSQL',
'1.0-0.01'
]
},
'SUNWscims' => {},
'SUNWiimjd' => {
'8.0,REV=2008.12.04' => [
'SUNWiimjd',
'/opt/sun/comms/im',
'8.0-02'
]
},
'SUNWciimd' => {},
'SUNWldapcsdk-dev' => {
'6.00,REV=2006.12.11.00.08' => [
'SUNWldapcsdk-dev',
 '/',
'6.00'
]
},
'SUNWiqlen' => {
'4.3,REV=2008.11.07.18.45' => [
'SUNWiqlen',
 '/',
'4.3.0.0'
]
}

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```

    ],
    'SUNWiimid-l10n' => {},
    'SUNWiqr' => {
        '4.3,REV=2008.11.07.18.44' => [
            'SUNWiqr',
            '/',
            '4.3.0.0'
        ]
    },
    'SUNWdiimc' => {},
    'SUNWmsgwm' => {},
    'SUNWeiquc' => {},
    'SUNWmessaging-server-64' => {
        '7.0,REV=2008.06.20' => [
'SUNWmessaging-server-64',
'/opt/sun/comms/messaging64',
'7.3-11.01'
        ]
    },
    'SUNWj5cfg' => {
        '1.5.0,REV=2004.12.07.00.07' => [
'SUNWj5cfg',
        '/',
'1.5.0_17/1.5.0_17-b04'
        ]
    },
    'SUNWhiqu' => {},
    'SUNWjiss-search' => {},
    'SUNWiimd' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimd',
            '/',
            '8.0-00'
        ]
    },
    'SUNWfiimd' => {},
    'SUNWj5rtx' => {
        '1.5.0,REV=2004.12.06.22.09' => [
'SUNWj5rtx',
        '/usr',
'1.5.0_17/1.5.0_17-b04'
        ]
    },
    'SUNWiquc' => {
        '4.3,REV=2008.11.07.18.44' => [
            'SUNWiquc',
            '/',
            '4.3.0.0'
        ]
    }
}

```

```

]
    },
    'SUNWiimid' => {
        '8.0,REV=2008.12.04' => [
            'SUNWiimid',
            '/opt/sun/comms/im',
            '8.0-02'
        ]
    },
    'SUNWmsgmt' => {},
    'SUNWljdk' => {
        '1.0,REV=2004.10.11.06.02' => [
            'SUNWljdk',
            '/',
            '4.19'
        ]
    },
    'SUNWcuwc' => {},
    'SUNWldapcsdk-libs' => {
        '6.00,REV=2006.12.11.00.08' => [
            'SUNWldapcsdk-libs',
            '/',
            '6.00'
        ]
    },
    'SUNWservicetagr' => {
        '1.1.4,REV=2008.03.21.07.54' => [
            'SUNWservicetagr',
            '/',
            '1.1.4.1'
        ]
    },
    'SUNWciimc' => {},
    'SUNWjhrt' => {
        '2.0,REV=2006.10.31' => [
            'SUNWjhrt',
            '/usr',
            '2.0/FCS'
        ]
    },
    'SUNWtlsd' => {
        '3.11.4,REV=2006.11.16.20.40' => [
            'SUNWtlsd',
            '/',
            '3.12.3'
        ]
    },
    'SUNWmsgin' => {},
    'SUNWdtrc' => {
        '11.10.0,REV=2005.01.21.15.53' => [

```

```

'SUNWdtrc',
  '/',
'5.10/Generic Patch'
  ]
    },
'SUNWhuwc' => {},
'mysql' => {
    '5.1.36' => [
        'mysql',
        '/opt/mysql',
        ''
    ]
},
'SUNWiqdoc' => {
    '4.3,REV=2008.11.07.18.44' => [
        'SUNWiqdoc',
        '/',
        '4.3.0.0'
    ]
},
'SUNWjiimd' => {},
'SUNWjuwc' => {},
'SUNWiimd' => {
    '8.0,REV=2008.12.04' => [
        'SUNWiimd',
        '/opt/sun/comms/im',
        '8.0-02'
    ]
},
'SUNWiqcrt' => {
    '4.3,REV=2008.11.07.18.44' => [
        'SUNWiqcrt',
        '/opt',
        '4.3.0.0'
    ]
},
'SUNWmsgzh' => {},
'SUNWprd' => {
    '4.6.4,REV=2006.11.16.20.40' => [
        'SUNWprd',
        '/',
        '4.7.4'
    ]
},
'SUNWjiss-conf' => {},
'SUNWcommda' => {
    '7.0,REV=2009.03.31' => [
        'SUNWcommda',
        '/opt/sun/comms/da',
        '7.0-1.00'
    ]
},
'SUNWjiss-store' => {},
'SUNWmsgen' => {},

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'SUNWiwc' => {
    '1.0,REV=2008.07.07' => [
        'SUNWiwc',
        '/opt/sun/comms/iwc',
        '1.0-10.01'
    ]
},
'SUNWjiss-storeui' => {},
'SUNWiimin-l10n' => {},
'SUNWiimsc' => {
    '7.3,REV=2008.01.07.20.24.34' => [
'SUNWiimsc',
'/opt/sun/comms/im_scha',
'7.3-01'
    ]
},
'SUNWinstall-patch-utils-root' => {
'11.10,REV=2005.01.09.23.05' => [
'SUNWinstall-patch-utils-root',
'/',
'SNAG Development'
]
},
'SUNWiimin' => {
    '8.0,REV=2008.12.04' => [
'SUNWiimin',
'/opt/sun/comms/im',
'8.0-02'
    ]
},
'SUNWuwc-l10n' => {},
'SUNWmsgst' => {},
'SUNWiqu' => {
    '4.3,REV=2008.11.07.18.44' => [
'SUNWiqu',
'/',
'4.3.0.0'
    ]
},
'SUNWkiimc' => {},
'SUNWiim' => {
    '8.0,REV=2008.12.04' => [
'SUNWiim',
'/opt/sun/comms/im',
'8.0-02'
    ]
},
'SUNWeiimin' => {},

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```

'SUNWcimid' => {},
'SUNWiqcdrv' => {
    '4.3,REV=2008.11.07.18.44' => [
        'SUNWiqcdrv',
        '/opt',
        '4.3.0.0'
    ]
},
'SUNWldapcsdk-tools' => {
    '6.00,REV=2006.12.11.00.08' => [
'SUNWldapcsdk-tools',
'/opt/SUNWdsee',
'6.00'
    ]
},
'SUNWjss' => {
    '4.2.4,REV=2006.11.16.20.40' => [
        'SUNWjss',
        '/',
        '4.3'
    ]
},
'SUNWdiqu' => {},
'SUNWjiss' => {
    '1.0,REV=2009.09.09' => [
        'SUNWjiss',
'/opt/sun/comms/jiss',
        '1.0-32.01'
    ]
},
'SUNWj6cfg' => {
    '1.6.0,REV=2006.11.29.05.57' => [
'SUNWj6cfg',
        '/'
    ]
},
'SUNWj6cfg',
'1.6.0_16/1.6.0_16-b01'
    ]
},
'SUNWhimid' => {},
'SUNWciquc' => {},
'SUNWcomms' => {
    '7.0,REV=2009.09.09' => [
        'SUNWcomms',
'/opt/sun/comms/CommsInstaller',
        '7.0-0.02'
    ]
},
'SUNWjiqu' => {},
'SUNWkiqu' => {},
'SUNWkuwc' => {}

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```

        'SUNWics-110n' => {},
        'SUNWeiqu' => {},
        'SUNWdavserver' => {
            '7.0,REV=2009.08.27' => [
                'SUNWdavserver',
                '/opt/sun/comms/davserver',
                '7.0-0.26'
            ]
        },
        'SUNWmessaging-server' => {},
        'SUNWmsgtw' => {},
        'SUNWeiimc' => {},
        'SUNWjaics' => {},
        'SUNWpkgcmds' => {
            '11.11,REV=2005.01.09.23.05' => [
                'SUNWpkgcmds',
                '/',
                'SNAG'
            ]
        },
        'Development' => {
            'SUNWjiimc' => {},
            'SUNWeiimid' => {},
            'SUNWiqjx' => {
                '4.3,REV=2008.11.07.18.44' => [
                    'SUNWiqjx',
                    '/',
                    '4.3.0.0'
                ]
            },
            'SUNWjhd' => {
                '2.0,REV=2006.10.04' => [
                    'SUNWjhd',
                    '/usr',
                    '2.0/FCS'
                ]
            },
            'SUNWj6dev' => {
                '1.6.0,REV=2006.11.29.05.57' => [
                    'SUNWj6dev',
                    '/usr',
                    '1.6.0_16/1.6.0_16-b01'
                ]
            },
            'SUNWmsges' => {},
            'SUNWpr' => {
                '4.6.4,REV=2006.11.16.20.40' => [
                    'SUNWpr',
                    '/',
                    '4.7.4'
                ]
            }
        }
    ]
}

```

```

    },
    'SUNWmsgmf' => {},
    'SUNWkimid' => {},
    'SUNWicu' => {
        '1.2,REV=2005.01.06.14.13' => [
            'SUNWicu',
            '/usr',
            '10/Generic'
        ]
    },
    'SUNWjiss-rest' => {},
    'SUNWfiimin' => {},
    'SUNWswmt' => {
        '11.10,REV=2005.01.10.17.19' => [
            'SUNWswmt',
            '/',
            'SNAG
Development '
        ]
    },
    'SUNWcomis' => {},
    'SUNWdeics' => {},
    'SUNWtwics' => {},
    'SUNWciimin' => {},
    'SUNWmsgfr' => {},
    'SUNWdiimd' => {},
    'SUNWjiss-common' => {},
    'SUNWeuwc' => {},
    'SUNWkiquc' => {},
    'SUNWstosreg' => {
        '1.1.4,REV=2008.03.21.07.54' => [
'SUNWstosreg',
            '/',
            '1.1.4.1'
        ]
    },
    'SUNWmsgde' => {},
    'SUNWjiss-jmqc' => {},
    'SUNWjiss-indexapi' => {},
    'SUNWbzip' => {
        '11.10.0,REV=2005.01.08.05.16' => [
'SUNWbzip',
            '/',
'5.10/SunOS Development '
        ]
    },
    'SUNWtisu' => {
        '3.11.4,REV=2006.11.16.20.40' => [
            'SUNWtisu',
            '/',
            '3.12.3'
        ]
    },
    },

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'SUNWfiqu' => {},
'SUNWsas1' => {
    '2.17,REV=2004.04.06.15.24' => [
        'SUNWsas1',
        '/',
        '2.19'
    ]
},
'SUNWfiimc' => {},
'SUNWzoneu' => {
    '11.10.0,REV=2005.01.21.15.53' => [
'SUNWzoneu',
        '/'
    ]
}
'5.10/Generic Patch'
'SUNWcsr' => {
    '11.10.0,REV=2005.01.21.15.53' => [
        'SUNWcsr',
        '/'
    ]
}
'5.10/Generic Patch'
'SUNWesics' => {},
'SUNWiimm' => {
    '8.0,REV=2008.12.04' => [
        'SUNWiimm',
        '/opt/sun/comms/im',
        '8.0-02'
    ]
}
};
!!! installedprod
$VAR1 = {
    'IWC' => {
        '1.0' => [
            '/opt/sun/comms/iwc',
            '1.0-10.01',
            '20090906',
            'lu3'
        ]
    },
    'IM' => {
        '8.2' => [
            '/opt/sun/comms/im',
            '8.2-02.04',
            '20090903',
            '8u2'
        ]
    },
    'SASL' => {
        '2.19' => [
            '/',

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                '2.19',
                'none',
                '2.19'
            ]
        },
        'ST' => {
            '1.1.4' => [
                '/',
                '1.1.4.1',
                'none',
                '1.1.4'
            ]
        },
        'DSSETUP' => {
            '6.4' => [
                '/opt/sun/comms/dssetup',
                '6.4-5.05',
                '20090808',
                '6.4'
            ]
        },
        'CS_SCHA' => {
            '6.3' => [
                '/opt/sun/comms/cs_scha',
                '6.3-1.01',
                '20080331',
                '6.3'
            ]
        },
        'LDAPJDK' => {
            '4.19' => [
                '/',
                '4.19',
                'none',
                '4.19'
            ]
        },
        'MYSQL_MARKER' => {
            '1.0' => [
                '/var/opt/CommsInstaller/Markers/MYSQL',
                '1.0-0.01',
                'none',
                '1.0'
            ]
        },
        'BZIP' => {
            '11.10' => [
                '/',
                '5.10/SunOS Development',
                'none',
                '11.10'
            ]
        },
        'IM_SCHA' => {
            '7.3' => [

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        '/opt/sun/comms/im_scha',
        '7.3-01.02',
        '20080403',
        '7.3'
    ]
},
'ICU' => {
    'ICU2,ICU3' => [
        '/usr',
        '10/Generic',
        'none',
        'ICU2,ICU3'
    ]
},
'MS64' => {
    '7.3' => [
        '/opt/sun/comms/messaging64',
        '7.3-11.01',
        '20090901',
        '7u3'
    ]
},
'DAV' => {
    '7.0' => [
        '/opt/sun/comms/davserver',
        '7.0-0.26',
        '20090827',
        '7'
    ]
},
'LIBCPLUSPLUS' => {
    '5.9' => [
        '/',
        '5.10',
        'none',
        '5.9'
    ]
},
'LDAPCSDK6' => {
    '6.0' => [
        '/',
        '6.00',
        'none',
        '6.0'
    ]
},
'JDK' => {
    '1.6.0' => [
        '/usr',
        '1.6.0_16/1.6.0_16-b01',
        'none',
        '1.6.0'
    ]
},
'MS_SCHA' => {
    '7.0' => [

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```

        '/opt/sun/comms/msg_scha',
        '7.0-0.03',
        '20080519',
        '7.0'
    ],
},
'MYSQL' => {
    '5.1.36' => [
        '/opt/mysql',
        'none',
        'none',
        '5.1.36'
    ]
},
'CS' => {
    '6.3' => [
        '/opt/sun/comms/calendar',
        '6.3-19.01',
        '20090826',
        '6.3'
    ]
},
'PATCHUTILS' => {
    'Unknown' => [
        '/',
        'SNAG Development',
        'none',
        'Unknown'
    ]
},
'MQ' => {
    '4.3' => [
        '/',
        '4.3.0.0',
        'none',
        '4.3'
    ]
},
'JHRT' => {
    '2.0' => [
        '/usr',
        '2.0/FCS',
        'none',
        '2.0'
    ]
},
'IMAPI' => {
    '8.0' => [
        '/',
        '8.0-00',
        'none',
        '8'
    ]
},
'CI' => {
    '7.0' => [

```

```

        '/opt/sun/comms/CommsInstaller',
        '7.0-0.02',
        '20090909',
        '7'
    ]
},
'DA' => {
    '7.0' => [
        '/opt/sun/comms/da',
        '7.0-1.00',
        '20090821',
        '7'
    ]
},
'LDAPCSDK6_TOOLS' => {
    '6.0' => [
        '/opt/SUNWdsee',
        '6.00',
        'none',
        '6.0'
    ]
},
'JISS' => {
    '1.0' => [
        '/opt/sun/comms/jiss',
        '1.0-32.01',
        '20090909',
        '1'
    ]
},
'NSS' => {
    '4.3' => [
        '/',
        '4.3',
        'none',
        '4.3'
    ]
}
};

```

==== End QQQ detectProducts =====

=====

Product Selection:

Communication Services Products:

Item	Description
1	Messaging Server (64bit) 7u3 (7.3-11.01) Installed Version at /opt/sun/comms/messaging64
2	Comms DSsetup 6.4 (6.4-5.05) Installed Version at /opt/sun/comms/dssetup
3	Calendar Server 7 (7.0-0.26) Installed Version at /opt/sun/comms/davserver
4	Instant Messaging 8u2 (8.2-02.04) Installed Version at /opt/sun/comms/im
5	Convergence 1u3 (1.0-10.01)

- Installed Version at /opt/sun/comms/iwc
- 6 Indexing and Search Service 1 (1.0-32.01)  
Installed Version at /opt/sun/comms/jiss
- 7 Comms Delegated Administrator 7 (7.0-1.00)  
Installed Version at /opt/sun/comms/da
- 8 Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03)  
Installed Version at /opt/sun/comms/msg\_scha
- 9 Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02)  
Installed Version at /opt/sun/comms/im\_scha
- 10 Calendar Server 6.3 (6.3-19.01)  
Installed Version at /opt/sun/comms/calendar
- 11 Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)  
Installed Version at /opt/sun/comms/cs\_scha

Enter the items you wish to uninstall. Enter q to quit.  
 You can enter multiple items using commas to separate them.  
 For example: 1,2

Please select the products you wish to uninstall [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]:

```

=====
QQQ selections: MS64 7.3 DSSETUP 6.4 DAV 7.0 IM 8.2 IWC 1.0 JISS 1.0 DA
7.0 MS_SCHA 7.0 IM_SCHA 7.3 CS 6.3 CS_SCHA 6.3
  WILL UNINSTALL: Messaging Server (64bit) 7u3 (7.3-11.01)
                    at /opt/sun/comms/messaging64)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWmessaging-server-64
  WILL UNINSTALL: Comms DSsetup 6.4 (6.4-5.05)
                    at /opt/sun/comms/dssetup)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomds
  WILL UNINSTALL: Calendar Server 7 (7.0-0.26)
                    at /opt/sun/comms/davserver)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWdavserver
  WILL UNINSTALL: Instant Messaging 8u2 (8.2-02.04)
                    at /opt/sun/comms/im)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimgw
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimd
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimc
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimid
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimjd
  Task: pkgrm -n -a

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimm
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimin
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiim
  WILL UNINSTALL: Convergence lu3 (1.0-10.01)
                    at /opt/sun/comms/iwc)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiwc
  WILL UNINSTALL: Indexing and Search Service 1 (1.0-32.01)
                    at /opt/sun/comms/jiss)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWjiss
  WILL UNINSTALL: Comms Delegated Administrator 7 (7.0-1.00)
                    at /opt/sun/comms/da)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
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
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
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
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimsc
  WILL UNINSTALL: Calendar Server 6.3 (6.3-19.01)
                    at /opt/sun/comms/calendar)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWica5
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWics5
  WILL UNINSTALL: Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01)
                    at /opt/sun/comms/cs_scha)
  Task: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWscics
=====
Ready to uninstall

Do you want to continue ? [yes] :

=====
Uninstalling Messaging Server (64bit) 7u3 (7.3-11.01 at
/opt/sun/comms/messaging64)...
----- Executing Task 1 of 19 ...
pkgrm -n -a

```

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWmessaging-server-64 2>&1

Removal of <SUNWmessaging-server-64> was successful.
-- Exit status: 0

=====
Uninstalling Comms DSsetup 6.4 (6.4-5.05 at /opt/sun/comms/dssetup)...
----- Executing Task 2 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWcomds 2>&1

Removal of <SUNWcomds> was successful.
-- Exit status: 0

=====
Uninstalling Calendar Server 7 (7.0-0.26 at /opt/sun/comms/davserver)...
----- Executing Task 3 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWdavserver 2>&1

Removal of <SUNWdavserver> was successful.
-- Exit status: 0

=====
Uninstalling Instant Messaging 8u2 (8.2-02.04 at /opt/sun/comms/im)...
----- Executing Task 4 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimgw 2>&1

Removal of <SUNWiimgw> was successful.
-- Exit status: 0
----- Executing Task 5 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimd 2>&1

Removal of <SUNWiimd> was successful.
-- Exit status: 0
----- Executing Task 6 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimc 2>&1

Removal of <SUNWiimc> was successful.
-- Exit status: 0
----- Executing Task 7 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimid 2>&1

Removal of <SUNWiimid> was successful.
-- Exit status: 0

```

```

----- Executing Task 8 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimjd 2>&1

Removal of <SUNWiimjd> was successful.
-- Exit status: 0
----- Executing Task 9 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimm 2>&1

Removal of <SUNWiimm> was successful.
-- Exit status: 0
----- Executing Task 10 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimin 2>&1

Removal of <SUNWiimin> was successful.
-- Exit status: 0
----- Executing Task 11 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiim 2>&1

Removal of <SUNWiim> was successful.
-- Exit status: 0

=====
Uninstalling Convergence lu3 (1.0-10.01 at /opt/sun/comms/iwc)...
----- Executing Task 12 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiwc 2>&1

Removal of <SUNWiwc> was successful.
-- Exit status: 0

=====
Uninstalling Indexing and Search Service 1 (1.0-32.01 at
/opt/sun/comms/jiss)...
----- Executing Task 13 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWjiss 2>&1

Removal of <SUNWjiss> was successful.
-- Exit status: 0

=====
Uninstalling Comms Delegated Administrator 7 (7.0-1.00 at
/opt/sun/comms/da)...
----- Executing Task 14 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet

```

```

SUNWcommda 2>&1

Removal of <SUNWcommda> was successful.
-- Exit status: 0

=====
Uninstalling Messaging Server Sun Cluster HA agent 7.0 (7.0-0.03 at
/opt/sun/comms/msg_scha)...
----- Executing Task 15 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWmessaging-server-scha 2>&1

Removal of <SUNWmessaging-server-scha> was successful.
-- Exit status: 0

=====
Uninstalling Instant Messaging Sun Cluster HA agent 7.3 (7.3-01.02 at
/opt/sun/comms/im_scha)...
----- Executing Task 16 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWiimsc 2>&1

Removal of <SUNWiimsc> was successful.
-- Exit status: 0

=====
Uninstalling Calendar Server 6.3 (6.3-19.01 at
/opt/sun/comms/calendar)...
----- Executing Task 17 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWica5 2>&1

Removal of <SUNWica5> was successful.
-- Exit status: 0
----- Executing Task 18 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWics5 2>&1

Removal of <SUNWics5> was successful.
-- Exit status: 0

=====
Uninstalling Calendar Server Sun Cluster HA agent 6.3 (6.3-1.01 at
/opt/sun/comms/cs_scha)...
----- Executing Task 19 of 19 ...
pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWscics 2>&1

Attempting to change the following in ics.conf
    local.server.ha.enabled="no"
    local.server.ha.agent="none"

```

Done...

Removal of <SUNWscics> was successful.

-- Exit status: 0

=====

SUMMARY:

PASSED: Task 1: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWmessaging-server-64  
PASSED: Task 2: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWcomds  
PASSED: Task 3: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWdavserver  
PASSED: Task 4: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiimgw  
PASSED: Task 5: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiimd  
PASSED: Task 6: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiimc  
PASSED: Task 7: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiimid  
PASSED: Task 8: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiimjd  
PASSED: Task 9: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiimm  
PASSED: Task 10: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiimin  
PASSED: Task 11: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiim  
PASSED: Task 12: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiwc  
PASSED: Task 13: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWjiss  
PASSED: Task 14: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWcommda  
PASSED: Task 15: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWmessaging-server-scha  
PASSED: Task 16: pkgrm -n -a  
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet  
SUNWiimsc  
PASSED: Task 17: pkgrm -n -a

```

/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWica5
PASSED: Task 18: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWics5
PASSED: Task 19: pkgrm -n -a
/h/megan/wspace/dl111122/releases/ci70/.install/Tools/admin.quiet
SUNWscics

All tasks PASSED
Checking JES java symlink...
ls -l /usr/jdk /usr/java 2>&1
lrwxrwxrwx  1 root      other          15 Jun 11 14:58 /usr/java ->
jdk/jdk1.5.0_17

/usr/jdk:
total 10
drwxr-xr-x  4 root      bin          4 Jun 16 23:48 instances
lrwxrwxrwx  1 root      other        7 Jun 11 14:51 j2sdk1.4.2_19 ->
../j2se
lrwxrwxrwx  1 root      other       18 Jun 11 14:58 jdk1.5.0_17 ->
instances/jdk1.5.0
lrwxrwxrwx  1 root      other       18 Sep  2 15:50 jdk1.6.0_16 ->
instances/jdk1.6.0
lrwxrwxrwx  1 root      other       11 Sep  2 15:50 latest ->
jdk1.6.0_16
drwxr-xr-x  8 root      bin          8 Sep  2 22:59 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  2 15:50 /usr/jdk/latest ->
jdk1.6.0_16
-- Exit status: 2
ls -lL /usr/jdk/entsys-j2se /usr/jdk/latest 2>&1
/usr/jdk/entsys-j2se: No such file or directory
/usr/jdk/latest:
total 38177
drwxr-xr-x  3 root      bin          49 Sep  2 22:59 bin
-rw-r--r--  1 root      bin        3767 Jul 31 06:58 COPYRIGHT
drwxr-xr-x  3 root      bin          8 Sep  2 15:47 include
drwxr-xr-x  6 root      bin         11 Sep  2 15:49 jre
drwxr-xr-x  3 root      bin         11 Sep  2 15:47 lib
-rw-r--r--  1 root      bin       17179 Jul 31 06:58 LICENSE
-rw-r--r--  1 root      bin       25390 Jul 31 06:58 README_ja.html
-rw-r--r--  1 root      bin       20768 Jul 31 06:58 README_zh_CN.html
-rw-r--r--  1 root      bin       28329 Jul 31 06:58 README.html
-r--r--r--  1 root      other        6324 Sep  2 15:51 register_ja.html
-r--r--r--  1 root      other        5502 Sep  2 15:51
register_zh_CN.html
-r--r--r--  1 root      other        5892 Sep  2 15:51 register.html
-rw-r--r--  1 root      bin     19029272 Jul 31 06:57 src.zip
-rw-r--r--  1 root      bin     249556 Jul 31 06:58
THIRDPARTYLICENSEREADME.txt
-- Exit status: 2
INFO: no update to /etc/softlist.xml required

```

Hit Return to Continue:

```
=====
-- unlink /tmp/.patchout_20091013091635.16918
mkdir -p /var/opt/CommsInstaller/logs 2>&1
-- Exit status: 0
```

NOTICE: silent file created in:

/var/opt/CommsInstaller/logs/silent\_CommsInstaller\_20091013091635

```
-- Closing the log at Tue Oct 13 09:17:45 2009
```

## Installation Comments

### Installation comments

- shared components and OS patches are applied without prompting. This is because patches can be backed out.
- 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).
- Missing shared components are installed without prompting.
- CI itself will be installed without prompting. Note the message in the CI task list:  
WILL INSTALL: CommsInstaller 7 (7.0-0.02)  
                  to /opt/sun/comms/CommsInstaller
- All products are installed under the blanket `INSTALLROOT` (default is `/opt/sun/comms`).
- Since the CI tasks are dependent on what is already installed on the system, the number of tasks differs from run to run.
- CI only does "installation" (laying down the bits), it does not do initial configuration of products
- The silent file has `ACCEPTLICENSE=no`.  
You have to explicitly change this to `yes`, or use the `--acceptLicense` switch.
- The silent file has `UPGRADESC=no`.  
even though I said "yes" to each prompt of upgrading SC. You have to explicitly set this if you want it done during a silent install.

## Uninstall Comments

- Only products are displayed for uninstall. SCs are not available for uninstallation. For example, CI and MQ are not uninstalled.

## Shared Components

### Shared Components Bundled With the Communications Suite Installer

For the list of shared components installed by the Communications Suite installer, run the `commpkg info` command. See [commpkg info Usage](#) for additional information.

Sun Java System Message Queue is automatically installed with the other shared components.

# To Run the Communications Suite Installer

## To Run the Communications Suite Installer

1. Become superuser.
2. Start the text-based installer by running the `commpkg` command.  
See [commpkg install Usage](#) for more information. Running `commpkg` creates a log file that records the installation parameters.

```
# ./commpkg install
-- LOGFILE: /tmp/CommsInstaller_20090401132825.log
```

3. Accept the License Agreement.  
If you have already read the agreement in its entirety, you have the option of skipping the agreement and accepting the terms. To accept the terms of the agreement without viewing the entire license agreement, press Enter to continue, then type `n` to skip reading the agreement, and type `yes` to accept the terms.
4. Specify Installation Location where server files will be installed (also known as the `INSTALLROOT`) or accept the default location.



### Note

Starting with Communications Suite 6, the default `INSTALLROOT` has changed from `/opt/SUNWmsgsvr` to `/opt/sun/comms/messaging` (for 32-bit installations) and `/opt/sun/comms/messaging64` (for 64-bit installations).

After specifying the `INSTALLROOT`, notices for operating system and shared components patches appear if previous versions of patches are installed on the machine.

5. Select the products you want to install.  
The following products are included in this release:

### ***Communications Suite 7 Products and Components***

Product	Version
Messaging Server	7 Update 3
Instant Messaging	8 Update 2
Convergence	1 Update 3
Calendar Server	7
Delegated Administrator	7 (latest patch)
Outlook Connector	7.3 Update 1 (latest patch)
Calendar Server	6.3 (latest patch)
Indexing and Search Service	1
Comms Sync	3.1 (latest patch)
Comms Installer	7
Messaging Server HA Agent (MS_SCHA)	7
Calendar Server HA Agent (CS_SCHA)	6.3
Instant Messaging HA Agent (IM_SCHA)	7.3
comm_dssetup	6.4 (latest patch 6.4p5)

- The installer generates the list of items to install. In this step, the installer lists all the products as well as shared components to be installed or upgraded. If items need to be upgraded, the installer gives you the choice to upgrade.



#### Caution

Upgrading shared components is an irreversible process. However, if you do not install the correct version of the shared components, the product might not work as designed. Thus, proceed carefully when installing and upgrading shared components and products.

Once you determine what products you want to install and upgrade, the installer creates a summary.

- The installer prompts you to confirm that you are ready to install. Once you specify the components you are installing and upgrading, the installer is ready to install Messaging Server files into `INSTALLROOT`. If everything installs properly, you see `All tasks PASSED` in the summary panel.
- Log files are created. Once installation has completed, time-stamped log files are created.
  - To undo your installation, use the `undoCommsInstall` script, which has a location similar to the following example:  
`/var/opt/CommsInstaller/logs/undoCommsInstall_20090401135358`
  - To run silent installation for multiple installations, use the silent installation file, which has a location similar to the following example:  
`/var/opt/CommsInstaller/logs/silent_CommsInstaller_20090401135358`
  - The installer creates a log file of the installation process in the `/var/opt/CommsInstaller/logs` directory, for example:  
`/var/opt/CommsInstaller/logs/CommsInstaller_20090401135358.log`
- If you want to remove the installation that you just ran, you can undo your installation by running the `undoCommsInstall` script, for example:  
`/var/opt/CommsInstaller/logs/undoCommsInstall_20090401135358`

Undo reverses the specific steps taken during installation. It also undoes shared component installations. If, however, you want to pick and choose specific components to uninstall, use the `commpkg uninstall` command. See [commpkg uninstall Usage](#) for more information. The uninstaller does not uninstall shared components.

10. The installer creates the following directory layout.

In the `INSTALLROOT` (default: `/opt/sun/comms`), you might see the following directories:

- `CommsInstaller`, where a copy of the Installer resides.



**Note**

The log files listed in the previous step are located in the `/var/opt/CommsInstaller/log` directory. If you install Messaging Server in an alternate root, the logfiles are located in the alternate root-`s` `INSTALLROOT/var/opt/CommsInstaller/log` directory.

- `messaging`, the 32-bit Messaging Server version
- `messaging64`, the 64-bit Messaging Server version

# Uninstalling Communications Suite in Silent Mode

## Uninstalling Communications Suite in Silent Mode

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 file naming convention. You need to scan the contents of the file to determine if it is an installation or uninstallation silent file.

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 5.0-1.03}}
# Generated on 20070604120325}}
# verb used to create this silent file
VERB=uninstall
# root directory}}
ROOTDIR=/
# list of components to uninstall (using mnemonics)
COMPONENTS=MS64 MS64_L10N CS CS_L10N
# friendly name for the installroot
INSTALLNAME=
```

## Verify the Version of GlassFish Enterprise Server or Application Server

### Verify the Version of GlassFish Enterprise Server or Application Server

To verify which version of GlassFish Enterprise Server or Application Server that you have installed, run the following command on the host where you have installed the software:

```
# /opt/SUNWappserver/bin/asadmin version
```

Example output:

- GlassFish Enterprise Server 2.1:

```
Version = Sun GlassFish Enterprise Server v2.1 Patch02
```

- Application Server 9.1:

```
Version = Sun Java System Application Server 9.1_02
```

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/4.4.3-6"
```

```
# grep -i jdk /opt/SUNWappserver/config/asenv.conf
AS_JAVA="/opt/SUNWappserver/jdk"
```

```
# /opt/SUNWappserver/jdk/bin/java -version
java version "1.6.0_06"
Java(TM) SE Runtime Environment (build 1.6.0_06-b02)
Java HotSpot(TM) Server VM (build 10.0-b22, mixed mode)
```

# Chapter 7. Communications Suite 7 Installation Flowchart

---

## Communications Suite 7 Installation Flowchart

### Topics

- [What This Flowchart Does](#)
- [Before Using This Flowchart](#)
- [Communications Suite Installation Flowchart: First Decisions](#)
- [Communications Suite Installation Flowchart: Messaging Server](#)
- [Communications Suite Installation Flowchart: Calendar Server 6.3](#)
- [Communications Suite Installation Flowchart: Calendar Server 7](#)
- [Communications Suite Installation Flowchart: Instant Messaging](#)
- [Communications Suite Installation Flowchart: Convergence](#)
- [Communications Suite Installation Flowchart: Indexing and Search Service](#)

### What This Flowchart Does

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

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

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

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

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

For general installation information about Communications Suite 7, see [Communications Suite 7 Installation Guide](#).

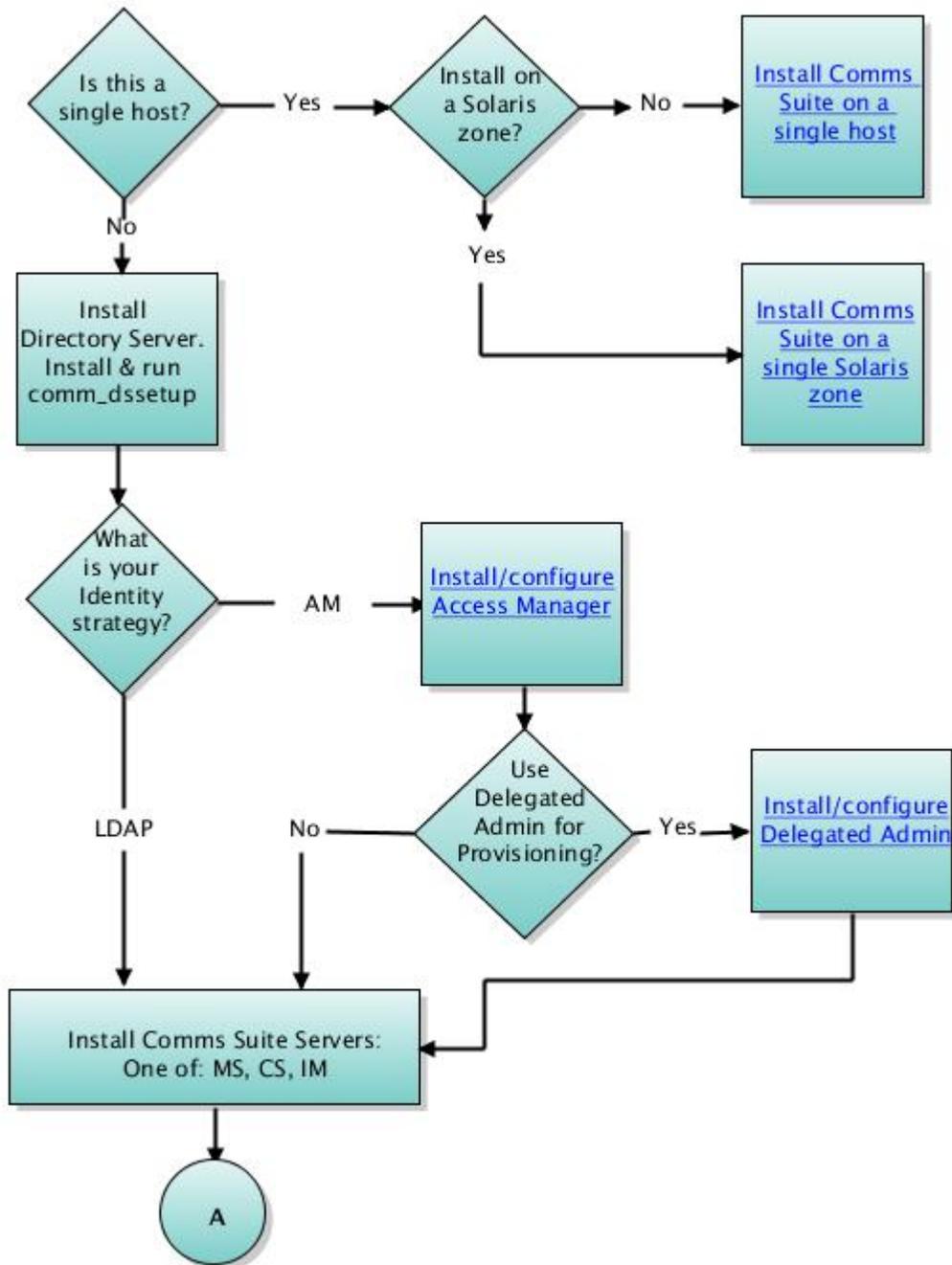
### Before Using This Flowchart

- Read the [Communications Suite Deployment Planning Guide](#).
- Read the [Communications Suite 7 Component Dependencies](#) table.

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

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

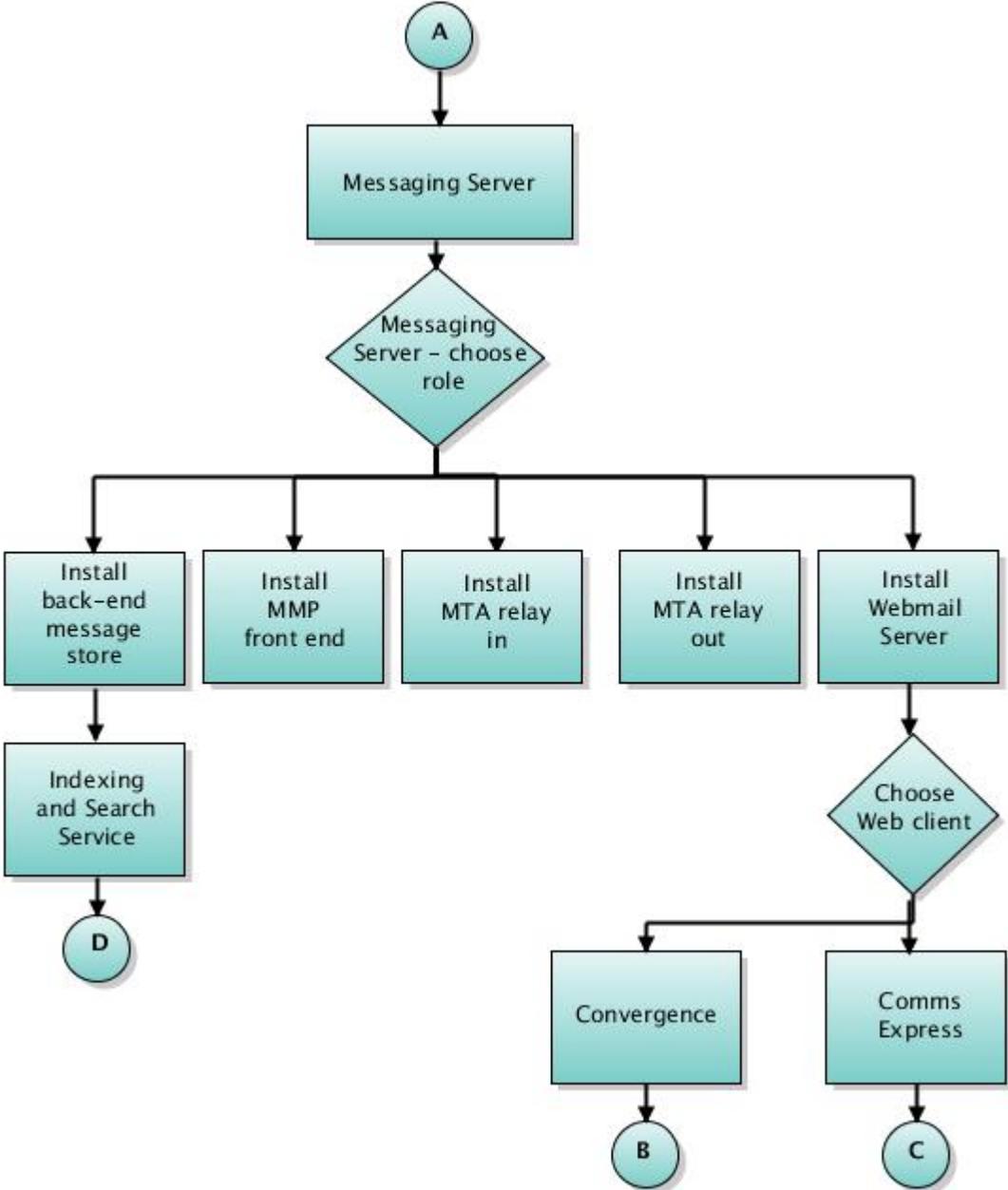
## Communications Suite Installation Flowchart: First Decisions



## Communications Suite Installation Flowchart: Messaging Server

We recommend that you install and configure Messaging Server before you configure Calendar Server and Instant Messaging.

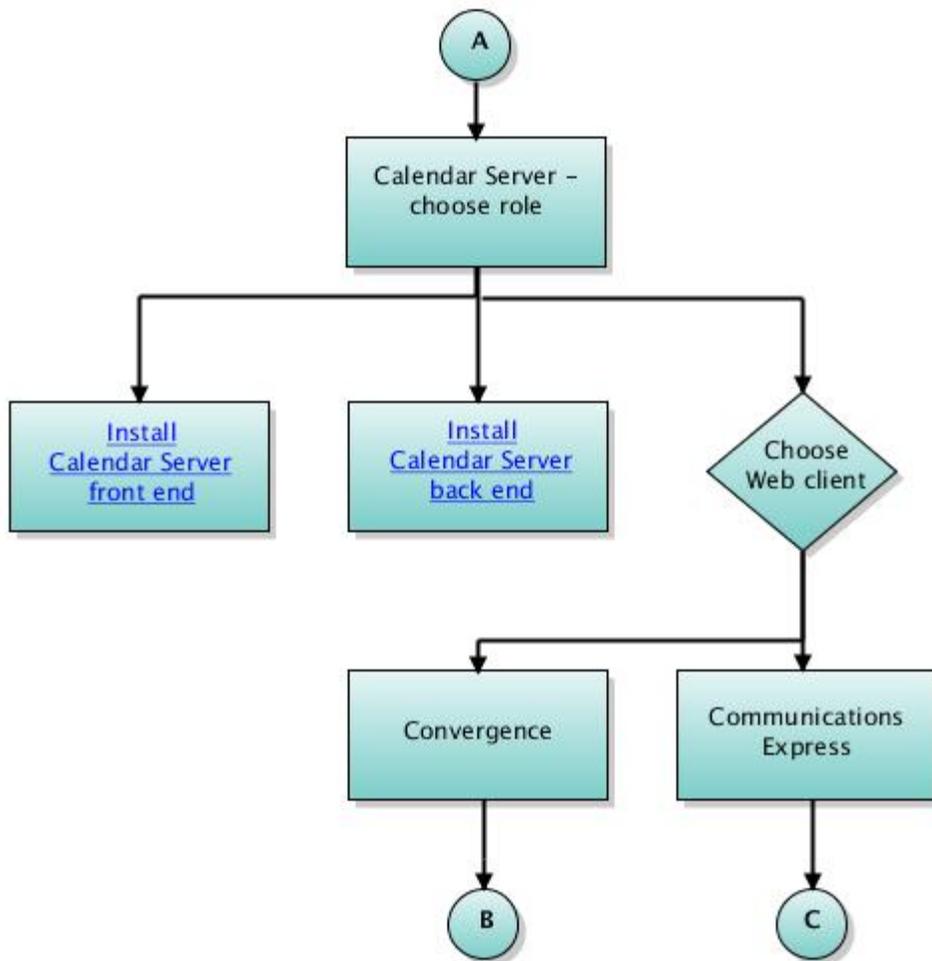
We also recommend that you first install the Messaging Server back-end message store(s). Next, install the MTAs, MMP front ends, and Webmail Servers.



### Communications Suite Installation Flowchart: Calendar Server 6.3

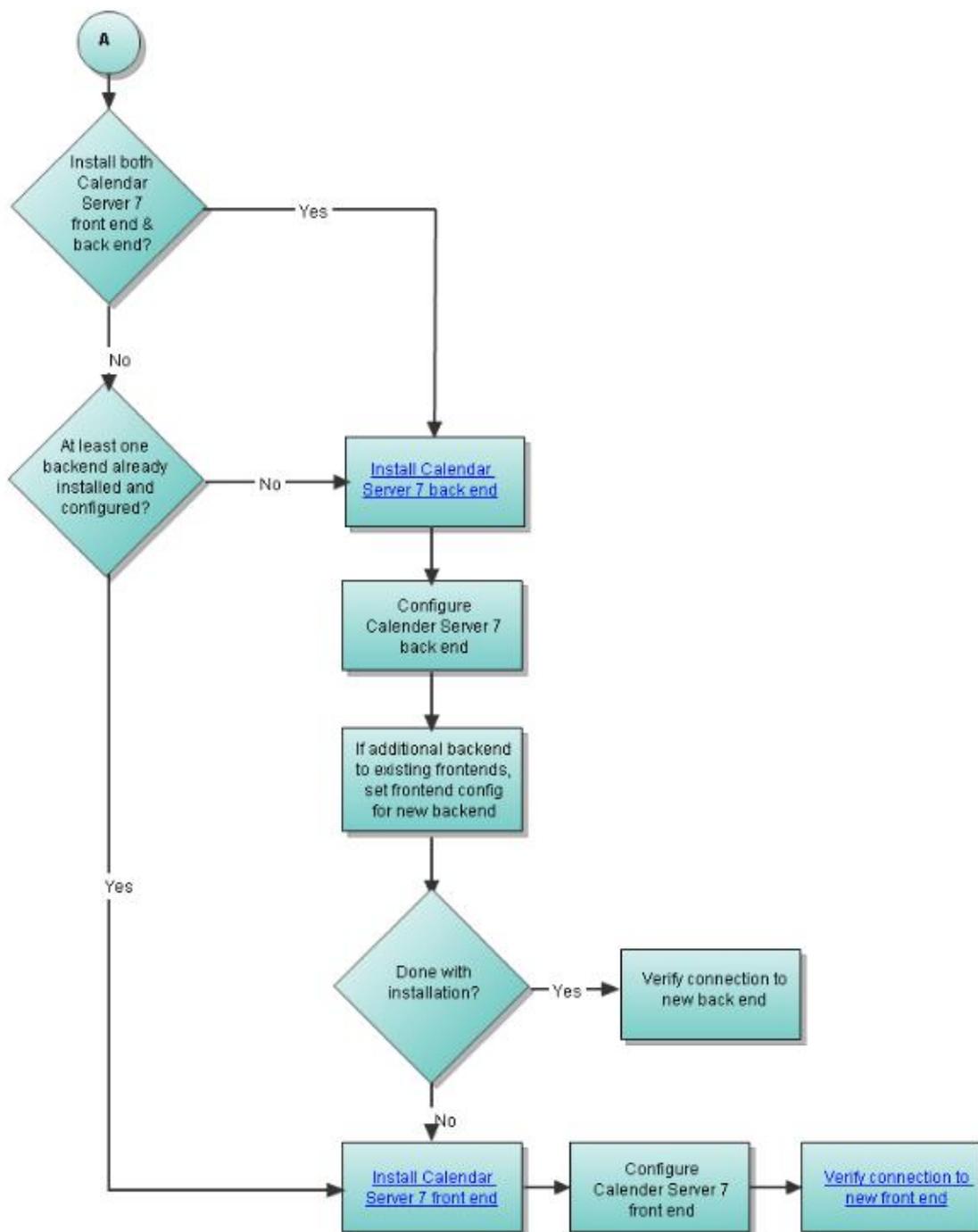
**As of Communications Suite 7, Calendar Server 6.3 has been deprecated.**  
If you are not installing Sun Convergence, you should no longer be installing Calendar Server 6.3. Instead, install Calendar Server 7.

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



## Communications Suite Installation Flowchart: Calendar Server 7

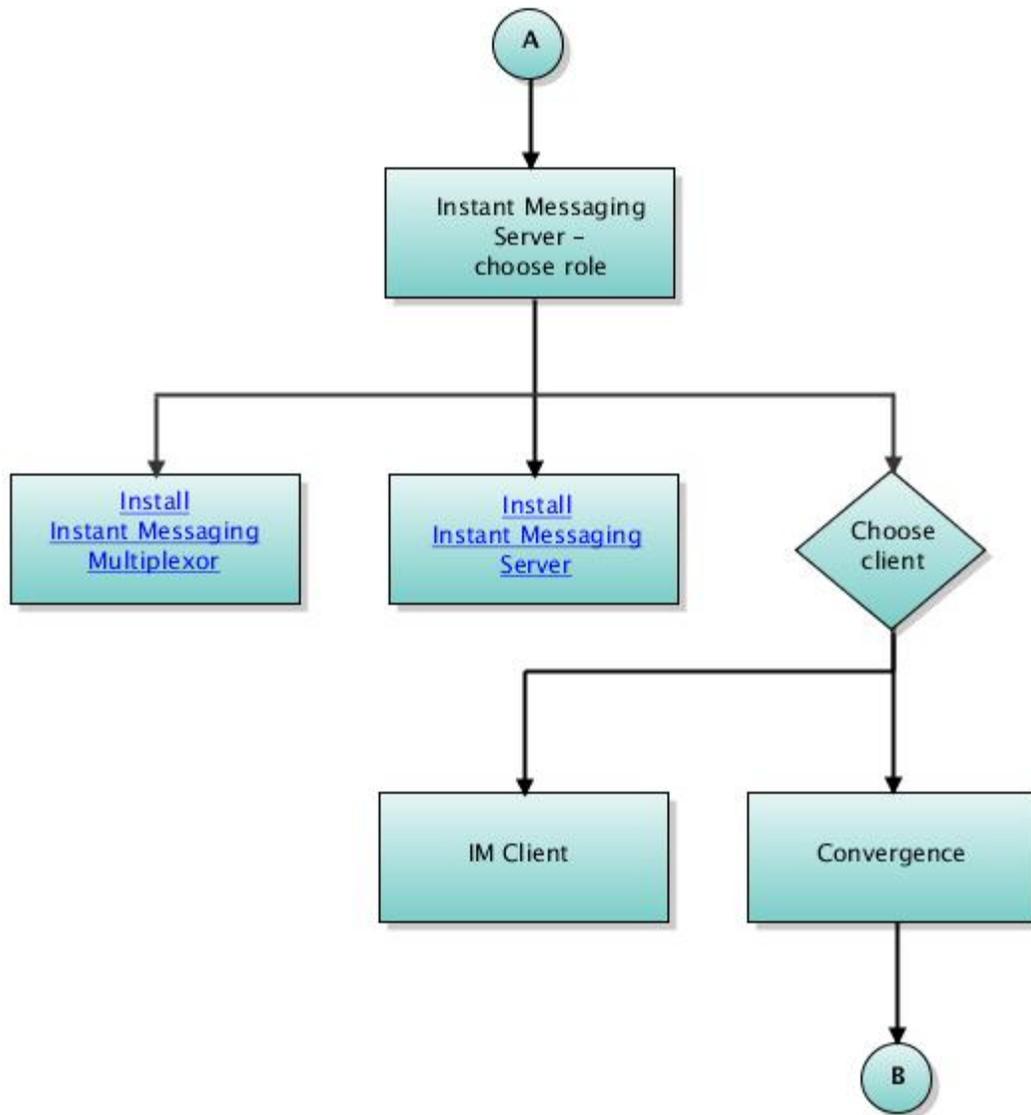
You can install both a Calendar Server 7 front end and back end on the same host, or on different hosts.



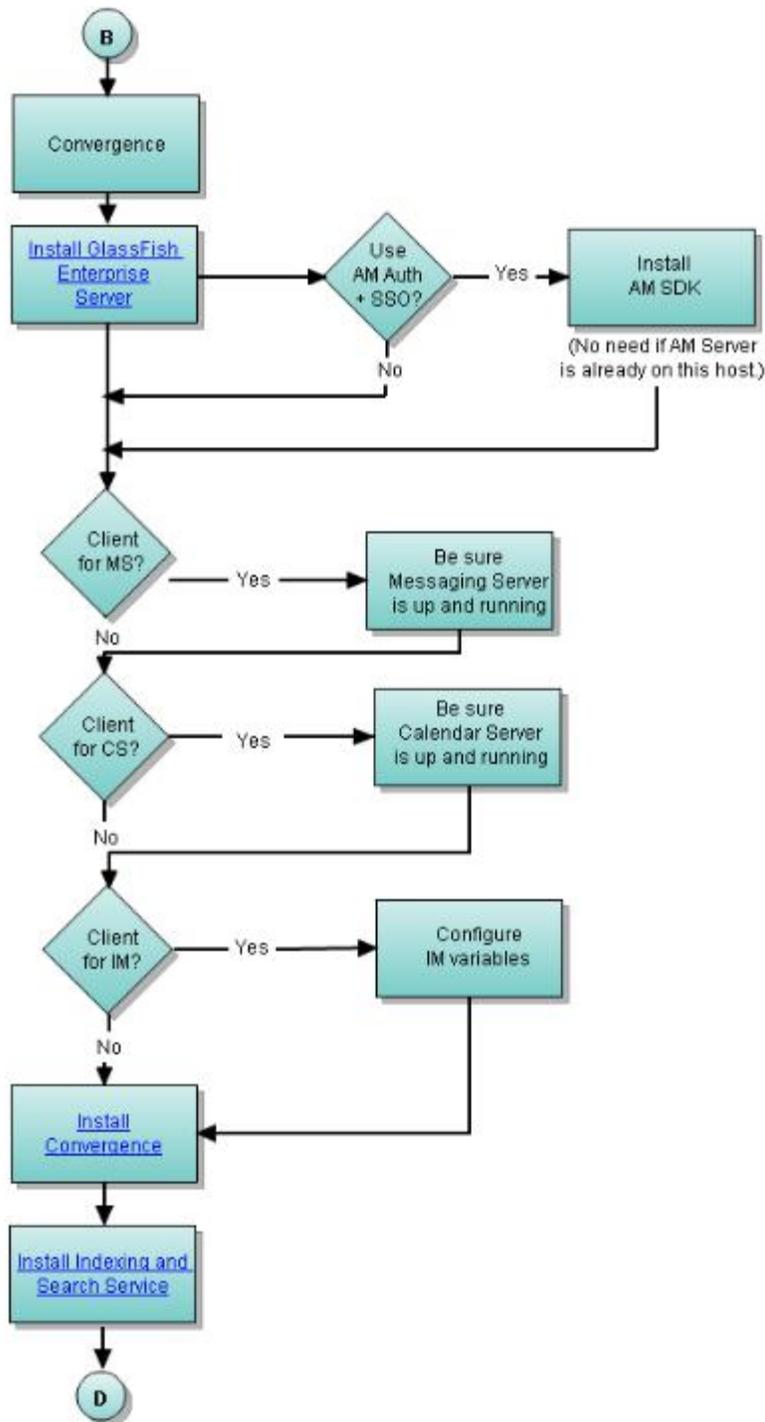
## Communications Suite Installation Flowchart: Instant Messaging

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

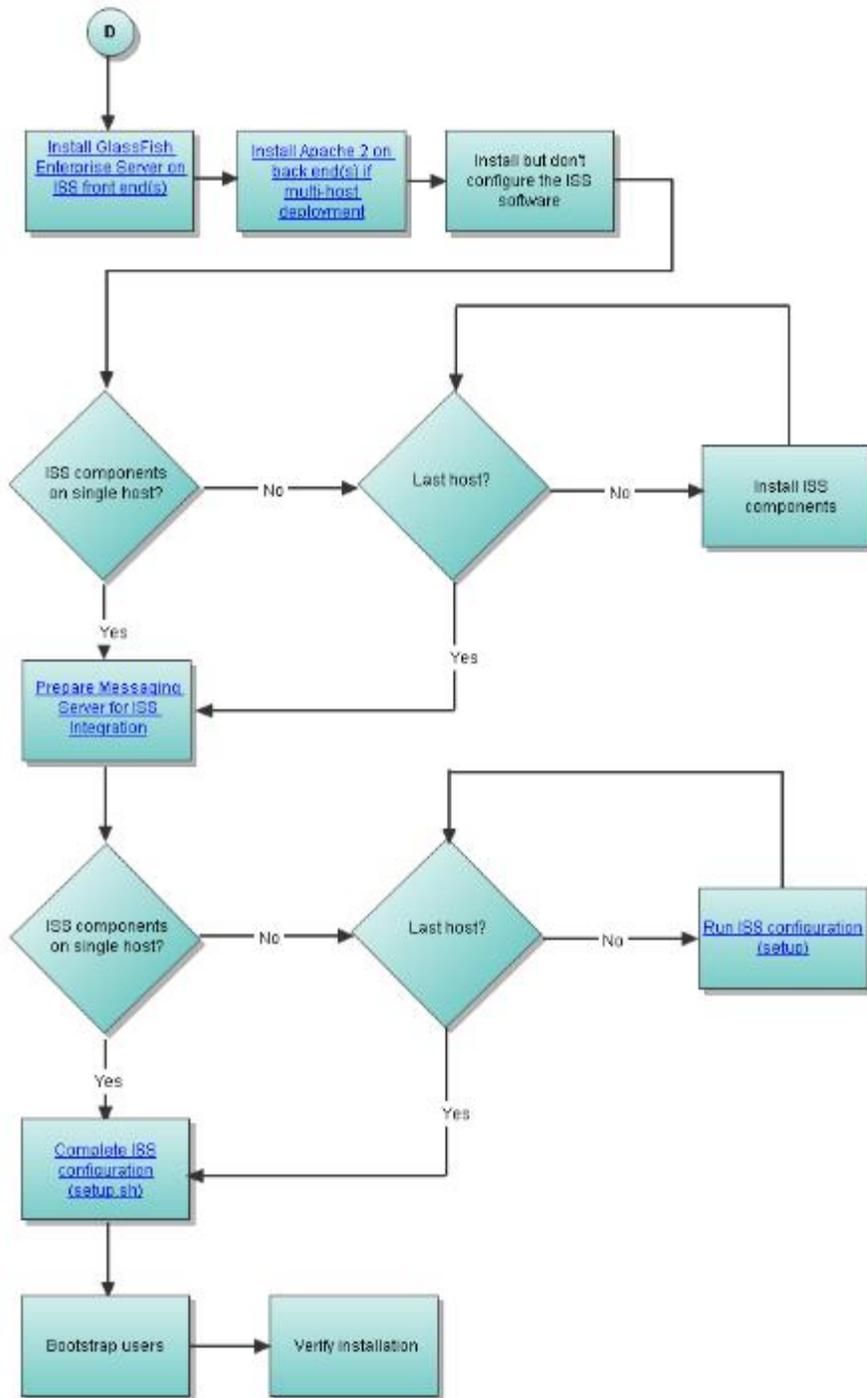
We also recommend that you first install the Instant Messaging Server, then the Instant Messaging Multiplexor.



**Communications Suite Installation Flowchart: Convergence**



## Communications Suite Installation Flowchart: Indexing and Search Service



# Chapter 8. Communications Suite 7 Installation Scenario - Access Manager

## Communications Suite 7 Installation Scenario - Install Access Manager

Topics:

- [Assumptions](#)
- [Which Software Components and Downloads Do You Need?](#)
- [Which Task Sequence Do You Follow?](#)

### Assumptions

This scenario shows how to install Access Manager on a separate host. It is based on the *Install/configure Access Manager* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Access Manager installation is one functional component of your multi-host deployment.
- You are installing Access Manager on a separate host or Solaris zone; you are not bundling Access Manager with Communication Suite products on the same host.
- If you are deploying multiple instances of Access Manager across several hosts or zones, you can follow these instructions for each host on which you install Access Manager.

### Which Software Components and Downloads Do You Need?

- Java ES 5 Update 1 distro - for Access Manager 7.1 and Web Server 7.0 Update 1

Download this software from the Communications Suite download site. For details, see [Get the Software](#).



#### Note

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

### Which Task Sequence Do You Follow?

1. Be sure that Directory Server Enterprise Edition 6.3 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 9. Communications Suite 7 Installation Scenario - Convergence

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## Communications Suite 7 Installation Scenario - Install Convergence

Topics:

- [Assumptions](#)
- [Which Software Components and Downloads Do You Need?](#)
- [Which Task Sequence Do You Follow?](#)

### Assumptions

This scenario shows how to install an instance of the Convergence on a separate host or Solaris zone. It is based on the *Install Convergence* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Convergence is one functional component of your multi-host deployment.
- The Communications Suite servers (Messaging Server, Calendar Server, Instant Messaging) are installed on separate hosts.
- If you are distributing multiple instances of the Convergence across several hosts, you can follow these instructions for each host on which you install the Convergence.



#### Note

This scenario describes how to install the software that should run on the same host as Convergence. For a list of all the products required for Convergence, including those installed on other hosts, see [Product Version Requirements for Convergence 1 Update 3](#).

### Which Software Components and Downloads Do You Need?

#### Software Components:

To successfully configure and run Convergence on this host, you need to install the following software components:

#### Required:

- Web Container. See [Sun Java System Product Requirements for Convergence 1 Update 3](#) for the list of web containers supported.
- **Convergence 1 Update 3**

#### Recommended:

- **Webmail Server component of Messaging Server 7 Update 2**

We recommend that you install the Webmail Server on this host.

### **Optional, for SSO:**

- **Sun Java System Access Manager 7.1 SDK** - To use Access Manager for authentication and/or Single Sign-on (SSO), you also must install the Access Manager SDK. To successfully use the Access Manager SDK on this host, Access Manager Server 7.1 must be installed on a remote host.
- **Sun OpenSSO Enterprise 8.0** - See [Configuring Sun Convergence with Sun OpenSSO Enterprise 8.0](#).

### **Downloads:**

- Application Server 9.1 Update 2 with High Availability Database (HADB) - Zip/File Based or Sun GlassFish Enterprise Server 2.1
- Java ES 5 Update 1 distro: for Access Manager 7.1
- Communications Suite: for Convergence 1 Update 3 and Webmail Server

Download these software files from the Communications Suite download site. For details, see [Get the Software](#).

### **Convergence Support for SSO**

Convergence supports the following methods for implementing Single SignOn.

- Access Manager
- Messaging Server (Trusted Circle) SSO
- Sun OpenSSO Enterprise 8.0.

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 Webmail Server**

The best deployment practice is to place the Webmail Server on the same host as Convergence to provide horizontal scalability and enable smooth growth of services.

**Note:** 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 may be located on a different host.

Other Messaging Server components such as the message store and MTA, Calendar Server, and Instant Messaging Server may be located on other hosts.

## **Which Task Sequence Do You Follow?**

### **Step 1. Install Application Server 9.1 Update 2 with High Availability Database (HADB) - Zip/File Based.**



Download the Application Server software zip file from the Communications Suite download site. Do not install the version of Application Server bundled with JES 5 Update 1; that is an older version of Application Server.

Follow these guidelines:

- The high availability database (HADB) version provides shared components needed by Application Server and Communications Suite. You can configure this version of Application Server without using the HADB.
- The Communication Suite installer does not install Application Server.
- To install Application Server, follow the instructions in the [Sun Java System Application Server 9.1 Installation Guide](#).
- Install Application Server before you install Access Manager and configure Convergence.
- To verify which version of Application Server you have installed, see [Verify Application 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 6.3 is installed and configured on another host in your deployment.
2. Start Directory Server.
3. Verify that Application Server 9.1 Update 2 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 Application Server 9.1 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.

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](#).

For information about the Java ES installer, see [Sun Java Enterprise System 5 Update 1 Installation Guide for UNIX](#).

For more details, see [Access Manager Configuration Guide](#). You can also find installation instructions in

this [Access Manager Deployment Example](#).

### Step 3. Before you install Messaging Server (Webmail Server component):

**Note:** 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 Comms Installer lists the components to install, choose the following components:

- Convergence 1 Update 3 (Integrated Web Client)
- Messaging Server. Choose the 32-bit or 64-bit version by selecting one of these components:
  - Messaging Server 7 Update 3 for the 32-bit version)
  - Messaging Server (64-bit) 7 Update 3 (for the 64-bit version)

**Note:** Select Messaging Server only if you are installing Webmail Server on this host.

Make sure that the other components are not selected.

### Step 5. Configure the Webmail Server:

**Note:** 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:  
[Messaging Server 7 Update 3 - Configuration Worksheet](#)
2. Run the Messaging Server initial configuration program:

For 32-bit: # `INSTALLROOT/messaging/bin/configure`

For 64-bit: # `INSTALLROOT/messaging64/bin/configure`

For detailed instructions, see [Messaging Server 7 Update 3: Initial Configuration](#).

When the Messaging Server `configure` program lists the components to configure, select

Webmail Server

Make sure that the other components are not selected.

3. Set the following `configutil` parameters. The Webmail Server uses these `configutil` parameters to log in to the back-end IMAP servers:

<code>configutil</code> Parameter	Description
<code>local.service.proxy.admin</code>	Default backend store administrator login name. (Restart of HTTP service required; Restart of IMAP service required). Syntax: string Default: <code>admin</code>
<code>local.service.proxy.adminpass</code>	Default store administrator password. (Restart of HTTP service required; Restart of IMAP service required). Syntax: string Default: <code>&lt;admin.password&gt;</code>
<code>local.service.imapport</code>	Default IMAP port number for backend store servers. (Restart of HTTP service required; Restart of IMAP service required). Syntax: integer Default: <code>143</code>

Note that 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:

<code>local.service.proxy.admin.<i>hostname</i></code>
<code>local.service.proxy.adminpass.<i>hostname</i></code>
<code>local.service.imapport.<i>hostname</i></code>

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: [Convergence 1 Update 3 - Configuration Worksheet](#)
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
- Application Server 9.1 Update 2

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 IM Server.

For detailed instructions, see [Convergence 1 Update 3: Initial Configuration](#).

# Chapter 10. Communications Suite 7 What's New

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## What's New in This Release of Communications Suite 7

This document summarizes all features in Sun Java Communications Suite 7 that are new or have been enhanced since Sun Java Communications Suite 6 Update 2 was originally distributed in April 2009, for the following components:

### Communications Suite 7 Products and Components

Product	Version
Messaging Server	7 Update 3
Instant Messaging	8 Update 2
Convergence	1 Update 3
Calendar Server	7
Delegated Administrator	7 (latest patch)
Outlook Connector	7.3 Update 1 (latest patch)
Calendar Server	6.3 (latest patch)
Indexing and Search Service	1
Comms Sync	3.1 (latest patch)
Comms Installer	7
Messaging Server HA Agent (MS_SCHA)	7
Calendar Server HA Agent (CS_SCHA)	6.3
Instant Messaging HA Agent (IM_SCHA)	7.3
comm_dssetup	6.4 (latest patch 6.4p5)

This document contains the following sections:

- [What's New in Communications Suite 7](#)
- [What's New in Sun Convergence 1 Update 3](#)
- [What's New in Messaging Server 7 Update 3](#)
- [What's New in Calendar Server 7](#)
- [What's New in Calendar Server 6.3](#)
- [What's New in Indexing and Search Service 1](#)
- [What's New in Instant Messaging 8 Update 2](#)
- [What's New in Delegated Administrator 7](#)
- [What's New in Connector for Outlook 7.3 Update 1](#)
- [What's New in DSsetup 6.4p5](#)

## What's New in Communications Suite 7

Communications Suite 7 includes the following changes and new features:

- [Upgrading to Communications Suite 7](#)
- [System Virtualization Support](#)

### **Upgrading to Communications Suite 7**

If you choose to upgrade to Communications Suite 7, see [Communications Suite 7 Upgrade Guide](#).

### **System Virtualization Support**

See [System Virtualization Support in Sun Java System Products](#) for a summary of Sun support for Sun Java System products and Sun Java suites, including Sun Java Communications Suite, when used in conjunction with system virtualization products and features.

## **What's New in Sun Convergence 1 Update 3**

Convergence 1 Update 3 includes the following changes and new features:

- [POP Access to External Email](#)
- [Sender Identities](#)
- [Single Click Creation of Events](#)
- [Attachment Search](#)
- [Autocomplete Addresses from Corporate Directory](#)
- [Multiple Select in Address Book](#)
- [Support for Internet Explorer 8](#)
- [Single Click Selection of all Messages](#)
- [Exporting Selected Entries from Address Book](#)
- [Toolbar Changes](#)
- [Address Book Notifications](#)
- [Group-wise Listing of Configuration Parameters](#)
- [Support for Sun GlassFish Enterprise Server 2.1](#)
- [Anti-Spam Functionality](#)

### **POP Access to External Email**

Sun Convergence enables you to collect emails from remote servers that allow POP access. You can compose, reply, and forward email by using Convergence without logging in to the site to manage your email. The Convergence client provides a wizard to set up the external accounts. Convergence authenticates the configured user against the remote server and collects emails in a designated folder (Inbox by default). To learn more about how to configure Convergence to collect external email, see [Sun Convergence Online Help](#).

### **Sender Identities**

Sun Convergence enables you to create and manage multiple identities. Each identity consists of its own sender name, reply-to email address, vCard, and a signature. Every identity is associated with a corresponding external account configured. The identity is created automatically with default values when a POP account is configured. See [POP Access to External Mail](#). When sending emails, you can select the identity to use. When composing, replying, or forwarding an email, the Convergence client provides a drop-down list displaying the identities that you have configured. You can choose the identity you want to use when sending the email. To learn more about how to work with this feature, see the [Sun Convergence Online Help](#).

### **Single Click Creation of Events**

Sun Convergence enables you to create events in the Day, Week, Month, and Next 7 views by single

clicking on the time slot at which you want to create the event. A call out appears when you single click on the time slot. To learn more about how to work with this feature, see the Sun Convergence Online Help.

### **Attachment Search**

Sun Convergence enables you to search for attachments that you receive in your email. Using this feature you can search and view email attachments. This feature is available only when the search service is enabled by the administrator. Convergence uses Sun Java Indexing and Search Service to index email attachments. If enabled, a virtual folder named Attachments is displayed in the Convergence client. This feature provides different ways in which you can view your attachments and also provides an interface to apply filters to search for attachments. You can filter your search based on the sender of the attachment, a date range when you received the attachment, or the type of file that you are searching. To learn more about how to work with this feature, see the Sun Convergence Online Help.

### **Autocomplete Addresses from Corporate Directory**

Sun Convergence provides the autocomplete feature of email addresses for Corporate Directory. The autocomplete feature enables you to select your contacts or groups without having to remember the name or email address. As you type the name or email address of your contact or group, a drop-down list displays the set of contacts that match the typed characters. The autocompletion of addresses is always enabled for Personal Address Books. For Convergence to provide autocompletion of corporate address book entries, a server-side parameter to enable corporate address book search must be set. For more information on how to work with this feature, see Sun Convergence Online Help. To know more about how to enable corporate directory searches in Convergence, see [Sun Convergence Administration Guide](#).

### **Multiple Select in Address Book**

Sun Convergence enables you to perform relevant group actions on multiple contacts in your address book. For example, to send an email to multiple contacts, select the contacts from the address book and select the option to send an email. The compose email window opens and the contacts are added as recipients of the email. Other actions include: creating events, exporting contacts, or deleting contacts. The actions that you can perform depend on the address book (personal or corporate) that you are using. For more information about this feature, see the Sun Convergence Online Help.

### **Support for Internet Explorer 8**

Sun Convergence now supports Internet Explorer 8.

### **Single Click Selection of all Messages**

Sun Convergence provides a button that enables you to select all the email messages in a folder. Click the **Select All** button on the mail tool bar to select all messages. All messages in the current folder are selected. This is useful to perform specific actions on all messages in your email folder.

### **Exporting Selected Entries from Address Book**

Sun Convergence now enables you to export selected entries from your address book. Starting this release, you can export a selected few entries from your address book in addition to exporting the entire address book. To learn more about this feature, see the Sun Convergence Online Help.

### **Toolbar Changes**

The Convergence client now provides an improved user experience. The icons in the tool bar have been replaced with slimmer buttons with labels. Buttons associated with multiple actions are combined and displayed as combo buttons or drop-down lists. This has been done to avoid wrapping of icons in the tool bars.

The following are some of the changes:

- Combo buttons are used where there are alternatives and where one alternative is likely to be more common. In the Mail module, **Forward as Attachment** and **Forward Inline** are presented on a combo button labeled **Forward**. Clicking the label portion of the combo button triggers the **Forward as Attachment** action. Clicking the drop-down arrow of the combo button displays a menu with the two forwarding actions as options.
- Drop-down buttons are used when there are alternatives and where no alternative is likely to be more common. In the Address Book module, the printing actions to print the whole address book or group verses printing an individual entry, are presented on a drop-down list.
- Less common actions are moved to the quick action tool bar to the left pane in the Convergence client. The Import/Export icon for Address Book is now available on the quick actions tool bar on the left pane.
- Actions that are not applicable are hidden instead of being disabled. For example, when managing group address books, only the buttons that are relevant to groups are visible on the toolbar.

### Calendar Toolbar Changes

In the Calendar module, the tool bar has undergone significant changes. In the previous releases, the Calendar user interface provided two kinds of buttons:

- Those associated with actions. For example, New Event, New Task, and so on.
- Those associated with controlling the view. For example, Day View, Week View, and so on.

In the new user interface, all buttons that are associated with actions are displayed on the toolbar. A new row has been added under the tool bar displaying the actions that are associated with controlling the display. The view controls are displayed as buttons.

### Address Book Notifications

Sun Convergence provides a JMS (Java Messaging Service) based notification service for the Personal Address Book (PAB). The notification feature enables administrators to set up a framework where messages are published to a JMS broker, when a state change occurs in a users personal address book. The notification messages are published on a JMS topic or a Queue that can then be consumed by a client. To know more about the Address book notification feature, see [Convergence Address Book JMQ Notification](#).

### Group-wise Listing of Configuration Parameters

You can now list group-specific configuration parameters in Sun Convergence by using the `iwadmin` command. The scope of the `-l` switch in the `iwadmin` command is broadened. This command is useful when you want to see the values specific to a particular module, for example, `mail`, in your Convergence deployment. To learn more about this feature, see [Using the Sun Convergence Administration Utility](#).

### Support for Sun GlassFish Enterprise Server 2.1

Sun Convergence now supports Sun GlassFish Enterprise Server 2.1.

### Anti-Spam Functionality

The anti-spam functionality in this release of Sun Convergence has undergone the following changes:

Sun Convergence provides new parameters to configure the anti-spam feature. To learn more about how

to configure Convergence for action against spam messages, see [Enabling Anti-Spam](#).

This release includes the following changes in the Convergence client for the anti-spam functionality:

- If anti-spam action is configured, a new system folder is created based on the name given by the administrator as a designated spam folder.
- All spam messages are moved to the designated spam folder when a mail is marked as spam.
- When spam messages are deleted in the spam folder by clicking on the Delete button, the messages are permanently deleted.
- The Not Spam button is displayed in the mail tool bar only when you select the spam folder.

## What's New in Messaging Server 7 Update 3

Messaging Server 7 Update 3 includes the following changes and new features:

- [Red Hat Enterprise Linux 5 Support](#)
- [Elimination of `setuid` binaries from Messaging Server `pipe\_master` and `l\_master`](#)
- [Running the Directory Server Setup Script \(`comm\_dssetup.pl`\) Required](#)
- [New Initial Configuration Tool](#)

### Red Hat Enterprise Linux 5 Support

This release of Messaging Server supports Red Hat Enterprise Linux 5 (Release 5.3 on x64). For more information, see the [Messaging Server 7 Update 3 Release Notes](#).

### Elimination of `setuid` binaries from Messaging Server `pipe_master` and `l_master`

To improve product security, Messaging Server no longer uses `setuid` binaries at all (`pipe_master` and `l_master` are no longer `setuid` as of this release). This should resolve linking problems that resulted in `pipe_master` breaking when NSS is upgraded to 3.12. For more information, see the [Messaging Server 7 Update 3 Release Notes](#).

### Running the Directory Server Setup Script (`comm_dssetup.pl`) Required

You must run the version of `comm_dssetup.pl` that is bundled with the Communications Suite 7 installer.

### New Initial Configuration Tool

Some of the main changes to the initial configuration tool include the following:

The new `configure` tool Interactive mode asks fewer questions and they appear in a different order from previous releases. If a valid domain already exists in directory, it will not be modified by initial configuration. There is no prompt for the group if the UNIX user already exists. It uses the group to which the user belongs. There is no prompt for the default organization DN. If the domain exists in LDAP, it uses the only correct value, otherwise it defaults to `o=<domain>,<ugsuffix>`. The `stateFile` setting to override works if the domain does not exist. There is no prompt for components to configure. Configuration files for all components are always generated. User can turn on/off desired components on or off easily with `configutil`.

## What's New in Calendar Server 7

Calendar Server 7 includes the following new features:

- [CalDAV Support](#)
- [iCal Support](#)

- Authentication
- Scheduling Support
- WebDAV Sync
- Free-Busy Servlet
- Installation and Configuration
- Logging Service
- Notifications
- Admin Servlet
- Administrative Utilities
- Administrators Group
- LDAP Integration
- Collection tag or ctag
- Support for Multiple Back-end and Front-end Servers to Achieve Horizontal Scalability
- Hosted Domains
- Future Enhancements

## CalDAV Support

Calendar Server 7 provides support for the calendaring extension to WebDAV as defined in [RFC 4791](#). The CalDAV draft extends the basic HTTP and WebDAV commands to enable all the functionality required for calendaring and scheduling activities. Included in Calendar Server 7 is support for the following:

- PUT, POST, GET, MULTIGET, REPORT, HEAD, OPTIONS, PROPFIND, and PROPPATCH methods
- MKCALENDAR method, for creating multiple calendars per user
- Enhanced query reports, to both return recurring events and tasks in expanded form (in UTC), and to return only requested properties or parameters

## iCal Support

Calendar Server 7 supports the iCalendar data format as defined in [RFC2445bis](#). The following components are supported:

- VEVENT
- VTODO
- VFREEBUSY
- VTIMEZONE
- VALARM

Recurring rules and exceptions are also supported.

## Authentication

Calendar Server 7 supports basic HTTP authentication and authentication over SSL. With HTTP authentication you can do the following:

- Restrict access to authenticated users only
- Provide userid and password and execute commands on a calendar

## Scheduling Support

Calendar Server 7 supports scheduling as defined in [Version 04 of the CalDAV Scheduling draft](#). This specification defines explicit scheduling, where invitations and replies are placed in the recipient's inbox. It is then the client's responsibility to view and move them to the appropriate calendars. The latest version of the draft, which defines implicit scheduling, will be implemented in a future release.

The following list provides more information about scheduling support in Calendar Server 7:

- Free-busy queries on attendees.
- Calendar-outbox and calendar-inbox for every user, as well as the ability to use the POST command for invitations and replies.
- iTIP and iMIP protocols, as defined in [RFC 2446](#) and [RFC2447](#). Invitation emails are sent out for recipients without accounts on the calendar server, with all event details.
- iSchedule protocol, which enables Calendar Server to act as a client and perform scheduling with servers from other products that support iSchedule.

## WebDAV Sync

Calendar Server 7 supports WebDAV Sync, an extension of the WebDAV protocol as described in the [WebDAV Sync draft](#). WebDAV Sync defines a protocol for an HTTP client to query an overview of the data changes on the HTTP server. The result is that clients can efficiently synchronize their local data cache with the server.

## Free-Busy Servlet

Calendar Server 7 provides a free-busy servlet to enable non-CalDAV clients to at least check users' freebusy information by using the upcoming free-busy-read URL standard. This standard is compatible with the free-busy URLs used by Calendar Server 6.0 through Calendar Server 6.3.

## Installation and Configuration

You install Calendar Server software by using the Communications Suite installer. You then configure a Calendar Server instance by using the `init-config` configurator, which makes configuration settings for your Directory Server, GlassFish Enterprise Server, and Calendar Server (DAV server) hosts. In addition, [Sun Service Tags](#) are used solely to identify Sun products to Sun. Sun uses service tag information to better support you. Registration data is only collected when your system administrator requests gear discovery. Calendar Server 7 enables you to use the Service Tag Facility on Solaris OS 10.

## Logging Service

The Calendar Server 7 logging service is a multilevel, configurable, logging module to help capture activity or debugging issues.

## Notifications

Calendar Server 7 provides Java Message Service (JMS) notifications and email notifications for database changes and event or task email alarms. You can configure the server to produce JMS notifications for every database change and every alarm. If you choose, you can write your own subscribers to these notifications. In addition, Calendar Server 7 provides a subscriber program, which you can configure, that consumes the JMS notifications and sends email for database changes and email alarms.

## Admin Servlet

Calendar Server 7 contains an admin servlet, providing a web interface with which you view and even delete contents in your collections. You can also use the admin servlet to import iCal data to specific calendar collections.

## Administrative Utilities

By using the `davadmin` command, you can perform the following tasks:

- Obtain server version information
- Read and modify the server configuration

- Obtain, modify, or delete information about user collections and resources

You can use [Jconsole](#) to perform these tasks.

Calendar Server 7 also provides database utilities to back up and restore calendar collections.

## Administrators Group

A predefined Admin group in LDAP is created during initial configuration, to which you can add users for proxy login and management of any user account. The default administrator user added during initial configuration is `calmaster`.

## LDAP Integration

Calendar Server 7 uses Directory Server with the latest Communications Suite schema to store and manage user information in its LDAP database. Support includes:

- Capability of obtaining principal information from LDAP
- Capability of matching principals to their calendar collections
- Use of LDAP information for auto-creation of basic calendars on login or invitation
- Use of LDAP caching for faster lookup results
- Use of LDAP rollover support to use a backup LDAP server if primary LDAP server is not available

## Collection tag or ctag

Calendar Server 7 supports "Calendar Collection Entity Tag (CTag)," an extension to CalDAV that provides a fast way for a client to determine if the contents of a calendar collection have changed.

## Support for Multiple Back-end and Front-end Servers to Achieve Horizontal Scalability

The Calendar Server 7 architecture enables you to deploy multiple front-end calendar servers and multiple back-end MySQL database servers to achieve horizontal scalability. See [Calendar Server Logical Architecture](#) for more information.

## Hosted Domains

Like the rest of the Communications Suite products, Calendar Server 7 supports virtual domains, also called hosted domains, which is the ability to support users in more than one domain, on a single deployment. A default domain is configured during the initial configuration.

## Future Enhancements

The following features are not available in the first official release (Revenue Release, or RR) of Calendar Server 7 but are being developed for a future update:

- Subscriptions
- Public and shared calendars  
Note: Currently, Calendar Server 7 users can view freebusy information and invite others but cannot subscribe to other calendars. To read and manage a calendar, users need to be logged in.
- WebDAV ACLs
- Attachments
- WCAPbis servlet, to enable support for Convergence and Connector for Outlook



#### Note

No support for Communications Express in Calendar Server 7 is planned, as Communications Express is a deprecated client. Calendar Server 7 will not support Communications Express even when WCAPbis support is available.

- Migration tool, to migrate Calendar Server 6 data to Calendar Server 7
- Support for resource calendars and group calendars

## What's New in Calendar Server 6.3

This version of Calendar Server 6.3 includes bug fixes only.

## What's New in Indexing and Search Service 1

Indexing and Search Service 1 includes the following new features:

- [Index](#)
- [Search](#)
- [Indexing and Search Service and Convergence](#)

### Index

- **Rapid Indexing of Existing Email:** Email messages in a user's mailbox can be indexed. During this operation content is tagged in various ways to enable sophisticated searches.
- **Real-time Indexing:** As email messages are received, sent, and moved to various folders, the index is updated in real-time. This reduces to near zero the chances of a false search result based on stale index information.

### Search

- **Attachment Search:** Users can search the body of attachments for keywords or phrases. Attachments can be in a variety of formats such as PDF; Microsoft Word, Excel, PowerPoint, and Visio; StarOffice/Open Office; HTML; and more.
- **Body Search:** Users can search the body of a message for any relevant content. With Indexing and Search Service, body search includes search of supported attachment types as well as the plain text body of a message.
- **Search Integration with Sun Convergence:** Indexing and Search Service integrates with Convergence through its existing search interface. Body searches are much faster and more powerful because they now not only search message text but also attachment contents.
- **Search Integration with Messaging Server:** Other email clients can leverage improved body search and expanded attachment body search by using Messaging Server's IMAP search integration with Indexing and Search Service. The underlying search mechanism is transparent to a Messaging Server client.
- **RESTful Search Web Service API:** Based on the OpenSearch 1.1 specification, the RESTful Search Web Service API provides RSS 2.0, Atom 1.0 or JSON format output. This interface is used by Messaging Server when it redirects IMAP SEARCH requests to Indexing and Search Service and by the sample search user interface. It can also be used by developers to mash up their email search results with other applications if desired.

### Indexing and Search Service and Convergence

ISS integrates with Convergence through its existing search interface, that is, Convergence continues to execute searches by using the compact WMAP protocol with the `mshttpd` daemon. The `mshttpd` daemon continues to service these requests by using the IMAP protocol. Messaging Server integrates

with ISS through an enhanced IMAP SEARCH functionality, and a subset of these search requests (particularly, body searches) go to ISS for fulfillment. Messaging Server consumes the ISS output and reformats it for the email client.

The result is that no changes are needed to Convergence or Thunderbird clients because ISS integrates with Messaging Server rather than the end-client.

The long-term plan for integrating Convergence and Thunderbird (through a plug-in) with ISS will be to have the clients communicate directly with ISS directly by using ISS's RESTful web service for search.

## What's New in Instant Messaging 8 Update 2

Instant Messaging 8 Update 2 includes the following changes and new features:

- [Using Shoal for Automatic Discovery of Peer Servers in a Pool](#)
- [Support for Red Hat Enterprise Linux 5](#)

### Using Shoal for Automatic Discovery of Peer Servers in a Pool

The server pool had to be stopped for reconfiguration if more servers had to be added to the pool. Instant Messaging 8 Update 2 enables the use of Shoal clustering framework to automatically discover and add peer servers in a server pool. For more information, see [Using Shoal for Server Pool Messaging](#).

### Support for Red Hat Enterprise Linux 5

Instant Messaging 8 Update 2 now supports Red Hat Enterprise Linux version 5.

## What's New in Delegated Administrator 7

Delegated Administrator 7 includes the following changes and new features:

- [Provisioning for Calendar Server Users](#)

### Provisioning for Calendar Server Users

Delegated Administrator 7 now supports Calendar Server 6.x and Calendar Server 7 provisioning. While basic calendar user provisioning is the same for both servers, Calendar Server 7 makes use of the new `davStore` attribute and not `icsdwphost` to assign a specific back-end in a multi-backend scenario. You can add the `davStore` LDAP attribute to users' and resources' subject entries to associate those users and resources with a particular back-end Calendar Server store. The value of the `davStore` attribute is equal to one of the `davStore` IDs defined in the server configuration. `davStore` is single valued. When not present, a server configurable default `davStore` ID is used.

When a user or group is assigned a calendar service, the `davEntity` objectclass will be added along with `icscalendaruser` or `icscalendargroup` objectclass enabling you to provision the user or the group with a `davStore` attribute.

The new user wizard with the Calendar Service Details consists of the following fields:

```
Calendar Host:
Calendar Store:
Timezone:
```

where the `Calendar Host` and `Timezone` are applicable to Calendar Server 6.x and `Calendar Store` is applicable to Calendar Server 7.

The user properties section in the Calendar Service Details consists of the following fields:

```
Calendar Host: (icsdwphost)
Calendar Store: (davstore)
Email Address: (mail)
Default Calendar: (icscalendar)
Owned Calendar: (icscalendarowned)
Subscribed Calendar: (icssubscribed)
Timezone: (icstimezone)
Calendar Service Status: (icsstatus)
```

where the Calendar Host, Default Calendar, Timezone, Owned Calendar, Subscribed Calendar are applicable to Calendar Server 6 and Calendar Store is applicable to Calendar Server 7. EmailAddress and Calendar Service Status are applicable to both servers.

A new field called Calendar Store is added for Calendar Server 7 users. When configuring a user in Delegated Administrator with Calendar services, a valid davstore ID has to be entered in the Calendar Store field instead of hostname.

## What's New in Connector for Outlook 7.3 Update 1

This version of Connector for Outlook 7.3 Update 1 includes the following new features:

- [Viewing Quota and Size Information](#)
- [Saving File Attachments in Optimized Mode](#)

### Viewing Quota and Size Information

Connector for Microsoft Outlook 7.3 Update 1 now enables you to view your mailbox quota and folder size information. The quota information is displayed in kilobytes and the storage information for the selected folder is displayed as percentage.

### Saving File Attachments in Optimized Mode

Connector for Microsoft Outlook 7.3 Update 1 now enables you to save the file attachments outside the PST using the Optimized mode. In Normal mode, the complete message including attachments are stored in the PST file locally. The Optimized mode reduces the local PST file size by not storing the message attachments in the PST. This mode is useful for virtual desktop environments, where the desktop is being stored in a centralized location and is downloaded every time a user logs into the network. The desktop data size that includes the PST file associated with the logged in user, will be reduced in the Optimized mode.

Optimized mode is not recommended for normal desktop users because in this mode, the message and its attachments, when accessed, will be downloaded from the server in every login session. The administrator can configure to create a profile in either Normal mode or Optimized mode, default being Normal mode.

## What's New in DSsetup 6.4p5

This version of DSsetup contains the following new features and bug fixes:

- [Bugid 6845336](#) 🟢 update uwc schema Idif with an extension for AB notification in convergence update
- [Bugid 6845575](#) 🟢 schema changes for CALDAV

- Bugid 6851767  schema changes for mailserv (list management)
- Bugid 6852299  add suffix for mailserv MS 7u3 feature
- Bugid 6851768  need anonymous access to cn=CommsServers,o=comms-config to read dssetup version
- Bugid 6851773  do not install AM search templates if AM was not installed
- Put all the dssetup generated files under a single subdirectory
- numeric oids for mailserv and cleanup of the following schema files: 50ns-msg.ldif 55ims-ical.ldif 56ims-schema.ldif
- save old schema files, log stored dssetup info
- Bugid 6862979  comm\_dssetup.pl reports DS version as 6.3 for 6.3.1 installations
- Bugid 6862978  need to check for default indexes for DS6

### **Bugid 6845336 update uwc schema ldif with an extension for AB notification in convergence update**

The schema change was made to the 98ns-dummy-uwc.ldif file

- Add attribute abEventNotificationDestination to sunUCPreferences objectclass for Convergence

### **Bugid 6845575 schema changes for CALDAV**

The schema changes for the new CALDAV server (aka Calendar Server 7) are all in the 60iplanet-calendar.ldif file

- New objectClass davEntity
- New Attributes for davEntity
  - davStore
  - davAllowedServices
  - davTimezone
  - davEventNotification
  - davEventNotificationDestination
- Make icsCalendarUser, icsCalendarResource, and icsCalendarDomain AUXILIARY classes of inetOrgPerson, inetResource, and inetDomain, respectively
- Add davAllowedServices to icsCalendarDomain objectclass

### **Bugid 6851767 schema changes for mailserv (list management)**

The schema changes for the mailserv Messaging Server feature are all in the 56ims-schema.ldif file.

- New attributes for inetMailGroup objectclass
  - mgrpUniqueld
  - mgrpDescription
  - mgrpDelayNotifications
  - mgrpDigestInterval
  - mgrpMaxMessagesPerDay
  - mgrpAdvertised
  - mgrpPublicRoster
  - mgrpSubscribePolicy
  - mgrpUnsubscribePolicy
  - mgrpJettisonBroadcasters
  - mgrpJettisonDomain
  - mgrpTrustNewMembers
  - mgrpListTag
- Added allowed attributes for inetMailGroup objectclass
  - mail
  - cn
- New objectclass inetMailingListUser

- New attributes for inetMailingListUser
  - mluserUniqueid (required attribute)
  - mluserPassword
  - mluserJoinDate
  - mluserJoinIPAddress
- New objectclass inetMailingListSubscription
- New attributes for inetMailingListSubscription
  - mlsbListIdentifier (required attribute)
  - mlsbMail
  - mlsbRole
  - mlsbDigest
  - mlsbReceiveMail
  - mlsbSuppressDuplicates
  - mlsbJoinDate
  - mlsbJoinIPAddress
  - mlsbTentativeEmail
  - mlsbTrack
  - mlsbActionKey

### **Bugid 6852299 add suffix for mailserv MS 7u3 feature**

For the Messaging Server mailserv feature:

- A new suffix is created: o=mlusers
- index mail (for eq), mlsbListIdentifier (for eq) and mlsbMail (for eq) on o=mlusers suffix
- index cn (for eq) and mgrpUniqueid (for eq) on the user/group suffix
- Add mlsuffix=o=mlusers sunkeyvalue to dssetup info, i.e. the well-known DN  
cn=CommServers,o=comms-config

### **Bugid 6851768 need anonymous access to cn=CommsServers,o=comms-config to read dssetup version**

Add an aci to allow anonymous access to cn=CommsServers,o=comms-config the well-known DN where dssetup info is stored. This allows products (like Messaging Server) to access the stored dssetup information without having to authenticate.

### **Bugid 6851773 do not install AM search templates if AM was not installed**

The Access Manager (AM) search templates are not installed unless we detect that the DS was configured by AM.

### **Put all the dssetup generated files under a single subdirectory**

All the dssetup generated files are now placed under a single subdirectory:  
/var/tmp/dssetup\_<timestamp>

### **numeric oids for mailserv and cleanup of the following schema files: 50ns-msg.ldif 55ims-ical.ldif 56ims-schema.ldif**

All the oids in the schema files 50ns-msg.ldif 55ims-ical.ldif and 56ims-schema.ldif have been converted to numeric oids. Eventually all oids will be converted to numeric oids.

### **save old schema files, log stored dssetup info**

- The old schema files are now saved in /var/tmp/dssetup\_<timestamp>/save.
- The stored dssetup information in the Directory Server is now printed to the dssetup log file

### **Bugid 6862979 comm\_dssetup.pl reports DS version as 6.3 for 6.3.1 installations**

The full version of Directory Server (DS) is now reported not just the major and minor numbers. In addition, a check is added to see if you are at DS 5.2 Patch 6 or later. This check is done due to the NSS incompatibility, see the NSS incompatibility information at this url:  
<http://docs.sun.com/source/820-3003/index.html>

**Bugid 6862978 need to check for default indexes for DS6**

The check for default indexes that are created automatically with every new suffix was not implemented properly for DS 6.x.

# Chapter 11. Communications Suite 7 Initial Configuration

---

## Communications Suite 7 Initial Configuration

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 6.3 Initial Configuration](#)

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Page: [Calendar Server 6.3 Post-Configuration Tasks](#)

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Page: [Calendar Server 7 Initial Configuration](#)

---

Page: [Convergence 1 Update 3 Initial Configuration](#)

---

Page: [Delegated Administrator 7 Initial Configuration](#)

---

Page: [Indexing and Search Service 1 Initial Configuration](#)

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Page: [Instant Messaging 8 Update 2 Initial Configuration](#)

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Page: [Messaging Server 7 Update 3 Initial Configuration](#)

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# Chapter 12. Communications Suite 7 Installation Scenario - Directory Server

## Communications Suite 7 Installation Scenario - Install Directory Server

Topics:

- Assumptions
- Which Software Components and Downloads Do You Need?
- Which Task Sequence Do You Follow?

### Assumptions

This scenario shows how to install Directory Server on a separate host. It is based on the *Install/configure Directory Server. Install & run comm\_dssetup* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Directory Server installation is one functional component of your multi-host deployment.
- You are installing Directory Server on a separate host or Solaris zone. You are not bundling Directory Server with Communication Suite products on the same host.
- If you are deploying multiple instances of Directory Server across several hosts or zones, you can follow these instructions for each host on which you install Directory Server.

### Which Software Components and Downloads Do You Need?

- Directory Server Enterprise Edition 6.3.1
- Communications Suite--for the Directory Server setup script, `comm_dssetup.pl`

Download both of these software files from the Communications Suite download site. For details, see [Get the Software](#).



#### Which Version of Directory Server Do I Download?

Download Directory Server Enterprise Edition 6.3.1 from the Communications Suite download site before you run the JES 5 Update 1 installer. Do not install the Directory Server software bundled with JES 5 Update 1. That is an older version of Directory Server.

If you already started with a version of DSEE that is not at least 6.3.1, you can still get to the recommended DSEE 6.3.1. You must apply an upgrade patch as well as other patches to upgrade to DSEE 6.3.1.

For example, if you obtained the native package format of DSEE on the x86 or SPARC platform on Solaris 10 Operating System, the easier path is to download and install the ZIP file version of DSEE 6.3.1 directly from the Communications Suite download site.

### Which Task Sequence Do You Follow?

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 6.3.1.](#)

Use the following sample session as an example:

```
./dsee_deploy install -i /opt/SUNWdsee

Press Enter to Continue when prompted.
Accept the License Agreement by typing yes when prompted.
The installation proceeds and installs the Directory Server bits in
the specified location /opt/SUNWdsee.

Create your Directory Server instance.
mkdir /var/opt/SUNWdsee
cd /opt/SUNWdsee/ds6/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 by using the dsconf command:
./dsconf create-suffix -h <hostname> -p 389 o=<user/group base
suffix>

# Accept the Certificate and type <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>
```

3. If you need more information about installing Directory Server 6.3.1, see [To Install Directory Server Enterprise Edition 6.3 From Zip Distribution.](#)

4. [Run the Directory Server setup script, `comm\_dssetup.pl`.](#)



**A Note About Installing the Directory Server Setup Script**

In the preceding task, you install `comm_dssetup.pl` with the Communications Suite installer before you install Directory Server. If you follow this sequence, you will have the up-to-date version of `comm_dssetup.pl`. The Directory Server installation process does not overwrite the latest version.

If you install or upgrade Directory Server *before* you run the Communications Suite installer, the Directory Server installation process places an outdated version of `comm_dssetup.pl` on your system. You must use the current version of `comm_dssetup.pl` provided by the Communications Suite installer. However, the Communications Suite installer cannot install a new version with the `commpkg install` command. Instead, run the `commpkg upgrade` command to upgrade to the latest version of `comm_dssetup.pl`.

# Chapter 13. Communications Suite 7 Installation Scenario - Message Store

---

## Communications Suite 7 Installation Scenario - Install Message Store

### Assumptions

This scenario shows how to install the Messaging Server back-end message store on a separate host. It is based on the *Install back-end message store* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Messaging Server back-end message store is one functional component of your multi-host deployment.
- You are installing the message store on a separate host or Solaris zone; you are not bundling the message store with Communication Suite products on the same host.
- If you are distributing multiple partitions of the message store across several hosts or zones, you can follow these instructions for each host on which you install store partitions.

### Which Software Components and Downloads Do You Need?

- Communications Suite: for the Messaging Server message store

Download sites: [Get the Software](#).

### Which Task Sequence Do You Follow?

**Before you install the message store, take these steps:**

1. You must ensure 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 Comms Installer lists the components to install, choose Messaging Server 7 Update 3.

2. Use the following worksheet to gather configuration information for the message store: [Messaging Server 7 Update 3 - Configuration Worksheet](#)
3. Run the Messaging Server initial configuration program:

For 32-bit: # `INSTALLROOT/messaging/bin/configure`

For 64-bit: # `INSTALLROOT/messaging64/bin/configure`

For detailed instructions, see [Messaging Server 7 Update 3: Initial Configuration](#).

4. If you are not also using the webmail server on this message store, disable it with:  
`configutil -o local.http.enable -v 0`
5. If you are configuring LMTP, see [To Configure LMTP Deliver](#).

# Chapter 14. Communications Suite 7 Installation Scenario - Messaging Multiplexor

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## Communications Suite 7 Installation Scenario - Messaging Multiplexor (MMP) Front End

### Assumptions

This scenario shows how to install the Messaging Multiplexor (MMP) front-end on a separate host. It is based on the *Install MMP front end* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This MMP front end is one functional component of your multi-host deployment.
- You are installing the MMP on a separate host or Solaris zone; you are not bundling the MMP with other Communication Suite products on the same host.
- If you are distributing multiple instances of the MMP partitions across several hosts or zones, you can follow these instructions for each host on which you install the MMP.
- You are installing only the MMP front end; you are not installing message store or SMTP functions.

### Which Software Components and Downloads Do You Need?

- Communications Suite: for the Messaging Server MMP front end

Download sites: [Get the Software](#).

### Which Task Sequence Do You Follow?

**Before you install the MMP, take these steps:**

1. You must ensure 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 Comms Installer lists the components to install, choose Messaging Server (64-bit) 7 Update 3.  
Make sure that the other components are not selected.
2. Use the following worksheet to gather configuration information for the MMP: [Messaging Server 7 Update 3 - Configuration Worksheet](#)
3. Run the Messaging Server initial configuration program:
  - For 32-bit: # `INSTALLROOT/messaging/bin/configure`
  - For 64-bit: # `INSTALLROOT/messaging64/bin/configure`For detailed instructions, see [Messaging Server 7 Update 3: Initial Configuration](#).
4. Enable the MMP and disable other product components:

```
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 15. Communications Suite 7 Installation Scenario - Message Transfer Agent

---

## Communications Suite 7 Installation Scenario - Message Transfer Agent (MTA)

### Assumptions

This scenario shows how to install the Message Transfer Agent (MTA) on a separate host. It is based on the *Install MTA Relay In* and *Install MTA Relay Out* leaves in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This MTA relay in and MTA relay out is one functional component of your multi-host deployment.
- You are installing the MTA on a separate host or Solaris zone; you are not bundling the MTA with other Communications Suite products on the same host.
- If you are distributing multiple instances of the MTA across several hosts or zones, you can follow these instructions for each host on which you install the MTA.

### Which Software Components and Downloads Do You Need?

- Communications Suite: for the Messaging Server MTA

Download sites: [Get the Software](#).

### Which Task Sequence Do You Follow?

**Before you install the MTA, take these steps:**

1. You must ensure 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 Comms Installer lists the components to install, choose Messaging Server 7 Update 3.
2. Use the following worksheet to gather configuration information for the MTA: [Messaging Server 7 Update 3 - Configuration Worksheet](#)
3. Run the Messaging Server initial configuration program:
  - For 32-bit: # `INSTALLROOT/messaging/bin/configure`
  - For 64-bit: # `INSTALLROOT/messaging64/bin/configure`For detailed instructions, see [Messaging Server 7 Update 3: Initial Configuration](#).
4. Disable the Message Store and Webmail Server.  
`configutil -o local.store.enable -v 0`  
`configutil -o service.http.enable -v 0`
5. 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 16. Communications Suite 7 Installation Scenario - Messaging Server Webmail Server

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## Communications Suite 7 Installation Scenario - Messaging Server Webmail Server

### Assumptions

This scenario shows how to install the Messaging Server Webmail Server (`mshttpd`) on a separate host. The Webmail Server acts as a front end that handles the HTTP protocol retrieval of messages from the message store. This component is used by Convergence and Communication Express to provide web-based access to end users.

This scenario is based on the *Install Webmail Server* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Webmail Server is one functional component of your multi-host deployment.
- You are installing the Webmail Server on a separate host; you are not bundling the Webmail Server with other Communication Suite products on the same host.
- If you are distributing multiple Webmail Servers across several hosts, you can follow these instructions for each host on which you install the Webmail Server.
- You are installing only the Webmail Server front end; you are not installing message store or SMTP functions.

### Which Software Components and Downloads Do You Need?

- Communications Suite: for the Webmail Server

Download sites: [Get the Software](#).

### Which Task Sequence Do You Follow?

#### Before you install the Webmail Server:

- Make sure you do not configure conflicting port numbers on a machine when various components are running on a single machine. For a list of port numbers used by Messaging Server, see [Default Port Numbers](#).

#### Install and configure the Webmail Server:

1. [Run the Communications Suite installer](#).  
When the Comms Installer lists the components to install, choose Messaging Server 7 Update 3. Make sure that the other components are not selected.
2. Use the following worksheet to gather configuration information for the Webmail Server: [Messaging Server 7 Update 3 - Configuration Worksheet](#).
3. Run the Messaging Server initial configuration program:
  - For 32-bit (i.e. Linux only): # `INSTALLROOT/messaging/bin/configure`
  - For 64-bit (i.e. Solaris only): # `INSTALLROOT/messaging64/bin/configure`

For detailed instructions, see [Messaging Server 7 Update 3: 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):

<code>configutil</code> Parameter	Description
<code>local.service.proxy.admin</code>	Default backend store administrator login name. (Restart of HTTP service required; Restart of IMAP service required). Syntax: string Default: <code>admin</code>
<code>local.service.proxy.adminpass</code>	Default store administrator password. (Restart of HTTP service required; Restart of IMAP service required). Syntax: string Default: <code>&lt;admin.password&gt;</code>
<code>local.service.imapport</code>	Default IMAP port number for backend store servers. (Restart of HTTP service required; Restart of IMAP service required). Syntax: integer Default: <code>143</code>



**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. Communications Suite 7 Installation Scenario - Delegated Administrator

---

## Communications Suite 7 Installation Scenario - Install Delegated Administrator

### Assumptions

This scenario shows how to install Delegated Administrator. It is based on the *Install/configure Delegated Admin* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- Delegated Administrator is one functional component of your multi-host deployment.

### Delegated Administrator and Access Manager

Delegated Administrator has the following dependencies on Access Manager:

- The Delegated Administrator server requires that Access Manager be installed.
- 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 sites: [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 [Install Access Manager](#).
2. When the Comms Installer lists the components to install, choose the following component:  
Comms Delegated Administrator 7  
Make sure that the other components are not selected.
3. Use the following worksheet to gather configuration information: [Delegated Administrator 7 - Configuration Worksheet](#)
4. Run the Delegated Administrator initial configuration program:  
Run the initial configuration program:  

```
# INSTALLROOT/da/sbin/config-commda
```

  
For detailed instructions, see [Delegated Administrator 7: Initial Configuration](#).
5. Restart the web container (such as Web Server 7.x) to which Delegated Administrator and Access Manager are deployed.



# Chapter 18. Communications Suite 7 Installation Scenario - Calendar Server 6.3 Front End

---

## Communications Suite 7 Installation Scenario - Install Calendar Server 6.3 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 an instance of Calendar Server as a front end on a separate host. It is based on the *Install Calendar Server Front End* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Calendar Server front end is one functional component of your multi-host deployment.
- You are installing Calendar Server on a separate host or Solaris zone; you are not bundling Calendar Server with Communication Suite products on the same host.
- If you are distributing multiple instances of the Calendar Server front end across several hosts or zones, you can follow these instructions for each host on which you install the Calendar Server front end.



#### **Deploying a Front End and Back End on One Host**

What if you intend to deploy a single-server instance of Calendar Server (that is, a Calendar Server deployment with both a front end and back end running on this host)?

To deploy a Calendar Server front end *and* back end together: Follow the procedure shown below. However, when you run the Calendar Server configuration program, when the **Set Up a Front End-Back End Deployment** screen is displayed, do not select the check box on this screen.

### Which Software Components and Downloads Do You Need?

- Communications Suite: for Calendar Server

Download sites: [Get the Software](#).

### Which Task Sequence Do You Follow?

**Before you install the Calendar Server front end:**

Be sure you have planned for the following:

- Calendar Server Administrators
- Hosted Domains

For information about these topics, see [Calendar Server Pre-Installation Planning](#).

### **Install and configure the Calendar Server front end:**

1. [Run the Communications Suite installer](#).  
When the Comms Installer lists the components to install, choose the following component:  
Calendar Server 6.3  
Make sure that the other components are not selected.
2. Use the following worksheet to gather configuration information for the Calendar Server front end:  
[Calendar Server 6.3 - Configuration Worksheet](#)
3. Run the Calendar Server initial configuration program:  

```
# INSTALLROOT/calendar/bin/csconfigurator.sh
```

  
For detailed instructions, see [Calendar Server 6.3: Initial Configuration](#).
4. When the Calendar Server `csconfigurator.sh` program displays the **Set Up a Front End-Back End Deployment** screen, select the check box.  
A Front End-Back End Deployment screen appears.
5. To configure this instance of Calendar Server as a front-end server, click **Add a Host**.
6. Enter the host names and IP addresses of the back-end Calendar Server instances with which this front-end will communicate.  
For each back-end Calendar Server, click **Add a Host** and enter its host name and IP address.
7. If this server is the default front-end server, select the **Default** check box.  
For detailed instructions on configuring the **Set Up a Front End-Back End Deployment** screen in the `csconfigurator.sh` program, see [Configuring a Front-End or Back-End Calendar Server](#).

# Chapter 19. Communications Suite 7 Installation Scenario - Calendar Server 6.3 Back End

---

## Communications Suite 7 Installation Scenario - Install Calendar Server 6.3 Back End

Topics:

- [Assumptions](#)
- [Which Software Components and Downloads Do You Need?](#)
- [Which Task Sequence Do You Follow?](#)

### Assumptions

This scenario shows how to install an instance of Calendar Server as a back end on a separate host. It is based on the *Install Calendar Server Back End* leaf in the [Communications Suite 7 Installation Flowchart](#). A Calendar Server back end stores the calendar databases.

The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Calendar Server back end is one functional component of your multi-host deployment.
- You are installing Calendar Server on a separate host or Solaris zone; you are not bundling Calendar Server with Communication Suite products on the same host.
- If you are distributing multiple instances of the Calendar Server back end across several hosts or zones, you can follow these instructions for each host on which you install the Calendar Server back end.



#### **Deploying a Front End and Back End on One Host**

What if you intend to deploy a single-server instance of Calendar Server (that is, a Calendar Server deployment with both a front end and back end running on this host)?

To deploy a Calendar Server front end *and* back end together: Follow the procedure shown below. However, when you run the Calendar Server configuration program, when the **Set Up a Front End-Back End Deployment** screen is displayed, do not select the check box on this screen.

### Which Software Components and Downloads Do You Need?

- Communications Suite: for Calendar Server

Download sites: [Get the Software](#).

### Which Task Sequence Do You Follow?

**Before you install the Calendar Server back end:**

Be sure you have planned for the following:

- Calendar Server Administrators
- Hosted Domains

For information about these topics, see [Calendar Server Pre-Installation Planning](#).

### Install and configure the Calendar Server back end:

1. [Run the Communications Suite installer](#).

When the Comms Installer lists the components to install, choose the following component:

Calendar Server 6.3

Make sure that the other components are not selected.

2. Use the following worksheet to gather configuration information for the Calendar Server back end:  
[Calendar Server 6.3 - Configuration Worksheet](#)

3. Run the Calendar Server initial configuration program:

```
# INSTALLROOT/calendar/bin/csconfigurator.sh
```

For detailed instructions, see [Calendar Server 6.3: Initial Configuration](#).

4. When the Calendar Server `csconfigurator.sh` program displays the **Set Up a Front End-Back End Deployment** screen, select the check box.

A Front End-Back End Deployment screen appears.

5. To configure this instance of Calendar Server as a back-end server, specify the **Service Port**. (Do not check the **Add a Host** box; that box is for configuring a front-end server.)

6. The **Service Port** box is pre-filled with the port named in the `ics.conf` parameters

```
service.dwp.server.hostname.port and service.dwp.port.
```

If you want to change the port number, enter the new port number in the **Service Port** box.

For detailed instructions on configuring the **Set Up a Front End-Back End Deployment** screen in the `csconfigurator.sh` program, see [Configuring a Front-End or Back-End Calendar Server](#).

# Chapter 20. Communications Suite 7 Installation Scenario - Instant Messaging Multiplexor

## Communications Suite 7 Installation Scenario - Install Instant Messaging Multiplexor

### Assumptions

This scenario shows how to install an instance of the Instant Messaging multiplexor on a separate host. It is based on the *Install Instant Messaging Multiplexor* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Instant Messaging multiplexor is one functional component of your multi-host deployment.
- You are installing the Instant Messaging multiplexor on a separate host or Solaris zone; you are not bundling Instant Messaging with Communication Suite products on the same host.
- If you are distributing multiple instances of the Instant Messaging multiplexor across several hosts or zones, you can follow these instructions for each host on which you install the Instant Messaging multiplexor.



#### Deploying 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)?

To deploy an Instant Messaging multiplexor and server together: Follow the procedure shown below. However, when you run the Instant Messaging configuration program, do not select the **Disable Server** option.

### Which Software Components and Downloads Do You Need?

- Communications Suite: for Instant Messaging

Download sites: [Get the Software](#).

### Which Task Sequence Do You Follow?

To install and configure the Instant Messaging multiplexor, take these steps:

1. [Run the Communications Suite installer](#).

When the Comms Installer lists the components to install, choose the following component: Instant Messaging 8 Update 2

Make sure that the other components are not selected.

2. Use the following worksheet to gather configuration information for the Instant Messaging multiplexor: [Instant Messaging 8 Update 2 - Configuration Worksheet](#)
3. Run the Instant Messaging initial configuration program:

```
# INSTALLROOT/im/configure
```

For detailed instructions, see [Instant Messaging 8 Update 2: Initial Configuration](#).

4. When the Instant Messaging `configure` program runs, enter the **Multiplexor Port Number**.  
This is the port number on which the Instant Messaging server listens for incoming requests from Instant Messenger clients. Default: 5222
5. Select the **Disable Server** option.  
Select this option if the instance you are installing will act as a multiplexor and not a server. If you select this option, you must provide a value for **Remote Instant Messaging Server Host Name**.
6. When the **Remote Instant Messaging Server Host Name** option appears, enter 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 21. Communications Suite 7 Installation Scenario - Instant Messaging Server

## Communications Suite 7 Installation Scenario - Install Instant Messaging Server

### Assumptions

This scenario shows how to install an instance of the Instant Messaging server on a separate host. It is based on the *Install Instant Messaging Server* leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on multiple hosts or Solaris zones.
- This Instant Messaging server is one functional component of your multi-host deployment.
- You are installing the Instant Messaging server on a separate host or Solaris zone; you are not bundling Instant Messaging with Communication Suite products on the same host.
- If you are distributing multiple instances of the Instant Messaging server across several hosts or zones, you can follow these instructions for each host on which you install the Instant Messaging server.



#### Deploying an Instant Messaging Multiplexor and Server on One Host

What if you intend to deploy a single-server instance of Instant Messaging (that is, an Instant Messaging deployment with both a multiplexor and IM server running on this host)?

To deploy an Instant Messaging multiplexor and server together: Follow the procedure shown below. 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, take these steps:

1. [Run the Communications Suite installer](#).  
When the Comms Installer lists the components to install, choose the following component: Instant Messaging 8 Update 2  
Make sure that the other components are not selected.
2. Use the following worksheet to gather configuration information for the Instant Messaging server:  
[Instant Messaging 8 Update 2 - Configuration Worksheet](#)
3. Run the Instant Messaging initial configuration program:  

```
# INSTALLROOT/sbin/configure
```

  
For detailed instructions, see [Instant Messaging 8 Update 2: Initial Configuration](#).

4. When the Instant Messaging `configure` program runs, the default port numbers are displayed.
5. Do not select the **Disable Server** option.

# Chapter 22. Communications Suite 7 Installation Scenarios

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## Communications Suite 7 Installation Scenarios

This page automatically lists the installation scenario information you need when installing Communications Suite components in a multiple-host environment. Use the following information to install particular Communications Suite software components on individual machines or Solaris zones in a multiple-host deployment.

Page: [Communications Suite 7 Installation Scenario - Access Manager](#)

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Page: [Communications Suite 7 Installation Scenario - Calendar Server 6.3 Back End](#)

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Page: [Communications Suite 7 Installation Scenario - Calendar Server 6.3 Front End](#)

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Page: [Communications Suite 7 Installation Scenario - Calendar Server 7](#)

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Page: [Communications Suite 7 Installation Scenario - Convergence](#)

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Page: [Communications Suite 7 Installation Scenario - Delegated Administrator](#)

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Page: [Communications Suite 7 Installation Scenario - Directory Server](#)

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Page: [Communications Suite 7 Installation Scenario - GlassFish Enterprise Server](#)

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Page: [Communications Suite 7 Installation Scenario - Indexing and Search Service](#)

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Page: [Communications Suite 7 Installation Scenario - Instant Messaging Multiplexor](#)

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Page: [Communications Suite 7 Installation Scenario - Instant Messaging Server](#)

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Page: [Communications Suite 7 Installation Scenario - Message Store](#)

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Page: [Communications Suite 7 Installation Scenario - Message Transfer Agent](#)

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Page: [Communications Suite 7 Installation Scenario - Messaging Multiplexor](#)

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Page: [Communications Suite 7 Installation Scenario - Messaging Server Webmail Server](#)

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# Chapter 23. Communications Suite 7 Installation Scenario - Indexing and Search Service

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## Communications Suite 7 Installation Scenario - Indexing and Search Service

Topics:

- [Overview of This Scenario](#)
- [Assumptions](#)
- [Which Software Components and Downloads Do You Need?](#)
- [Installing and Configuring an Indexing and Search Service Deployment](#)
- [Uninstall Indexing and Search Service](#)
- [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 Sun Java Indexing and Search Service (ISS). 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 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 also [Communications Suite Deployment Planning Guide](#).

Some of this information assumes that you are using Solaris Operating System (Solaris OS) 10. For Red Hat Linux, substitute the respective Red Hat Linux commands.

### Assumptions

This scenario shows how to install Indexing and Search Service on a separate host. The scenario is based on the *Install Indexing and Search Service* leaf in the [Communications Suite 7 Installation Flowchart](#).

### Which Software Components and Downloads Do You Need?

- Communications Suite: Messaging Server, Indexing and Search Service, and Java Message Queue
- Application server web container for Indexing and Search Service: GlassFish
- 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 Indexing and Search Service involves the following high-level steps:

- 1. [Before You Install and Configure ISS](#)
- 2. [Install, But Do Not Configure, Indexing and Search Service Software](#)
- 3. [Gather Information Required to Configure Indexing and Search Service](#)
- 4. [Prepare Messaging Server for Indexing and Search Service Integration](#)
- 5. [Decide on Indexing and Search Service Installable Components](#)
- 6. [Complete the Indexing and Search Service Installation](#)
- 7. [Index \(Bootstrap\) Users](#)
- 8. [Verify the Indexing and Search Service Installation](#)
- 9. (Optional) [Configure Messaging Server to Use ISS for IMAP SEARCH](#)
- 10. (Optional) [Configure Convergence to Use ISS](#)

## 1. Before You Install and Configure ISS

Satisfy the prerequisites to installing and configuring ISS as follows:

1. Review [Requirements for Communications Suite 7](#) for the operating system, patch, client software, disk space needed, and any additional software requirements for this release of Indexing and Search Service.
2. Install and configure the following required Sun Java System software:
  - Directory Server 6.3.1
  - GlassFish Enterprise Server 2.1
  - (Optional) Apache HTTP Server version 2, for multi-host deployments. See [About Apache HTTP Server version 2](#) for more information about obtaining and installing Apache HTTP Server version 2.  
See [Where Do You Go to Install the Sun Java System Products?](#) for more information about installing Directory Server and GlassFish Enterprise Server.
3. Install the following required Communications Suite software by using the Communications Suite installer:
  - Messaging Server 7 Update 3
  - Java Message Queue 4.3  
See [Install Communications Suite 7 Products](#) for information about running the Communications Suite installer.
4. Configure Messaging Server 7 Update 3.  
See [Messaging Server 7 Update 3 Initial Configuration](#).
5. Configure Java Message Queue 4.3
  - a. 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
```

- b. Tune the IMQ 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
```

- c. Ensure that the IMQ broker is restarted to acquire the new settings:

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

6. 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 <http://docs.sun.com/app/docs/doc/816-4555/time-1?a=view> 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 [http://www.redhat.com/docs/manuals/enterprise/RHEL-5-manual/Deployment\\_Guide-en-US](http://www.redhat.com/docs/manuals/enterprise/RHEL-5-manual/Deployment_Guide-en-US) for more information about NTP on Red Hat Linux.

## 2. Install, But Do Not Configure, Indexing and Search Service Software

1. Run the Communications Suite installer to install the ISS software, for example:

```
./commpkg install
```

2. Select option 6: Indexing Search Services 1.0.
3. See [Install Communications Suite 7 Products](#) for information about running the Communications Suite installer.
4. 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. For this section you only install the software. You configure the ISS software in a later step.

### 3. Gather Information Required to Configure Indexing and Search Service

Complete [this worksheet](#) to use when preparing Messaging Server for Indexing and Search Service integration and when configuring Indexing and Search Service.

### 4. Prepare Messaging Server for Indexing and Search Service Integration

See [Preparing Messaging Server for Indexing and Search Service Integration](#).

### 5. Decide on Indexing and Search Service 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 is required to be GlassFish Enterprise Server and to support the `asadmin` command. The `setup.sh` script installs and configures the following three JAR files on the GlassFish Enterprise 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 the default search UI. You access the default 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
```

#### **Java Message Queue (jmq)**

This component is Java Message Queue for the Indexing and Search Services. The GlassFish Enterprise Server and index services use this message bus to communicate.

#### **Directory Service (ldap)**

ISS requires Directory Server for 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.
- Apache (`httpd`). Used only in multimachine deployments, provides access to the attachment store.

## 6. Complete the Indexing and Search Service 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.sh
```

3. Answer the series of configuration prompts.

For more information, see [Indexing and Search Service 1 Initial Configuration](#).

### To Configure Indexing and Search Service on Multiple Hosts

For multi-host deployments, see [Using setup.sh in a Multi-host Environment](#).

## 7. Index (Bootstrap) Users

Use the `indexSvcBootstrap.sh` command to index users.

For example:

```
# ./indexSvcBootstrap.sh --user <username> --host <hostname> --port 143  
--runoptimizer true
```

For more information about bootstrapping users in general, and in large deployments, see [Indexing and Search Service Performance Tuning](#).

## 8. Verify the Indexing and Search Service Installation

1. You can then search the user's content by accessing it in a browser at the following URL:

```
http://<hostname>:8070/rest
```

Log in as the user or proxy auth as the read-only store admin user (<

```
mail.imap.admin.username><mail.proxyseparator><user>).
```

2. To view a demo web application utilizing the ISS API, try the SearchUI link or access the following URL in a browser:

```
http://<hostname>:8070/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.

## 9. (Optional) Configure Messaging Server to Use ISS for IMAP SEARCH

1. Set `service.imap.indexer.enable` to 1, which redirects IMAP SEARCH queries to ISS for fulfillment:

```
cd <msg-svr-base>/bin
./configutil -o service.imap.indexer.enable -v 1
```

2. Restart Messaging Server.

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

## 10. (Optional) Configure Convergence to Use ISS

See [Convergence Administrative Tasks#Sun Java Indexing and Search Service](#).

1. Configure Convergence to provide ISS attachment interface.

```
cd /opt/sun/comms/iwc/sbin
./iwcadmin -w password -o ISS.enable -v true
./iwcadmin -w password -o ISS.host -v <ISS-web-frontend-FQDN>
./iwcadmin -w password -o ISS.port -v <ISS-web-frontend-port>
```

*ISS-web-frontend-port* is the web component port number on which ISS is deployed (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 Enterprise Server web container, you must increase the number of GlassFish Enterprise 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.

```
cd /opt/SUNWappserver/bin
./asadmin set
server.http-service.request-processing.thread-count = <2 x
number-of-cpus>
```

3. Restart GlassFish Enterprise Server.

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

## Uninstall Indexing and Search Service

1. To uninstall the Indexing and Search Service installed on the local machine, run the `setup.sh -b -u` command, for example:

```
# cd <iss-base>/bin
# ./setup.sh -b <iss-base>/ -u
No setup type found, defaulting to all
Removing single-sign on
Command delete-auth-realm executed successfully.
Undeploying JISS wars to Appserver
OS is SunOS
Running unconfigure
Undeploying Restful API to application server
Command undeploy executed successfully.
Undeploying SeachUI to application server
Command undeploy executed successfully.
Undeploying StoreUI to application server
Command undeploy executed successfully.
Stopping JISS services
OS is SunOS
Running unconfigure
Stopping jmqconsumer
Stopping com.sun.comms.iss.jmqconsumer.JMQConsumer
Stopping searchSvc
Removing topic IndexQueue
Error running command imq del command: IndexQueue
Removing topic cn=AccountStateQueue
Error running command imq del command: IndexQueue
Stopping indexSvc
Removing up mq entries
User repository for broker instance: imqbroker
User misoadmin successfully deleted.
Removing up ldap entries
```

2. If necessary, uninstall the Communications Suite packages.  
See [Uninstalling Communications Suite](#).

## ISS Installation Command-Line Reference

- [check\\_conf.sh Usage](#)
- [configure\\_etc.pl Usage](#)
- [setup.sh 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.sh Usage](#) for more information.

### Troubleshooting ISS Configuration Problems

This section describes how to troubleshoot installation problems without using the `setup.sh` 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 formatting.

```
./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.sh` to configure the system.

```
./setup.sh -b <iss-base>
```

See [Indexing and Search Service Troubleshooting](#) for more information.

## 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
<code>-t TYPE</code>	Optional. Defaults to <code>all</code> . The type of service to check: <code>all</code> : All components <code>web</code> : Checks GlassFish configurations <code>jmq</code> : Checks Java Message Queue configurations <code>ldap</code> : Checks Directory Server configurations <code>index</code> : Checks Index and starts Indexing services <code>ms</code> : Checks message store configurations
<code>-v</code>	Optional. Enable shell debugging.
<code>-h</code>	Optional. Prints help text.

Exit code 0 indicates a success.

Exit code 1 indicates a failure.

Arguments can appear in any order.

#### Example

```
# /opt/sun/comms/jiss/bin/check_conf.sh  
# echo $?
```

## check\_needed.sh Usage

### check\_needed.sh Usage

The `check_needed.sh` utility is used to verify the need dependencies for an Indexing and Search Service installation. This script reads in values from the `iss_base/etc/jiss.conf` file to verify the needed utility is present on the system before configuration and service startup is performed.

**Requirements:** Must be root user.

**Location:** `iss-base/bin/check_needed.sh`

#### Syntax

```
check_needed.sh [ -v ] [ -h ] [ -t TYPE ]
```

#### Options

These are the options for this command:

Option	Description
<code>-t TYPE</code>	Optional. Defaults to <code>all</code> . The types of service to check are: <code>all</code> : All components <code>web</code> : Configure GlassFish <code>jmq</code> : Configure Java Message Queue <code>ldap</code> : Configure Directory Server <code>index</code> : Configure Index and start indexing services
<code>-v</code>	Optional. Enable shell debugging.
<code>-h</code>	Optional. Prints help text.

Exit code 0 indicates a success.

Exit code 1 indicates a failure.

Arguments can appear in any order.

#### Example

```
# /opt/sun/comms/jiss/bin/check_needed.sh  
# echo $?
```

## configure\_etc.pl Usage

### configure\_etc.pl Usage

The `configure_etc.pl` utility is used to generate the Indexing and Search Service `iss_base/etc/jiss.conf` and `iss_base/etc/jiss_passwd.conf` files. This script reads in `iss_base/etc/jiss.conf.template` for default values. If no configuration file is provided at run time, you are prompted to enter all information. If a configuration file is provided at run time and required parameters are missing, you are prompted for a value.

**Requirements:** Must be root user.

**Location:** `iss-base/bin/configure_etc.pl`

#### Syntax

```
configure_etc.pl [ -b <BASEDIR> ] [ -f <CONF_FILE> ] [ -l ] [ -i <FQDN> ] [ -O ] [ -A ] [ -t <TYPE> ] [ -s ] [ -S <FILE> ]
```

#### Options

These are the options for this command:

Option	Description
-b <i>BASEDIR</i>	Required. Specifies the base directory of the installation.
-f <i>CONF_FILE</i>	Optional. Specifies a file from which to read configuration information for the <code>jiss.conf</code> file.
-l	Optional. Use local host for <code>jmq</code> and <code>ldap</code> host names. <code>/bin/hostname</code> must return a fully qualified domain name.
-i <i>FQDN</i>	Optional. Fully qualified domain name to use for host name.
-O	Optional. Overwrites the current <code>jiss.conf</code> and <code>jiss_passwd.conf</code> files.
-A	Optional. Prompts for all configurations.
-t <i>TYPE</i>	Optional. Defaults to <code>all</code> . The type of install or uninstall to perform: <code>all</code> : All components <code>web</code> : Configures GlassFish <code>jmq</code> : Configures Java Message Queue <code>ldap</code> : Configures Directory Server <code>index</code> : Configures index and starts indexing services <code>ms</code> : Configures Message Store Directory Server
-s	Optional. Skips validation steps.
-S <i>FILE</i>	Optional. Saves state to file.
-u	Optional. Specifies to run in UNINSTALL mode.

Arguments can appear in any order.

## Examples

Generate configuration:

```
# /opt/sun/comms/jiss/bin/configure_etc.pl
```

Generate configuration by overwriting current configuration:

```
/opt/sun/comms/jiss/bin/configure_etc.pl -O
```

Read values from a configuration file:

```
# /opt/sun/comms/jiss/bin/configure_etc.pl -f my.conf
```

Generate new configuration file and prompt for all values:

```
# /opt/sun/comms/jiss/bin/configure_etc.pl -A -O
```

# Preparing Messaging Server for Indexing and Search Service Integration

[< Back to Communications Suite 7 Installation Scenario - Indexing and Search Service](#)

## Preparing Messaging Server for Indexing and Search Service Integration

The following instructions describe how to prepare and configure the Messaging Server for integration with ISS.

1. Assign read-only store administrator privileges to the ISS user (by default `indexeradmin`).

```
cd <msg-svr-base>/bin
./configutil -o store.indexeradmins -v indexeradmin
```

2. Configure the IMQ broker on Messaging Server.
  - a. Ensure that the IMQ 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 IMQ 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 IMQ 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 JMQ user, referred to later in `local.store.notifyplugin.index.jmquser` on Messaging Server and `mail.imq.user` in ISS.

Solaris OS:

```
# cd /usr/bin
# ./imqusermgr add -u <jmquser> -p <jmquserpassword> -g user
```

Red Hat Linux:

```
# cd /opt/sun/mq/bin
# ./imqusermgr add -u <jmquser> -p <jmquserpassword> -g user
```

- f. Reset the default account passwords, if not already reset:

Solaris OS:

```
# cd /usr/bin
# ./imqusermgr update -u admin -p <adminpassword>
# ./imqusermgr update -u guest -p <guestpassword>
```

Red Hat Linux:

```
# cd /opt/sun/mq/bin
# ./imqusermgr update -u admin -p <adminpassword>
# ./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. Or you can use JMQ for both IMAP IDLE and ISS.

- 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, replacing `/opt/sun/comms/messaging64` with the Messaging Server base directory:

```
# cd /opt/sun/comms/messaging64/bin
# ./configutil -o local.store.notifyplugin
/opt/sun/comms/messaging64/lib/libibiff
# ./configutil -o local.store.notifyplugin -v
'/opt/sun/comms/messaging64/lib/libibiff$idle$/opt/sun/comms/mes
```

If `local.store.notifyplugin` is not already set, set it as follows, replacing `/opt/sun/comms/messaging64` with the Messaging Server base directory:

```
# cd /opt/sun/comms/messaging64/bin
# ./configutil -o local.store.notifyplugin
# ./configutil -o local.store.notifyplugin -v
'/opt/sun/comms/messaging64/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.annotatmsg.enable -v 0
./configutil -o
local.store.notifyplugin.index.changeflag.enable -v 1
./configutil -o local.store.notifyplugin.index.copymsg.enable
-v 1
./configutil -o local.store.notifyplugin.index.debuglevel -v 0
./configutil -o
local.store.notifyplugin.index.deletemsg.enable -v 0
./configutil -o local.store.notifyplugin.index.destinationtype
-v queue
./configutil -o
local.store.notifyplugin.index.expungemsg.enable -v 1
./configutil -o local.store.notifyplugin.index.jmqhost -v
127.0.0.1
./configutil -o local.store.notifyplugin.index.jmqport -v 7676
./configutil -o local.store.notifyplugin.index.jmqpwd -v
<jmquserpassword>
./configutil -o local.store.notifyplugin.index.jmqtopic -v
INDEXMS
./configutil -o local.store.notifyplugin.index.jmquser -v
<jmquser>
./configutil -o local.store.notifyplugin.index.loguser.enable
-v 0
./configutil -o local.store.notifyplugin.index.maxbodysize -v
262144
./configutil -o local.store.notifyplugin.index.maxheadersize
-v 16384
./configutil -o local.store.notifyplugin.index.msgflags.enable
-v 0
./configutil -o local.store.notifyplugin.index.msgtypes.enable
-v 0
./configutil -o local.store.notifyplugin.index.newmsg.enable
-v 1
./configutil -o
local.store.notifyplugin.index.noneinbox.enable -v 1
./configutil -o local.store.notifyplugin.index.persistent -v 0
./configutil -o local.store.notifyplugin.index.priority -v 4
./configutil -o local.store.notifyplugin.index.purgemsg.enable
-v 0
./configutil -o local.store.notifyplugin.index.readmsg.enable
-v 0
./configutil -o
local.store.notifyplugin.index.updatemsg.enable -v 1
./configutil -o local.store.notifyplugin.index.ttl -v 3600000
./configutil -o local.store.notifyplugin.msgflags -v 1

```



#### Note

If you are deploying ISS on multiple back ends, set the `local.store.notifyplugin.index.destinationtype` parameter to **topic** rather than `queue`.

**Note**

If you are running Messaging Server 7 Update 1, ignore the following warnings if they appear:

```
WARNING: unrecognized option
local.store.notifyplugin.index.annotatmsg.enable has
been set
WARNING: unrecognized option
local.store.notifyplugin.index.changeflag.enable has
been set
WARNING: unrecognized option
local.store.notifyplugin.index.expungemsg.enable has
been set
```

**Warning**

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: 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` may be obsolete and may yield a warning message if attempted to be set. For Messaging Server 7 Update 4, run these commands instead:

```
# cd <msg-svr-base>/bin
# ./configutil -o
local.store.notifyplugin.idle.jmquser -v <jmquser>
# ./configutil -o
local.store.notifyplugin.idle.jmqpwd -v
<jmquserpassword>
```

- If you skip this step, but the following messages appear in the IMAP log after you restart Messaging Server, you must perform one of the previous two options.

```
[09/Apr/2009:22:59:05 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:16 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:26 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:37 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:47 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker: invalid login
[09/Apr/2009:22:59:58 +0000] mailhost imapd[26954]:
General Error: JMQ Error: Broker connection is closed
```

- d. To make the changes effective, restart Messaging Server. For example:

```
# cd <msg-svr-base>/bin
# ./stop-msg
# ./start-msg
```

- e. Verify that the JMQ index plugin is working by checking for an entry such as the following in the `msg-srv-base/log/imap` log:

```
[16/Apr/2009:13:27:03 -0700] mailhost imapd[16589]: General
Notice: jmqNotify plugin loaded: index
[16/Apr/2009:13:27:04 -0700] mailhost imapd[16589]: General
Warning: Sun Java(tm) System Messaging Server IMAP4 7u2-7.02
64bit (built Apr 16 2009) starting up
```

- f. Verify that no login errors have occurred on the IMQ broker by checking the `/var/imq/instances/imqbroker/log/log.txt` file. For example:

```
[06/Apr/2009:19:51:32 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65220->jms:63268. Count: service=1 broker=1
[06/Apr/2009:19:51:33 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65223->jms:63268. Count: service=2 broker=2
[06/Apr/2009:19:51:34 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65226->jms:63268. Count: service=3 broker=3
[06/Apr/2009:19:51:34 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65228->jms:63268. Count: service=4 broker=4
[06/Apr/2009:19:51:35 PDT] [B1065]: Accepting:
jmquser@127.0.0.1:65232->jms:63268. Count: service=5 broker=5
```

g. Verify that Messaging Server has producers connected to the INDEXMS destination:

```
# imqcmd list dst
Username: admin
Password:
Listing all the destinations on the broker specified by:

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

-----
Name          Type      State      Producers      Consumers
Msgs
              Total Wildcard Total Wildcard
Count Remote UnAck Avg Size
-----
Queue RUNNING 24      -           0             -           0           0
0           0.0
JES-MS-IDLE Topic RUNNING 0          0           1           0
0           0          0.0
JES-MS-KILL Topic RUNNING 0          0           1           0
0           0          0.0
mq.sys.dmqs Queue RUNNING 0          -           0           -
0           0          0.0

Successfully listed destinations.
```

h. For more information, see [JMQ Notification](#).

4. Prepare, but do not enable, Messaging Server to forward IMAP SEARCH queries to ISS.

***ISS IMAP SEARCH configutil Parameters***

Parameter	Description	Default Value
service.imap.indexer.hostname	Name of host providing ISS RESTful search service	NULL (must be configured if service.imap.indexer.enable is set)
service.imap.indexer.port	Port number of ISS RESTful search service	8080
service.imap.indexer.enable	Whether Messaging Server should be activated, diverting IMAP SEARCH requests to ISS	0



#### Note

After ISS has been enabled, and users have been indexed and searching has been verified, this step is revisited to set `service.imap.indexer.enable` to 1 so that the setting then redirects IMAP SEARCH queries to ISS for fulfillment.

- a. Before ISS is enabled, apply the following settings:

```
# cd <msg-svr-base>/bin
# ./configutil -o service.imap.indexer.hostname -v
<iss-web-frontend-host-name>
# ./configutil -o service.imap.indexer.port -v
<iss-web-frontend-port-number>
# ./configutil -o service.imap.indexer.enable -v 0
```



#### Note

If you are using Messaging Server 7 Update 1, the `configutil` names are different and you should instead run the following:

```
# cd <msg-svr-base>/bin
# ./configutil -o service.imap.miso.host -v
<iss-web-frontend-host-name>
# ./configutil -o service.imap.miso.port -v
<iss-web-frontend-port-number>
# ./configutil -o service.imap.miso.enabled -v 0
```

- b. To make the changes effective, restart Messaging Server. For example:

```
# cd <msg-svr-base>/bin
# ./stop-msg
# ./start-msg
```

5. Return to Communications Suite 7 Installation Scenario - Indexing and Search Service.

## setup.sh Usage

### setup.sh Usage

The `setup.sh` utility configures and starts all services for Indexing and Search Service. This script expects all supporting services to be running, including:

- GlassFish
- Java Message Queue
- Directory Server (for ISS and Message Server message store)

**Requirements:** Must be root or the ISS user.

**Location:** `iss-base/bin/setup.sh`

#### Syntax

```
setup.sh [ -u ] [ -v ] [ -b <BASEDIR> ] [ -c <CONF FILE> ] [ -t  
<web,index,jmq,all> ] [ -l <LOGFILE> ] [ -i <ISSHOST> ] [ -O ]
```

#### Options

These are the options for this command:

Option	Description
-u	Optional. Specifies to run in UNINSTALL mode.
-b <i>BASEDIR</i>	Required. Specifies the base directory of the installation.
-l <i>LOGFILE</i>	Optional. Defaults to <code>/var/tmp/jiss-install.pid</code> .
-i <i>ISSHOST</i>	Fully qualified domain name to use for host name.
-c <i>CONF_FILE</i>	Optional. Specifies a file from which to read configuration information for the <code>jiss.conf</code> file.
-t <i>TYPE</i>	Optional. Defaults to <code>all</code> . The type of install or uninstall to perform: <code>all</code> : All components. <code>web</code> : Configure GlassFish. <code>jmq</code> : Configure Java Message Queue. <code>ldap</code> : Configure Directory Server. <code>index</code> : Configure Index and start indexing services.
-O	Optional. Overwrites <code>jiss.conf</code> and <code>jiss_passwd.conf</code> if present.
-v	Optional. Enables shell debugging.
-h	Optional. Prints help text.

Arguments can appear in any order.

#### Examples

Configure all services:

```
# /opt/sun/comms/jiss/bin/setup.sh -t all
```

Unconfigure:

```
# /opt/sun/comms/jiss/bin/setup.sh -u
```

Take options from a configuration file:

```
# /opt/sun/comms/jiss/bin/setup.sh -c my.conf
```

Overwrite existing configuration:

```
# /opt/sun/comms/jiss/bin/setup.sh -O
```

Use host to answer ISS questions:

```
# /opt/sun/comms/jiss/bin/setup.sh -i isshost.example.com
```

## 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
<code>-f JISS_CONF</code>	Optional. Location of <code>jiss.conf</code> file, assumes <code>../etc/jiss.conf</code> if not provided.
<code>-p PASSWD_CONF</code>	Optional Location of <code>jiss_passwd.conf</code> file, assumes <code>../etc/jiss_passwd.conf</code> if not provided.
<code>-v</code>	Optional. Enables shell debugging.
<code>-h</code>	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
```

## About Apache HTTP Server version 2

### About Apache HTTP Server version 2

When installing Indexing and Search Service 1 in a multi-host deployment, you need to install and configure Apache HTTP Server version 2 on the host(s) functioning as the ISS back end(s). That is, you need Apache on the host(s) that offer the Indexing Tier services (`searchSvc` for searching; `indexSvc` for adding new users and processing mail server events; and `jmqconsumer` for listening to the Messaging Server JMQ for events to process and send to `indexSvc`).

- **Solaris 10 OS:** Make sure that you have installed the package metacluster `SUNWCapache` from your Solaris OS media. For more information, refer to the [Solaris product documentation](#).
- **Red Hat Linux:** You need to install the RPM `httpd` from the Red Hat Linux media. For instructions, refer to the [Red Hat product documentation](#).

## 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 the GlassFish application 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
```

# Chapter 24. Communications Suite 7 Installation Scenario - Calendar Server 7

---

## Communications Suite 7 Installation Scenario - Calendar Server 7 (CalDAV Server)

Topics:

- [Overview of This Scenario](#)
- [Assumptions](#)
- [Which Software Components and Downloads Do You Need?](#)
- [Installing and Configuring a Calendar Server 7 Deployment](#)
- [Configuring Calendar Server 7](#)
- [Configuring Calendar Server 7 With Multiple Hosts](#)
- [Verifying the Calendar Server Configuration](#)
- [\(Optional\) Enabling LDAP SSL in Calendar Server 7](#)

### Overview of This Scenario

The following installation information describes how to install and configure Calendar Server 7 (CalDAV Server). 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 on a separate host. It is based on the Install Calendar Server 7 leaf in the [Communications Suite 7 Installation Flowchart](#). The scenario makes these assumptions:

- You are deploying Communications Suite on a single host or Solaris zone, or multiple hosts or Solaris zones.
- A Directory Server host is already installed.

### Which Software Components and Downloads Do You Need?

- Communications Suite: Calendar Server, MySQL Server (installed as a dependent product for Calendar Server)
- Application server web container for Calendar Server: GlassFish
- LDAP server: Directory Server

### Installing and Configuring a Calendar Server 7 Deployment

The tasks to install a Calendar Server 7 deployment are as follows:

- [To Check Requirements for Calendar Server 7](#)
- [To Get the Software](#)
- [To Install Directory Server](#)
- [To Install and Configure GlassFish Enterprise Server 2.1 Patch 02](#)
- [To Install the Calendar Server and MySQL Server Software](#)
- [To Initialize and Configure MySQL Server](#)



#### Note

If you are installing a Calendar Server 7 front end on one host and a Calendar Server 7 back end on a separate host, note the following installation differences:

- If you don't have an existing MySQL server, install one by using the `~3` option of the Communications Suite installer.
- Uncheck the dependency of MySQL when installing the Calendar Server 7 software.
- Configure MySQL Server.
- Configure Calendar Server 7.

#### **To Check Requirements for Calendar Server 7**

See [Requirements for Calendar Server 7](#).

#### **To Get the Software**

1. Go to [Get the Software](#).  
From this site, download Communications Suite 7. Also download GlassFish Enterprise Server 2.1 Patch 02, and Directory Server 6.3.1, which are required for Calendar Server 7.
2. Continue with the next task.

#### **To Install Directory Server**

See [Communications Suite 7 Installation Scenario - Directory Server](#).

#### **To Install and Configure GlassFish Enterprise Server 2.1 Patch 02**

See [Communications Suite 7 Installation Scenario - GlassFish Enterprise Server](#).

#### **To Install the Calendar Server and MySQL Server Software**

1. Make sure you have met the [pre-installation](#) requirements.
2. To install Calendar Server, run the Communications Suite installer.  
The installer is a single unified utility called `commpkg`. It installs (but does not configure) the Communications Suite products. `commpkg` does all the necessary preparation work before installing the product software on the system. Run the following command:

```
./commpkg install
```

For more information, see [commpkg install Usage](#).

3. Select Calendar Server 7 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`**, for example: `~3`.  
The default installation directory for Calendar Server 7 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 LDAPSDK6 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 LDAPSDK6 [n] : y

Shared component LDAPSDK6 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 LDAPSDK6 Tools [n] : y
```

5. Continue with the next section.

### **To Initialize and Configure MySQL Server**

You can either run the following steps in this section or run the `config-mysql` script to prepare a new MySQL installation for use with the Calendar Server 7. For more information on running the `config-mysql` script, see [Running the Calendar Server 7 config-mysql Script](#).

The Communications Suite installer has already created a `mysql` group and a `mysql` user, and installed the MySQL Server software. The Solaris OS default base directory (`basedir`) is `/opt/mysql/mysql`. The Red Hat Linux default base directory (`basedir`) is `/usr` and the data directory (`datadir`) is `/var/lib/mysql`.



#### **Note**

When necessary, the following instructions show where commands differ between Solaris OS and Red Hat Linux.

1. Initialize the database.
  - a. Remove the pre-created data, for example:

```
# rm -rf /opt/mysql/mysql/data
# rm -rf /var/lib/mysql
```

b. Create an initial database, for example:

- On Solaris OS:

```
# /opt/mysql/mysql/scripts/mysql_install_db --user=mysql
--ldata=/var/mysql
```

Substitute a different directory for `/var/mysql` if desired.

- On Red Hat Linux:

```
# /usr/bin/mysql_install_db --user=mysql
--ldata=/var/mysql
```

2. Create the MySQL configuration file, `/etc/my.cnf` with the following content:

Change `basedir` and `datadir` if needed. Make sure there are no extra spaces if you cut and paste the path.

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

3. Install startup script.

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

4. Start MySQL Server.

```
# /etc/init.d/mysql start
Starting MySQL
. SUCCESS!
```

5. Change the MySQL `root` password.

- On Solaris OS:

```
# /opt/mysql/mysql/bin/mysqladmin -u root password
'<password>'
```

- On Red Hat Linux:

```
/usr/bin/mysqladmin -u root password 'password'
```

Replace `'password'` with the appropriate password to use for the `root` user.

6. Run the secure MySQL installation (disables remote root access, removes anonymous users, removes test databases, and so on).

- On Solaris OS:

```
# /opt/mysql/mysql/bin/mysql_secure_installation
```

- On Red Hat Linux:

```
/usr/bin/mysql_secure_installation
```

7. Create the MySQL user and caldav database based on the sample session that follows. The following examples use 'caldav' as the MySQL user name and 'caldav' as the database name. You can use different names.

Replace 'localhost' with the calendar server host name if the MySQL server is on a remote host (or use '%' for any host). Also replace 'password' with the appropriate password to use for the caldav user.

See [MySQL CREATE USER syntax](#).

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

8. Configure MySQL to start automatically upon system reboot.
  - a. Option 1:

```
# ln /etc/init.d/mysql /etc/rc3.d/S99mysql
```

- 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://blogs.sun.com/ritu/entry/how_to_configure_mysql_to)
- [http://www.sun.com/bigadmin/content/submitted/mysql\\_smf\\_tip.html](http://www.sun.com/bigadmin/content/submitted/mysql_smf_tip.html)
- [http://blogs.sun.com/smenon/entry/how\\_to\\_configure\\_mysql\\_to](http://blogs.sun.com/smenon/entry/how_to_configure_mysql_to)

9. Continue with the next section.

## Configuring Calendar Server 7

See [Calendar Server 7 Initial Configuration](#).

## Configuring Calendar Server 7 With Multiple Hosts

See [Calendar Server 7 Horizontal Scalability and Multiple Hosts Scenarios](#).

## Verifying the Calendar Server Configuration

See [Configuring CalDAV Clients for Calendar Server 7](#).

## (Optional) Enabling LDAP SSL in Calendar Server 7

You can configure Calendar Server 7 to communicate with Directory Server over SSL. See [Calendar Server 7 Post Configuration](#) for more information.

# Calendar Server 7 Horizontal Scalability and Multiple Hosts Scenarios

## Calendar Server 7 Horizontal Scalability and Multiple Hosts Scenarios

This information describes the concepts of horizontal scaling in Calendar Server 7 and how to achieve horizontal scaling by deploying multiple back-end hosts.

Topics:

- [Mapping Calendar Users to Back-End Servers](#)
- [Multiple Calendar Server Hosts Scenarios](#)
- [Creating Connection Pools for Non-Default Calendar Server Back Ends](#)

### Mapping Calendar Users to Back-End Servers

As described in [Front-End Versus Back-End Servers](#), you can distribute the Calendar Server DAV repository across multiple DAV server back ends. That is, you install multiple instances of the MySQL database. The smallest unit of data corresponds to a single subject (user or group) home collection and all its descendants. When a user issues a Calendar Server request, the front-end host handling the request must determine on which back-end MySQL host the targeted resource reside. This is the role of the *davstore identifier* (the actual LDAP attribute is *davstore*).

#### About the *davstore* Identifier

The mapping between Calendar Server front ends and back ends is indirect:

- Each Calendar Server front-end instance is configured with the list of opaque back-end identifiers, called *davstore* IDs. There is one *davstore* ID per back-end MySQL host database.
- A Java Naming and Directory Interface (JNDI) name is associated to each *davstore* ID (it is also in the Calendar Server configuration), for example: *jdbc/davstore id*.
- The GlassFish Enterprise Server's web container hosting the server is configured with corresponding JNDI resources containing the actual back-end information (server names, ports, database names, credentials, and so on).
- At startup, Calendar Server performs a JNDI lookup for each *davstore* ID value in its configuration.

#### *davstore* LDAP Attribute

You can add the *davStore* LDAP attribute to users' and resources' subject entries to associate those users and resources with a particular back-end Calendar Server store. The value of the *davStore* attribute is equal to one of the *davstore* IDs defined in the server configuration. *davstore* is single valued. When not present, a server configurable default *davstore* ID is used.

Users have only one *davStore* LDAP attribute for all types of data. In the single user repository model, all data for users with the same *davStore* value is hosted on the same back-end repository. This does not prevent a deployment from using different repositories for the different types of data.

#### User Repository

Data is organized within each Calendar Server repository by subject or by entity, that is, by LDAP user, resource, or group. Each subject has one home collection (similar to a UNIX home directory), which is the parent of all service-specific collections for that subject, including:

- Calendar collections

- Address book collections
- Generic file storage collections

For example, the following URLs represent a single repository for calendar user smith:

```
http://davserver.example.com/dav/home/smith/
http://davserver.example.com/dav/home/smith/MyDefaultCalendar/
http://davserver.example.com/dav/home/smith/SomeOtherCalendar/
http://davserver.example.com/dav/home/smith/MyDefaultAddressBook/
http://davserver.example.com/dav/home/smith/mypic.jpg
```

### Repository Example

In this example, users have all their data under a common repository (calendar, address books and files for that user appear as children of the same home collection).

The deployment consists of three front-end hosts named `davserver1.example.com`, `davserver2.example.com`, and `davserver3.example.com`; and two back-end hosts named `mysql1.example.com` and `mysql2.example.com`. The `mysql1.example.com` host contains only one database called `davdb`, while `mysql2.example.com` contains two databases `davdb1` and `davdb2`. The following table shows the `davstore` IDs, server names, database names, and Java Database Connectivity (JDBC) URLs.

#### Repository Example Data

davstore ID	MySQL Server	Database Name	JDBC URL
davstore1	mysql1.example.com	davdb	jdbc:mysql://mysql1.example.com:3306/davdb
davstore2	mysql2.example.com	davdb1	jdbc:mysql://mysql2.example.com:3306/davdb1
davstore3	mysql2.example.com	davdb2	jdbc:mysql://mysql2.example.com:3306/davdb2

Each front-end Calendar Server host is configured with the following configuration parameters:

```
store.dav.store1.backendid=davstore1
store.dav.store1.jndiname=jdbc/davstore1
store.dav.store2.backendid=davstore2
store.dav.store2.jndiname=jdbc/davstore2
store.dav.store3.backendid=davstore3
store.dav.store3.jndiname=jdbc/davstore3
```

On each GlassFish Enterprise Server that hosts Calendar Server, a JDBC connection pool is created for each database, as the following table shows.

#### JDBC Connection Pools Per Calendar Server

Pool Name	Value
mysql1_davdb	jdbc:mysql://mysql1.example.com:3306/davdb
mysql2_davdb1	jdbc:mysql://mysql2.example.com:3306/davdb1
mysql2_davdb2	jdbc:mysql://mysql2.example.com:3306/davdb2

A JDBC resource pointing to each connection pool is created, as the following table shows.

#### **JDBC Resource Per Connection Pool**

JNDI Name	Pool name
jdbc/davstore1	mysql1_davdb
jdbc/davstore2	mysql2_davdb1
jdbc/davstore3	mysql2_davdb2

All users with a `davStore` LDAP attribute set to `davstore2` will have their data created on `jdbc:mysql://mysql2.example.com:3306/davdb1`.

## **Multiple Calendar Server Hosts Scenarios**

This section contains the following scenarios:

- Scenario 1: A Single CalDAV Server and Two MySQL Back-End Servers
- Scenario 2: Four CalDAV Servers and Three MySQL Back-End Servers

### **Scenario 1: A Single CalDAV Server and Two MySQL Back-End Servers**

This scenario shows a deployment consisting of one front-end server (`davserver1.example.com`) and two back-end servers (`mysql1.example.com` and `mysql2.example.com`). The `mysql1.example.com` server has one database, `caldav1`, and the `mysql2.example.com` server has one database, `caldav`.

The following table shows the deployment data for this scenario:

#### **Scenario 1**

davstore ID	MySQL Server	Database Name	JDBC URL
backend1	mysql1.example.com	caldav1	<code>jdbc:mysql://mysql1.example.com:3306/caldav1</code>
defaultbackend	mysql2.example.com	caldav	<code>jdbc:mysql://mysql2.example.com:3306/caldav</code>



#### **Note**

When you run the `init-config` script, the `defaultbackend`-related settings are auto-created and set up.

The front-end DAV server is configured with the following configuration parameters:

```
store.dav.backend1.backendid=backend1
store.dav.backend1.jndiname=jdbc/backend1
store.dav.backend.backendid=defaultbackend
store.dav.backend.jndiname=java:comp/env/jdbc/defaultbackend
```

On the GlassFish Enterprise Server that hosts the Calendar Server, a JDBC connection pool is created for each database, as the following table shows.

#### **JDBC Connection Pools Per Calendar Server**

Pool Name	Value
caldav1Pool	jdbc:mysql://mysql1.example.com:3306/caldav1
caldavPool	jdbc:mysql://mysql2.example.com:3306/caldav

A JDBC resource pointing to each connection pool is created, as the following table shows.

To create a connection pool, see [To Use the GlassFish Admin Console to Create a Connection Pool for Non-Default Back Ends](#) or [To Use the Command Line to Create a Connection Pool for Non-Default Back Ends](#).

#### **JDBC Resource Per Connection Pool**

JNDI Name	Pool Name
jdbc/backend1	caldav1Pool
jdbc/defaultbackend	caldavPool

You need to restart GlassFish Enterprise Server after the pools are created.

#### **Scenario 2: Four CalDAV Servers and Three MySQL Back-End Servers**

This scenario shows a deployment that consists of four front-end CalDAV servers (davserver1.example.com, davserver2.example.com, davserver3.example.com, and davserver4.example.com), and three back-end MySQL servers (mysql1.example.com, mysql2.example.com, and mysql3.example.com). The mysql1.example.com server has one database (caldav1), the mysql2.example.com has one database (caldav), and the mysql3.example.com server has one database (caldav2).

The following table shows the deployment data for this scenario:

#### **Scenario 2**

davstore ID	MySQL Server	Database Name	JDBC URL
backend1	mysql1.example.com	caldav1	jdbc:mysql://mysql1.example.com:3306/caldav1
defaultbackend	mysql2.example.com	caldav	jdbc:mysql://mysql2.example.com:3306/caldav
backend2	mysql3.example.com	caldav2	jdbc:mysql://mysql3.example.com:3306/caldav2



#### **Note**

When you run the `init-config` script, the `defaultbackend`-related settings are auto-created and set up.

Each front-end DAV server is configured with the following configuration parameters:

```
store.dav.backend1.backendid=backend1
store.dav.backend1.jndiname=jdbc/backend1
store.dav.backend.backendid=defaultbackend
store.dav.backend.jndiname=java:comp/env/jdbc/defaultbackend
store.dav.backend2.backendid=backend2
store.dav.backend2.jndiname=jdbc/backend2
```

On each GlassFish Enterprise Server that hosts Calendar Server, a JDBC connection pool is created for each database, as the following table shows.

To create a connection pool, see [To Use the GlassFish Admin Console to Create a Connection Pool for Non-Default Back Ends](#) or [To Use the Command Line to Create a Connection Pool for Non-Default Back Ends](#).

#### **JDBC Connection Pools Per Calendar Server**

Pool Name	Value
caldav1Pool	jdbc:mysql://mysql1.example.com:3306/caldav1
caldavPool	jdbc:mysql://mysql2.example.com:3306/caldav
caldav2Pool	jdbc:mysql://mysql3.example.com:3306/caldav2

A JDBC resource pointing to each connection pool is created, as the following table shows.

#### **JDBC Resource Per Connection Pool**

JNDI Name	Pool Name
jdbc/backend1	caldav1Pool
jdbc/defaultbackend	caldavPool
jdbc/backend2	caldav2Pool

You need to restart GlassFish Enterprise Server after the pools are created.

## **Creating Connection Pools for Non-Default Calendar Server Back Ends**

This section contains the following topics:

- [To Use the GlassFish Admin Console to Create a Connection Pool for Non-Default Back Ends](#)
- [To Use the Command Line to Create a Connection Pool for Non-Default Back Ends](#)

### **To Use the GlassFish Admin Console to Create a Connection Pool for Non-Default Back Ends**

This example uses the GlassFish Admin Console to create a connection pool `caldav1Pool` and JDBC resource `jdbc/backend1`.

1. Select **New** and type the following information.
  - Name: `caldav1Pool`
  - Resource Type: `javax.sql.DataSource`
  - Database Vendor: `MySQL`
2. Click **Next**.
3. Set the following properties and be sure that the URL property is either not set or set correctly. You can also delete all the default properties and keep just the following six properties.
  - `databaseName`: `caldav1`
  - `portNumber`: `3306`
  - `networkProtocol`: `jdbc`
  - `serverName`: `localhost` (or your MySQL server host name)
  - `user`: `mysql`
  - `password`: `mysql`
4. Save.
5. Select the pool and use the **Ping** button to test the pool.

If ping was not successful, you can delete all the default properties and keep just the six properties previously mentioned. Then retry the ping.

6. Create JDBC resource for the connection pool.  
Go to Resources -> JDBC -> JDBC Resources.
7. Select New and type the following information:
  - JDNI Name: jdbc/backend1
  - Pool Name: caldav1Pool
  - Status: check Enabled

#### **To Use the Command Line to Create a Connection Pool for Non-Default Back Ends**

This example uses the command-line interface to create a connection pool caldav1Pool and JDBC resource jdbc/backend1.

```
% /opt/SUNWappserver/bin/asadmin create-jdbc-connection-pool --user
admin --datasourceclassname
com.mysql.jdbc.jdbc2.optional.MysqlDataSource --restype
javax.sql.DataSource --property
"DatabaseName=caldav1:serverName=mysqlhost:user=caldav:password=mysqlpass:p
caldav1Pool
% /opt/SUNWappserver/bin/asadmin create-jdbc-resource --user admin
--connectionpoolid caldav1Pool jdbc/backend1
```

## Calendar Server 7 init-config - General Syntax

### Calendar Server 7 init-config - General Syntax

The Calendar Server initial configuration script, `init-config`, enables you to perform an initial configuration of your Calendar Server deployment. The `init-config` command takes the following options.

#### *init-config Syntax*

Option	Description
<code>-nodisplay</code>	Runs configurator in text-only (non-graphical) mode.
<code>-noconsole</code>	Does not display non-graphical text. Used with <code>nodisplay</code> option for silent configuration.
<code>-novalidate</code>	Does not perform text field validation.
<code>-saveState <i>statefile</i></code>	Saves state of configurator input.
<code>-state <i>statefile</i></code>	Uses the <i>statefile</i> for setting input values.
<code>-debug</code>	Gathers general debugging information from the configurator.
<code>-debugMessage</code>	Outputs debugging information, including errors and warnings.
<code>-debugWarning</code>	Outputs warning messages, including errors.
<code>-debugError</code>	Outputs error messages, on by default.

# Calendar Server 7 Post Configuration

## Calendar Server 7 Post Configuration Procedures

This information contains procedures that you might need to run after installing and configuring Calendar Server 7.

- [Enabling LDAP SSL in Calendar Server 7](#)
- [Configuring Calendar Server for HTTPS with GlassFish Enterprise Server](#)

### Enabling LDAP SSL in Calendar Server 7

To configure Calendar Server 7 for SSL communication with Directory Server, you use the `davadmin config` command to specify the necessary `ldap` parameters, then stop and start the GlassFish Enterprise Server.

#### To Enable Calendar Server to Communicate with Directory Server Over SSL

**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 7 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 the Glassfish Enterprise Server.

3. Restart the Glassfish Enterprise Server, for example:

```
#!/opt/SUNWappserver/bin/asadmin stop-domain
#!/opt/SUNWappserver/bin/asadmin start-domain
```

### Configuring Calendar Server for HTTPS with GlassFish Enterprise Server

The default installation of GlassFish Enterprise Server enables both both HTTP and HTTPS (using a self-signed cert) on the server instance. During the Calendar Server 7 configuration, you can only choose to specify the HTTP port, which sets the `davcore.uriinfo.fulluriprefix` parameter to `http://`

*host*: *HTTP-port*. If you want to use HTTPS between Calendar Server and GlassFish Enterprise Server, then you need to configure the `davcore.uriinfo.fulluriprefix` parameter to `https://host:SSL-port`.

#### To Enable Calendar Server for HTTPS Communication with GlassFish Enterprise Server

- Run the `davadmin config` command to set the `davcore.uriinfo.fulluriprefix` parameter to the desired HTTPS port, for example:

```
#!/opt/sun/comms/davserver/sbin/davadmin config -u admin -W  
<passwordfile> -o davcore.uriinfo.fulluriprefix -v  
https://<host>:<SSLport>
```

# Configuring Calendar Server 7 to Use LDAP Schema 1

## Configuring Calendar Server 7 to Use LDAP Schema 1

1. Install a Directory Server instance.
2. Run the `comms_dssetup` script against this Directory Server and choose Schema 1.
3. Configure Calendar Server 7 based on the Directory Server's Schema 1 by using the `davadmin` command to change the following two parameters:

```
./davadmin config -u <ADMIN> -W <passwordfile> -o  
base.ldapinfo.dcreport -v <DC_ROOT>  
./davadmin config -u <ADMIN> -W <passwordfile> -o  
base.ldapinfo.schemalevel -v 1
```

4. Restart the GlassFish Enterprise Server, for example:

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

5. For Calendar Server 7 to fully support LDAP Schema 1 (CR 6846562), you need to add some ACIs at the domain level, at least the anonymous access. The following example shows what to add for the default domain `example.com`:

```
dn: dc=example,dc=com,o=internet  
changetype: modify  
add: aci  
aci: (targetattr != "userPassword") (version 3.0;acl "Anonymous  
access"; allow  
  (read,compare,search)(userdn = "ldap:///anyone");)  
  
dn: dc=example,dc=com,o=internet  
changetype: modify  
add: aci  
aci: (targetattr=*)(version 3.0; acl "Domain Admin Domain access -  
product=ics  
  ,class=nda,num=18,version=1"; allow (all)  
groupdn="ldap:///cn=Domain  
Administrators,ou=Groups,o=example.com,o=dav";)  
  
dn: dc=example,dc=com,o=internet  
changetype: modify  
add: aci  
aci:  
(targetattr!="userPassword")(targetfilter=(|(objectClass=inetOrgPerson  
objectclass=nsManagedDomain)))(version 3.0; acl "User access to all  
users in  
  domain - product=ics,class=nda,num=19,version=1"; allow  
(read,search) userdn  
  ="ldap:///o=example.com,o=dav??sub?(objectclass=inetOrgPerson)";)
```

# Running the Calendar Server 7 config-mysql Script

[< Back to Communications Suite 7 Installation Scenario - Calendar Server 7](#)

## Running the Calendar Server 7 config-mysql Script

The `config-mysql` Perl script prepares a new MySQL installation for use with Calendar Server 7. 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.

### Before You Begin

1. Download the `config-mysql` script.  
Make sure the script has execute permission.
2. Download the `Util.pm` file to the same directory as the `config-mysql` script.

### To Run the config-mysql Script

1. As root, launch the `config-mysql` script.  
The script creates a log file in the `/tmp` directory with a name such as `config-mysql_YYYYMMDDHHMMSS.log`.
2. The script creates a minimal instance configuration in the `/etc/my.cnf` file for use with the Calendar Server database.  
If you receive a message that the script has found existing instance configuration in the `/etc/my.cnf` file, type **yes** to overwrite the existing instance configuration, or **no** to exit.
3. The script stops the running MySQL instance.  
This step is run regardless of whether there is a running instance. You might see the message "ERROR! MySQL manager or server PID file could not be found!." You can safely ignore this message.
4. Type the instance data directory.  
If you choose a directory that already exists, the script assumes that it belongs to an existing MySQL instance and that it might contain useful data. If that's not the case and you want to use that directory, remove the directory first.
5. Type the MySQL root user password.
6. Type the calendar db name, db user, and password.
7. The script performs the following steps:
  - Runs `mysql_install_db` to create the instance data directory specified in [Step 4](#).
  - Creates a minimal `/etc/my.cnf` file for the instance.
  - Copies the `mysql.server` script to the system startup and shutdown directory.
  - Starts the MySQL server by using the configuration in the `/etc/my.cnf` file.
  - Uses the `mysqladmin` script to change the root password specified in [Step 5](#).
  - Runs `mysql_secure_installation` to secure the newly created MySQL instance.
8. When the script asks for the existing root password, use the one from [Step 5](#) and answer "no" to the question "Change the root password? [Y/n]."  
One of the tasks in the `mysql_secure_installation` script is to change the root password (since a fresh instance has a blank root password).
9. The last step is for the script to create the calendar db and db user using the `mysql` tool.

# Chapter 25. Communications Suite 7 Installation Scenario - GlassFish Enterprise Server

## Communications Suite 7 Installation Scenario - GlassFish Enterprise Server

GlassFish Enterprise Server 2.1 is the primary web container used by Communications Suite 7 component products. For complete installation instructions, see [Sun GlassFish Enterprise Server 2.1 Installation Guide](#). The following instructions summarize the process.



### Tip

If you are installing GlassFish Enterprise Server to be the web container for Indexing and Search Service, see [Step 2, To Complete the GlassFish Enterprise Server 2.1 Configuration](#), before starting.

## To Install and Configure GlassFish Enterprise Server 2.1

1. Prior to installing GlassFish Enterprise Server 2.1, check that the Java version on the system is at least Java 1.6. To check your version, type the following command:

```
# java -version
```

The shell returns results that look similar to the following:

```
java version "1.6.0_06"  
Java(TM) SE Runtime Environment (build 1.6.0_06-b02)  
Java HotSpot(TM) Server VM (build 10.0-b22, mixed mode)
```

2. If you need to update your Java software, see: <http://java.sun.com/javase/downloads/index.jsp>.



### Note

If you are using the Communications Suite installer, and you do not have at least Java 1.6, the installer automatically installs Java for you.

3. Create a directory for the GlassFish software (for example, `/tmp/GLASSFISH21`), copy the GlassFish software to this directory, then launch the installer.

```
# cd /tmp/GLASSFISH21  
# chmod +x <distribution-filename>  
# ./<distribution-filename> -console -javahome /usr/jdk/entsys-j2se
```

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.

### GlassFish Enterprise Server 2.1 Settings

Option	Default and Recommended 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 <b>no</b> if you do not want the sample applications.
Install or reuse Java 2 SDK	[Install] You can <b>reuse</b> (as long as the Java SDK version is correct).
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 <b>no</b> .
Upgrade from previous AS version	[no]

6. At the Ready to Install prompt, type **1** (Install Now).  
The installation begins.
7. At the Installation Successful screen, press Enter to exit the installation program.
8. [Verify the GlassFish Enterprise Server version.](#)
9. Start the GlassFish Enterprise 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>
```

10. Continue with the next task.

## To Complete the GlassFish Enterprise Server 2.1 Configuration

You might need to make a few additional configuration settings to the GlassFish Enterprise Server installation.

1. If you did not already set the location of JDK 6 during the installation, edit the `asenv.conf` file (the default is `/opt/SUNWappserver/config/asenv.conf`).  
Change the value for `AS_JAVA` to the location of JDK 6, for example:

```
AS_JAVA="/usr/jdk/jdk1.6.0_03"
```

2. If you are using Java Message Queue (ships with Communications Suite 7), for example, to use Indexing and Search Service, move the embedded JMQ server that comes with GlassFish Enterprise 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="37676"`.

**Note**

You can avoid this situation by first running the Communications Suite installer, installing Java Message Queue, and starting Java Message Queue before installing GlassFish Enterprise Server. Then, when installing GlassFish Enterprise Server, the installation automatically selects a new port if it detects an already started JMQ running on port 7676.

3. Restart GlassFish Enterprise 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 26. Installing the Desktop Deployment Toolkit

## Installing the Desktop Deployment Toolkit

This book describes installing and upgrading the administrator's Desktop Deployment Toolkit for the Sun Java System Connector for Microsoft Outlook. The InstallShield Wizard installs all of the components of Sun's Deployment Toolkit:

- **Deployment Configuration Program:** Sun's tool that lets system administrators create bundled, customized installation packages for end users.
- **Sun Java System Connector Setup Wizard:** Sun's tool that lets end users install the Sun Java System Connector software, configure its operations and features, and convert existing Outlook data files ( .pst files) associated with Exchange into a form that the Sun Java System Connector can use.
- **Sun's Install kit (MSI) for the Sun Java System Connector:** Sun's installation utility for the per-desktop software that facilitates ongoing, permanent communications between Microsoft Outlook and the Sun Java System server.
- **Special Kits for using Microsoft System Management Services (SMS) to install the Sun Java System Connector:** Sun utilities that support the "push" functionality of Microsoft's SMS to let a system administrator distribute and install the Sun Java System Connector desktop components to user desktops with minimal or no user involvement.

These components are described in more detail in [Deploying Outlook Connector](#) and the [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 Sun Java System Connector for Microsoft Outlook 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 Outlook
- General Deployment Architectures

## Installation Overview

If the most recent version of the administrator's Deployment Toolkit for the Sun Java System Connector for Microsoft Outlook 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 [Outlook Connector Deployment](#) for

information about deploying Connector for Microsoft Outlook to user desktops. And see the [Communications Suite 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 Sun Java System 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, as shown in [Figure 1-1](#).  
**Figure 1-1 The InstallShield Wizard Welcome Screen**  
Unable to render embedded object: File (welcome\_screen.PNG) not found.
2. Accept the license agreement.  
Read the license agreement for Connector for Microsoft Outlook, as shown in [Figure 1-2](#) and select the option to accept the license agreement terms.  
Click **Next** to continue.  
**Figure 1-2 InstallShield Wizard: License Agreement**  
Unable to render embedded object: File (license\_info.PNG) not found.
3. Enter your customer information.  
Enter your user name and organization, as shown in [Figure 1-3](#), 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.  
**Figure 1-3 InstallShield Wizard: Customer Information**  
Unable to render embedded object: File (customer\_info.PNG) not found.
4. Select or confirm the destination folder where the Deployment Configuration Program is installed.  
The Destination Folder window, as shown in [Figure 1-4](#), prompts you to confirm or change the location where the Deployment Configuration Program is installed.  
**Figure 1-4 InstallShield Wizard: Destination Folder**  
Unable to render embedded object: File (Select\_destination.PNG) not found.  
To change the location, click **Change**. In the Change Current Destination Folder window, set the desired folder, as shown in [Figure 1-5](#).  
**Figure 1-5 InstallShield Wizard: Change Current Destination Folder**  
Unable to render embedded object: File (change\_destination.PNG) not found.  
Once the destination folder is set, click **Next** in the Destination Folder window.
5. Install the software.  
The InstallShield Wizard then announces that it is ready to begin the actual installation, and prompts you to click **Next** to begin.
6. Wait for the installation to proceed and conclude.

A progress meter appears in the window while you are waiting. The Installation Complete window, as shown in [Figure 1-6](#), notifies you that the process is complete, and prompts you to click **Finish**.

### Figure 1-6 InstallShield Wizard: Installation Complete

Unable to render embedded object: File (finish\_screen.PNG) not found.

7. Click the Launch the Sun Java System Connector for Microsoft Outlook Deployment Configuration Program checkbox.

8. Click **Finish**.

The Sun Java System Connector for Microsoft Outlook Deployment Configuration Program icon appears on the desktop.

As the InstallShield Wizard exits, it opens a browser window with links to the Sun web site 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 chapter. If you haven't 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 will lead you to consider and accommodate all of the factors likely to influence your organization's migration. [Outlook Connector Deployment Guide](#) explains important migration concepts, prerequisites, and strategic choices, and explains how to develop a Deployment Plan that will guide you through your migration. Every administrator should therefore read [Outlook Connector Deployment Guide](#) and prepare a comprehensive Deployment Plan.

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 [User's Guide](#) to a shared folder, and then provide links to the installation package and documentation in an announcement email to users.

If your migration strategy calls for two or more different installation packages for different users or user groups, repeat these two steps for each package until all users have been migrated.

# Chapter 27. Convergence 1 Update 3 Initial Configuration

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## Completing the Sun Convergence Installation: Initial Configuration

After you install the Convergence software with the Communications Suite installer, you must configure the 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, `iwadmin`. For more information about ongoing administration of Convergence, see [Convergence Administration Guide](#).

This chapter describes the following topics:

- [Gather Your Convergence Configuration Information](#)
- [Configure IM Components to Enable Communication with the Instant Messaging Server](#)
- [Run the Convergence Configuration Program](#)
- [Perform Silent Installation](#)

## 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
- 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).

You do not have to configure IM before you configure Convergence. However, to enable IM service, you must take the steps described in [Configure IM Components to Enable Communication with Instant Messaging Server](#).

### Web Containers

The Convergence server must be deployed to a Web container. See [Sun Java System Product Requirements for Convergence 1 Update 3](#) 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](#).

## Configure IM 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 IM 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 IM.



### **A Note About Configuring the IM Server**

When you are configuring the Instant Messaging Server (with the `IM configure` utility), be sure that the XMPP/HTTP Gateway Deployment parameter is set `false`. The XMPP/HTTP Gateway is deployed through the Convergence server; 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 IM host and domain name. However, these values should be meaningful. For example, a good practice might be to include the host and domain name in these JIDs to make the identifiers easy to recognize.

The passwords for Httpbind JID and Avatar JID can be unique. They do not have to match any other password used for IM or another back-end service.

The JIDs and passwords that you configure in the `iim.conf` file must match the Httpbind and Avatar JIDs that you will configure when you configure Convergence with the `init-config` program.

### **Configuring Multiple Instances of Convergence with One IM Server**

If you are configuring multiple instances of Convergence to use one IM 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 IM server configuration (`iim.conf`) file must have three instances of `httpbind` component configuration:

```

iim_server.components=agent-calendar,httpbind1,httpbind2,httpbind3,avatar1,
httpbind1 component (HTTP/XMPP Gateway)
! =====
iim_agent.httpbind1.enable="true"
httpbind1.jid=convergence1-jid.httpbind.example.com
httpbind1.password=secret

! httpbind2 component (HTTP/XMPP Gateway)
! =====
iim_agent.httpbind2.enable="true"
httpbind2.jid=convergence2-jid.httpbind.example.com
httpbind2.password=secret

! httpbind3 component (HTTP/XMPP Gateway)
! =====
iim_agent.httpbind3.enable="true"
httpbind3.jid=convergence3-jid.httpbind.example.com
httpbind3.password=secret

```

Similarly, in this example, the IM server configuration (`iim.conf`) file must have three instances of avatar component configuration:

```

! avatar1 component
! =====
iim_agent.avatar1.enable = "true"
avatar1.jid=convergence1-jid.avatar.example.com
avatar1.password=secret

! avatar2 component
! =====
iim_agent.avatar2.enable = "true"
avatar2.jid=convergence2-jid.avatar.example.com
avatar2.password=secret

! avatar3 component
! =====
iim_agent.avatar3.enable = "true"
avatar3.jid=convergence3-jid.avatar.example.com
avatar3.password=secret

```

You must run the Convergence `init-config` script for each instance of Convergence. For details, see [Run the Convergence Configuration Program](#). When you set the values for the Httpbind Component JID and Avatar Component JID, be sure that these values correspond to the values you have set for this particular instance of Convergence in the `iim.conf` file.

### To configure the IM Server components

1. Perform the initial configuration of Instant Messaging by running the `IM configure` program. For details, see [Completing the Instant Messaging 8 Installation: Initial Configuration](#).
2. Edit the `im-svr-base/config/iim.conf` file.

By default, the `im-svr-base` is `/opt/sun/comms/im` on Solaris and Linux systems.

3. Add the Avatar component to the `iim_server.components` property. For example, this entry can

look like this:

```
im_server.components = "agent-calendar, httpbind, avatar"
```

4. Set the `iim_agent.enable` property to `true`.

5. Provide the Httpbind JID and password. For example:

```
! httpbind component (HTTP/XMPP Gateway)
! =====
iim_agent.httpbind.enable="true"
httpbind.jid="<httpbind.varrius.com>"
httpbind.password="<password>"
```

6. Add the following entries to configure the Avatar component:

```
! avatar component
! =====
iim_agent.avatar.enable = "true"
avatar.jid = "<avatar.varrius.com>"
avatar.password = "<password>"
```

If you are configuring more than one Convergence client to use this IM server, add a unique `httpbind` and `avatar.jid` value for each instance of Convergence. For details, see [Configuring Multiple Instances of Convergence with One IM Server](#).

7. Restart IM Server.

## Configuring Instant Messaging Server to Display Presence Information in Email

To enable Convergence to show presence information in email, you must configure Instant Messaging server. For information on how to do this, see [How do I Configure Convergence so that Presence Information is Shown in my Email?](#)

## Run the Convergence Configuration Program

The steps described in this section walk you through configuring Convergence by using the configuration program, `init-config`.

### Before you run the configuration program

Be sure that the back-end servers and the web container are up and running:

- Directory Server
- Messaging Server
- Calendar Server



### A Note About Application Server

If you configured the web container with a CA or self-signed certificate, you must accept the certificate by running any of the application server commands. See [Sun Convergence 1 Update 3 Release Notes](#).

Verify whether 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. Go to the `iwc-base/sbin` directory.

For example, on Solaris and Linux, go to:

```
# cd /opt/sun/comms/iwc/sbin
```

3. Enter the command:

```
# ./init-config
```

The configuration program starts, displaying the first panel. The sections that follow lead you through the configuration panels.

This chapter describes how to run the configuration program in GUI mode.

To invoke the configuration program in command-line (non-GUI) mode, enter the command:

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

### To enter information in the configuration program panels

The following steps lead you sequentially through the panels displayed by the `init-config` program.

If you'd rather read a list than a task-based procedure, you can refer instead to the configuration values shown in [Worksheet 1-1](#) and [Worksheet 1-2](#) as you run the program.

1. **Welcome**

The first panel in the configuration program is a copyright page. Click **Next**.

2. **Select the directory to store configuration and data files**

Select the directory where you want to store the Convergence configuration and data files. The default configuration and data directory is located here:

- Solaris and Linux: `/var/opt/sun/comms/iwc`

This directory should be separate from the `iwc-base` directory. (On Solaris and 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 Application Server 2.1 Configuration Details**

**Installation directory.** Enter the GlassFish Application Server 2.1 installation directory. By default, on Solaris this directory is `/opt/SUNWappserver`.

**Domain directory.** Enter the GlassFish Application Server 2.1 domain directory. By default, on Solaris this directory is `/opt/SUNWappserver/domains/domain1`.

**Document root directory.** Enter the GlassFish Application Server 2.1 document root directory. By default, on Solaris this directory is `/opt/SUNWappserver/domains/domain1/docroot`.

You can browse to select any of these directories.

**Server Target Name.** Enter the GlassFish Application Server 2.1 target name. For example: `server`.

**Virtual Server Identifier.** Enter the GlassFish Application Server 2.1 virtual server identifier. For example: `server`.

**Server Instance HTTP port.** Enter the GlassFish Application Server 2.1 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 Application Server 2.1 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 Application Server 2.1 configuration values.

## 6. **GlassFish Application Server 2.1: 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 an GlassFish Application Server 2.1 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 Application Server 2.1 configuration values.

Next, the configuration program checks if the credentials are valid. An Information dialog box is displayed with Application 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 backend 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 [Chapter 7. Configuring and Administering Multiplexor Services in Sun Java System Messaging Server 6.3 Administration Guide](#).
- 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. 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.

**Calendar Server Admin User ID.** Enter the Calendar Server administrator user ID. For example:  
`calmaster`

**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.

### 14. Specify the Instant Messaging Service configuration details.

This screen appears only if you selected Instant Messaging Service in the Select Components to Be Configured screen.

**Note:** You must configure the Httpbind Component JID, Httpbind Component Password, Avatar Component JID, and Avatar Component Password in the IM Server before you enter these values in the Convergence configuration program. For details, see [Configure IM Components to Enable Communication with the Instant Messaging Server](#).

**Server Domain Name.** Enter the domain name of the Instant Messaging server. For example: `varrius.com`. If multiple domains need to be supported, enter the domain names separated by spaces.

**Server Host Name.** Enter the name of the machine where Instant Messaging is installed. For example: `im.varrius.com`

**Server Port Number.** Enter the Instant Messaging Server HTTP port number. For example: 5269  
(Default Instant Messaging Server port is 5269.)

**Note:** The following items, Httpbind Component JID, Httpbind Component Password, Avatar Component JID, and Avatar Component Password, must match the JID values and passwords that you configured in the `iim.conf` file for the IM Server. If multiple instances of Convergence use one IM server, these items must match the JID values in the `iim.conf` file configured for this particular instance of Convergence. For details, see [Configuring Multiple Instances of Convergence with One IM Server](#).

**Httpbind Component JID.** Enter Instant Messaging Server httpbind component JID. This value must match the JID you configured in the `iim.conf` file. For example: `httpbind.varrius.com`

**Httpbind Component Password.** Enter the Instant Messaging Server httpbind component password

**Avatar Component JID.** Enter Instant Messaging Server avatar component jid. For example: `avatar.varrius.com`

**Avatar Component Password.** Enter Instant Messaging Server avatar component password.

Click **Next**.

#### 15. 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 characters

**Password Again.** Enter the password again to confirm

#### 16. 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**.

#### 17. 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.

#### 18. 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 and 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.

## 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.

For example, once you have run the `init-config` program once, you can run it in silent install mode:

```
iwc-base/sbin/init-config -nodisplay -noconsole -state fullpath
/saveState
```

The `fullpath` variable is the full directory path of where the `saveState` file is located.

# Chapter 28. Delegated Administrator 7 Initial Configuration

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## Completing the Delegated Administrator 7 Installation: Initial Configuration

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](#).

The following topics are described in this article:

- [If You Are Upgrading from a Previous Release of Delegated Administrator](#)
- [Choose Which Components to Configure](#)
- [Run the Configuration Program](#)
- [Perform Silent Installation](#)
- [Run Delegated Administrator Console and Utility](#)
- [Post-Configuration Tasks](#)
- [Configuring Web Server to Run Delegated Administrator in SSL Mode](#)

## If You Are Upgrading from a Previous Release of Delegated Administrator

If you are configuring Delegated Administrator for the first time, you can skip this section and go directly to the section, [Choose Which Components to Configure](#).

If you are upgrading to this release of Delegated Administrator from an earlier release, and you have customized your configuration, you might have to take steps to preserve your customizations.

For instructions on how to upgrade Delegated Administrator from a previous version, see [Delegated Administrator 7 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:

- Sun Java System Web Server 6.x [WEB]
- Sun Java System Web Server 7.x [WEB7]
- Sun Java System Application Server 7.x [APP7]
- Sun Java System Application Server 8.x or higher[APP8]

If you are configuring the Delegated Administrator server and console on one machine, you will go through these instructions *twice* (once for the server, once for the console).

#### 4. [Configuring the Delegated Administrator Server](#)

These panels follow the panels that configure the console.

You can choose whether or not to configure the Delegated Administrator server on a given machine.

If you do not choose to configure the server on a given machine, the configuration program warns you that you must configure it on another machine. The server component is required for running the utility and console.

All other considerations for deploying the server are the same as those for the console, as (described in [Configuring the Delegated Administrator Console](#)). You can select Access Mode of either Direct LDAP or Access Manager.



#### Note

**The Delegated Administrator server uses the same Web container as Access Manager.** The configuration program asks for Web container information after it asks for the Access Manager base directory. This is applicable only if you have chosen Access Manager Access Mode.

#### 5. Completing the Configuration

Enter the information requested in these panels to complete the configuration.

## Run the Configuration Program

The steps described in this section walk you through configuring Delegated Administrator.

**NOTE:** *da-base* is `/opt/sun/comms/da` by default on all platforms; use this value unless you chose a different path during installation. In Communications Suite 5, the Solaris value is: `/opt/SUNWcomm/`.

## Launching the Configuration Program

To run the configuration program, log in as (or become) root and go to the *da-base*/*sbin* directory. Then enter the command:

```
# ./config-commda
```

Once you run the `config-commda` command, the configuration program starts.

For example, in Communication Suite 5 in Solaris, the command is:  
`/opt/SUNWcomm/sbin/config-commda`.

The sections that follow lead you through the configuration panels.

## Starting the Configuration

You must enter the information requested in the first configuration-program panels.

### *To start the configuration*

#### 1. Welcome

The first panel in the configuration program is a copyright page. Click **Next** to continue or **Cancel** to exit.

#### 2. Select directory to store configuration and data files

Select the directory where you want to store the Delegated Administrator configuration and data files. The default configuration directory is `/var/da-base`. This directory should be separate from the *da-base* directory, (which is `/opt/sun/comms/da` by default).

Enter the name of the directory, or keep the default and click **Next** to continue.

If the directory does not exist, a dialog appears asking if you want to create the directory or choose a new directory. Click **Create Directory** to create the directory or **Choose New** to enter a new directory.

A dialog appears indicating that the components are being loaded. This may take a few minutes.

#### 3. Select components to configure

Select the component or components you want to configure on the Components Panel.

- **Delegated Administrator Utility (client)**---the command-line interface invoked with `commadmin`. This component is required and is selected by default. It cannot be deselected.
- **Delegated Administrator Console**---the Delegated Administrator graphical user interface (GUI).
- **Delegated Administrator Server**---the Delegated Administrator server components required to run `commadmin` or the Delegated Administrator console.  
Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.

For more information about how to choose components, see [Choose Which Components to Configure](#)

If you choose not to configure the Delegated Administrator server, a dialog box cautions you that you must configure the Delegated Administrator Server on another machine. The server must be configured to enable the Delegated Administrator utility and console to work.

## Configuring the Delegated Administrator Utility

You must configure the Delegated Administrator utility on all machines on which you install a Delegated Administrator component (server or console).

### *To configure the Delegated Administrator Utility*

#### 1. DA Server host name and port number

Enter the DA Server host name and port number. If you are installing the Delegated Administrator server component, you must install it on the same host as Access Manager.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.

#### 2. Default domain

Enter the default domain for the Top-Level Administrator. This is the domain used when a domain is not explicitly specified by the `-n` option when executing the `commadmin` command-line utility.

This is also known as the default organization. If the domain specified does not exist in the directory, it will be created.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.

#### 3. Default SSL port for client

Enter the default SSL port that the Delegated Administrator utility uses.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.

- If you chose to configure only the Delegated Administrator utility, go on to [Completing the Configuration](#)
- If you chose to configure both the Delegated Administrator console and the server, or if you chose to configure the console only, go on to [Configuring the Delegated Administrator Console](#)
- If you chose to configure the Delegated Administrator server only (together with the required Delegated Administrator utility), go on to [Configuring the Delegated Administrator Server](#)

## Configuring the Delegated Administrator Console

The configuration program now displays the following panel:

### Select a Web Container for Delegated Administrator

Select the Web container on which you will deploy the Delegated Administrator console. You can configure Delegated Administrator on

- Sun Java System Web Server 6.x [WEB]
- Sun Java System 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:

- a. i.
  - 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 Administrator server or console on Application Server 9.x, please note that the default installation directories are different from those for Application Server 8.x as follow:

Enter the Application Server installation directory. By default, this directory is `/opt/SUNWappserver`.

Enter the Application Server domain directory. By default, this directory is `/opt/SUNWappserver/domains/domain1`.

Enter the Application Server document root directory. By default, this directory is `/opt/SUNWappserver/domains/domain1/docroot`.

## 2. Application Server 8.x or higher: Administration Instance Details

Enter the Administration Server port number. For example: 4849

Enter the Administration Server administrator user ID. For example: `admin`

Enter the administrator user password.

If you are using a secure Administration Server instance, check the **Secure Administration Server Instance** box. If you are not, leave the box unchecked.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.

## 3. Default Domain Separator

This panel appears only if you are configuring the Delegated Administrator console. The domain separator is needed to configure the console; this information is not related to the Web container.

Enter the default domain separator to be used for authentication when the user logs on. For example: `@`.

## 4. If you are configuring the Delegated Administrator console, take one of the following actions:

- If you chose to configure both the Delegated Administrator console and the server, go on to [Configuring the Delegated Administrator Server](#)
- If you chose to configure the Delegated Administrator console only (together with the required Delegated Administrator utility), go on to [Completing the Configuration](#)

## 5. If you are configuring the Delegated Administrator server:

Go on to

[Configuring the Delegated Administrator Server](#).

## Configuring the Delegated Administrator Server

If you chose to configure the Delegated Administrator server, the configuration program displays the following panels.

### *To configure Delegated Administrator Server*

#### 1. Select the Access Mode from the following options:

- **Direct LDAP**

If you select Direct LDAP, you must choose the web container for the server.

- **Access Manager base directory**

Enter the Access Manager Base Directory. The default directory is `/opt/SUNWam`.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.

The configuration program checks if a valid Access Manager base directory is specified. If not, a dialog box is displayed indicating that an existing Access Manager base directory must be selected.

#### 2. Next, a Web container **Configuration Details** panel is displayed.

If you chose to configure the console and server, this is the second time a Web container

**Configuration Details** panel appears.

The Delegated Administrator server is deployed to the same Web container as Access Manager. (You cannot choose a Web container for the Delegated Administrator server.)

Follow the instructions in the appropriate section:

1.
  - [Web Server 6.x Configuration](#)
  - [Application Server 7.x Configuration](#)
  - [Application Server 8.x or higher Configuration](#)
2. **Directory (LDAP) Server**

This panel asks for information about connecting to the LDAP Directory Server for the user/group suffix.

Enter the User and Group Directory Server LDAP URL (**LdapURL**), Directory Manager (**Bind As**), and password in the text boxes.

The Directory Manager has overall administrator privileges on the Directory Server and all Sun Java System servers that make use of the Directory Server (for example, Delegated Administrator) and has full administration access to all entries in the Directory Server. The default and recommended Distinguished Name (DN) is `cn=Directory Manager`.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.
3. **DA Server Internal LDAP**

Enter the username and the password for DA Server Internal LDAP. The username is hardcoded and cannot be changed. The default username is `daAdmin`.
4. **Access Manager Top-Level Administrator**

Enter the user ID and password for the Access Manager Top-Level Administrator. The user ID and password are created when Access Manager is installed. The value, `amadmin`, is hard-coded in AM.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.
5. **Access Manager internal LDAP authentication password**

Enter the password for the Access Manager Internal LDAP authentication user.

The authentication user name is hard-coded as `amldapuser`. It is created by the Access Manager installer and is the Bind DN user for the LDAP service.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.
6. **Organization Distinguished Name (DN)**

Enter the Organization DN for the default domain. For example, if your organization DN is `o=siroe.com`, all the users in that organization will be placed under the LDAP DN `o=siroe.com, o=usergroup`, where `o=usergroup` is your root suffix.

By default, the configuration program adds the default domain under the root suffix in the LDAP directory.

If you want to create the default domain at the root suffix (not underneath it), delete the organization name from the DN that appears in the **Organization Distinguished Name (DN)** text box.

For example, if your organization DN is `o=siroe.com` and your root suffix is `o=usergroup`, delete "`o=siroe.com`" from the DN in the text box; leave only `o=usergroup`.

If you choose to create the default domain at the root suffix, and if you later decide to use hosted domains, it can be difficult to migrate to the hosted-domain configuration. The `config-commda` program displays the following warning:

"The Organization DN you chose is the User/Group Suffix. Although this is a valid choice, if you ever decide to use hosted domains, there will be difficult migration issues. If you do wish to use hosted domains, then specify a DN one level below the User/Group suffix."

For more information, see [Directory Structure Supporting a One-Tiered Hierarchy](#).

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.
7. **Top-Level Administrator for the default organization**

Enter the user ID and password for the Top-Level Administrator that is to be created in the default domain (organization).

A `*Confirm Password*` field asks you to enter the password a second time.

Click **Next** to continue, **Back** to return to the previous panel, or **Cancel** to exit.
8. **Service Package and Organization Samples**

You can choose to add sample service packages and sample organizations to your LDAP directory.

**Load sample service packages.** Select this option if you want to use or modify sample service package templates to create your own Class-of-Service packages.

**Load sample organizations.** Select this option if you want your LDAP directory tree to contain sample provider organization nodes and subordinate organization nodes.

You can select

9. **#\*** 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/daewhere`  
*host* is the Web container host machine  
*port* is the Web container port  
For example:  
`{{http://siroe.com:8080/da}}`The Delegated Administrator console log-in window appears.



#### Note

In previous releases of Delegated Administrator, the console was launched from the following url:

`http://host:port/da/DA/Login`You can continue to use this url in the current release.

2. Log in to the Delegated Administrator console.

You could use the Top-Level Administrator (TLA) user ID and password specified in the Delegated Administrator configuration program. This information was requested in the following panel:

### Top-Level Administrator for the default organization



#### Note

Values set in Access Manager can determine session time-outs when you are running the Delegated Administrator console. For information on the session time-out values, see "Session Service Attributes," in the *Sun Java System Access Manager Administration Guide*. For information on viewing these values in the Access Manager console, see "Current Sessions" in the *Sun Java System Access Manager Administration Guide*.

## Running the Command-Line Utility

You can run the Delegated Administrator utility by entering the command name, `commadmin`, from a terminal window.

### To run the command-line utility

1. Go to the `da-base/bin/` directory.
2. Enter the `commadmin` command.  
For example, in Comm Suite 5 in Solaris: `/opt/SUNWcomm/bin/commadmin`

### Example: Using `commadmin` to search for users

The following command searches for users in the `varrius.com` domain:

```
commadmin user search -D chris -w bolton -d varrius.com -n sesta.com
```

For details about this `commadmin` command, see [commadmin user search](#).

### *commadmin* Return Codes

When a `commadmin` operation success, an OK message is displayed on the command line.

If a failure occurs, the following message appears:

FAIL

<message>

Where <message> displays the error text.

## Post-Configuration Tasks

After you run the Delegated Administrator configuration program, you should perform the following tasks:

- [Add Mail and Calendar Services to the Default Domain](#)
- [Enforce Unique Values for Mail Attributes](#)
- [Create Service Packages](#)

Perform the following task only if you are using an LDAP directory in Schema 2 compatibility mode:

- [Add ACIs for Schema 2 Compatibility Mode](#)

### Add Mail and Calendar Services to the Default Domain

The `config-commda` program creates a default domain.

If you want to create users with mail service or calendar service in the default domain, you first must add mail service and calendar service to the domain.

To perform this task, use the `commadmin domain modify` command with the `-S mail` and `-S cal` options.

The following example shows how you can use `commadmin domain modify` to add mail and calendar services to the default domain:

```
commadmin domain modify -D chris -w bolton -n sesta.com -d siroe.com
-S mail,cal -H test.siroe.com
```

For `commadmin` command syntax and details, see "Chapter 5, "Command Line Utilities," in the *Sun Java System Delegated Administrator Administration Guide*.

### Enforce Unique Values for Mail Attributes

Messaging Server uses the following mail attributes to identify a user's email address and alternate email addresses:

- `mail`
- `mailAlternateAddress`
- `mailEquivalentAddress`

Each user's mail attributes should be unique across the directory.

The following procedure shows how to modify a Directory Server `ldif` file to enforce the uniqueness of

these attributes. Whenever Delegated Administrator (or any LDAP tool) adds an entry or modifies a mail attribute, the ldif plug-in checks that the mail attribute values are unique. If an operation would cause two entries to have the same mail-attribute values, it is terminated.

For definitions of the mail attributes, see Messaging Server and Calendar Server Attributes in the [Sun Java Communications Suite 6 Schema Reference](#) .

### **To enforce the uniqueness of mail attributes**

#### **Before You Begin**



#### **Note**

If you are running Directory Server 5.2 Patch 6 (Java ES Release 4) or later, follow the procedures described below.

If you are running Directory Server 5.2.4 (Java ES Release 4), you need to apply patch 5.2\_Patch\_4\_6313027 before you begin the following procedure.

If you are running an earlier version of Directory Server, you need to upgrade to Directory Server 5.2 Patch 6 or later before you begin.

To access Directory Server patches, go to <http://sunsolve.sun.com>.

1. Create a text file with the following lines. Replace the parameters shown in the file with values specific to your installation:

```
{ {dn: &nbsp; ; cn=Uniqueness&nbsp; ; in&nbsp; ; Attribute&nbsp; ; Set , cn=plugins , cn=cc
```

Change the following parameters:

Replace *server\_root* with the directory underneath which your Directory Server is installed. For example:  
*/var/opt/mps/serverroot*

Replace *\_ugldbasedn\_* with your root suffix. Uniqueness checking is performed on all entries underneath this suffix.

1. Stop Directory Server.
2. Add your modified text file to the Directory Server *dse.ldif* file.

#### **Location of the dse.ldif File:**

The *dse.ldif* file is located in the following directory:

```
server_root/slapd-machine_name/config
```

where

*\_server\_root\_* is the directory underneath which Directory Server is installed. For example:

```
/var/opt/mps/serverroot
```

*machine\_name* is the name of the host machine where Directory Server is installed.

#### **Where to Add Your Text File:**

Add your text file after the *uid uniqueness* section of the *dse.ldif* file. The first line of this section (the *dn*) is as follows:

```
dn: cn=uid uniquenesss ,cn=plugins ,cn=config
```

### 3. Restart Directory Server.

When Directory Server starts, it installs the modified `dse.ldif` file in the directory.

#### **Troubleshooting**

If Directory Server does not start because the `dse.ldif` file has generated an error, check the values you used to replace the parameters in the sample text file. Your LDAP root suffix and the Directory Server installation path and host machine must be correct for your installation.

If Directory Server still does not start, you can, as a last resort, remove the text file from the `dse.ldif` file and restart Directory Server.

## **Create Service Packages**

Each user and group provisioned in the LDAP directory with Delegated Administrator should have a service package. A user or group can have more than one service package.

### **Predefined Class-of-Service Templates**

When you run the Delegated Administrator configuration program (`config-commda`), you can choose to have the `config-commda` program install sample Class-of-Service templates in the directory.

For information about the sample Class-of-Service templates and the available mail attributes in a service package, see [Service Package Details](#).

You can use the sample Class-of-Service templates to create and assign service packages. However, the sample templates are meant to be examples.

### **Creating Your Own Service Packages**

Most likely you will want to create your own service packages based on customized Class-of-Service templates with attribute values appropriate for the users and groups in your installation.

To create your own service packages, use the Class-of-Service templates stored in the `da.cos.skeleton.ldif` file, located in the following directory:

```
da-base/lib/config-templates
```

This file was created specifically for use as a template for writing customized Class-of-Service templates. It is not installed in the LDAP directory when Delegated Administrator is configured.

The `da.cos.skeleton.ldif` file contains a parameterized template for each Class-of-Service definition provided by Delegated Administrator:

- `standardUserMail`
- `standardUserCalendar`
- `standardUserMailCalendar`
- `standardGroupMail`
- `standardGroupCalendar`
- `standardGroupMailCalendar`

You can create your own Class-of-Service templates by using one or more of the parameterized templates in the `da.cos.skeleton.ldif` file.

The Class-of-Service templates in the `da.cos.skeleton.ldif` file are as follows:



These parameters represent values for the `icsPreferredHost`, `icsDWPHost`, and `icsFirstDay` LDAP attributes.

Edit these values to your specifications.

For definitions and descriptions of these attributes, see Chapter 3, "Messaging Server and Calendar Server Attributes," in the *Sun Java Communications Suite Schema Reference*.

You must use at least one attribute in a customized Class-of-Service template. You do not have to use all four mail attributes in a custom template. You can delete one or more attributes from the service package.

6. Use the LDAP directory tool `ldapmodify` to install the service package in the directory.

For example, you could run the following command:

```
ldapmodify -D <directory manager> -w <password> -f  
<cos.finished.template.ldif>
```

where

`<directory manager>` is the name of the Directory Server administrator.

`<password>` is the password of the Directory Service administrator.

`<cos.finished.template.ldif>` is the name of the edited ldif file to be installed as a service package in the directory.

## Add ACIs for Schema 2 Compatibility Mode

If you are using an LDAP directory in Schema 2 compatibility mode, you must manually add ACIs to the directory to enable Delegated Administrator to provision in your directory. Take the following steps:

### To add ACIs for Schema 2 compatibility mode

1. Add the following two ACIs to the OSI root. You can find the following two ACIs in the `usergroup.ldif` file, located in the `da-base/config` directory.  
Be sure to replace `ugldapbasedn` with your usergroup suffix. Add the edited `usergroup.ldif` into the LDAP directory.

```
{{\#}}>{{\#&nbsp;acis&nbsp;to&nbsp;limit&nbsp;Org&nbsp;Admin&nbsp;Role{}}}
```

```
{{dn:&nbsp;<ugldapbasedn>}}>{{}}changetype:&nbsp;modify{}}>{{}}add:&nbsp;a
```

2. Add the following two ACIs to the DC Tree root suffix. You can find the following two ACIs in the `dctree.ldif` file, located in the `da-base/lib/config-templates` directory.  
Be sure to replace `dctreebasedn` with your DC Tree root suffix and `ugldapbasedn` with your usergroup suffix. Add the edited `dctree.ldif` into the LDAP directory.

```
{{\#}}>{{\#&nbsp;acis&nbsp;to&nbsp;limit&nbsp;Org&nbsp;Admin&nbsp;Role{}}}
```

```
{{dn:&nbsp;<dctreebasedn>}}>{{}}changetype:&nbsp;modify{}}>{{}}add:&nbsp;a
```

3. Add the following additional ACIs to the DC Tree root suffix. (These ACIs are not in the `dctree.ldif` file.)

```
{{dn:<dctreebasedn>&nbsp;}}>{{}}changetype:modify{}}>{{}}add:aci{}}>{{}}ac
```

```
{{dn:<dctreebasedn>}}>{{}}changetype:modify{}}>{{}}add:aci{}}>{{}}aci:&nbs
```

```
{{dn:<dctreebasedn>}}>{{}}changetype:modify{}}>{{}}add:aci{}}>{{}}aci:&nbs
```

4. Set the `com.ipplanet.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.ipplanet.am.domaincomponent=o=isp
```

to

```
com.ipplanet.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&nbsp;298&nbsp;./ldapmodify&nbsp;}} {{\-I
```

7. Restart the Web container.

## Configuring Web Server to Run Delegated Administrator in SSL Mode

If you have deployed the Delegated Administrator console to Web Server 6 or Web Server 7.x, you can run the Delegated Administrator console in SSL mode, over a secure port.

If the Delegated Administrator server is deployed to Web Server 6 or Web Server 7.x, you can run the Delegated Administrator utility (`commadmin`) in SSL mode.

To enable the Delegated Administrator console and utility to use SSL access:

- For the console, complete all the steps in the SSL-configuration procedure.
- For the utility, you only have to complete Step 1 in the SSL-configuration procedure. Use the `-s` option with the `commadmin` commands to run in SSL mode.

For Web Server 6, follow this procedure:

- [To Configure Web Server 6 to Enable Delegated Administrator to Run in SSL Mode](#)

For Web Server 7.x, follow this procedure:

- [To Configure Web Server 7.x to Enable Delegated Administrator to Run in SSL Mode](#)

### **To Configure Web Server 6 to Enable Delegated Administrator to Run in SSL Mode**

In this procedure, the certificate truststore is created in the Delegated Administrator configuration directory. For example: `/var/da-base/config`

1. Request and install a certificate.

In a production environment, you must request a certificate from a Certificate Authority (CA), which issues the certificate to you. Next, you install the certificate.

In a test environment, you can create and install a self-signed certificate.

For information about requesting and installing certificates for Web Server 6, see "Using Certificates and Keys" in the *Sun Java System 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&nbsp;-L&nbsp;-n&nbsp;Server
```

where

3. `Server-Cert` is the default name created by the Administration interface

- `host` is the host name of the machine where Web Server 6 is running. For example:

- myhost.
  - *host.domain* is the host and domain name of the machine where Web Server 6 is running.  
For example: myhost.siroe.com.
4. Use the `java keytool` utility to import the certificate into a truststore.  
This step assumes that you are creating a new truststore in the Delegated Administrator configuration directory.  
Import the certificate.  
For example:

```
cd /var/da-base/config
keytool -import -alias Server-Cert -file /tmp/host.cert
-keystore truststore
```

Enter a password when the `keytool` prompts you for one.

5. Define the `ssl.truststore` property in the JVM Setting for the Web Server 6 instance configuration.  
For example:

```
-Djavax.net.ssl.trustStore=/var/da-base/config/truststore
Djavax.net.ssl.trustStorePassword=password
```

where *password* is the password you entered at the `keytool` prompt.

6. Modify the following property in the JVM Setting for the Web Server 6 instance configuration.  
Change

```
-Djava.protocol.handler.pkgs=com.ipplanet.services.comm
```

to the following value:

```
-Djava.protocol.handler.pkgs=com.sun.identity.protocol
```

7. Change the following properties in the `daconfig.properties` file:  
Open the `daconfig.properties` file in a text editor.  
The `daconfig.properties` file is located by default in the Delegated Administrator configuration directory:

```
da-base/data/da/WEB-INF/classes/com/sun/comm/da/resources
```

(In a later step, you will deploy the `daconfig.properties` file to the Web Server 6 configuration directory.)

Change the property values as follows:

```
commadminserver.host=host.domain
commadminserver.port=port
commadminserver.usessl=true
```

where *host.domain* is the host and domain name of the machine where Web Server 6 is running.  
For example: myhost.siroe.com.

And where *port* is the SSL port. For example: 443.

8. Deploy the Web Server 6 configuration and restart the instance:  
Run the Web Server 6 deploy script:

```
da-base/sbin/config-wbsvr-da
```

Restart the Web Server 6 instance.

### **To Configure Web Server 7.x to Enable Delegated Administrator to Run in SSL Mode**

In this procedure, the certificate truststore is created in the Delegated Administrator configuration directory. For example: `/var/da-base/config`

1. Request and install a certificate.  
In a production environment, you must request a certificate from a Certificate Authority (CA), which issues the certificate to you. Next, you install the certificate.  
In a test environment, you can create and install a self-signed certificate.  
For information about requesting and installing certificates for Web Server 7.x, see [Managing Certificates in ??Sun Java System Web Server Administrator's Guide??.  
After you complete this step, you can run the Delegated Administrator utility in SSL mode.
2. Run the `certutil` utility to list all certificates in the certificate database.  
For example:

```
cd /var/da-base/config/usr/sfw/bin/certutil -L -d  
/var/opt/SUNWwbsvr7/https-host.domain/config
```

where *host.domain* is the host and domain name of the machine where Web Server 7.x is running.  
For example: `myhost.siroe.com`

3. Export the specific certificate in ASCII encoding.  
For example:

```
/usr/sfw/bin/certutil -L -n cert-host.domain -d  
/var/opt/SUNWwbsvr7/https-host.domain/config-a > host.cert
```

where *host* and *host.domain* are the host name or host and domain name of the machine where Web Server 7.x is running.

4. Use the `java keytool` utility to import the certificate into a truststore.  
This step assumes that you are creating a new truststore in the Delegated Administrator configuration directory.  
Import the certificate.  
For example:

```
keytool -import -alias cert-host.domain -file host.cert  
-keystore truststore
```

Enter a password when the `keytool` prompts you for one.

5. Define the `ssl.truststore` property in the JVM Setting for the Web Server 7.x instance configuration.  
For example:

```
-Djavax.net.ssl.trustStore=/var/da-base/config/truststore  
-Djavax.net.ssl.trustStorePassword=password
```

where *password* is the password you entered at the `keytool` prompt.

6. Modify the following property in the JVM Setting for the Web Server 7.x instance configuration. Change

```
-Djava.protocol.handler.pkgs=com.ipplanet.services.comm
```

to the following value:

```
-Djava.protocol.handler.pkgs=com.sun.identity.protocol
```

7. Change the following properties in the `daconfig.properties` file:  
Open the `daconfig.properties` file in a text editor.  
The `daconfig.properties` file is located by default in the Delegated Administrator configuration directory:

```
da-base/data/da/WEB-INF/classes/com/sun/comm/da/resources
```

(In a later step, you will deploy the `daconfig.properties` file to the Web Server 7.x configuration directory.)

Change the property values as follows:

```
commadminserver.port=portcommadminserver.usessl=true
```

where *port* is the SSL port. For example: 443.

8. Deploy the Web Server 7.x configuration and restart the instance:  
Run the Web Server 7.x deploy script:

```
da-base/sbin/config-wbsvr7x-da
```

Restart the Web Server 7.x instance.

# Chapter 29. Preserving Delegated Administrator Customizations During Upgrades

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## Preserving Delegated Administrator 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 7 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 7](#)

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 Properties Files](#).

# Chapter 30. Sun Java Communications Suite 7 on a Single Host

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## Deployment Example: Sun Java Communications Suite 7 on a Single Host

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



### Note

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

- [About This Deployment Example](#)
- [Installing the Example](#)
- [Installing Communications Suite Components](#)
- [Installing and Configuring Directory Server](#)
- [Installing and Configuring GlassFish Enterprise Server](#)
- [Configuring Components](#)
- [Creating Additional User Accounts and Groups](#)
- [Known Issues and Limitations](#)

## About This Deployment Example

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

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 **Sun Java Communications Suite 7**. These instructions are not intended to act as a replacement for the individual component documentation, but to merely guide the evaluator through an initial installation.

## What Components Are Installed?

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

System components:

- Sun Java System Messaging Server 7 Update 3
- Sun Java System Calendar Server 6.3
- Sun Java System Calendar Server 7
- Sun Java System Instant Messaging 8 Update 2
- Sun Java System Directory Server 6.3.1
- GlassFish Enterprise Server 2.1 Patch 2 with HADB support
- Delegated Administrator 7
- Sun Convergence 1 Update 3
- Sun Java Indexing and Search Service 1
- All Shared Components

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

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

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

### Recommended Ports

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

### Implementation Specifications for This Example

This section describes implementation specifications for this example.

**Table 1 Evaluation Host Hardware and Software Requirements**

Component	Platform Requirement
CPU	SPARC
RAM	2 Gbytes or more
Disk Space	2.2 Gbytes or more free disk space for installed software. 2.1 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 2.0.0.11 or later, Internet Explorer 7.x or later, Safari 3.1.x

**Table 3 Server Configuration Information**

Component	Install Notes	Install Location	Database Location	Port Name	Port Number
GlassFish Enterprise Server 2.1	Installed separately. Required for Convergence	/opt/SUNWappserver	Not Applicable	HTTP Port	80
				Admin Port	4848
				HTTPS Port	8181
Directory Server 6.3.1	Installed separately. This version is not included with Identity Management Suite.	/opt/SUNWdsee	/var/opt/SUNWdsee	Directory Server Port	389
				LDAP Port	389
				SSL Port	636
Messaging Server 7.0 Update 3	Installed by using Communications Installer. Additional configuration required.	/opt/sun/comms/messaging64	/var/opt/sun/comms/messaging64	Webmail Port (HTTP)	2080
				SMTP Port	25
				POP Port	110
				IMAP Port	143
Calendar Server 6.3	Installed using Communications Installer. Additional configuration required.	/opt/sun/comms/calendar/SUNWics5	/var/opt/sun/comms/calendar/SUNWics5	Calendar Server Port	3080
				LDAP Port	389
Instant Messaging 8 Update 2	Installed by using Communications Installer. Additional configuration required.	/opt/sun/comms/im	/var/opt/SUNWiim	XMPP Port	5222
				Multiplexed XMPP Port	45222
				Admin Port	4848
				XMPP Server Port	5269

GlassFish Enterprise Server 2.1	Installed separately. Required by Calendar Server 7	/opt/SUNWappserverCS	Not applicable	HTTP Port	8080
				Admin Port	6080
				HTTPS Port	random
Calendar Server 7	Installed by using Communications Installer. Additional configuration required.	/opt/sun/comms/davserver	/var/mysql/caldav	HTTP Port	8080
				Admin Port	6080
				HTTPS	random
Java Message Queue	Installed by Communications installer. Additional configuration required.	/etc/imq	Not applicable	JMQ Port	7676
MySQL Server	Installed by Communications installer. Additional configuration required.	/opt/mysql	/var/mysql/caldav	MySQL Port	3306
Convergence 1 Update 3	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	Installed by using Communications Installer. Additional configuration required.	/opt/sun/comms/jiss		HTTP Port	80
				Administration Server Port	4848

## 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 and Java ES software	1 hours
Configure software	3 hours
Total	6 hours (average)

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



#### Note

Communications Suite 7 is supported on Solaris OS 10. This example uses Solaris OS 10 Update 6.

## Installation Notes and Recommendations

1. With Solaris OS 9 and 10, ftp might not work for certain accounts. These accounts are listed in `/etc/ftpd/ftpusers`. Just remove the account from this list (for example, `root`) and you will be able to ftp as that user.
2. Use `gzip -d` or `gunzip` to decompress the `*gz` files.

### Expected User Input

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

**Table 5 Information Input During Installation**

User Input	User Input Action
<code>&lt;enter&gt;</code>	Just hit enter, but verify that the default value shown makes sense.
<code>&lt;sample-password&gt;</code>	Any password, minimum of 8 characters in length, suitable for evaluation purposes. These instructions assume that anywhere <code>&lt;sample-password&gt;</code> is specified, you will enter the same value each time.
<code>&lt;amldapuser-password&gt;</code>	Same criteria as <code>&lt;sample-password&gt;</code> , but must be different from <code>&lt;sample-password&gt;</code> .
<code>&lt;fully-qualified-hostname&gt;</code>	For example, assuming that the host name is <code>abc</code> , and the domain name is <code>demo.xyz.com</code> , then this value would be <code>abc.demo.xyz.com</code> .
<code>&lt;full-cookie-domainname&gt;</code>	For example, assuming that the full domain name is <code>demo.xyz.com</code> , then this value would be <code>.demo.xyz.com</code> (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 Sun Java Communications Suite
2. Running the Communications Installer to install Messaging Server 7 Update 3, Calendar Server

- 6.3, Calendar Server 7, Instant Messaging 8 Update 2, Delegated Administrator 7, Convergence 1 Update 3, and Indexing and Search Service 1
3. Installing and configuring Directory Server 6.3 with 6.3.1 patch
4. Installing and configuring GlassFish Enterprise Server 2.1
5. Preparing Directory Server for Communications Suite
6. Configuring Delegated Administrator 7 and Communications CLI
7. Configuring Messaging Server 7 Update 3
8. Configuring Calendar Server 6.3
9. Configuring Instant Messaging 8 Update 2
10. Configuring Convergence 1 Update 3
11. Configuring Indexing and Search Service 1
12. (Optional) Configuring Calendar Server 7
13. Configuring users

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

## Installing the Example

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



### Note

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

This section contains the following topics:

- [Checking Installation Requirements](#)
- [Getting the Necessary Software](#)

## Checking Installation Requirements

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

### To Check System Requirements

The computer should meet the following requirements:

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

### To Check DNS

Verify that DNS is running and configured properly:

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

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

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

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

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

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

## Getting the Necessary Software

### To Get the Software

- [Get the Software](#) from the Communications Suite 7 download site.

## Installing Communications Suite Components

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

This section contains the following topics:

- [Before You Begin](#)
- [Installing Communications Suite 7 Software](#)

### Before You Begin

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

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

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

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



#### Note

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

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

## To Disable sendmail

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

```
svcadm disable sendmail
```

### Note

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

## Installing Communications Suite 7 Software

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

### To Install the Communications Suite Software

1. Create a `/tmp/JCS7` directory, unzip the Communications Suite 7 software zip file in this directory, then run the Communications Suite 7 Installer.

```
# cd /tmp/JCS7
# ./commpkg install
```

2. Press RETURN to continue when prompted.
3. Review the license and type **c** to continue when prompted.  
You can also type **s** to skip the license display.
4. Accept the License Agreement by typing **yes** when prompted.
5. Accept the default Install location: `/opt/sun/comms`
6. Select the following components for installation.
  - Messaging Server (64bit) 7u3 (7.3-11.01)
  - Comms DSsetup 6.4 (6.4-5.05)
  - Calendar Server 7 (7.0-0.26)
  - Instant Messaging 8u2 (8.2-02.04)
  - Convergence 1u3 (1.0-10.01)
  - Indexing and Search Service 1 (1.0-32.01)
  - Comms Delegated Administrator 7 (7.0-1.00)
  - Calendar Server 6.3 (6.3-19.01)This corresponds to selections 1, 2, 3, 4, 5, 6, 7, and 10.
7. 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 10 Values for NSS, Java Help Runtime, Message Queue, and Service Tags Options**

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

8. Press RETURN when prompted to continue.  
The installation Proceeds.
9. You are reminded to set a password for the MySQL root USER.  
You do this later if you decide to install Calendar Server 7.
10. Press RETURN when prompted to continue.

## Installing and Configuring Directory Server

Directory Server 6.3 is the preferred version since the previous version (shipped with the Identity Suite 5 Update 1) had issues that could potentially cause database integrity problems. Before you proceed, make sure that you have both the Directory Server 6.3 software and the Directory Server 6.3.1 patch.

1. Create the `/tmp/DS` directory and copy the Directory Server 6.3 bits to this directory. Uncompress and untar the Directory Server 6.3 bits then run the installer.

```
# mkdir /tmp/DS
# cp DSEE.6.3.Solaris-Sparc-full.tar.gz /tmp/DS
# cd /tmp/DS
# gzip -dc DSEE.6.3.Solaris-Sparc-full.tar.gz | tar xvf -
# cd DSEE_ZIP_Distribution
# ./dsee_deploy install -i /opt/SUNWdsee
```

2. Press Enter to continue when prompted.
3. Accept the License Agreement by typing **yes** when prompted.  
The installation proceeds and installs the Directory Server bits in the specified location `/opt/SUNWdsee`.



### Note

If the installation does not proceed because that cacao port 11162 is in use, shut down cacao then run the `dsse_deploy` command again:

```
# /usr/sbin/cacoadm stop
# ./dsee_deploy install -i /opt/SUNWdsee
```

4. Create your Directory Server instance.

```
# mkdir /var/opt/SUNWdsee
# cd /opt/SUNWdsee/ds6/bin
# ./dsadm create -p 389 -P 636 /var/opt/SUNWdsee/dsins1
# Choose the Directory Manager password: adminpass
# Confirm the Directory Manager password: adminpass
```

5. Start your Directory Server instance.

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

6. Test your Directory Server instance.

```
# ldapsearch -l -b "" -s base "objectclass=*" vendorName
vendorVersion
dn:
vendorName: Sun Microsystems, Inc.
vendorVersion: Sun-Java(tm)-System-Directory/6.3
```

7. Create the root suffix `o=isp` by using the `dsconf` command:  
`./dsconf create-suffix -h hostname -p 389 o=isp`  
In this example, type:

```
# ./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.
```

8. Accept the Certificate and type **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
```

9. Before applying the Directory Server 6.3.1 patch, stop your Directory Server instance.

```
# /opt/SUNWdsee/ds6/bin/dsadm stop /var/opt/SUNWdsee/dsins1
```

10. Create the /tmp/DS/Patch subdirectory and copy the Directory Server 6.3.1 patch to this directory. Uncompress and untar them. Then run the installer.

```
# mkdir /tmp/DS/Patch
# cp DSEE.6.3.1.Solaris-Sparc-patch.tar.gz /tmp/DS/Patch
# cd /tmp/DS/Patch
# gunzip DSEE.6.3.1.Solaris-Sparc-patch.tar.gz
# tar xvf DSEE.6.3.1.Solaris-Sparc-patch.tar
# ./dsee_deploy install -i /opt/SUNWdsee
```

11. Press the Enter key to continue when prompted.
12. Accept the License Agreement by typing **yes** when prompted.  
The installation proceeds and installs the Directory Server patch in the specified location /opt/SUNWdsee.
13. Start your Directory Server instance.

```
# /opt/SUNWdsee/ds6/bin/dsadm start /var/opt/SUNWdsee/dsins1
```

14. Confirm your Directory Server instance has been upgraded to Directory Server 6.3.1.

```
# ldapsearch -l -b "" -s base "objectclass=*" vendorVersion
dn:
vendorVersion: Sun-Java(tm)-System-Directory/6.3.1
```

## Installing and Configuring GlassFish Enterprise Server

The GlassFish Enterprise Server 2.1 patch 2 with HADB is the primary web container used by Convergence and Indexing and Search Service.

1. Prior to installing GlassFish Enterprise Server, check the Java version on the system. GlassFish Enterprise Server requires at least Java 1.6.0. Solaris OS 10 Update 6 ships with version 1.5.0\_16, which is not sufficient for Instant Messaging and other Communications Suite components. To check your version type the following command:

```
# java -version
The shell returns results that look similar to the following:java
version "1.6.0_16"
Java(TM) 2 Runtime Environment, Standard Edition (build
1.6.0_16-b01)
Java HotSpot(TM) Client VM (build 14.2-b01, mixed mode)
```

If the version is not at least 1.6.0, check to make sure that `/usr/java` and `/usr/jdk/latest` link to `jdk1.6.0_16`.

2. Create the `/tmp/GLASSFISH` directory, copy the GlassFish Enterprise Server 2.1 Patch 2 bits to this directory, then launch the installer.

```
# cd /tmp/GLASSFISH
# chmod +x *
# ./sges_ee-2_1-p02-solaris-sparc.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 Enterprise Server Settings**

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

5. The installation proceeds.
6. Change the JMQ port from 7676 to 37676 to avoid any future conflict with the JMQ instance that will be used by Indexing and Search Service.

```
# cd /opt/SUNWappserver/domains/domain1
# cd config
vi domain.xml
Change port 7676 to 37676
```



#### Note

By default, GlassFish Enterprise 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 that the GlassFish instance uses to avoid any future conflict.

7. Start the GlassFish Enterprise Server:

```
# /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
```

8. Continue with the next task.

### To Verify GlassFish Enterprise Server

- In your web browser, open a URL for GlassFish Enterprise Server. The URL is:  
`http://fully-qualified-hostname`In this example, type: <http://wireless.comms.beta.com>

## Configuring Components

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

This section contains the following topics:

- [Preparing the Directory](#)
- [Configuring Delegated Administrator and Communications CLI](#)
- [Configuring Messaging Server](#)
- [Configuring Calendar Server 6.3](#)
- [Configuring Instant Messaging](#)
- [Configuring Sun Convergence](#)
- [Configuring Indexing and Search Service 1](#)
- [\(Optional\) Configuring Calendar Server 7](#)
- [\(Optional\) Configuring Clients for Use with Calendar Server 7](#)

### Preparing the Directory

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

### To Apply Schema 2 to Your Directory Tree

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

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

2. Type **y** to continue.  
The perl script prompts for a series of options. The following table shows how to respond to the prompts.

**Table 11 Values for comm\_dssetup.pl Script**

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

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

## Configuring Delegated Administrator and Communications CLI

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

### To Configure Delegated Administrator

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

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

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 12 Values for config-commda Script**

Option	[Default Value]	Enter:
DA Server Hostname	[wireless.comms.beta.com]	<i>accept default</i>

DA Server Port	[8080]	<b>80</b>
Default Domain	[comms.beta.com]	<i>accept default</i>
Default SSL Port	[443]	<i>accept default</i>
Web Container	[Web Server 6.x]	<b>App Server 8.x and up</b>
Install Root Directory (for DA Console)	[/opt/SUNWappserver/appserver]	<b>/opt/SUNWappserver</b>
Domain Directory	[/var/opt/SUNWappserver/ domains/domain1]	<i>*/opt/SUNWappserver/ domains/domain1*</i>
Domain Root Directory	[/var/opt/SUNWappserver/ domains/domain1/docroot]	<i>*/opt/SUNWappserver/ domains/domain1/docroot*</i>
Server Target Name	[server]	<i>accept default</i>
Virtual Server Identifier	[server]	<i>accept default</i>
Server Instance HTTP Port	[80]	<i>accept default</i>
Administration Server Port	[4849]	<b>4848</b>
Administrator User ID	[admin]	<i>accept default</i>
Administrator Password	-	<b>adminpass</b>
Secure Administration Server Instance?	[checked]	<b>Checked (secure)</b>
Default Domain Separator	[@]	<i>accept default</i>
Access Mode	Direct LDAP	<i>accept default</i>
Web Container (DA Server)	[Web Server 6.x]	<b>App Server 8.x and up</b>
Install Directory (for DA Server)	[/opt/SUNWappserver/ appserver]	<b>/opt/SUNWappserver</b>
Domain Directory	[/var/opt/SUNWappserver/ domains/domain1]	<i>*/opt/SUNWappserver/ domains/domain1*</i>
Document Root Directory	[/var/opt/SUNWappserver/ domains/domain1/docroot]	<i>*/opt/SUNWappserver/ domains/domain1/docroot*</i>
Server Target Name	[server]	<i>accept default</i>
Virtual Server Identifier	[server]	<i>accept default</i>
Server Instance HTTP Port	[80]	<i>accept default</i>
Administration Server Port	[4849]	<b>4848</b>
Administrator User ID	[admin]	<i>accept default</i>
Administrator Password	-	<b>adminpass</b>
Secure Administration Server Instance?	[checked]	<b>Checked (secure)</b>
URL of Directory Server	[ldap://wireless.comms.beta.com: 389]	<i>accept default</i>
Bind As	[cn=Directory Manager]	<i>accept default</i>

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

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 Enterprise Server; the other reminds you to enable the mail and calendar services in the domain. The next steps complete these steps.
8. Click Close to exit the Delegated Administrator Configuration wizard.
9. Restart the GlassFish Enterprise Server.

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

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

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

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

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

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

### To Log in to Delegated Administrator

1. In your web browser, open a URL for Delegated Administrator. The URL for Delegated Administrator is:  
`http://fully-qualified-hostname:app-server-port/da/DA/Login`  
In this example, type: <http://wireless.comms.beta.com/da/DA/Login>
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]

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

**Table 13 Values for Messaging Server configure Script**

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

2. The Messaging Server configuration proceeds.
 

You might receive an error about the address `foo` not being in the mail domain. You can ignore this error or you can create such a user if you want.
3. Configure the webmail port.

```
/opt/sun/comms/messaging64/bin/configutil -o service.http.port -v
2080
```

4. Start Messaging Server:

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

- Continue with the next section to configure Calendar Server 6.3.

## Configuring Calendar Server 6.3

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

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

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

- Click Next at the Welcome page.  
The configuration wizard prompts for a series of options. The following table shows how to respond to the configuration options:

**Table 14 Values for Calendar Server csconfigure Script**

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

Administrator Email Address	[calmaster@comms.beta.com]	<i>accept default</i>
SMTP Host Name	[wireless.comms.beta.com]	<i>accept default</i>
Service Port	[80]	<b>3080</b>
Maximum Sessions	[5000]	<i>accept default</i>
Maximum Threads	[20]	<i>accept default</i>
Number of server processes	[1]	<i>accept default</i>
Runtime User ID	[icsuser]	<i>accept default</i>
Runtime Group ID	[icsgroup]	<i>accept default</i>
Start Calendar Server after successful configuration	unchecked	<i>accept default</i>
Start Calendar Server on system startup	checked	<b>Uncheck</b>
Config Directory	[/etc/opt/sun/comms/calendar/SUNWics5/config]	<i>accept default</i>
Database Directory	[/var/opt/sun/comms/calendar/SUNWics5/csdb]	<i>accept default</i>
Attachment Store Directory	[/var/opt/sun/comms/calendar/SUNWics5/astore]	<i>accept default</i>
Logs Directory	[/var/opt/sun/comms/calendar/SUNWics5/logs]	<i>accept default</i>
Temporary Files Directory	[/var/opt/sun/comms/calendar/SUNWics5/tmp]	<i>accept default</i>
Enable Archive	Checked	<i>accept default</i>
Archive Directory	[/var/opt/sun/comms/calendar/SUNWics5/csdb/archive]	<i>accept default</i>
Enable Hot Backup	Checked	<i>accept default</i>
Hot Backup Directory	[/var/opt/sun/comms/calendar/SUNWics5/csdb/hotbackup]	<i>accept default</i>
Keep archives for (in days)	[Minium: 3, Maximum: 6]	<i>accept default</i>
Keep hot backups for (in days)	[Minium: 3, Maximum: 6]	<i>accept default</i>
Same as archive checkbox	Checked	<i>accept default</i>

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

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

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

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

8. Consider changing the following values:

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

9. Change the Calendar ACL:

From

```
calstore.calendar.default.acl = "@@o^a^r^g;@@o^c^wdeic^g;^a^fs^g;@^c^g;@^p^r^g" to
```

```
calstore.calendar.default.acl = "@@o^a^r^g;@@o^c^wdeic^g;^a^rfs^g;@^c^g;@^p^r^g"
```

10. (Optional) If you changed the `calstore.default.timezoneID` in the `ics.conf` file, make the following edit to the `/opt/sun/comms/calendar/SUNWics5/cal/html/en/default_user_prefs.xml` file:

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

11. (Optional) To change the default time zone in Delegated Administrator, edit the `DomainCalendarService.xml` and `UserCalendarService.xml` files in the `/opt/sun/comms/da/lib/services` directory.

These files control users' default time zones created by using Delegated Administrator.

- In these files, change the value of the time zone:

```
America/Denver
```

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

12. Start the Calendar Server daemons, for example:

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

13. Continue with the next section to configure Instant Messaging.

## Configuring Instant Messaging

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

## To Configure Instant Messaging

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

For example:

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

The Components Selection page appears.

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

**Table 15 Values for Instant Messaging configure Script**

Option	[Default Value]	Enter:
Use AM for Single-Sign-On	[no]	<i>accept default</i>
Use AM for Policy	[no]	<i>accept default</i>
Wher to Store IM User Data	[On the file system]	<b>In the directory</b>
Runtime User ID	[inetuser]	<i>accept default</i>
Runtime Group ID	[inetgroup]	<i>accept default</i>
Runtime Directory	[/var/opt/SUNWiim]	<i>accept default</i>
Create User ID	[Choose New]	<b>Create User ID</b>
Create Runtime Directory	[Choose New]	<b>Create Directory</b>
Domain Name	[comms.beta.com]	<i>accept default</i>
XMPP Port	[5222]	<i>accept default</i>
Multiplexed XMPP Port	[45222]	<i>accept default</i>
XMPP Server Port	[5269]	<i>accept default</i>
Disable Server (enable only multiplexor)	[no]	<i>accept default</i>
LDAP Host Name	[wireless.comms.beta.com]	<i>accept default</i>
LDAP Port Number	[389]	<i>accept default</i>
Base DN	[dc=comms,dc=beta,dc=com]	<b>o=isp</b>
Bind DN	--	<b>cn=Directory Manager</b>

Bind Password	--	<b>adminpass</b>
Enable Email Integration	[yes]	<i>accept default</i>
SMTP Server	[wireless.comms.beta.com]	<i>accept default</i>
Enable Email Archiving	[yes]	<i>accept default</i>
Deploy Messenger Resources	[yes]	<i>accept default</i>
Codebase	[http://wireless.comms.beta.com:80/im]	*http://wireless.comms.beta.com:80/im*
Enable Audio	[no]	<b>yes</b>
Webcontainer Path	--	<b>/opt/SUNWappserver</b>
Web Administration URL	--	*https://wireless.comms.beta.com:4848/*
Web Administrator User Id	[admin]	<i>accept default</i>
Web Administrator Password	--	<b>adminpass</b>
Deploy IM HTTP Gateway	[yes]	<b>no</b>
Deploy IM IMPS Gateway	[yes]	<i>accept default</i>
Context Root	[http://wireless.comms.beta.com:80/imps]	*http://wireless.comms.beta.com:80/imps*
Webcontainer Path	[/opt/SUNWappserver]	<i>accept default</i>
Web Administration URL	[https://wireless.comms.beta.com:4848/]	<i>accept default</i>
Web Administrator User Id	[admin]	<i>accept default</i>
Web Administrator Password	--	<b>adminpass</b>
Enable Calendar Agent	[no]	<b>yes</b>
Enable local component	[no]	<b>yes</b>
XMPP server Hostname	[wireless.comms.beta.com]	<i>accept default</i>
XMPP server port	[5269]	<i>accept default</i>
Notification Server Hostname	--	<b>wireless.comms.beta.com</b>
Notification Server Port	[57997]	<i>accept default</i>
Calendar alarm URL	[enp:///ics/customalarm]	<i>accept default</i>

Enable SMS Gateway	[no]	<i>accept default</i>
Enable local component	[no]	<i>accept default</i>
Enable MSN Gateway	[no]	<i>accept default</i>
Enable local component	[no]	<i>accept default</i>
Enable AIM Gateway	[no]	<i>accept default</i>
Enable local component	[no]	<i>accept default</i>
Enable YIM Gateway	[no]	<i>accept default</i>
Enable local component	[no]	<i>accept default</i>
Start Services After Successful Configuration	[yes]	<b>no</b>
Start Services When System starts	[yes]	<b>no</b>

- The Instant Messaging configuration begins. It could take a while to complete the configuration. When the configuration is complete, continue to the next step.
- Edit the `iim.conf` file to prepare for the new Communications Client.

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

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

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

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

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

! avatar component
! =====

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

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

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

7. Start the Instant Messaging server.  
For example:

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

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

### To Log in to Instant Messaging

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

## Configuring Sun Convergence

This section describes how to configure Sun 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 16 Values for Convergence configure Script**

Option	[Default Value]	Enter:
Host Name	[wireless]	<i>accept default</i>
DNS Domain Name	[comms.beta.com]	<i>accept default</i>
GlassFish Enterprise Server Install Directory	[/opt/SUNWappserver]	<i>accept default</i>
Domain Directory	[/opt/SUNWappserver/domains/domain1]	<i>accept default</i>

Document Root Directory	[/opt/SUNWappserver/domains/domain1/docroot]	<i>accept default</i>
Server Target Name	[server]	<i>accept default</i>
Virtual Server Identifier	[server]	<i>accept default</i>
Server Instance HTTP Port	[8080]	<b>80</b>
Administration Server Port	[4848]	<i>accept default</i>
Administrator User ID	[admin]	<i>accept default</i>
Administrator Password	-	<b>adminpass</b>
Secure Administration Server Instance	Checked	<b>Checked</b>
URI Path	[iwc]	<i>accept default</i>
Enable Hosted Domain Support	checked	<i>accept default</i>
Directory Server LDAP URL	[ldap://wireless.comms.beta.com:389/]	<i>accept default</i>
Bind DN	[cn=Directory Manager]	<i>accept default</i>
Bind Password	-	<b>adminpass</b>
DC Tree suffix	[o=isp]	<i>accept default</i>
Default Domain Name	[comms.beta.com]	<i>accept default</i>
Webmail Server Host Name	[wireless.comms.beta.com]	<i>accept default</i>
Webmail Server Port Number	[8990]	<b>2080</b>
Access in SSL mode	unchecked	<i>accept default (Not secure)</i>
Webmail Admin User ID	[admin]	<i>accept default</i>
Admin Password	-	<b>adminpass</b>
Calendar Server Host Name	[wireless.comms.beta.com]	<i>accept default</i>
Calendar Server Port	[80]	<b>3080</b>
Access in SSL mode	unchecked	<i>accept default (Not secure)</i>

Administrator User ID	[calmaster]	<i>accept default</i>
Administrator User Password	-	<b>adminpass</b>
Instant Messaging Server Domain Name	[comms.beta.com]	<i>accept default</i>
Instant Messaging Server Host Name	[wireless.comms.beta.com]	<i>accept default</i>
Server Port	[5269]	<i>accept default</i>
httpbind Component JID	[wireless.httpbind.comms.beta.com]	<i>accept default</i>
Password	-	<b>adminpass</b>
Avatar Component JID	[wireless.avatar.comms.beta.com]	<i>accept default</i>
Password	-	<b>adminpass</b>
Convergence Administrator Username	[admin]	<i>accept default</i>
Password	-	<b>adminpass</b>

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

## Configuring Indexing and Search Service 1

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

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

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

2. Configure the IMQ broker on Messaging Server.

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

The following changes will most likely be necessary:

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

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

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

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

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

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

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

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

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

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

7. Reset the default account passwords.

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

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

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

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

If no response is returned, execute the following command:

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

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

```

# ./configutil -o local.store.notifyplugin.index.annotatmsg.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
# ./configutil -o service.imap.ensidle -v 1

```

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

```
# ./stop-msg
# rm /opt/sun/comms/messaging64/log/imap
# ./start-msg
# cat /opt/sun/comms/messaging64/log/imap
<You should see entries similar to these:>
-----
[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 7.3-11.01 64bit
(built Sep 1 2009) starting up
```

11. Verify that the IMQ broker started up cleanly.

```
# cat /var/imq/instances/imqbroker/log/log.txt
<You should see entries similar to these:>
-----
[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
```

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

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

Listing all the destinations on the broker specified by:

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

-----
Name          Type      State      Producers      Consumers
Msgs
Count  Remote  UnAck  Avg Size      Total  Wildcard  Total  Wildcard
-----
Queue  RUNNING  24     -          0      -          0      0      0
0.0
JES-MS-IDLE  Topic   RUNNING  0          0          1      0          0
0          0      0.0
JES-MS-KILL  Topic   RUNNING  0          0          1      0          0
0          0      0.0
mq.sys.dmqs  Queue   RUNNING  0          -          0      -          0
0          0      0.0

Successfully listed destinations.
```

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

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

14. Restart Messaging Server.

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

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

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

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

**Table 17 Values for Indexing and Search configure Script**

Option	[Default Value]	Enter
Fully qualified domain name of system (hostname)	--	<b>wireless.comms.beta.com</b>
User under which all JISS services will run (iss.user)	[jiss]	<i>accept default</i>
Group under which all JISS services will run (iss.group)	[jiss]	<i>accept default</i>
Location of Java (java.home)	[/usr/jdk/latest]	<i>accept default</i>
User/Group Directory Server format (mail.ldap)	[none]	*ldap://wireless.comms.beta.com:389*
User/Group Base DN format (mail.basedn)	[none]	<b>o=isp</b>
User/Group Default Domain (mail.defaultdomain)	[none]	<b>comms.beta.com</b>
User/Group Directory Manager DM (mail.searchbind)	[cn=Directory Manager]	<i>accept default</i>
User/Group Directory Manager password (mail.searchbind.password)	[none]	<b>adminpass</b>
Messaging Server store hostname (mail.server)	[none]	<b>wireless.comms.beta.com</b>
Comma-delimited list of mail server IPs (mail.server.ip)	[none]	<b>Enter IP address of wireless.comms.beta.com such as 192.18.49.94</b>
Read-only store admin username (mail.imap.admin.username)	[indexeradmin]	<i>accept default</i>
Read-only store admin password (mail.imap.admin.password)	[none]	<b>adminpass</b>
Messaging Server IMAP port (mail.imap.port)	[143]	<i>accept default</i>
Messaging Server JMQ broker (mail.imq)	[none]	*wireless.comms.beta.com:7676*
JMQ notification user (mail.imq.user)	[jmquser]	<i>accept default</i>
JMQ notification user's password (mail.imq.password)	[none]	<b>adminpass</b>
Directory location of the appserver (appserv.dir)	[/opt/SUNWappserver]	<i>accept default</i>
Appserver web port (appserv.web.port)	[8080]	<b>80</b>

Appserver admin port (appserv.admin.port)	[4848]	<i>accept default</i>
Appserver admin user (appserv.admin.user)	[admin]	<i>accept default</i>
Appserver admin user's password (appserv.admin.password)	[none]	<b>adminpass</b>
JISS JMQ broker hostname (imq.host)	[none]	<b>wireless.comms.beta.com</b>
JISS JMQ broker port (imq.port)	[7676]	<i>accept default</i>
Username for JISS JMQ broker (iss.imq.user)	[jmquser]	<i>accept default</i>
Password for JISS JMQ user (iss.imq.password)	[none]	<b>adminpass</b>
Password for admin user on JISS JMQ broker (iss.imq.admin.password)	[none]	<b>adminpass</b>
JISS Directory Server host (ldap)	[none]	<b>wireless.comms.beta.com</b>
JISS Directory Server port (ldap.port)	[389]	<i>accept default</i>
JISS Directory Manager DN format (java.naming.security.principal)	[cn=Directory Manager]	<i>accept default</i>
JISS Directory Server password (ldap.password)	[none]	<b>adminpass</b>
Storeui access method (iss.storeui.access.method)	[disk]	<i>accept default</i>

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

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

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 use 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
```

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

```
# cd /opt/SUNWappserver/bin
# ./asadmin set
server.http-service.request-processing.thread-count=8
Please enter the admin user name: admin
Please enter the admin password: adminpass
```



**Note**

This example sets the processor threads to 8. The actual number should be twice the number of CPUs or virtual CPUs. Thus, if the number of CPUs or virtual CPUs is 4, the thread count should be set to 8. If the number of virtual CPUs is 128, the thread count should be set to 256. To find the number of CPUs or virtual CPUs on your host, use the `mpstat` command.

20. Restart the GlassFish Enterprise Server.

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

## (Optional) Configuring Calendar Server 7

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

```
# cd /tmp/Glassfish
# ./sges_ee-2_1-p02-solaris-sparc.bin -console

Press ENTER to Continue when prompted
```

2. 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 18 Values for Calendar Server7 configure Script**

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

The installation proceeds.

### 3. Start the GlassFish Enterprise 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
```

### 4. 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
```

5. 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
```

6. Install the MySQL startup script.

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

7. Start MySQL.

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

8. 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
```

9. 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

10. Create the MySQL user and caldav database.

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

11. Configure MySQL to start automatically upon reboot.

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

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

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

13. 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
```

14. Click Next at the Welcome page.
15. Directory to store configuration and data files [/var/opt/sun/comms/davserver]
16. Configure Sun Java System Calendar Server 7.  
The installation script prompts for a series of options. The following table shows how to respond to the configuration options:

**Table 19 Values for Calendar Server 7 configure Script**

Option	[Default Value]	Enter
Host Name	[wireless]	<i>accept default</i>
DNS Domain Name	[comms.beta.com]	<i>accept default</i>
MySQL Server Host Name	[localhost]	<i>accept default</i>
MySQL Server Port Number	[3306]	<i>accept default</i>
MySQL Database User ID	[caldav]	<i>accept default</i>
MySQL Database User Password	--	<b>adminpass</b>
Calendar Database Name	[caldav]	<i>accept default</i>
Application Server Install Directory	[/opt/SUNWappserver]	<b>/opt/SUNWappserverCS</b>
Application Server Domain Directory	[/opt/SUNWappserverCS/domains/domain1]	<i>accept default</i>
Application Server Document Root Directory	[/opt/SUNWappserverCS/domains/domain1/docroot]	<i>accept default</i>
Appserver Instance Name	[server]	<i>accept default</i>
Virtual Server Identifier	[server]	<i>accept default</i>
Instance HTTP Port	[8080]	<b>8080</b>

Administration Server Port	[4848]	<b>6080</b>
Administrator User ID	[admin]	<i>accept default</i>
Administrator Password	--	<b>adminpass</b>
Secure Administration Server Instance	checked	<i>accept default (Is Secure)</i>
URI Path	[/]	<b>/davserver</b>
Directory Server LDAP URL	[ldap://wireless.comms.beta.com:389]	<i>accept default.</i>
Bind DN	[cn=Directory Manager]	<i>accept default.</i>
Bind Password	--	<b>adminpass</b>
DC Tree suffix	[o=isp]	<i>accept default.</i>
Default Domain Name	[comms.beta.com]	<i>accept default</i>
SMTP Server Host Name	[wireless.comms.beta.com]	<i>accept default</i>
SMTP Server Port Number	[25]	<i>accept default</i>
Calendar Administrator User ID	[calmaster]	<b>calmaster7</b>
Calendar Administrator User Password	--	<b>adminpass</b>

17. Click the "Configure Now" button to configure Calendar Server 7.
18. After the configuration is complete, click Next to continue.
19. Click Next to continue.
20. Click Close to quit the Calendar Server configuration wizard.
21. Restart the GlassFish Enterprise Server.

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

### (Optional) Configuring Clients for Use with Calendar Server 7

To configure clients to use with Calendar Server 7, see [Configuring CalDAV Clients](#). Use the following URLs when configuring clients for this example:

- Lightning Thunderbird:

The Calendar Server URL to use is: `http://fully-qualified-server-name:8080/davserver/dav/home/username/calendar/`  
In this example, type the following:  
`http://wireless.comms.beta.com:8080/davserver/dav/home/jdoe/calendar/`

- Apple iCal:  
The Calendar Server URL to use is: [`http://fully-qualified-server-name:8080/davserver/dav/principals/username/`]  
In this example, type the following:  
`http://wireless.comms.beta.com:8080/davserver/dav/principals/jdoe/`

This example assumes that the default URI is `/davserver`.

## Creating Additional User Accounts and Groups

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

### To Create Users and Groups

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

1. Run the following Delegated Administrator commands.

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

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

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

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

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



#### Note

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

### To Use Delegated Administrator to Create Users

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

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

1. Change to the

`/var/opt/sun/comms/da/WEB-INF/classes/sun/comm/cli/server/servlet` directory and edit the `resource.properties` file.

- The default settings for `servicepackage` refresh rates are:

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

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

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

```
switch-catype=hosted
```

The `catype` can be either `hosted` or `legacy`. When `catype` 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 Enterprise 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 [Communications Suite 7 Release Notes](#).

# Chapter 31. Sun Java Communications Suite 7 on a Single Host (Linux)

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## Deployment Example: Sun Java Communications Suite 7 on a Single Host (Linux)

This deployment example describes how to install Sun Java Communications Suite 7 software on a single Red Hat Enterprise Linux 4 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 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 improved when services are deployed across multiple systems.

- [Comparison to Communications Suite 6 Update 2 guide](#)
- [About This Deployment Example](#)
- [Installing the Example](#)
- [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 6 Update 2 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.

- Communications Express removed
  - Communications Express has been replaced by Convergence.
- IMAP-IDLE now enabled by default
  - Provides improved IMAP client responsiveness (if the email client supports [IMAP-IDLE](#))

New features for Communication Suite 7 can also be found in the [Communications Suite 7 Release Notes](#).

## About This Deployment Example

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

This section contains the following topics:

- [Installation Overview](#)
- [Implementation Specifications for This Example](#)
- [Installation Time Estimates](#)
- [Installation Notes and Recommendations](#)
- [Summary of Installation and Configuration](#)

## Installation Overview

This scenario results in a functioning deployment suited for the evaluation and testing of Sun Java Communications Suite 7 on Red Hat Enterprise Linux 4. 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:

- Sun Java System Messaging Server 7 Update 3
- Sun Java System Calendar Server 6.3 + Patches
- Sun Java System Instant Messaging 8 Update 2
- Sun Java System Directory Server 6.3.1
- Sun GlassFish Enterprise Server 2.1 Patch 02
- Sun Java System Delegated Administrator 7.0 Patch 1
- Sun Convergence 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 Red Hat Linux 4)
- Fully qualified (external) host name: `demo.comms.beta.com`
- Password: `adminpass` used for all passwords except the `amldapuser` password

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

### Recommended Ports

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

## Implementation Specifications for This Example

This section describes implementation specifications for this example.

### Table 1 Evaluation Host Hardware and Software Requirements

Component	Platform Requirement
CPU	x86
RAM	2 Gbytes or more
Disk Space	2.1 Gbytes or more free disk space for installed software. 1.5 Gbytes additional disk space may be needed for temporary storage of Communications Suite zip files.
Software	Red Hat Linux EL 4.
Users	Provisioned with test users.

 **Note**  
 Communications Suite 7 is now supported with Redhat Enterprise Linux 5 update 3. Please note however that Directory Server 6.3.1 is **not** supported with Redhat Enterprise Linux 5.

**Table 2 Client Software Requirements**

Component	Platform Requirement
Browser	Firefox 2.0.0.x or 3.0.x, Internet Explorer 7.x, 8.x

**Table 3 Server Configuration Information**

Component	Install Notes	Install Location	Database Location	Port Name	Port Number
Glassfish 2.1	Installed separately. Required for Convergence, Delegated Administrator and Instant Messaging Java Client	/opt/sun/appserver	/opt/sun/appserver/domains/domain1	HTTP Port	80
				Admin Port	4848
				HTTPS Port	443
Directory Server 6.3.1	Installed separately.	/opt/sun/directory	/var/opt/sun/dsins1	Directory Server Port	389
				LDAP Port	389
				SSL Port	636
Messaging Server 7 Update 3	Installed by using Communications Installer. Additional configuration required.	/opt/sun/comms/messaging	/var/opt/sun/comms/messaging	Webmail Port (HTTP)	8990
				SMTP Port	25
				POP Port	110
				IMAP Port	143
Calendar Server 6.3	Installed using Communications Installer. Additional configuration required.	/opt/sun/comms/calendar	/var/opt/sun/comms/calendar	Calendar Server Port	3080
Instant Messaging 8 Update 2	Installed using Communications Installer. Additional configuration required.	/opt/sun/comms/im	/var/opt/sun/comms/im	XMPP Port	5222
				Multiplexed XMPP Port	45222
				Server-to-Server Port	5269

## Installation Time Estimates

The following table provides time estimates for installing this example.

**Table 4 Installation Time Estimates**

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

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

## Installation Notes and Recommendations

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

### Expected User Input

During installation, you 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
<b>&lt;enter&gt;</b>	Just hit enter, but verify that the default value shown makes sense.
<b>&lt;sample-password&gt;</b>	Any password, minimum of 8 characters in length, suitable for evaluation purposes. These instructions assume that anywhere <b>&lt;sample-password&gt;</b> is specified, you will enter the same value each time.
<b>&lt;amldapuser-password&gt;</b>	Same criteria as <b>&lt;sample-password&gt;</b> , but must be different from <b>&lt;sample-password&gt;</b> .
<b>&lt;fully-qualified-hostname&gt;</b>	For example, assuming that the host name is <code>abc</code> , and the domain name is <code>demo.xyz.com</code> , then this value would be <code>abc.demo.xyz.com</code> .
<b>&lt;full-cookie-domainname&gt;</b>	For example, assuming that the full domain name is <code>demo.xyz.com</code> , then this value would be <code>.demo.xyz.com</code> (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 Sun Java Communications Suite
2. Running the Communications Suite Installer to install Messaging Server, Calendar Server, Instant Messaging, Delegated Administrator and Convergence.
3. Installing and configuring Directory Server 6.3.1
4. Installing and configuring Glassfish 2.1
5. Deploying and enabling the Directory Server Control Center
6. Configuring Delegated Administrator and Communications CLI
7. Configuring Messaging Server
8. Configuring Calendar Server

- 9. Configuring Instant Messaging Server
- 10. Configuring Convergence

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

## Installing the Example

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



### Note

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

This section contains the following topics:

- [Checking Installation Requirements](#)
- [Getting the Necessary Software](#)
- [Installing Communications Suite Components](#)
- [Installing and Configuring Directory Server 6.3.1](#)
- [Installing and Configuring Glassfish 2.1 Patch 02](#)

## Checking Installation Requirements

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

### To Check System Requirements

The computer should meet the following requirements:

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

### To Check DNS

Verify that DNS is running and configured properly:

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

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

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

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

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

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

## To Check for Sufficient Number of File-Descriptors

The default installation of Red Hat Enterprise Linux 4.6 uses 1,024 file descriptors, which is insufficient for the correct operation of Communications Suite 6. A Communications Suite 6 system needs the maximum file descriptors set to 16,384.

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

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

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

## To Enable Process Core Dumps

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

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

## Getting the Necessary Software

### To Get the Software

1. [Get Communications Suite, Glassfish and Directory Server.](#)

## Installing Communications Suite Components

Deploying Communications Suite components is a two-step process. You first install the software and the shared components then you configure the individual server components. This section describes how to install the Communications Suite software on your host.

1. Create the `/tmp/CS7/` directory, move the Communication Suite 7 software (`ci-7.0-0.02-Linux_x86.zip`) to this directory and extract the files.

```
cd /tmp/CS7
unzip ci-7.0-0.02-Linux_x86.zip
```

2. Run the Communications Suite installer.

```
./commpkg install
```

3. Press Return to continue when prompted.
4. Review the license and type **c** to continue when prompted.  
You can also type **s** to skip the license display.
5. Accept the License Agreement by typing **yes** when prompted.
6. Accept the default Install location: `/opt/sun/comms`
7. Select the following components for installation (1,2,4,5,7,8).

```
1.    Messaging Server 7u3 (7.3-11.01)
2.    Comms DSsetup 6.4 (6.4-5.05)
4.    Instant Messaging 8u2 (8.2-02.04)
5.    Convergence 1u3 (1.0-10.01)
7.    Comms Delegated Administrator 7 (7.0-1.00)
8.    Calendar Server 6.3 (6.3-19.01)
```

The installation proceeds.

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

## Installing and Configuring Directory Server 6.3.1

### To Install the Zip Version of Directory Server 6.3.1

1. Move the downloaded Directory Server 6.3.1 zip file `DSEE.6.3.1.Linux-X86-full.tar.gz` to a temporary location, such as `/tmp/DSEE63`.
2. Unzip the file. This file contains the DS6.3 zip file and the DS6.3.1 patch which will be applied later.

```
tar -xzf DSEE.6.3.1.Linux-X86-patch.tar.gz
tar -xzf DSEE.6.3.Linux-X86-full.tar.gz
```

3. Deploy the DSEE6.3 software to the `/opt/sun/directory` directory.

```
cd DSEE_ZIP_Distribution
./dsee_deploy install -I -i /opt/sun/directory
```



#### Note

If you see the message "Error: Running Directory Server instances exist. You must stop them.", re-run the above command without the "-I" option.

4. Patch the DS6.3 install to DS6.3.1

```
cd /tmp/DSEE63/126751-05
tar -xzf DSEE.6.3.1.Linux-X86-patch.tar.gz
./dsee_deploy install -I -i /opt/sun/directory
```

**Note**

If you see the message "Error: Running Directory Server instances exist. You must stop them.", re-run the above command without the "-l" option.

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

```
mkdir -p /var/opt/sun/directory/  
cd /opt/sun/directory/ds6/bin  
./dsadm create /var/opt/sun/directory/dsins1
```

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

```
cd /opt/sun/directory/ds6/bin  
./dsadm start /var/opt/sun/directory/dsins1  
./dsconf create-suffix "o=isp"
```

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

## Installing and Configuring Glassfish 2.1 Patch 02

Glassfish 2.1 is the primary web container used by Convergence, Delegated Administrator, Access Manager, Directory Control Center, and Instant Messaging.

1. Move the downloaded Glassfish 2.1 installer `sges_ee-2_1-p02-linux.bin` to a temporary location, such as `/tmp/GF21`.
2. Launch the installer.

```
cd /tmp/GF21  
chmod +x sges_ee-2_1-p02-linux.bin  
./sges_ee-2_1-p02-linux.bin -console -javahome /usr/java/default/
```

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

### Table 6 Application Server Settings

Option	[Default Value]	Enter:
Installation Directory	[/opt/SUNWappserver]	<b>/opt/sun/appserver</b>
Create Directory or Choose New	Create Directory	<i>accept default</i>
Install Node Agent	[yes]	<i>accept default</i>
Install High Availability Database Server	[no]	<i>accept default</i>
Install Load Balancing Plugin	[no]	<i>accept default</i>
Install Domain Administration Server	[yes]	<i>accept default</i>
Install Sample Applications	[yes]	<b>no</b>
Java Configuration	[1. Install Java 2 SDK (5.0)]	<b>2. Reuse existing Java 2 SDK</b>
Existing JDK Location	[/usr/java/jdk1.6.0_16]	<b>/usr/java/latest</b>
Admin User	[admin]	<i>accept default</i>
Admin User's Password	—	<b>adminpass</b>
Master Password for SSL Certificate	—	<b>adminpass</b>
Admin Port	[4848]	<i>accept default</i>
HTTP Port	[8080]	<b>80</b>
HTTPS Port	[8181]	<b>443</b>
Enable Updatecenter client	[yes]	<b>no</b>
Upgrade from previous AS version	[no]	<i>accept default</i>

5. Select **Install Now** at the Ready to Install screen.

The installer begins to install the software.

6. Start the Application Server:

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

7. When prompted, type:

username: **admin**

admin password: **adminpass**

master password: **adminpass**

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

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

9. Type **admin** and **adminpass** as the username and password when prompted.

10. Continue with the next section.

## To Deploy and Enable Directory Server Control Center (DSCC)

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

1. Enable the DSCC registry.

```
cd /opt/sun/directory/dscc6/bin/  
./dsccsetup ads-create
```

2. At the Choose password for Directory Service Manager option, type **adminpass** (the default password).
3. Edit the `/opt/sun/appserver/domains/domain1/config/server.policy` file to add the following required DSCC permissions:

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

4. Access the Application Server administration console using a web-browser at the following location:  
[https://\\_fully-qualified-hostname\\_:\\_admin-port/](https://_fully-qualified-hostname_:_admin-port/)

In this example, type:

\*<https://demo.comms.beta.com:4848/>

\*

1. Log in by using the `admin` username and `adminpass` password.
2. To deploy application from the `/opt/sun/directory/var/dscc6/dscc.war` file, select **Applications** then **Web Applications** from the left-hand menu in the Administration Console.
3. Select the **Deploy** option from the Web Applications menu.
4. Select Local packaged file or directory that is accessible from the Application Server.
5. Type the full path of the DSCC war file: `/opt/sun/directory/var/dscc6/dscc.war`.
6. Click the OK button at the bottom of the page.
7. Log out of the Administration Console once the DSCC deployment has completed.

### To Register the Directory Server Instance in DSCC

1. Access the DSCC console at the following location:  
[http://\\_fully-qualified-hostname\\_:\\_application-server-port\\_/dscc](http://_fully-qualified-hostname_:_application-server-port_/dscc)

In this example, type:

\*<http://demo.comms.beta.com/dscc>

\*

1. Log in by using the `admin` username and `adminpass` password.
2. Select the `Directory Servers` tab.
3. Select `Register Existing Server...` action from the `More Server Actions` drop-down menu.  
A new screen appears.
4. Type or select the following values:
  - Host: `demo.comms.beta.com`
  - Instance Path: `/var/opt/sun/directory/dsins1`
  - DSCC Agent Port: `11162`

- Description: **Demo Directory Server**
5. Select the Next button to continue.
  6. In the Provide Authentication Information for the Host step, type the following values:
    - User ID: **root**
    - Password: *root-password*
  7. Select the Next button to continue.
  8. In the Review Server Certificate step, select the Next button.



#### Note

Bug 6710506 (DSCC Application Error Exception encountered during forward when registering a ds instance in dsc) can cause an Exception error at this step. If you experience this error, repeat the registration steps from the beginning.

9. In the Provide Authentication Information step, type the following values:
  - Administration DN: **cn=Directory Manager**
  - Password: **adminpass**
10. Select the **Next** button to continue.
11. At the final Summary step, click the **Finish** button to complete the process then close the window once the registration has completed.  
You should now see the server `demo.comms.beta.com:389` listed in the Directory Servers listing.
12. Log out of the DSCC interface.
13. Proceed to Installing Communications Suite Components for instructions on how to install and configure Communications Suite components.

## Configuring Communications Suite Components

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

This section contains the following topics:

- [Preparing the LDAP Directory Server](#)
- [Configuring Delegated Administrator and Communications CLI](#)
- [Configuring Messaging Server](#)
- [Configuring Calendar Server](#)
- [Configuring Instant Messaging Server](#)
- [Configuring Sun Convergence](#)
- [Creating Additional User Accounts and Groups](#)

### Preparing the LDAP Directory Server

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

#### To Apply Schema 2 to Your Directory Tree

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

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

2. Type **y** to continue.  
The perl script prompts for a series of options. The following table shows how to respond to the prompts.

**Table 10 Values for comm\_dssetup.pl Script**

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

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

## Configuring Delegated Administrator and Communications CLI

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

### To Configure Delegated Administrator

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

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

2. Select Enter in the Welcome window.
3. Accept the default, `/var/opt/sun/comms/da`, for the Directory to store Configuration and Data Files:  
If the directory does not exist, select `Create Directory` to create the directory.
4. Install Delegated Administrator Utility, Console, and Server.  
The installation script prompts for a series of options. The following table shows how to respond to the configuration options:

**Table 11 Values for config-commda Script**

Option	[Default Value]	Enter:
DA Web-Container Hostname	[demo.comms.beta.com]	<i>accept default</i>
DA Web-Container Port	[8080]	<b>80</b>
Default Domain	[comms.beta.com]	<i>accept default</i>

Default SSL Port	[443]	<i>accept default</i>
Web Container	[Web Server 6.x/WEB]	<b>APP8</b>
Install Directory (for DA Console)	[/opt/sun/appserver]	<i>accept default</i>
Domain Directory	[/var/opt/sun/appserver/ domains/domain1]	<i>*/opt/sun/appserver/ domains/domain1*</i>
Doc Root Directory	[/var/opt/sun/appserver/ domains/domain1/docroot]	<i>*/opt/sun/appserver/ domains/domain1/docroot*</i>
Server Target Name	[server]	<i>accept default</i>
Virtual Server Identifier	[server]	<i>accept default</i>
Server Instance HTTP Port	[80]	<i>accept default</i>
Administration Server Port	[4849]	<b>4848</b>
Administrator User ID	[admin]	<i>accept default</i>
Administrator Password	-	<b>adminpass</b>
Secure Administration Server Instance?	[yes]	<i>accept default</i>
Default Domain Separator	[@]	<i>accept default</i>
Directory Server Interface	[DL]	<i>accept default</i>
Web Container	[Web Server 6.x/WEB]	<b>APP8</b>
Install Directory (for DA Server)	[/opt/sun/appserver]	<i>accept default</i>
Domain Directory	[/var/opt/sun/appserver/ domains/domain1]	<i>*/opt/sun/appserver/ domains/domain1*</i>
Doc Root Directory	[/var/opt/sun/appserver/ domains/domain1/docroot]	<i>*/opt/sun/appserver/ domains/domain1/docroot*</i>
Server Target Name	[server]	<i>accept default</i>
Virtual Server Identifier	[server]	<i>accept default</i>
Server Instance HTTP Port	[80]	<i>accept default</i>
Administration Server Port	[4849]	<b>4848</b>
Administrator User ID	[admin]	<i>accept default</i>
Administrator Password	-	<b>adminpass</b>
Secure Administration Server Instance?	[yes]	<i>accept default</i>
URL of Directory Server	[ldap://demo.comms.beta.com: 389]	<i>accept default</i>
Bind As	[cn=Directory Manager]	<i>accept default</i>
Password	-	<b>adminpass</b>
Internal LDAP user (daAdmin) Password	-	<b>adminpass</b>
Organization DN	[o=comms.beta.com,o=isp]	<i>accept default</i>

Top Level Admin for Default Organization	[admin]	<i>accept default</i>
Password	-	<b>adminpass</b>
Load Sample Service Packages	[yes]	<i>accept default</i>
Load Sample Organizations	[yes]	<b>no</b>

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

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

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

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

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

10. Continue with the next procedure.

### To Log in to Delegated Administrator

1. In your web browser, open a URL for Delegated Administrator.  
[http://\\_fully-qualified-hostname\\_:\\_app-server-port\\_/da/](http://_fully-qualified-hostname_:_app-server-port_/da/)

In this example, type:

\*<http://demo.comms.beta.com:80/da>

\*

1. Log in using **admin** and **adminpass** as the user ID and password.
2. After verifying that you can access the Delegated Administrator GUI interface, log out.
3. Continue with the next section to configure Messaging Server

### Configuring Messaging Server

This section describes configuring Messaging Server.

#### To Disable sendmail

Prior to configuring Messaging Server, use the following to stop the current sendmail process and prevent it from starting during boot.

```
/etc/init.d/sendmail stop
chkconfig --del sendmail
```

## 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/messaging/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 12 Values for Messaging Server configure Script**

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

3. Enable IMAP IDLE

```
cd /opt/sun/comms/messaging/bin
./configutil -o local.store.notifyplugin.enshost -v "127.0.0.1"
./configutil -o local.store.notifyplugin.enseventkey -v
"enp://127.0.0.1/store/%M"
./configutil -o local.store.notifyplugin -v "lib/libibiff"
./configutil -o local.store.notifyplugin.noneinbox.enable -v 1
./configutil -o service.imap.idle -v 1
./configutil -o service.imap.ensidle -v 1
./configutil -o local.ens.enable -v 1
```

4. Start Messaging Server.

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

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

## Configuring Calendar Server

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

### To Configure Calendar Server

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

```
cd /opt/sun/comms/calendar/calendar/sbin
./csconfigurator.sh -nodisplay
```

2. Select **Next/Enter** at the Welcome page.
3. The configuration wizard prompts for a series of options. The following table shows how to respond to the configuration options:

**Table 13 Values for Calendar Server csconfigure Script**

Option	[Default Value]	Enter:
LDAP Server Host Name	[demo.comms.beta.com]	<i>accept default</i>
LDAP Server Port	[389]	<i>accept default</i>
Directory Manager DN	[cn=Directory Manager]	<i>accept default</i>
Directory Manager Password	-	<b>adminpass</b>
Virtual Domains settings:	[comms.beta.com]	<b>1. comms.beta.com</b>
Calendar Administrator Username	[calmaster]	<i>accept default</i>
Calendar Administrator Password	-	<b>adminpass</b>
Calendar Administrator Email address	[root@comms.beta.com]	<b>calmaster@comms.beta.com</b>
Site administrator	[1. Yes]	<i>accept default</i>
Create calmaster@comms.beta.com account	[1. Create it]	<i>accept default</i>
Setup a Front End/Back End deployment	[2. No]	<i>accept default</i>
Administrator Email Address	[calmaster@comms.beta.com]	<i>accept default</i>
SMTP Host Name	[demo.comms.beta.com]	<i>accept default</i>
Service Port	[80]	<b>3080</b>

Maximum Sessions	[5000]	<i>accept default</i>
Maximum Threads	[20]	<i>accept default</i>
Number of server processes	[1]	<i>accept default</i>
Runtime User ID	[icsuser]	<i>accept default</i>
Runtime Group ID	[icsgroup]	<i>accept default</i>
Start Calendar Server after successful configuration	[2. No]	<i>accept default</i>
Start Calendar Server on system startup	[1. Yes]	<b>2. No</b>
Create "icsuser" User ID?	[Create User ID]	<i>accept default</i>
Config Directory	[/etc/opt/sun/comms/calendar/calendar/config]	<i>accept default</i>
Database Directory	[/var/opt/sun/comms/calendar/calendar/csdb]	<i>accept default</i>
Attachment Store Directory	[/var/opt/sun/comms/calendar/calendar/astore]	<i>accept default</i>
Logs Directory	[/var/opt/sun/comms/calendar/calendar/logs]	<i>accept default</i>
Temporary Files Directory	[/var/opt/sun/comms/calendar/calendar/tmp]	<i>accept default</i>
Enable Archive	[1. enable]	<i>accept default</i>
Archive Directory	[/var/opt/sun/comms/calendar/calendar/csdb/archive]	<i>accept default</i>
Keep archives for (in days)	[Minimum: 3, Maximum: 6]	<i>accept default</i>
Enable Hot Backup	[1. enable]	<i>accept default</i>
Hot Backup Directory	[/var/opt/sun/comms/calendar/calendar/csdb/hotbackup]	<i>accept default</i>
Keep hot backups for (in days)	[Minimum: 3, Maximum: 6]	<i>accept default</i>

4. Select **Configure Now** to configure Calendar Server.
5. Select **2. Done** when the configuration is complete and exit the configurator.
6. Open the `/opt/sun/comms/calendar/calendar/config/ics.conf` file by using your preferred editor e.g. `vi`.
7. Set the following values to enable Calendar Server reminders:

```

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

```

8. Start the Calendar Server daemons, for example:

```

cd /opt/sun/comms/calendar/calendar/sbin
./start-cal

```

9. Continue with the next section to configure Instant Messaging Server.

## 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
JAVA_HOME=/usr/java/latest ./configure --nodisplay

```

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

**Table 15 Values for Instant Messaging configure Script**

Option	[Default Value]	Enter:
Use AM for Single-Sign-On	[no]	<i>accept default</i>
Use AM for Policy	[no]	<i>accept default</i>
IM User Properties store location	[1. On the file system]	<b>2. In the directory</b>
User ID	[inetuser]	<i>accept default</i>
Group ID	[inetgroup]	<i>accept default</i>
Runtime Directory	[/var/opt/sun/im]	<b>/var/opt/sun/comms/im</b>
Create User ID?	[2. Choose New]	<b>1. Create User ID</b>
Domain Name	[comms.beta.com]	<i>accept default</i>
XMPP Port	[5222]	<i>accept default</i>
Multiplexed XMPP Port	[45222]	<i>accept default</i>

XMPP Server Port	[5269]	<i>accept default</i>
Disable Server (enable only multiplexor)	[no]	<i>accept default</i>
LDAP Host Name	[demo.comms.beta.com]	<i>accept default</i>
LDAP Port Number	[389]	<i>accept default</i>
Base DN	[dc=comms,dc=beta,dc=com]	<b>o=isp</b>
Bind DN	-	<b>cn=Directory Manager</b>
Bind Password	-	<b>adminpass</b>
Enable Email Integration	[yes]	<i>accept default</i>
SMTP Server	[demo.comms.beta.com]	<i>accept default</i>
Enable Email Archiving	[yes]	<i>accept default</i>
Deploy Messenger Resources	[yes]	<i>accept default</i>
Codebase	[http://demo.comms.beta.com:80/im]	<i>accept default</i>
Enable Audio	[no]	<b>yes</b>
Webcontainer Path	-	<b>/opt/sun/appserver</b>
Web Administration URL	-	*https://demo.comms.beta.com:4848/*
Web Administrator User Id	[admin]	<i>accept default</i>
Web Administrator Password	-	<b>adminpass</b>
Deploy IM HTTP Gateway	[yes]	<b>no</b>
Deploy IM IMPS Gateway	[yes]	<b>no</b>
Enable Calendar Agent	[no]	<i>accept default</i>
Enable local component	[no]	<i>accept default</i>
Enable SMS Gateway	[no]	<i>accept default</i>

Enable local component	[no]	<i>accept default</i>
Enable MSN Gateway	[no]	<i>accept default</i>
Enable local component	[no]	<i>accept default</i>
Enable AIM Gateway	[no]	<i>accept default</i>
Enable local component	[no]	<i>accept default</i>
Enable YIM Gateway	[no]	<i>accept default</i>
Enable local component	[no]	<i>accept default</i>
Start Services After Successful Configuration	[yes]	<b>no</b>
Start Services When System starts	[yes]	<b>no</b>

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

```

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

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

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

```

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

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

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

7. Start the Instant Messaging server.

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

8. Continue with the next procedure.

### To Log into the Sun Instant Messaging Java Client

1. In your web browser, open the URL for the Sun IM Java Client and log in as a test user:

`http://fully-qualified-hostname:app-server-port/im`

In this example, type:

\*`http://demo.comms.beta.com:80/im`

\*

1. Click the "Start" button.
2. Log into the Sun Java IM client using **jd**oe and **demo** as the User Name and Password.
3. After verifying that you can access the Sun Java IM client, exit the client.

### Configuring Sun Convergence

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

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

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

2. Select **Next/Enter** at the Welcome page.
3. Accept the default value for the Directory to store Configuration and Data Files:  
`/var/opt/sun/comms/iwc`  
If the directory does not exist, select Create Directory to create the directory.
4. Configure the Mail and 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 16 Values for Convergence configure Script**

Option	[Default Value]	Enter:
Host Name	[demo]	<i>accept default</i>
DNS Domain Name	[comms.beta.com]	<i>accept default</i>

Application Server Install Directory	[/opt/sun/appserver]	<i>accept default</i>
Domain Directory	[/opt/sun/appserver/domains/domain1]	<i>accept default</i>
Document Root Directory	[/opt/sun/appserver/domains/domain1/docroot]	<i>accept default</i>
Server Target Name	[server]	<i>accept default</i>
Virtual Server Identifier	[server]	<i>accept default</i>
Server Instance HTTP Port	[8080]	<b>80</b>
Administration Server Port	[4848]	<i>accept default</i>
Administrator User ID	[admin]	<i>accept default</i>
Administrator Password	-	<b>adminpass</b>
Secure Administration Server Instance	[yes]	<i>accept default</i>
URI Path	[/iwc]	<i>accept default</i>
Enable Hosted Domain Support	[yes]	<i>accept default</i>
Directory Server LDAP URL	[ldap://demo.comms.beta.com:389/]	<i>accept default</i>
Bind DN	[cn=Directory Manager]	<i>accept default</i>
Bind Password	-	<b>adminpass</b>
DC Tree suffix	[o=isp]	<i>accept default</i>
Default Domain Name	[comms.beta.com]	<i>accept default</i>
Webmail Server Host Name	[demo.comms.beta.com]	<i>accept default</i>
Webmail Server Port Number	[8990]	<i>accept default</i>

Webmail Server Running In Secure Mode?	[no]	<i>accept default</i>
Webmail Admin User ID	[admin]	<b>admin@comms.beta.com</b>
Admin Password	-	<b>adminpass</b>
Calendar Server Host Name	[demo.comms.beta.com]	<i>accept default</i>
Calendar Server Port	[80]	<b>3080</b>
Calendar Server Running In Secure Mode?	[no]	<i>accept default</i>
Administrator User ID	[calmaster]	<b>calmaster@comms.beta.com</b>
Administrator User Password	-	<b>adminpass</b>
Instant Messaging Server Domain Name	[comms.beta.com]	<i>accept default</i>
Instant Messaging Server Host Name	[demo.comms.beta.com]	<i>accept default</i>
Server Port	[5269]	<i>accept default</i>
httpbind Component JID	[demo.httpbind.comms.beta.com]	<i>accept default</i>
Password	-	<b>adminpass</b>
Avatar Component JID	[demo.avatar.comms.beta.com]	<i>accept default</i>
Password	-	<b>adminpass</b>
Convergence Administrator Username	[admin]	<i>accept default</i>
Password	-	<b>adminpass</b>

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

## To Log into the Sun Convergence Client

1. In your web browser, open a URL for Sun Convergence and log in as a test user. The URL for Sun Convergence is:

`http://fully-qualified-hostname:app-server-port/iwc`

In this example, type:

`*http://demo.comms.beta.com:80/iwc`

\*

1. Log in using **jd**oe and **demo** as the user ID and password.
2. After verifying that you can access the Sun Convergence Client, log out.

## Creating Additional User Accounts and Groups

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

### To Create Users and Groups using CLI

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

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

### To Use the Delegated Administrator GUI to Create Users

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

1. The first time you use the Delegated Administrator GUI, you must add service packs to the organization that contains your users:
  - In your web browser, open the URL for Delegated Administrator.  
In this example, type:  
`*http://demo.comms.beta.com:80/da`

\*

1.
  - 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 Communication Suite 6 services to start automatically on boot and stop automatically on shut-down.

[Communications Suite 7 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 Communication Suite 6 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 -w adminpass -d hosted.domain.com -S  
mail,cal,im \  
-H demo.comms.beta.com -B demo.comms.beta.com
```

### Delegated Administrator GUI

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

1. In your web browser, open the URL for Delegated Administrator.  
In this example, type:  
`*http://demo.comms.beta.com:80/da`

\*

1. Log in using **admin** as the Login ID and **adminpass** as the Password.
2. Click on the **New Organization** button. The **New Organization** window should then appear.
3. In the **Organization Information** step, enter the new hosted domain `hosted.domain.com` in the **Organization Name** field then click the **Next** button.
4. You do not need to type **Contact Information**. Click **Next** again.
5. In the **Account Information** step, enter the new hosted domain `hosted.domain.com` again then click **Next**.
6. 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.
7. Verify the new hosted domain information then click **Finish** to create the domain.

## Configure Convergence for the new hosted domain

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

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

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

3. Restart Application Server.

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

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

### Add new users to new hosted domain

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

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

## Single host installation tuning tips

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

Redhat Enterprise Linux 4 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/messaging/bin
./configutil -o store.dbtmpdir -v /dev/shm/msg-demo/
```

2. Restart Messaging Server

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

## Directory Server

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

1. Stop directory server

```
cd /var/opt/sun/directory/dsinsl/  
./stop-slapd
```

2. Edit /var/opt/sun/directory/dsinsl/config/dse.ldif

```
replace:  
nsslapd-db-home-directory: /var/opt/sun/directory/dsinsl/db  
  
with:  
nsslapd-db-home-directory: /dev/shm/slapd-demo/
```

3. Start Directory Server

```
cd /var/opt/sun/directory/dsinsl/  
./start-slapd
```

## Instant Messaging Server

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

1. Stop the Instant Messaging Server

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

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

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

3. Start the Instant Messaging Server

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

## Known Issues and Limitations

For more information about known issues, see [Communications Suite 7 Release Notes](#).

# Communications Suite 7 Start and Stop Scripts (Linux)

## Communications Suite 7 Start and Stop Scripts (Linux)

- Communications Suite 7 Start and Stop Scripts (Linux)
  - Background
  - Service Scripts
    - Sun Directory Server
    - Sun Messaging Server
    - Sun Calendar Server
    - Sun Instant Messaging Server
    - Sun Application Server
  - Sample boot.log output

### Background

The products that make up Communication Suite 7 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:

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

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

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

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

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

### Service Scripts

Each product requires a service script to start and stop the processes correctly. The following service scripts are designed to be used with a Communication Suite 7 system that has been installed and configured as per the [Sun Java Communications Suite 7 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.

### Sun Directory Server

The following is the service script for Sun Directory Server.

---

## /etc/init.d/Sun\_DirSvr

```
#!/bin/sh
#
# Sun_DirSvr - boot script to start/stop Sun Java System Directory
Server
#
#
# Following stuff is necessary for chkconfig (Red Hat 6.x)
#
# chkconfig: 345 60 05
# description: starts and stops Sun Java System Directory Server
instances
#   in /var/opt/sun/directory/dsins1 and
/opt/sun/directory/var/dscc6/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/dscc6/dcc/ads"
cacao_path="/opt/sun/directory/dsee6/cacao_2"
deploy_path="/opt/sun/directory/"

# See how we were called.
case "$1" in
  start)
    echo "Starting Sun Java System Directory Server instance in
$instance_ldap_path :"
    $deploy_path/ds6/bin/dsadm start $instance_ldap_path
    echo "Starting Sun Java System Directory Server instance in
$instance_dscc_path :"
    $deploy_path/ds6/bin/dsadm start $instance_dscc_path
    echo "Starting Sun Java System Directory Server cacao agent :"
    $cacao_path/cacao/bin/cacaoadm start

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

  stop)
    echo "Stopping Sun Java System Directory Server instance in
$instance_ldap_path :"
    $deploy_path/ds6/bin/dsadm stop $instance_ldap_path
    echo "Stopping Sun Java System Directory Server instance in
$instance_dscc_path :"
    $deploy_path/ds6/bin/dsadm stop $instance_dscc_path
    echo "Stopping Sun Java System Directory Server cacao agent :"
    $cacao_path/cacao/bin/cacaoadm stop

# this line necessary for Red Hat 6.x
```

```
rm -f /var/lock/subsys/$me
echo
;;

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

```
esac  
  
exit 0
```

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

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

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

```
chkconfig --add Sun_DirSvr
```

## Sun Messaging Server

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

```
cp /opt/sun/comms/messaging/data/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
```

## Sun Calendar Server

When Calendar Server is initially configured, the configuration process places a script in `/etc/init.d`. As this script isn't appropriate we will disable it use the script defined in this guide.

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

The following is the replacement service script for Sun Calendar Server.

## /etc/init.d/Sun\_CalSvr

```
#!/bin/sh
#
# Sun_CalSvr - boot script to start/stop Sun Java System Calendar Server
#
#
# Following stuff is necessary for chkconfig (Red Hat 6.x)
#
# chkconfig: 345 92 08
# description: starts and stops Sun Java System Calendar Server
# in /opt/sun/comms/calendar
#/var/opt/sun/directory/dsins1

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

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

# See how we were called.
case "$1" in
start)
echo "Starting Sun Java System Calendar Server in $deploy_path : "
$deploy_path/calendar/sbin/start-cal 2>/dev/null

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

stop)
echo "Stopping Sun Java System Calendar Server in $deploy_path : "
$deploy_path/calendar/sbin/stop-cal 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_CalSvr
chmod 0744 /etc/init.d/Sun_CalSvr
```

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

```
chkconfig --add Sun_CalSvr
```

### **Sun Instant Messaging Server**

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

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

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

## /etc/init.d/Sun\_IMSvr

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

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

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

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

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

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

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

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

exit 0
```

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

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

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

```
chkconfig --add Sun_IMSvr
```

## Sun Application Server

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

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

**`/opt/sun/appserver/config/.aspasswd`**

```
AS_ADMIN_MASTERPASSWORD=adminpass
```

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

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

The following is the service script for Sun Application Server.

## /etc/init.d/Sun\_AppSvr

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

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

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

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

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

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

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

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

    exit 1
    ;;
esac

exit 0
```

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

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

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

```
chkconfig --add Sun_AppSvr
```

## Sample boot.log output

The following is a sample of the output from the `/var/log/boot.log` file once the scripts in this guide have been successfully created and enabled.

```
Apr 15 03:53:33 demo Sun_DirSvr: Starting Sun Java System Directory
Server instance in /var/opt/sun/directory/dsins1 :
Apr 15 03:53:36 demo Sun_DirSvr: Directory Server instance
'/var/opt/sun/directory/dsins1' started: pid=4330
Apr 15 03:53:36 demo Sun_DirSvr: Starting Sun Java System Directory
Server instance in /opt/sun/directory/var/dscc6/dcc/ads :
Apr 15 03:53:36 demo Sun_DirSvr: Directory Server instance
'/opt/sun/directory/var/dscc6/dcc/ads' started: pid=4331
Apr 15 03:53:36 demo Sun_DirSvr:
Apr 15 03:53:36 demo rc: Starting Sun_DirSvr: succeeded
Apr 15 03:53:40 demo Sun_CalSvr: Starting Sun Java System Calendar
Server in /opt/sun/comms/calendar :
Apr 15 03:54:25 demo Sun_CalSvr:
Apr 15 03:54:25 demo rc: Starting Sun_CalSvr: succeeded
Apr 15 03:54:25 demo Sun_MsgSvr: Starting Sun Java System Messaging
Server in /opt/sun/comms/messaging :
Apr 15 03:54:26 demo Sun_MsgSvr: Connecting to watcher ...
Apr 15 03:54:26 demo Sun_MsgSvr: Launching watcher ...
Apr 15 03:54:26 demo Sun_MsgSvr: 4510
Apr 15 03:54:26 demo Sun_MsgSvr: Starting store server ...
Apr 15 03:54:26 demo Sun_MsgSvr: .
Apr 15 03:54:26 demo Sun_MsgSvr: 4511
Apr 15 03:54:26 demo Sun_MsgSvr: Checking store server status ...
Apr 15 03:54:27 demo Sun_MsgSvr: .
Apr 15 03:54:30 demo Sun_MsgSvr: ready
Apr 15 03:54:30 demo Sun_MsgSvr: Starting purge server ....
Apr 15 03:54:30 demo Sun_MsgSvr: 4513
Apr 15 03:54:30 demo Sun_MsgSvr: Starting imap server ...
Apr 15 03:54:30 demo Sun_MsgSvr: .
Apr 15 03:54:30 demo Sun_MsgSvr: 4517
Apr 15 03:54:30 demo Sun_MsgSvr: Starting pop server ...
Apr 15 03:54:30 demo Sun_MsgSvr: .
Apr 15 03:54:30 demo Sun_MsgSvr: 4521
Apr 15 03:54:30 demo Sun_MsgSvr: Starting http server ...
Apr 15 03:54:30 demo Sun_MsgSvr: .
Apr 15 03:54:31 demo Sun_MsgSvr: 4525
Apr 15 03:54:31 demo Sun_MsgSvr: Starting sched server ...
Apr 15 03:54:31 demo Sun_MsgSvr: 4528
Apr 15 03:54:31 demo Sun_MsgSvr: Starting dispatcher server ...
```

```

Apr 15 03:54:31 demo Sun_MsgSvr: .
Apr 15 03:54:31 demo Sun_MsgSvr: 4530
Apr 15 03:54:31 demo Sun_MsgSvr: Starting job_controller server ...
Apr 15 03:54:31 demo Sun_MsgSvr: .
Apr 15 03:54:32 demo Sun_MsgSvr: 4541
Apr 15 03:54:32 demo Sun_MsgSvr:
Apr 15 03:54:32 demo rc: Starting Sun_MsgSvr: succeeded
Apr 15 03:54:32 demo Sun_IMSvr: Starting Sun Instant Messaging Server in
/opt/sun/comms/im :
Apr 15 03:54:46 demo Sun_IMSvr: Starting Watchdog
Apr 15 03:54:51 demo Sun_IMSvr: [OK]
Apr 15 03:54:51 demo Sun_IMSvr:
Apr 15 03:54:51 demo rc: Starting Sun_IMSvr: succeeded
Apr 15 03:54:54 demo Sun_AppSvr: Starting Sun Application Server in
/opt/sun/appserver/ :
Apr 15 03:54:57 demo Sun_AppSvr: Starting Domain domain1, please wait.
Apr 15 03:54:57 demo Sun_AppSvr:
Apr 15 03:54:57 demo Sun_AppSvr: Log redirected to
/opt/sun/appserver/domains/domain1/logs/server.log.
Apr 15 03:55:03 demo Sun_AppSvr: Redirecting output to
/opt/sun/appserver/domains/domain1/logs/server.log
Apr 15 03:55:03 demo Sun_AppSvr:
Apr 15 03:56:01 demo Sun_AppSvr: Domain domain1 started.
Apr 15 03:56:01 demo Sun_AppSvr:
Apr 15 03:56:01 demo Sun_AppSvr: Domain [domain1] is running [Sun Java
System Application Server 9.1_02 (build b04-fcs)] with its configuration
and logs at: [/opt/sun/appserver/domains].
Apr 15 03:56:01 demo Sun_AppSvr:
Apr 15 03:56:01 demo Sun_AppSvr: Admin Console is available at
[https://localhost:4848].
Apr 15 03:56:01 demo Sun_AppSvr: Use the same port [4848] for "asadmin"
commands.
Apr 15 03:56:01 demo Sun_AppSvr: User web applications are available at
these URLs:
Apr 15 03:56:01 demo Sun_AppSvr: [http://localhost:80
https://localhost:443 ].
Apr 15 03:56:01 demo Sun_AppSvr: Following web-contexts are available:
Apr 15 03:56:01 demo Sun_AppSvr: [/web1 /__wstx-services dsccl /da
/commcli /uwc /im /iwc ].
Apr 15 03:56:01 demo Sun_AppSvr: Standard JMX Clients (like JConsole)
can connect to JMXServiceURL:
Apr 15 03:56:01 demo Sun_AppSvr:
[service:jmx:rmi:///jndi/rmi://demo.comms.beta.com:8686/jmxrmi] for
domain management purposes.
Apr 15 03:56:01 demo Sun_AppSvr: Domain listens on at least following
ports for connections:
Apr 15 03:56:01 demo Sun_AppSvr: [80 443 4848 3700 3820 3920 8686 ].
Apr 15 03:56:01 demo Sun_AppSvr: Domain supports application server
clusters and other standalone instances.
Apr 15 03:56:01 demo Sun_AppSvr:

```

```
Apr 15 03:56:02 demo Sun_AppSvr:  
Apr 15 03:56:02 demo rc: Starting Sun_AppSvr: succeeded
```

# Chapter 32. Indexing and Search Service 1 Initial Configuration

[< Back to Communications Suite 7 Installation Scenario - Indexing and Search Service](#)

## What You Need to Do Before Performing Indexing and Search Service 1 Initial Configuration

In Communications Suite terminology, initial configuration is not the same as initial installation. Thus, before using the information on this page, you need to have already performed many prerequisite steps. If you have come to this page to start your ISS 1 installation, instead start with the instructions in [Communications Suite 7 Installation Scenario - Indexing and Search Service](#).

## Completing the Indexing and Search Service 1 Installation: Initial Configuration

After you install the Indexing and Search Search software with 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.sh`.

Topics:

- [Running setup.sh](#)
- [Using setup.sh in a Multi-host Environment](#)

## Running setup.sh

### Generating a Configuration File

The configuration utility generates configuration files required to run the indexing services. The utility uses `iss-base/etc/jiss.conf.template` for default values, but you must provide answers to various configurations about the Messaging Server messaging store install and the local system services.

### Message Store Parameters

These parameters are used to contact and operate with the Messaging Server message store.

Parameter	Description	Example Setting
hostname	The host name for this Indexing and Search Service system. It must be a fully qualified domain name.	isshost.example.com
mail.imap.admin.username	Messaging Server read-only store administrator user name (defined with the store.indexeradmins configutil parameter). This user also has read-only admin access to ISS's web services	indexeradmin
mail.imap.admin.password	Messaging Server read-only store administrator password	changeme
mail.server	The fully qualified domain name of the default Messaging Server that will be indexed	mailhost.example.com
mail.server.ip	Comma-delimited list of backend IPs corresponding to mail.server	10.0.0.1,10.0.0.2
mail.imq	IMQ broker <i>hostname:port</i> for Messaging Server JMQ notifications	mailhost.example.com:7676
mail.imq.user	Username 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
mail.ldap	User/Group Directory Server	ldap://host.example.com:389
mail.basedn	User/Group Base DN	dc=example,dc=com
mail.defaultdomain	User/Group Default Domain	example.com
mail.searchbind	User/Group Directory Manager DN	cn=Directory manager
mail.searchbind.password	User/Group Directory Manager password	dmpassword

### GlassFish Application Server Parameters

These parameters are used to configure and deploy the war file to GlassFish.

Parameter	Description	Example Setting
appserv.dir	Location of the appserver directory	/opt/SUNWappserver
appserv.admin.port	GlassFish admin port	4848
appserv.web.port	GlassFish web port	8080
appserv.admin.user	GlassFish admin user	admin
appserv.admin.password	GlassFish admin user's password	changeme

### Directory Service Parameters

These parameters contain information on how to connect to directory services that hold the JNDI lookup.

Parameter	Description	Example Setting
java.naming.provider.url	ISS Java naming provider URL format: ldap://ldap.example.com:389/o=jms	None
java.naming.security.principal	ISS Java naming security principal format: cn=Directory Manager	None
ldap	ISS Directory Server host	ldap.example.com
ldap.port	ISS Directory Server port	389
ldap.sslport	ISS Directory Server SSL port	636
ldap.password	ISS Directory Server password	changeme

### Java Message Queue (JMQ) Service Parameters

These parameters contain information on how access the Java Message Queue.

Parameter	Description	Example
imq.host	ISS JMQ broker host name	imq.example.com
imq.port	ISS JMQ broker port	7676
iss.imq.user	Username 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

### Examples

```
# cd <iss-base>/bin
# ./setup.sh -b /opt/sun/comms/jiss/
# ./setup.sh -b /opt/sun/comms/jiss/ -c my.conf (for silent mode
configuration)
```

## Using setup.sh in a Multi-host Environment

### 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.sh` utility in the following order for multi-machine installs:

- `ldap` - Holds JNDI lookups
- `ms` - Message store configuration
- `jmq` - Requires JNDI lookups
- `index` - Requires JNDI lookup and Java Message Queue
- `web` - Requires index services to be started

When using an ISS host to perform the Directory Server function for JNDI lookups, you run the `setup.sh 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 JNDI lookups. The ISS host that you use to run the command must have access to the `ldapmodify` and `ldapsearch` binaries.

## Example 1

This example describes a three-machine setup for JISS:

- `web.example.com` - Application server (`web`)
- `middle.example.com` - Directory service and Java Message Queue (`ldap`, `jmq`)
- `index.example.com` - JISS Indexing services (`index`)

The first time that `setup.sh` 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.sh -t ldap -c my.conf -i middle.example.com  
# <iss-base>/bin/setup.sh -t ms  
# <iss-base>/bin/setup.sh -t jmq
```

Run the following commands on `index.example.com`:

```
# <iss-base>/bin/setup.sh -t index -c my.conf -i index.example.com
```

Run the following commands on `web.example.com`:

```
# <iss-base>/setup.sh -t web -c my.conf -i web.example.com
```

## Example 2

This example describes a two machine setup for JISS:

- `web.example.com` - Application server (`web`)
- `index.example.com` - JISS Indexing services, Directory service and Java Message Queue (`index`, `ldap`, `jmq`)

The first time that `setup.sh` 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.sh -t ldap -c my.conf -i index.example.com
# <iss-base>/bin/setup.sh -t ms
# <iss-base>/bin/setup.sh -t jmq
# <iss-base>/bin/setup.sh -t index
```

Run the following commands on `web.example.com`:

```
# <iss-base>/setup.sh -t web -c my.conf -i web.example.com
```

### Example 3

This example describes another three-machine setup for JISS:

- `web.example.com` - Application server (web)
- `index1.example.com` - JISS Indexing services (index), Directory service, and Java Message Queue (ldap, jmq)
- `index2.example.com` - JISS Indexing services (index)

The first time that `setup.sh` 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.sh -t ldap -c my.conf -i index1.example.com
# <iss-base>/bin/setup.sh -t ms
# <iss-base>/bin/setup.sh -t jmq
# <iss-base>/bin/setup.sh -t index
```

Run the following commands on `index2.example.com`:

```
# <iss-base>/bin/setup.sh -t index -c my.conf -i index2.example.com
```

Run the following commands on `web.example.com`:

```
# <iss-base>/setup.sh -t web -c my.conf -i web.example.com
```

### Additional Indexing Node Configuration

The Apache server must be configured to respond to requests from web nodes IP addresses, the default is deny. You can add and remove additional hosts by using the `configure_web_node` utility. The IP address(es) should be the IP address(es) of the hosts running the application server(s).

Add an IP address:

```
# <iss-base>/bin/configure_web_node -a 10.10.10.10
```

Remove an IP address:

```
# <iss-base>/bin/configure_web_node -d 10.10.10.10
```

Add multiple IP addresses:

```
# <iss-base>/bin/configure_web_node -a 10.10.10.10 10.10.10.11  
10.10.10.12
```

# Chapter 33. Instant Messaging 8 Update 2 Initial Configuration

---

## Completing the Sun Java System Instant Messaging 8 Update 2 Installation: Initial Configuration

After you install the Instant Messaging software with the Communications Suite installer, you must configure the Instant Messaging server and client to complete the installation. You perform this initial runtime configuration by running the Instant Messaging configuration program, `configure`.

This section has the following topics:

- [Configuring Instant Messaging After Installation](#)
- [Setting up and Launching Instant Messenger](#)

# Chapter 34. Messaging Server 7 Update 3 Initial Configuration

---

## Completing the Sun Java System Messaging Server 7 Update 3 Installation: Initial Configuration

This information describe the configuration and migration steps you must perform, after installation, before you can use Messaging Server. This information assumes that you have read the [Communications Suite Deployment Planning Guide](#) and installed Messaging Server software. Performing the following tasks should get you to a point where you have a functioning Messaging Server. You will 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](#)

### 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 Sun Java System 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 may 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**



### Note

Creating UNIX system users and groups is optional. The initial configuration script will do this if necessary.

1. Log in as `root`.
2. Create a group to which your system users will belong.  
In the following example, the `mail` group is created:

```
# groupadd mail
```

3. Create the system user and associate it with the group you just created. In addition, set the password for that user.  
In the following example, the user `mailsrv` is created and associated with the `mail` group:

```
# 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 will be able to specify them when you run the [configuration script](#).

## To Prepare Directory Server for Messaging Server Configuration

For more information on directory preparation and the directory preparation script `comm_dssetup.pl`, see [Communications Suite Directory Server Setup Script \(comm\\_dssetup.pl\)](#). The `comm_dssetup.pl` script prepares the Directory Server by setting up new schema, index, and data in your Directory Server. It must be run for new installations of Messaging Server, Convergence, and Communications Express. The latest version of `comm_dssetup.pl` should also be run if you are upgrading any of the component products that depend on Directory Server.

## Creating the Initial Messaging Server Runtime Configuration

The initial runtime configuration program provides a configuration to get your Messaging Server up and running. It is meant to create an *initial runtime configuration* to setup 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 will result in your configuration being overwritten. To modify your initial runtime configuration, use the configuration utilities described here and in the [Messaging Server Administration Reference](#).

## Messaging Server Prerequisites

Before running the initial runtime configuration program, you must:

- Install and configure the Directory Server.
- Run the `comm_dssetup.pl` program. See [Communications Suite Directory Server Setup Script \(comm\\_dssetup.pl\)](#).
- Record your Administration and Directory installation and configuration parameters in the checklists supplied in [Configuration Worksheets - Messaging Server](#).

## Messaging Server Configuration Checklist

When you run the Messaging Server initial runtime configuration program, record your parameters in [Installation Worksheets - Directory Server](#). To answer certain questions, refer to your Directory Server installation checklists in [Configuration Worksheets - Messaging Server](#).

### *To Run the Configure Program*

This procedure walks you through configuring the Messaging Server initial runtime configuration.

1. Ensure in your setup that DNS is properly configured and that it is clearly specified how to route to hosts that are not on the local subnet.
  - The `/etc/defaultrouter` file should contain the IP address of the gateway system. This address must be on a local subnet.
  - The `/etc/resolv.conf` file exists and contains the proper entries for reachable DNS servers and domain suffixes.
  - In the `/etc/nsswitch.conf` file, the `hosts:` and `ipnodes:` line has the `files`, `dns` and `nis` keywords added. The keyword `files` must precede `dns` and `nis`. So if the lines look like this:

```
hosts:  nis dns files
ipnodes:  nis dns files
```

They should be changed to this:

```
hosts:  files nis dns
ipnodes:  files nis dns
```

- Make sure that the FQDN is the first host name in the `/etc/hosts` file. If your Internet host table in your `/etc/hosts` file looks like this:

```
123.456.78.910 budgie.west.sesta.com
123.456.78.910 budgie loghost mailhost
```

Change it so that there is only one line for the IP address of the host. Be sure the first host name is a fully qualified domain name. For example:

```
123.456.78.910 budgie.west.sesta.com budgie loghost mailhost
```

- You can verify that the lines are read correctly by running the following commands:

```
# getent hosts <ip_address>
# getent ipnodes <ip_address>
```

If the lines are read correctly, you should see the IP address followed by the FQDN and then the other values. For example:

```
# getent hosts 192.18.126.103
192.18.126.103 budgie.west.sesta.com budgie loghost mailhost
```

- 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
<code>--ldapport [ldapport]</code>	Specifies an LDAP port other than the default port 389.
<code>--ldif</code>	Causes <code>configure</code> to run without modifying the directory and instead generate an <code>ldif</code> file ( <code>msg-svr-base/data/install/configure.ldif</code> ) 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.
<code>--saveState [statefile]</code>	Specifies a location other than the default location (mentioned below) to save a state file.
<code>--state [statefile]</code>	Uses a silent installation file. See <a href="#">To Perform a Silent Installation</a> .
<code>--debug</code>	Provides general debug info.

- The welcome text appears.  
The `configure` program displays the following when run:

```
Welcome to Sun Java(tm) System Messaging Server 7.3-0.02 20090901

This utility will perform the following actions:
 * Select or create the Unix user identity used for server
processes.
 * Check comm_dssetup version used to prepare your Directory Server
 * Initialize your Directory Server with a mail domain, admin user,
administrative groups and access control.
 * Initialize configuration and data files so the product is ready
to start.
This will overwrite any existing configuration so if your server is
already
configured, press ctrl-C to exit now.

Path for Data and Configuration Files
[/var/opt/sun/comms/messaging64]:
```

- Select the directory where you want to store the Messaging Server configuration and data files. Symbolic links will be 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.
- Overwrite the existing configuration:

```
Overwrite existing configuration files [y]:
```

This question only appears if you have an existing configuration. To accept the default of yes, press Enter. Otherwise, press n to exit the configuration utility.

6. Select the user name for server processes:

```
User Name for Server Processes [mailsrv]:
```

To accept the default user name `mailsrv`, press Enter. Otherwise, type in the user name for the server processes.

7. Select the group name for server processes:

```
Group Name for Server Processes [mail]:
```

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.

8. Select the fully-qualified local host name:

```
==Creating directories for server data and configuration files  
Fully qualified local hostname [myhost.example.com]:
```

This is the machine on which Messaging Server will operate. When you installed the server, you might have specified the physical host name. However, if you are installing a cluster environment, use the logical hostname. Here is the chance to change what you originally specified.

9. Select the hostname for the LDAP Directory Server:

```
Hostname for LDAP Directory Server [localhost]:
```

10. Select the LDAP administrator login:

```
LDAP administrator login [cn=Directory Manager]:
```

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, 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.

11. Type the LDAP administrator password:

```
LDAP administrator password:
```

You will see

```
==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
```

12. Type a postmaster email address:

```
Mail address for postmaster notices [admin@host1.siroe.com]:
```

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.

13. Type the password for administrator accounts:

```
Password for server administration:
```

Type an initial password that will 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](#).

14. Verify the password for administration:

```
Verify password for administration:
```

Retype the administration password.

15. You will see output similar to the following:

```
==Creating LDAP domain, group and admin accounts
==Creating Configuration Files
==Writing install/VERSION file
==Compiling MTA character set tables (chbuild)
==Compiling MTA command line tables (clbuild)
==Setting secure runtime path with crle
==Checking for Common Configuration Warnings
==Writing Save State File
  /var/opt/sun/comms/messaging64/setup/saveState
Next Steps:
* Disable other mail servers (e.g. 'svcadm disable sendmail' on
Solaris 10).
* Configure sendmail client (see documentation for details)
* Make sure nsswitch.conf (or equivalent) has 'hosts: files dns'
* Make sure DNS MX/A record is present for 'siroe.com'
* Make sure DNS A record for 'host1.siroe.com' points to this
machine
* Generate/Install SSL Certificate if SSL services desired
* Enable/Disable required services:
  Service          Port  Change Port          Enable/Disable Service
```

```

-----
Message Store                                local.store.enable (1)
  IMAP Server      143  service.imap.port  service.imap.enable
(1)
  POP Server       110  service.pop.port   service.pop.enable
(1)
  IMAPS Server     993  service.imap.sslport
service.imap.enablesslport (0)
  POPS Server      995  service.pop.sslport
service.pop.enablesslport (0)
  LMTP Server      225  dispatcher.cnf     dispatcher.cnf
(disabled)
  MTA
  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
  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 & SmtproxyAService.cfg
(disabled)
Internal Servers
  watcher          49994 local.watcher.port  local.watcher.enable
(1)
  job_controller   27442 job_controller.cnf  local.imta.enable (1)
  ENS              7997  local.ens.port     local.ens.enable (0)
* Configure your network firewall to allow/block above services as
appropriate
* Enable RBAC non-root support for improved security
* Use 'start-msg' to start servers
Configuration Completed with 1 warning

```

```
See log file for details:
/var/opt/sun/comms/messaging64/log/configure_20090928181150.log
#
```

To start Messaging Server, use the following command:

```
1. 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.  
You will probably want to change some of the parameters and specifications in the *statefile*. 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 hostname (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 recommend installing against a master in a multi-master deployment.

## **Installing Messaging Server Provisioning Tools**

The following sections provide a summary of install information about the supported provisioning tools:

- [Understanding Schema and Provisioning Options](#)
- [LDAP Provisioning Tools](#)

### **Understanding Schema and Provisioning Options**

To learn more about the schema and provisioning options for Messaging Server and Communications Suite, see [Understanding Schema and Provisioning Options](#), in the Sun Java Communications Suite Deployment Planning Guide.

### **LDAP Provisioning Tools**

Sun LDAP Schema 1 users and groups can be provisioned using the LDAP Directory tools (Schema 2 is not supported).

#### ***To Install Schema 1 LDAP Provisioning Tools***

1. If Directory Server is not already installed, be sure to install and configure it.  
For more information, refer to the [Sun Java Enterprise System 5 Installation Guide for UNIX](#).
2. Configure Access Manager to recognize data in your Directory Server.  
Before Access Manager can recognize the data in your LDAP directory, you must add special object classes to entries for all organizations, groups and users that will be managed by Access Manager. If you have not done this already, do it before you start provisioning new accounts. Sample scripts are bundled in the Access Manager product to help you automatically add these object classes to your directory. For more information on these post-installation steps, see the [Sun Java System Access Manager Migration Guide](#).
3. Install and configure Messaging Server with help from this guide.  
Messaging Server detects which Sun Java System LDAP Schema you are using, depending on whether or not Access Manager is installed.
4. Install and configure Sun Java System Web Server to enable mail filtering in Messenger Express.  
For more information on enabling mail filtering, see [Configuring Messenger Express and Communications Express Mail Filters](#).  
Though mail filtering is not a provisioning tool, its functionality existed in the previous GUI version of Delegated Administrator for Messaging.
5. Refer to the Sun Java System 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, it 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 via Messaging Server system's SMTP server destined for external addresses, and which do not authenticate using SMTP AUTH (SASL), will 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
```

Note that 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: `msg-svr-base/data/install/Sun_MsgSvr` for Linux. For Solaris 10, you should use the [Service Management Framework](#). That is, by default, Messaging Server will 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. Go to the `/etc/rc2.d` directory and create the following link:

```
ln /etc/init.d/Sun_MsgSvr S92Sun_MsgSvr
```

4. Go 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](#) in the *Sun Java Communications Suite 5 Deployment Planning Guide*.

## Post-Installation Directory Layout

After installing the Sun Java System Messaging Server, its directories and files are arranged in the organization described in the following table. The table is not exhaustive; it shows only those directories and files of most interest for typical server administration tasks.

### Post-Installation Directories and Files

Directory	Default Location and Description
-----------	----------------------------------

<p><b>Messaging Server Base</b></p> <p>( <i>msg_svr_base</i> )</p>	<p><i>/opt/sun/comms/messaging/</i> or <i>/opt/sun/comms/messaging64/</i></p> <p>(default location)</p> <p>The directory on the Messaging Server machine dedicated to holding the server program, configuration, maintenance, and information files.</p> <p>Only one Messaging Server Base directory per machine is permitted.</p>
<p><b>Configuration</b></p> <p><i>config</i></p>	<p><i>msg_svr_base/config/</i></p> <p>Contains all of the Messaging Server configuration files such as the <i>imta.cnf</i> and the <i>msg.conf</i> files.</p> <p>This directory is symbolically linked to the <i>config</i> subdirectory of the data and configuration directory (default: <i>/var/opt/sun/comms/messaging/</i> or <i>/var/opt/sun/comms/messaging64/</i>) that you specified in the initial runtime configuration.</p>
<p><b>Log</b></p> <p><i>log</i></p>	<p><i>msg_svr_base/log/</i></p> <p>A convenience symbolic link to <i>msg_svr_base/data/log</i> which contains the Messaging Server log files like the <i>mail.log_current</i> file.</p>
<p><b>Data</b></p> <p><i>data</i></p>	<p><i>msg_svr_base/data/</i></p> <p>(required location)</p> <p>Contains databases, configuration, log files, site-programs, queues, store and message files.</p> <p>The data directory includes the <i>config</i> and <i>log</i> directories.</p> <p>This directory is by default symbolically linked (on UNIX platforms) to the data and configuration directory (default: <i>/var/opt/sun/comms/messaging/</i> or <i>/var/opt/sun/comms/messaging64/</i>) that you specified in the initial runtime configuration.</p>
<p><b>System Administrator Programs</b></p> <p><i>bin</i></p>	<p><i>msg_svr_base/bin/</i></p> <p>(required location)</p> <p>Contains the Messaging Server system administrator executable programs and scripts such as <i>imsimta</i>, <i>configutil</i>, <i>stop-msg</i>, <i>start-msg</i>, and <i>uninstaller</i>.</p>
<p><b>Library</b></p> <p><i>lib</i></p>	<p><i>msg_svr_base/lib/</i></p> <p>(required location)</p> <p>Contains shared libraries, private executable programs and scripts, daemons, and non-customizable content data files. For example: <i>imapd</i> and <i>qm_maint.hlp</i>.</p>
<p><b>SDK Include Files</b></p> <p><i>include</i></p>	<p><i>msg_svr_base/include/</i></p> <p>(required location)</p> <p>Contains Messaging header files for Software Development Kits (SDK).</p>

Examples	<code>msg_svr_base/examples/</code>
examples	(required location) Contains the examples for various SDKs.
Installation Data	<code>msg_svr_base/data/install/</code> and <code>msg_svr_base/data/setup/</code>
install	(required location) Contains installation-related data files such as installation log files, silent installation files, factory default configuration files, and the initial runtime configuration log files.

## Post-Installation Port Numbers

In the installation and initial runtime configuration programs, port numbers will be chosen for various services. These port numbers can be any number from 1 to 65535. The following table lists the port numbers that are designated after installation.

### *Port Numbers Designated During Installation*

Service	Port	Change Port	Enable/Disable Service
Message Store			<code>local.store.enable</code> (1)
IMAP Server	143	<code>service.imap.port</code>	<code>service.imap.enable</code> (1)
POP Server	110	<code>service.pop.port</code>	<code>service.pop.enable</code> (1)
IMAPS Server	993	<code>service.imap.sslport</code>	<code>service.imap.enablesslport</code> (0)
POPS Server	995	<code>service.pop.sslport</code>	<code>service.pop.enablesslport</code> (0)
LMTP Server	225	<code>dispatcher.cnf</code>	<code>dispatcher.cnf</code> (disabled)
MTA			<code>local.imta.enable</code> (1)
SMTP Relay	25	<code>dispatcher.cnf</code>	<code>dispatcher.cnf</code> (enabled)
SMTP Submit	587	<code>dispatcher.cnf</code>	<code>dispatcher.cnf</code> (enabled)
SMTPS Submit	465	<code>dispatcher.cnf</code>	<code>dispatcher.cnf</code> (disabled)
http mail proxy	8990	<code>service.http.port</code>	<code>local.http.enable</code> (1)
https mail proxy	8991	<code>service.http.sslport</code>	<code>service.http.enablesslport</code> (0)
MMP			<code>local.mmp.enable</code> (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 SntpProxyAService.cfg	Aservice.cfg and SntpProxyAService.cfg (0)
Internal Servers			
watcher	49994	local.watcher.port	local.watcher.enable (1)
job_controller	27442	job_controller.cnf	local.imta.enable (1)
ENS	7997	local.ens.port	local.ens.enable (0)

## JMQ Notification

Messaging Server can use Sun Java System 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.

# Messaging Server Sun Cluster HA Agent 7.0 Initial Configuration

## Sun Java System Messaging Server Sun Cluster HA Agent 7.0 Initial Configuration

After installing the Messaging Server Sun Cluster HA Agent software, you need to do an initial configuration. To do this invoke 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.



### Note

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 will fail to start in the HA environment.