



Sun Java Enterprise System 2005Q4 Installation Guide for UNIX

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Preface

The *Java Enterprise System Installation Guide for UNIX* contains instructions for installing the Sun Java™ Enterprise System (Java ES) software in a Sun Solaris™ Operating System (Solaris OS) or Linux operating environment. Some instructions in the guide are specific to one platform or are different for each platform, in which case, the information is labeled by platform name. However, most instructions are not labeled by platform name and apply to both Solaris OS and Linux.

Who Should Use This Book

The material here is intended for any evaluator, system administrator, or software technician who wants to install the Java ES software. This guide assumes you are familiar with the following:

- Installation of enterprise-level software products
- System administration and networking on your supported Java ES platform
- Clustering model (if you are installing clustering software)
- Internet and World Wide Web

Java ES Documentation Set

The Java ES documentation set describes deployment planning and system installation. The URL for system documentation is <http://docs.sun.com/coll/1286.1>. For an introduction to Java ES, refer to the books in the order in which they are listed in the following table.

TABLE P-1 Java Enterprise System Documentation

Document Title	Contents
<i>Sun Java Enterprise System 2005Q4 Release Notes</i>	Contains the latest information about Java ES, including known problems. In addition, components have their own release notes.
<i>Sun Java Enterprise System 2005Q4 Documentation Roadmap</i>	Provides descriptions of all documentation related to Java ES, both as a system and for the individual components.
<i>Sun Java Enterprise System 2005Q4 Technical Overview</i>	Introduces the technical and conceptual foundations of Java ES. Describes components, the architecture, processes, and features.
<i>Sun Java Enterprise System 2005Q4 Deployment Planning Guide</i>	Provides an introduction to planning and designing enterprise deployment solutions based on Java ES. Presents basic concepts and principles of deployment planning and design, discusses the solution life cycle, and provides high-level examples and strategies to use when planning solutions based on Java ES.
<i>Sun Java Enterprise System 2005Q4 Installation Planning Guide</i>	Helps you develop the implementation specifications for the hardware, operating system, and network aspects of your Java ES deployment. Describes issues such as component dependencies to address in your installation and configuration plan.
<i>Sun Java Enterprise System 2005Q4 Installation Guide for UNIX</i>	Guides you through the process of installing Java ES on the Solaris Operating System or the Linux operating system. Also shows how to configure components after installation, and verify that they function properly.
<i>Sun Java Enterprise System 2005Q4 Installation Reference</i>	Gives additional information about configuration parameters, provides worksheets to use in your configuration planning, and lists reference material such as default directories and port numbers.
<i>Sun Java Enterprise System 2005Q1 Deployment Example Series: Evaluation Scenario</i>	Describes how to install Java ES on one system, establish a set of core, shared, and networked services, and set up user accounts that can access the services that you establish.
<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>	Provides instructions for upgrading Java ES on the Solaris Operating System or the Linux operating environment.

TABLE P-1 Java Enterprise System Documentation (Continued)

Document Title	Contents
<i>Sun Java Enterprise System Glossary</i>	Defines terms that are used in Java ES documentation.

Default Paths and File Names

The following table describes the default paths and file names that are used in this book.

TABLE P-2 Default Paths and File Names

Placeholder	Description	Default Value
<i>AccessManager-base</i>	Represents the base installation directory for Access Manager.	Solaris systems: /opt/SUNWam Linux systems: /opt/sun/identity
<i>DirectoryServer-base</i>	Represents the base installation directory for Sun Java System Directory Server.	[Give the path name or link to the relevant product documentation]
<i>ApplicationServer-base</i>	Represents the base installation directory for Sun Java System Application Server.	[Give the path name or link to the relevant product documentation]
<i>WebServer-base</i>	Represents the base installation directory for Sun Java SystemWeb Server.	[Give the path name or link to the relevant product documentation]

Typographic Conventions

The following table describes the typographic changes that are used in this book.

TABLE P-3 Typographic Conventions

Typeface	Meaning	Example
AaBbCc123	The names of commands, files, and directories, and onscreen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name% you have mail.</code>
AaBbCc123	What you type, contrasted with onscreen computer output	<code>machine_name% su</code> <code>password:</code>
<i>AaBbCc123</i>	A placeholder to be replaced with a real name or value	The command to remove a file is <code>rm filename</code> .
<i>AaBbCc123</i>	Book titles, new terms, and terms to be emphasized (note that some emphasized items appear bold online)	Read Chapter 6 in the <i>User's Guide</i> . <i>A cache</i> is a copy that is stored locally. Do <i>not</i> save the file.

Shell Prompts in Command Examples

The following table shows default system prompts and superuser prompts.

TABLE P-4 Shell Prompts

Shell	Prompt
C shell on UNIX and Linux systems	<code>machine_name%</code>
C shell superuser on UNIX and Linux systems	<code>machine_name#</code>
Bourne shell and Korn shell on UNIX and Linux systems	<code>\$</code>
Bourne shell and Korn shell superuser on UNIX and Linux systems	<code>#</code>
Microsoft Windows command line	<code>C:\</code>

Symbol Conventions

The following table explains symbols that might be used in this book.

TABLE P-5 Symbol Conventions

Symbol	Description	Example	Meaning
[]	Contains optional arguments and command options.	ls [-l]	The -l option is not required.
{ }	Contains a set of choices for a required command option.	-d {y n}	The -d option requires that you use either the y argument or the n argument.
\${ }	Indicates a variable reference.	\${com.sun.javaRoot}	References the value of the com.sun.javaRoot variable.
-	Joins simultaneous multiple keystrokes.	Control-A	Press the Control key while you press the A key.
+	Joins consecutive multiple keystrokes.	Ctrl+A+N	Press the Control key, release it, and then press the subsequent keys.
→	Indicates menu item selection in a graphical user interface.	File → New → Templates	From the File menu, choose New. From the New submenu, choose Templates.

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- Training
- Research
- Communities (for example, Sun Developer Network)

Third-Party Web Site References

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Preparing for Installation

This chapter provides information that will help you install the Sun Java™ Enterprise System (Java ES) software. Before starting the tasks documented in this guide, you should have already planned your installation according to the *Sun Java Enterprise System 2005Q4 Installation Planning Guide*

This chapter contains the following sections:

- [“How the Java ES Installer Works” on page 21](#)
- [“Surveying Existing Hosts” on page 26](#)
- [“Determining If You Can Use an Installation Sequence Example” on page 30](#)
- [“Installation Prerequisites” on page 30](#)
- [“Getting the Java ES Software” on page 33](#)
- [“Making an Installation Image” on page 34](#)

How the Java ES Installer Works

Sun Java™ Enterprise System (Java ES) integrates a number of Sun server-side products into a system that provides the server software needed to support distributed enterprise applications. In this document, these products are referred to as the *Java ES components*. A single installer is provided for installing the Java ES components in various combinations. Because of the complex interrelationships of these components, installation requires much more preinstallation and postinstallation effort than is required to install a single component

This section contains the following subsections:

- [“Java ES Components Used in This Release” on page 22](#)
- [“Installer Modes” on page 23](#)
- [“Language Selection” on page 23](#)
- [“Preexisting Component Check” on page 24](#)

- “Dependency Check” on page 24
- “Configuration Options and Parameter Settings” on page 25
- “Uninstaller” on page 25

Java ES Components Used in This Release

The Java ES software associated with the 2005Q4 release includes the following selectable components. (The abbreviated names used in this guide follow the name and version.)

- Communication Services Delegated Administrator 6.3 (Delegated Administrator)
- Service Registry 3.0
- Sun Cluster 3.1 8/05 (Sun Cluster software)
- Sun Cluster Agents for Sun Java System (Sun Cluster agents)
- Sun Java System Access Manager 7.0 (Access Manager)
- Sun Java System Administration Server 5.2P4 (Administration Server)
- Sun Java System Application Server 8.1 Enterprise Edition + patches (Application Server)
- Sun Java System Calendar Server 6.2 + patches (Calendar Server)
- Sun Java System Communications Express 6.2 + patches (Communications Express)
- Sun Java System Directory Preparation Tool 6.3P2 (Directory Preparation Tool)
- Sun Java System Directory Server 5.2P4 (Directory Server)
- Sun Java System Directory Proxy Server 5.2P4 (Directory Proxy Server)
- Sun Java System Instant Messaging 7.0.1 (Instant Messaging)
- Sun Java System Message Queue 3.6 Enterprise Edition SP3 (Message Queue)
- Sun Java System Messaging Server 6.2 + patches (Messaging Server)
- Sun Java System Portal Server 6.3.1P3 (Portal Server)
- Sun Java System Portal Server Secure Remote Access 6.3.1P3 (Portal Server Secure Remote Access)
- Sun Java System Web Server 6.1 SP5 (Web Server)
- Sun Java System Web Proxy Server 4.0 (Web Proxy Server)
- High Availability Session Store (HADB) 4.4.2

To see the full list of services and subcomponents as displayed in the Java ES installer, refer to [Appendix A](#). This appendix also lists the shared components that are provided with this release.

Installer Modes

The Java ES installer is an installation framework that uses the Solaris `pkgadd` or Linux `rpm` utility to transfer Java ES software to your system. You can install Java ES interactively or by means of a reusable script.

- **Graphical Mode (Interactive).** Provides an interactive graphical wizard that leads you through the tasks of installing the Java ES software on a graphical workstation.
- **Text-based Mode (Interactive).** Provides the same functionality as that of graphical mode, but you are prompted for responses on a line-by-line basis in a terminal window.
- **Silent Mode.** Provides the option to run the installer on multiple hosts, using a generated state file to specify input.

Tip – You can run the Java ES installer without installing software. This is useful for creating state files for a silent installation or for surveying Java ES software on your existing hosts.

Language Selection

The interactive installer runs in the language specified by the operating system locale setting. The following languages are available:

- English
- French
- German
- Japanese
- Korean
- Spanish
- Simplified Chinese
- Traditional Chinese

If your operating system language is not listed, the installer runs in English.

The installer automatically installs English versions of all Java ES components. In addition, you can choose to install component packages in any of the languages listed. During an installation session, the language you choose applies to all the components you are installing. To install some components in one language and other components in another language, you must run the installer multiple times.

On Solaris OS, if your operating system language is on the list, that language is automatically selected for component installation. However, you can change this selection.

The Java ES installer cannot install additional language packages for previously-installed components. However, you can use the `pkgadd` or `rpm` utility to add language packages at any time.

Preexisting Component Check

During installation, the Java ES installer surveys the software that is already installed on the host where you are installing and identifies the following:

- **Compatible Java ES product components are installed.**
Compatible components do not need to be reinstalled and will not be available for selection in the installer.
- **Incompatible Java ES product components are installed.**
If the installer identifies incompatibilities between components you have selected and components that are already installed locally, you might be prompted to remove or upgrade the incompatible installed component. The installer cannot continue until these incompatibilities are resolved. After resolution, you can refresh the component selection list, and continue with installation.
- **Incompatible Java ES shared components are installed.**
It is not uncommon for existing hosts to already contain versions of Java ES shared components, such as J2SE or NSS. If the installer finds shared components whose version is incompatible with the version of Java ES you are installing, those shared components are listed. If you proceed with installation, the installer upgrades the shared components to compatible versions.

Dependency Check

Many components depend on the presence of other components to provide their core functions. The installer does extensive cross checking of components to verify that the components you select during installation will function properly together. For this reason, the installer might prompt you to include certain components as you make your component selections.

In general, the Java ES installer uses the following rules for handling dependencies among the Java ES components:

- **Selecting a Component.** When you select a component for installation, in most cases the installer automatically selects all its subcomponents.
The installer also selects the components and subcomponents upon which the selected component depends. For example, if you select Application Server, the installer automatically selects Message Queue.
- **Deselecting a Component.** If you deselect a component, in most cases the installer automatically deselects all its subcomponents.
If you deselect a component that is required locally or remotely for another selected component, the installer displays various warnings when you attempt to proceed.
- **Selecting a Subcomponent.** If you select a subcomponent, the installer automatically selects the component to which it belongs, but not the other subcomponents.

If the selected subcomponent depends on other components or subcomponents, the others are automatically selected.

- **Deselecting a Subcomponent.** If you deselect a subcomponent, the installer deselects only that subcomponent and not the other subcomponents.

If you deselect a subcomponent that is required locally or remotely for another selected component, the installer displays various warnings when you attempt to proceed.

Configuration Options and Parameter Settings

Many Java ES component products require some degree of installation-time configuration. The extent of installation-time configuration you perform depends on which components you select and which installation option you choose.

The following configuration options are available in the installer:

- **Configure Later.** During installation, you enter only the minimum values that are necessary for installing, then perform postinstallation configuration.
- **Configure Now.** During installation, you configure component products that permit installation-time configuration. The information you specify might be just a few common parameters (common server settings), or it might include detailed component-specific parameters (component settings).

Common server settings are parameters that multiple components use. For example, most components require that you specify an administrative ID and password. By setting these common values, you are setting default values for all component administrative IDs and passwords. Component settings are parameters that apply to a particular component. These settings are requested during installation only if you have selected the Configure Now option. Some of these settings are populated from the common server settings.

Uninstaller

Java ES provides an uninstallation program for removing component products that were installed on your local host using the Java ES installer. The Java ES uninstaller checks product dependencies for the host on which it is running, issuing warnings when it discovers a dependency.

The uninstaller can be run in graphical, text-based, or silent mode.

After Java ES installation is complete, the uninstaller is located here:

- Solaris OS: `/var/sadm/prod/SUNWentsys4`
- Linux: `/var/sadm/prod/sun-entsys4`

Surveying Existing Hosts

Before installation, it is important to know what resides on the hosts where you plan to install the Java ES software. If you have ordered a new Solaris system that has Java ES software preloaded, you do not need to survey your host. However, if your existing hosts have versions of Java ES components already installed, you might need to upgrade or remove some software before running the Java ES installer.

This section contains the following subsections:

- [“When Java ES Software Is Preloaded on Solaris OS” on page 26](#)
- [“When Incompatible Components Are Installed” on page 26](#)
- [“Determining If Your Hosts Are Ready” on page 29](#)

When Java ES Software Is Preloaded on Solaris OS

If you ordered a Sun Solaris hardware system with preloaded software, the installation image for the Java ES software has already been copied to your system.

If Java ES software is preloaded on a host, the following directory exists:

```
/var/spool/stage/JES_05Q4_architecture/
```

The *architecture* variable indicates the system’s hardware architecture, such as, SPARC or x86.

You will need to expand the installation image and use the Java ES installer to install and configure the preloaded Java ES software as described in this manual. Although there are no preexisting Java ES components installed on the host, you will still need to plan your installation sequence.

Note – If your preloaded Java ES software is on a Solaris 10 system, refer to [“Solaris 10 Zones” on page 56](#) before expanding the installation image.

When Incompatible Components Are Installed

During installation, the installer verifies that any Java ES components that are already installed on the host are compatible with the release of Java ES you are installing. If some components are not compatible, your installation is likely to be interrupted by incompatibility error messages. Therefore, it is important to survey installed software and do any upgrading *before* running the Java ES installer.

Note – The Java ES installer does not upgrade selectable components during installation, with one exception: when Application Server and Message Queue have already been installed with the Solaris OS, the installer asks if you want to upgrade the components during installation.

The Java ES installer upgrades or installs any shared components that are required for the selectable components you are installing.

Using the Installer to Survey Installed Software

You can use Solaris commands such as `prodreg` and `pkginfo` or the Linux `rpm` command to examine installed software. You can also use the installer itself to examine package-based software installations as described in the procedures in this section.

Note – Do not rely only on the Java ES installer for information about installed software. You must also perform an independent survey of the host to determine what software is currently installed.

▼ To Provide Access to Your Local Display for the Graphical Installer

Steps 1. Set your `DISPLAY` environment variable.

If you are logging in to a remote host, make sure your `DISPLAY` environment variable is properly set to the local display. If the `DISPLAY` variable is not set properly, the installer runs in text-based mode.

- Example for C Shell (host name `myhost`):

```
setenv DISPLAY myhost:0.0
```

- Example for Korn Shell (host name `myhost`):

```
DISPLAY=myhost:0.0
```

2. Grant display authorization.

You might need to grant display authorization to run the installer on your local display. For example, you can use the following command to grant display authority from `myhost` to the root user on `serverhost`:

```
myhost\> xauth extract - myhost:0.0|rsh -l root serverhost xauth merge -
```

Note – For full instructions on granting such authorization safely, refer to the “Manipulating Access to the Server” chapter in the *Solaris X Window System Developer’s Guide*.

▼ To Use the Installer for Identifying Upgrade Issues

- Steps**
- 1. On each host, start the installer using the `-no` option to indicate that this is not an active installation:**
For the graphical installer:

```
./installer -no
```


For the text-based installer:

```
./installer -nodisplay -no
```
 - 2. Proceed to component selection.**
 - 3. Select the components you are planning to install on this host.**
The Status column indicates products that are required for the components you have selected.
 - 4. If an incompatible version of a selectable component is detected by the installer, you are prompted to upgrade or remove the incompatible version.**
After resolving the problem, you can refresh the selection list, make your selection, and then ask the installer to proceed.
 - 5. If an incompatible version of a shared component is detected by the installer, the Shared Component Upgrades Required list is displayed.**
For each shared component listed, review the Installed Version against the Required Version to determine if any upgrading will need to be done. You must determine whether the newer Java ES versions of shared components are compatible with other installed applications on the host.
 - 6. Exit the installer and do any upgrading necessary.**
 - For selectable components, refer to the *Sun Java Enterprise System 2005Q4 Upgrade Guide*.
 - For shared components, most upgrading can be done during installation.
 - 7. Repeat the procedure for each target host.**

Note – The installer detects the Directory Server version that is distributed with the Solaris OS and warns you that the Directory Server script belonging to the Solaris distribution will be renamed by the installer. No action is required.

Determining If Your Hosts Are Ready

Before you start the installer, review the issues in this section.

System Requirements

Before you install Java ES, ensure that the hosts in your system meet the minimum hardware and operating system requirements. For the latest information on the supported platforms and software and hardware requirements, refer to “Hardware and Software Requirements” in the *Sun Java Enterprise System 2005Q4 Release Notes*.

If the operating system found on the host does not satisfy Java ES recommendations, the installer cannot proceed. You must resolve this problem before installation.

Access Privileges

To install Java ES software, you must be logged in as `root`, or become superuser.

Memory and Disk Space Requirements

The installer runs a check to determine if your host has sufficient memory and disk space for the components you selected.

- If the memory found on the host does not satisfy Java ES recommendations, the installer displays a warning. Installation can proceed.
- If the disk space found on the host is insufficient, the installer cannot proceed. You must resolve the problem before you can resume the installation.

Note – On Solaris 10, memory check is not performed if you are installing into a non-global zone.

Korn Shell Required for Portal Server on Linux

To install and configure Portal Server on Linux, the installer requires that the Korn shell be accessible at `/bin/ksh`. If your host does not have the Korn shell installed, you can get the Korn shell software by issuing the following command:

Determining If You Can Use an Installation Sequence Example

The order in which you install the Java ES components on the hosts of your system is crucial to installation success. You might be able to use one or more of the sequence examples provided in [Chapter 2](#) to guide you. These sequences include the high-level tasks that are required for some typical Java ES installations.

Full instructions for planning your installation are contained in the *Sun Java Enterprise System 2005Q4 Installation Planning Guide*.

Installation Prerequisites

The following table lists the tasks that you should perform before beginning any type of installation. The left column lists the order in which you should perform the tasks, the middle column describes the action, and the right column contains the location of instructions and other useful information. Not all tasks are required for all installations.

TABLE 1-1 Preinstallation Checklist

Task	Instructions and Helpful Information
1. Plan your Java ES installation.	Refer to the <i>Sun Java Enterprise System 2005Q4 Installation Planning Guide</i> . If installing Sun Cluster software, see “ Sun Cluster Software Example ” on page 58.
2. Determine if any release notes issues affect your installation.	Before performing any of the procedures described in the Installation Guide, you should read the <i>Sun Java Enterprise System 2005Q4 Release Notes</i> . These notes contain installation issues that might pertain to your deployment.
3. Survey your hosts for existing software.	Refer to “ Surveying Existing Hosts ” on page 26.

TABLE 1-1 Preinstallation Checklist (Continued)

Task	Instructions and Helpful Information
4. Upgrade any existing components that are incompatible with Java ES 2005Q4.	<p>“When Incompatible Components Are Installed” on page 26</p> <p>prodreg, pkginfo, or rpm command. For usage information, refer to their man pages.</p> <p><i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i></p>
5. Verify that system requirements are met.	<p>Refer to “Determining If Your Hosts Are Ready” on page 29.</p> <p><i>Sun Java Enterprise System 2005Q4 Release Notes</i></p>
6. Determine if an installation sequence example can be used.	Refer to Chapter 2 .
7. For a Configure Now installation, gather configuration information for components.	<p>Chapter 1, “Configuration Information,” in <i>Sun Java Enterprise System 2005Q4 Installation Reference</i> Provides component configuration information.</p> <p>Chapter 2, “Configuration Worksheets,” in <i>Sun Java Enterprise System 2005Q4 Installation Reference</i> Provides worksheets for gathering your data.</p>
8. Make a copy of the product registry file. The backup copy is helpful in recovering if installation a fails.	<p>On Solaris: /var/sadm/install/productregistry</p> <p>On Linux: /var/opt/sun/install/productregistry</p>
9. For non-root, create the necessary system accounts.	To run as a non-root user for Directory Server, Directory Proxy Server, or Administration Server, you must create system accounts before configuring.
10. If installing components that depend on servers or services that are already installed, ensure that the existing servers and services are accessible.	For example, If you are installing a Portal Server Secure Remote Access subcomponent, the Secure Remote Access core must be running and accessible.
11. If installing Directory Server, verify that Perl is installed.	<p>Solaris: Perl packages (SUNWperl5*) can be found on the Solaris media.</p> <p>Linux: /usr/bin/perl must be present before installation.</p> <p>If Perl is not present, use pkgadd or rpm -i to add the packages.</p>

TABLE 1-1 Preinstallation Checklist (Continued)

Task	Instructions and Helpful Information
12. If you are installing a communications component, verify that the domain name of the host on which Access Manager will be installed is set.	<p>To set the domain name, do one of the following:</p> <ul style="list-style-type: none"> ■ If the file <code>/etc/resolv.conf</code> exists, enter the fully qualified domain name in the domain configuration entry. Example: <code>mycomputer.company.com</code> ■ If the file <code>/etc/resolv.conf</code> does not exist, enter the following command: <code># domainname fullyqualified_domain_name</code>
13. Verify that the second column in the <code>/etc/hosts</code> file contains the fully-qualified domain name (FQDN) rather than a simple host name. For example:	<pre>192.18.99.999 mycomputer.company.com mycomputer loghost</pre>
14. Verify that a fully-qualified domain name query works on your system.	<p>For example:</p> <pre>host-name install-target-server.sun.com getent host-name install-target-server.sun.com</pre>
15. When installing the Load Balancing Plugin with Apache Web Server, install and configure Apache Web Server before beginning Java ES installation. (On Linux only, you must first install the Application Server, then install Apache Web Server, and finally install the Load Balancing Plugin.)	<p>For more information, see Configuring Web Servers for HTTP Load Balancing in the <i>Sun Java System Application Server Enterprise Edition 8.1 2005Q2 High Availability Administration Guide</i>.</p>
16. If installing Access Manager for deployment on a third-party web container, you must choose the Configure Later option and run a postinstallation configuration script.	<p>For more information, see “Access Manager Sample Configuration Script Input File” in <i>Sun Java System Access Manager 7 2005Q4 Administration Guide</i>.</p>
17. If this is a reinstallation, verify that the Web Server installation directory does <i>not</i> exist. If it does, remove or rename the directory.	<p>Default installation directory for Web Server:</p> <p>On Solaris: <code>/opt/SUNWwbsvr</code></p> <p>On Linux: <code>/opt/sun/webserver</code></p>
18. If you are upgrading J2SE software, verify that you have stopped other products that depend on the J2SE component you are upgrading.	<p>Refer to the <i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>.</p>
19. If Directory Proxy Server will use a preinstalled Configuration Directory Server, ensure that the Configuration Directory Server is running before installing Directory Proxy Server.	<p>If you are installing Directory Proxy Server and the Configuration Directory Server at the same time, you can skip this task.</p>

TABLE 1-1 Preinstallation Checklist (Continued)

Task	Instructions and Helpful Information
20. If you are implementing Messaging Server or Communications Express, verify that <code>sendmail</code> is disabled.	If needed, disable <code>sendmail</code> on Solaris 8/9 and Linux as follows: <code>/etc/init.d/sendmail stop</code> If needed, disable <code>sendmail</code> on Solaris 10 as follows: <code>svcadm disable sendmail</code>

Getting the Java ES Software

You can get the Java ES software in the following ways:

- **On CD or DVD**

You can get a media kit containing CDs or a DVD at <http://www.sun.com/software/javaenterprisesystem/index.html> or by contacting your Sun sales representative. Each CD set contains the installation files for a single operating system, the Java ES installer program, and all the component packages. The DVD contains the installation files for the Solaris operating systems, the Java ES installer program, and all the component packages.

- **As a web download**

You can download Java ES software in several formats from the Sun Download Center at <http://www.sun.com/download>. These formats are available:

- ISO CD set image of all installation files for a single operating system.
- Compressed archive of all installation files for a single operating system.
- Compressed archive of all installation files for a single component, including any subcomponents on which the chosen component has dependencies.

- **Preloaded or preinstalled on your system**

If you ordered a Sun hardware system with preloaded or preinstalled software, Java ES software might already be loaded on your system. If the following directory exists on your system, Java ES software is preinstalled:

```
/var/spool/stage/JES_05Q4_architecture/
```

where *architecture* is the system's hardware architecture; for example, SPARC or x86.

Note – Sun Cluster software can only be preloaded.

- **From a file server on your network**

Depending on the operations procedures at your company, the Java ES installation files might be available on your internal network. Contact your system operations or administration staff to find out if this is the case.

If you are responsible for making the Java ES installation files available, see [“Making an Installation Image” on page 34](#).

For a listing of the distribution bundles for this release, refer to Chapter 4, “Java ES Distribution Bundles,” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

Making an Installation Image

The Java ES distribution is designed so that you can easily put the installation files in a shared location. The benefit of this is that the installation files can then be run from this shared location as often as needed.

▼ To Create an Image on Your Network

This section provides instructions for making a Solaris SPARC installation image available on your site network.

Steps 1. **Log in as root or become superuser.**

2. **Create a shared directory on your network. For example:**

```
mkdir shared-location/java_ent_sys_2005Q4
```

3. **Access your installation files from the web site, the CD, or the DVD, then prepare the installation files to be shared.**

a. **Create an installation image from the mounted ISO image. For example:**

Note – Installation cannot be done directly from a mounted ISO image. Instead, the image must be copied onto your network.

```
unzip java_es_05Q4-ga-solaris-sparc-1-iso.zip
lofiadm -a pathname/java_es_05Q4-ga-solaris-sparc-1.iso /dev/lofi/1
```

If /dev/lofi/1 is already in use, refer to the `lofiadm(1M)` man page.

```
mkdir mountpoint
mount -F hsfs /dev/lofi/1 mountpoint
```

```
cd mountpoint
find . -print | cpio -pdum shared-location/java_ent_sys_2005Q4
```

After copying is done, unmount the ISO image:

```
cd
umount mountpoint
lofiadm -d /dev/lofi/l
```

Repeat this step for the remaining ISO images.

b. Create an installation image from the CD or DVD. For example:

```
cd /cdrom/cdrom0
find . -print | cpio -pdum shared-location/java_ent_sys_2005Q4
```

Repeat this step for the remaining CDs.

c. Create an installation image from the compressed archive. For example:

```
cd shared-location/java_ent_sys_2005Q4
unzip pathname/java_sys_2005Q4-ga-solaris-sparc-1.zip
```

Repeat this step for the remaining compressed archive files.

Note – If you copy files for multiple platforms to the shared location, you will receive a query similar to the following in relation to the README file and the COPYRIGHT file:

```
File already exists. OK to overwrite?
```

Type **Yes**. These files are identical for all platforms.

Example Installation Sequences

This chapter provides sequencing guidelines for some common Sun Java™ Enterprise System (Java ES) installations

This chapter contains the following sections:

- “How to Use This Chapter” on page 37
- “Single-Session Installation Examples” on page 38
- “Solaris 10 Zones” on page 56
- “Sun Cluster Software Example” on page 58
- “Access Manager SDK With Container Configuration Example” on page 61
- “Calendar Server and Messaging Server Example” on page 64
- “Calendar-Messaging Schema 1 Example” on page 67
- “Communications Express and Messaging Server Example” on page 69
- “Instant Messaging and Access Manager Example” on page 71
- “Communication and Collaboration Services Example” on page 73
- “Identity Management Example” on page 76
- “Web and Application Services Example” on page 78
- “Portal Server Using a Remote Access Manager Example” on page 80
- “Non-Root Examples” on page 82

How to Use This Chapter

The example installation sequences in this chapter are intended to provide high-level guidelines for some common Java ES installations. These are not literal procedures, but instead provide the sequential steps required to implement particular deployment scenarios.

The single-session examples describe typical steps for installing one or a number of Java ES components on a single host in a single installation session. An evaluation example is included. The remaining examples describe situations where multiple

installation sessions are performed on multiple hosts, for a variety of solutions. For the most part, the sequences in this chapter are based on the relationships among the components as shown in *Sun Java Enterprise System 2005Q4 Installation Planning Guide*

Note – The “[Calendar-Messaging Schema 1 Example](#)” on page 67 is the only example based on LDAP Schema 1. All other examples in this chapter are based on Schema 2.

At component selection, the Java ES installer identifies incompatible versions of components as well as unmet requirements. You receive warning messages that identify the problem and tell you what you need to do. Many of these messages tell you about requirements that are not yet met. Other messages tell you that incompatible versions of some or all of the components you are trying to install are already on the local host. You can use the Java ES installer to identify components that are already on your local host. For instructions, refer to “[When Incompatible Components Are Installed](#)” on page 26

Tip – Installation goes smoothly if any incompatible versions of Java ES components are identified and removed or upgraded before starting the installer.

To upgrade components that are already on your local host, refer to *Sun Java Enterprise System 2005Q4 Upgrade Guide*.

Single-Session Installation Examples

The following examples apply to installing on a single host in a single session:

- “[Evaluation Example](#)” on page 39
- “[Access Manager and Portal Server Example](#)” on page 40
- “[Application Server Only Example](#)” on page 42
- “[Directory Server Only Example](#)” on page 44
- “[Directory Proxy Server Example](#)” on page 45
- “[Instant Messaging Only Example](#)” on page 47
- “[Message Queue Only Example](#)” on page 49
- “[Portal Server Secure Remote Access Example](#)” on page 50
- “[Service Registry Only Example](#)” on page 53
- “[Web Server Only Example](#)” on page 54

Evaluation Example

An evaluation installation is generally considered a trial deployment, a quick installation to see how things go. This example uses the graphical interface and the Configure Now option. When you are presented with configuration pages, you accept defaults wherever possible.

This example installs all the Java ES components except Sun Cluster software on a single host in a single installation session. Because Web Server is used as the web container, Application Server is not installed.

▼ To Develop a Sequence for Java ES Evaluation

The following high-level tasks are required:

- Steps**
- 1. Starting the Java ES graphical installer**
 - 2. Checking the installation prerequisites**
 - 3. At component selection, selecting Install All, then deselecting the Application Server and Sun Cluster components**
The installer verifies software on your host and provides guidance if incompatibilities are identified.
 - 4. Verifying installation directories**
 - 5. Selecting the Configure Now option**
Messages indicate which components cannot be configured during installation.
 - 6. Accepting configuration defaults when they are offered**
If you want to use non-default information, review the appropriate configuration tables in Chapter 1, “Configuration Information,” in *Sun Java Enterprise System 2005Q4 Installation Reference*.
 - 7. Viewing the Installation Summary and Log**
 - 8. Completing post-install configuration**
[Chapter 6](#) contains instructions for post-install configuration.
 - 9. Starting the components**
“[Verifying After Post-Installation Configuration](#)” on page 160 contains the preferred Java ES startup sequence. Startup procedures follow the table.

Note – If you are using a remote component to fulfill dependencies, the remote component must be installed and running before installing any components that depend on it.

Access Manager and Portal Server Example

This example installs Portal Server with Access Manager on a single host, using Web Server as the web container. Portal Server and Access Manager should use the same type of web container.

You can use Identity Management and Policy Core Services, Access Manager Administration Console, and Common Domain Services for Federation on another host by deselecting these subcomponents of Access Manager.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

▼ To Develop a Sequence for Access Manager and Portal Server

The following high-level tasks are required:

Steps 1. Running the Java ES installer

2. At component selection, choosing Portal Server and Web Server

Access Manager, Directory Server, and Directory Preparatory Tool are automatically selected. Because Administration Server supplies a graphical interface for Directory Server, you might also want to select Administration Server.

- To use a remote copy of Directory Server, deselect Directory Server and specify a remote copy when prompted.

Note – The remote Directory Server must be running before installing any other components. For instructions on installing Directory Server, refer to [“Directory Server Only Example” on page 44](#).

- To use a remote copy of Access Manager, deselect Access Manager and specify a remote copy during postinstallation configuration.

3. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

4. Selecting the Configure Now or Configure Later option

- For the Configure Now option, configuration pages are displayed for those components that allow installation-time configuration. Do not accept defaults for components that are remote; use the remote information.
- For the Configure Later option, configuration pages are not displayed.

5. Running the installation

6. Viewing the Installation Summary and Log

7. Completing postinstallation configuration

- [“Web Server Postinstallation Configuration”](#) on page 148
- [“Directory Server Postinstallation Configuration”](#) on page 138
- [“Access Manager Postinstallation Configuration”](#) on page 127
- [“Portal Server and Portal Server Secure Remote Access Postinstallation Configuration”](#) on page 143

8. Starting components

- [“Starting and Stopping Directory Server”](#) on page 168
- [“Starting and Stopping Web Server”](#) on page 176 (Access Manager and Portal Server start automatically with Web Server.

9. Accessing the default Access Manager login page

`http://webservice-host:port/amconsole`

The following table contains additional Access Manager information.

Task	Relevant Information
Configuration information for the installer	“Access Manager Configuration Information” in <i>Sun Java Enterprise System 2005Q4 Installation Reference</i>
Postinstallation configuration	“Access Manager Postinstallation Configuration” on page 127
Starting and stopping	“Starting and Stopping Access Manager” on page 161
Uninstalling	“Access Manager Uninstallation Behavior” on page 186
Troubleshooting	“Access Manager Troubleshooting Tips” on page 228
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

The following table contains additional Portal Server information.

Task	Relevant Information
Configuration information for the installer	"Portal Server Configuration Information" in <i>Sun Java Enterprise System 2005Q4 Installation Reference</i>
Postinstallation configuration	"Portal Server and Portal Server Secure Remote Access Postinstallation Configuration" on page 143
Starting and stopping	"Starting the Web Container to Access Portal Server Desktop" on page 172
Uninstalling	"Portal Server Uninstallation Behavior" on page 195
Troubleshooting	"Portal Server Troubleshooting Tips" on page 233
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

Application Server Only Example

This example installs Application Server by itself.

Requirements

Application Server requires a local copy of Message Queue. If you are using load balancing, a local copy of a web server is required.

Note – If you are using this component with Sun Cluster software, you must perform a precise series of tasks before installing any components. Refer to "[Sun Cluster Software Example](#)" on page 58 to see Sun Cluster guidelines.

▼ To Develop a Sequence for Application Server

The following high-level tasks are required:

Steps 1. **Running the Java ES installer**

2. **At component selection, choosing Application Server**

Message Queue is automatically selected. The Load Balancing Plugin and the Application Server Node Agent are not selected.

(Optional) If you are going to implement load balancing, expand Application Server and select the Load Balancing Plugin subcomponent. Select Web Server if desired. If you want to use Apache web server, Apache web server must already be installed. Web Server will also be installed. At the Application Server installation page, choose between Web Server and Apache. Supply the path to the web server.

3. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

4. Verifying installation directories

5. Selecting the Configure Now or Configure Later option

- a. For the Configure Now option, configuration pages are displayed for the local components that can be configured during installation.

Gather your Application Server configuration information from the tables in “Application Server Configuration Information” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

- b. For the Configure Later option, configuration pages are not displayed.

6. Running the installation

7. Viewing the Installation Summary and Log

8. Completing post-install configuration

- “To Configure Application Server After a Configure Later Installation” on page 132
- (Optional) “To Configure Web Server After a Configure Later Installation” on page 149
- (Optional) “Message Queue Postinstallation Configuration” on page 141

9. Starting Application Server (automatically starts Message Queue)

- “Starting and Stopping Application Server” on page 164
- (Optional) “Starting and Stopping Web Server” on page 176

The following table contains additional Application Server information.

Task	Relevant Information
Configuration information for the installer	“Application Server Configuration Information” in <i>Sun Java Enterprise System 2005Q4 Installation Reference</i>
Postinstallation configuration	“To Configure Application Server After a Configure Later Installation” on page 132
Starting and stopping	“Starting and Stopping Application Server” on page 164
Uninstalling	“Application Server Uninstallation Behavior” on page 188
Troubleshooting	“Application Server Troubleshooting Tips” on page 230
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

Directory Server Only Example

This example installs Directory Server by itself.

Requirements and Sequence Issues

Directory Server has no dependencies on other Java ES components. However, because Administration Server provides a graphical interface for Directory Server, you might also want to select Administration Server.

Note – If you are using replication for encryption for Directory Server, you should select Administration Server at component selection.

- If you are using this component with Sun Cluster software, you must perform a precise series of tasks before installing any components. Refer to [“Sun Cluster Software Example” on page 58](#)
- Directory Server must be running before installing other components that depend on Directory Server.
- If your deployment calls for Schema 2, you must configure Directory Server for Schema 2 before implementing any other components.

▼ To Develop a Sequence for Directory Server

The following high-level tasks are required:

- Steps**
1. **Running the Java ES installer**
 2. **At component selection, selecting Directory Server and (optionally) Administration Server**
The Directory Preparation Tool is automatically selected.
 3. **Resolving incompatibilities**
The installer verifies software on your host and provides guidance if incompatibilities are identified.
 4. **Verifying installation directories**
 5. **Selecting the Configure Now or Configure Later option**
 - a. **For the Configure Now option, configuration pages are displayed for the local components that can be configured during installation.**
Gather your configuration information from the tables in Chapter 1, “Configuration Information,” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

- b. For the Configure Later option, configuration pages are not displayed.
6. Running the installation
 7. Viewing the Installation Summary and Log
 8. Completing post-install configuration
 - “Directory Server Postinstallation Configuration” on page 138
 - (Optional) “Administration Server Postinstallation Configuration” on page 130
 9. Starting the components in this order:
 - a. “Starting and Stopping Directory Server” on page 168
 - b. (Optional) “Starting and Stopping Administration Server and the Server Console” on page 162

The following table contains additional Directory Server information.

Task	Relevant Information
Configuration information for the installer	“Directory Server Configuration Information” in <i>Sun Java Enterprise System 2005Q4 Installation Reference</i>
Postinstallation configuration	“Directory Server Postinstallation Configuration” on page 138
Starting and stopping	“Starting and Stopping Directory Server” on page 168
Uninstalling	“Directory Server Uninstallation Behavior” on page 192
Troubleshooting	“Directory Server Troubleshooting Tips” on page 232
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

Directory Proxy Server Example

This example installs Directory Proxy Server with Directory Server on a single host.

Requirements

Directory Proxy Server requires Directory Server, but not necessarily a local copy. In addition, Directory Proxy Server requires a local copy of Administration Server.

▼ To Develop a Sequence for Directory Proxy Server

The following high-level tasks are required:

Steps 1. Running the Java ES installer

2. At component selection, selecting Directory Proxy Server

Directory Server, Directory Preparation Tool, and Administration Server are automatically selected.

(Optional) If you are using a remote copy of Directory Server, deselect Directory Server and specify a remote copy when prompted.

Note – The remote Directory Server must be running before installing any other components. For instructions on installing Directory Server, refer to [“Directory Server Only Example” on page 44](#).

3. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

4. Verifying installation directories

5. Selecting the Configure Now or Configure Later option

a. For the Configure Now option, configuration pages are displayed for the local components that can be configured during installation.

Do not accept defaults for components that are remote; use the remote information.

Gather your configuration information from the tables in Chapter 1, “Configuration Information,” in *Sun Java Enterprise System 2005Q4 Installation Reference*

b. For the Configure Later option, configuration pages are not displayed.

6. Running the installation

7. Viewing the Installation Summary and Log

8. Completing post-install configuration

- [“Directory Server Postinstallation Configuration” on page 138](#)
- [“Administration Server Postinstallation Configuration” on page 130](#)
- [“Directory Proxy Server Postinstallation Configuration” on page 136](#)

9. Starting the components in this order:

- a. [“Starting and Stopping Directory Server” on page 168](#)
- b. [“Starting and Stopping Administration Server and the Server Console” on page 162](#)
- c. [“Starting and Stopping Directory Proxy Server” on page 167](#)

The following table contains additional Directory Proxy Server information.

Task	Relevant Information
Configuration information for the installer	“Directory Proxy Server Configuration Information” in <i>Sun Java Enterprise System 2005Q4 Installation Reference</i>
Postinstallation configuration	“Directory Proxy Server Postinstallation Configuration” on page 136
Starting and stopping	“Starting and Stopping Directory Proxy Server” on page 167
Uninstalling	“Directory Proxy Server Uninstallation Behavior” on page 193
Troubleshooting	“Directory Proxy Server Troubleshooting Tips” on page 231
Upgrading	Sun Java Enterprise System 2005Q4 Upgrade Guide

Instant Messaging Only Example

This example installs Instant Messaging by itself. It is not uncommon for Instant Messaging to be installed in a separate installation session after other components have been installed and configured.

Note – If you are using single sign-on or Access Manager managed policies, Access Manager is required. For guidelines, refer to [“Instant Messaging and Access Manager Example” on page 71](#)

Sequence Issues

- The installer does not automatically select components that Instant Messaging depends on. You are responsible for selecting these components.
- If you are deploying other components with Instant Messaging, the other components must be configured before configuring Instant Messaging.

Java ES components that are commonly used with Instant Messaging include Messaging Server, Calendar Server, and Portal Server (with Access Manager).

▼ To Develop a Sequence for Instant Messaging

The following high-level tasks are required:

- Steps**
- 1. Running the Java ES installer**
 - 2. At component selection, choosing Instant Messaging**
 - 3. Resolving incompatibilities**
The installer verifies software on your host and provides guidance if incompatibilities are identified.
 - 4. Verifying installation directories**
 - 5. Selecting the Configure Later option**
Instant Messaging cannot be configured during installation.
 - 6. Running the installation**
 - 7. Viewing the Installation Summary and Log**
 - 8. Completing post-install configuration**
[“Configuring Instant Messaging After a Configure Later Installation”](#) on page 140
 - 9. Starting Instant Messaging (after starting any other components that Instant Messaging might depend on)**
[“Starting and Stopping Instant Messaging Server and Multiplexor”](#) on page 169

The following table contains additional Instant Messaging information.

Task	Relevant Information
Postinstallation configuration	“Configuring Instant Messaging After a Configure Later Installation” on page 140
Starting and stopping	“Starting and Stopping Instant Messaging Server and Multiplexor” on page 169
Uninstalling	“Instant Messaging Uninstallation Behavior” on page 193
Troubleshooting	“Instant Messaging Troubleshooting Tips” on page 232

Task	Relevant Information
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>
Deployment scenarios	<i>Sun Java System Communications Deployment Planning Guide</i>

Message Queue Only Example

This example installs Message Queue by itself.

Requirements

Message Queue has no dependencies on other Java ES components.

Note – If you are using this component with Sun Cluster software, you must perform a precise series of tasks before installing any components. Refer to [“Sun Cluster Software Example” on page 58](#) to see Sun Cluster guidelines.

▼ To Develop a Sequence for Message Queue

The following high-level tasks are required:

Steps 1. Running the Java ES installer

2. At component selection, selecting Message Queue

3. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

- Solaris OS:

If a previous copy of Message Queue, Platform Edition is detected on the host, the installer will automatically update the installation with Message Queue, Enterprise Edition.

If a previous copy of Message Queue, Enterprise Edition is detected on the host, you must exit the installer and follow the instructions for upgrading to Message Queue, Enterprise Edition in the *Sun Java Enterprise System 2005Q4 Upgrade Guide*.

- Linux:

If a previous copy of Message Queue, (Platform or Enterprise Editions) is detected on the host, you must exit the installer and follow the instructions for upgrading and migrating to Message Queue, Enterprise Edition in the *Sun Java Enterprise System 2005Q4 Upgrade Guide*.

4. Selecting the Configure Later option.

Message Queue cannot be configured during installation

5. Running the installation

6. Viewing the Installation Summary and Log

7. Starting Message Queue

[“Starting Message Queue” on page 170](#)

The following table contains additional Message Queue information.

Task	Relevant Information
Postinstallation configuration	“Message Queue Postinstallation Configuration” on page 141
Starting and stopping	“Starting Message Queue” on page 170
Uninstalling	“Message Queue Uninstallation Behavior” on page 194
Troubleshooting	“Message Queue Troubleshooting Tips” on page 232
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

Portal Server Secure Remote Access Example

This example installs Portal Server Secure Remote Access with Access Manager on a single host, with Web Server as the web container.

Requirements

Portal Server Secure Remote Access requires a local copy of Access Manager or Access Manager SDK. Portal Server Secure Remote Access Core requires a local copy of Portal Server except in case of Gateway, where Portal Server Secure Remote Access does not require a local copy of Portal Server and can be installed on a separate host. Portal Server Secure Remote Access must be installed in same location as Portal Server. Directory Server is required by Portal Server, but not necessarily a local copy. Access Manager requires a local web container.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

▼ To Develop a Sequence for Portal Server Secure Remote Access

The following high-level tasks are required:

Steps 1. Running the Java ES installer

2. At component selection, choosing Portal Server Secure Remote Access and Web Server

Portal Server, Access Manager, Directory Server, and Directory Preparation Tool, and are automatically selected.

- To use a remote copy of Directory Server, deselect Directory Server and specify a remote copy when prompted.

Note – The remote Directory Server must be running before installing any other components. For instructions on installing Directory Server, refer to [“Directory Server Only Example”](#) on page 44.

- To use a remote copy of Access Manager, deselect Access Manager and specify a remote copy during postinstallation configuration.

Note – The remote Access Manager must be running before installing any other components. For instructions on installing Access Manager, refer to [“Identity Management Example”](#) on page 76.

3. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

4. Selecting the Configure Now or Configure Later option

- a. **For the Configure Now option, configuration pages are displayed for those components that allow installation time configuration. Do not accept defaults for components that are remote; use the remote information.**

You will need to gather your configuration information from the tables in Chapter 1, "Configuration Information," in *Sun Java Enterprise System 2005Q4 Installation Reference*.

- b. **For the Configure Later option, configuration pages are not displayed.**

5. Running the installation

6. Viewing the Installation Summary and Log

7. Completing any post-install configuration

For Configure Now:

- "Configuring Access Manager After a Configure Now Installation" on page 128
- "Configuring Portal After a Configure Now Installation on a Sun Web Container" on page 143

For Configure Later:

- "To Configure Directory Server After a Configure Later Installation" on page 138
- "Configuring Access Manager After a Configure Later Installation" on page 130
- "To Configure Web Server After a Configure Later Installation" on page 149
- "Configuring Portal Server After a Configure Later Installation on a Sun Web Container" on page 145

8. Starting the components

- "Starting and Stopping Directory Server" on page 168
- "Starting and Stopping Web Server" on page 176 (Access Manager and Portal Server start automatically.)
- "Starting and Stopping Portal Server Secure Remote Access" on page 174

9. Accessing the default Access Manager login page

`http://webserver-host:port/amserver`

10. Accessing the portal

`http://webserver-host:port/portal/dt`

11. Accessing the Portal Gateway

`http://gateway-server:port/`

The following table contains additional Portal Server Secure Remote Access information.

Task	Relevant Information
Configuration information for the installer	"Portal Server Secure Remote Access Configuration Information" in <i>Sun Java Enterprise System 2005Q4 Installation Reference</i>
Starting and stopping	"Starting and Stopping Portal Server Secure Remote Access" on page 174
Uninstalling	"Portal Server Secure Remote Access Uninstallation Behavior" on page 196
Troubleshooting	"Portal Server Secure Remote Access Troubleshooting Tips" on page 233
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

Service Registry Only Example

This example installs Service Registry by itself.

Requirements

Service Registry requires a local copy of Application Server and at least two of its subcomponents: Domain Administration Server and Command Line Administration Tool. Message Queue is also required.

▼ To Develop a Sequence for Service Registry

The following high-level tasks are required:

- Steps**
1. **Running the Java ES installer**
 2. **At component selection, selecting Service Registry**
Application Server and its required subcomponents as well as Message Queue are automatically selected.
 3. **Resolving incompatibilities**
The installer verifies software on your host and provides guidance if incompatibilities are identified.
 4. **Verifying installation directories**
 5. **Selecting the Configure Now or Configure Later option**

- a. **For the Configure Now option, the Application Server configuration pages are displayed by the installer.**

Gather your configuration information from the tables in Chapter 1, "Configuration Information," in *Sun Java Enterprise System 2005Q4 Installation Reference*

- b. **For the Configure Later option, configuration pages are not displayed.**

Service Registry cannot be configured during installation.

6. Running the installation

7. Viewing the Installation Summary and Log

8. Completing post-install configuration, in this order

- a. **"Application Server Postinstallation Configuration" on page 131**

- b. **"Service Registry Postinstallation Configuration" on page 147**

9. Starting Application Server and Service Registry

- **"Starting and Stopping Application Server" on page 164**
- **"Starting and Stopping Service Registry" on page 175**

The following table contains additional information for installing Service Registry.

Task	Relevant Information
Postinstallation configuration	"Service Registry Postinstallation Configuration" on page 147
Uninstalling	"Service Registry Uninstallation Behavior" on page 197
Troubleshooting	"Service Registry Troubleshooting Tips" on page 234

Web Server Only Example

This example installs Web Server by itself.

Requirements

Web Server has no dependencies on other components.

Note – If you are using this component with Sun Cluster software, you must perform a precise series of tasks before installing any components. Refer to [“Sun Cluster Software Example” on page 58](#) to see Sun Cluster guidelines.

▼ To Develop a Sequence for Web Server

The following high-level tasks are required:

- Steps**
1. **Running the Java ES installer**
 2. **At component selection, selecting Web Server**
 3. **Resolving incompatibilities**
The installer verifies software on your host and provides guidance if incompatibilities are identified.
 4. **Verifying installation directories**
 5. **Selecting the Configure Now or Configure Later option**
 - a. **For the Configure Now option, the Web Server configuration pages are displayed by the installer.**
Gather your configuration information from the tables in Chapter 1, “Configuration Information,” in *Sun Java Enterprise System 2005Q4 Installation Reference*
 - b. **For the Configure Later option, configuration pages are not displayed.**
 6. **Running the installation**
 7. **Viewing the Installation Summary and Log**
 8. **Completing any post-install configuration**
[“Web Server Postinstallation Configuration” on page 148](#)
 9. **Starting Web Server**
[“Starting and Stopping Web Server” on page 176](#)

The following table contains additional information for installing Web Server.

Task	Relevant Information
Postinstallation configuration	“Web Server Postinstallation Configuration” on page 148

Task	Relevant Information
Starting and stopping	"Starting and Stopping Web Server" on page 176
Uninstalling	"Web Server Uninstallation Behavior" on page 198
Troubleshooting	"Web Server Troubleshooting Tips" on page 235
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

Solaris 10 Zones

This section contains a brief description of Solaris 10 zones support for the current release of Java ES. An installation sequence example is included.

Overview of Solaris Zones

The Solaris 10 zones (also known as Solaris containers) feature provides a means of creating virtualized operating system environments within an instance of Solaris OS. This allows one or more processes to run in isolation from other activities on the host. For example, a process running in a zone will only be able to send signals to other processes in the same zone, regardless of user ID and other credential information.

Every Solaris 10 host contains a single global zone. The *global zone* is both the default zone for the host and the zone used for system-wide administrative control. All processes run in the global zone if no non-global zones are created by the global administrator. Some Java ES components, such as Sun Cluster software can only be installed in the global zone.

A *non-global zone* can be thought of as a box. One or more applications can run in this box without interacting with the rest of the host. Each non-global zone has what appears to be its own instance of an installed Solaris 10 operating system with configuration and other information unique to that non-global zone. The default configuration for a non-global zone is to share portions of its file system with the global zone (as a read-only loopback file system mount). For Java ES, all non-global zones must be created as "whole root" zones, meaning that there are no inherited file systems.

Zones Support for This Release of Java ES

The following list describes the level of Java ES zones support for this release of Java ES:

1. Java ES can be installed in the Global zone when non-global zones already exist.
2. Non-global zones can be created after Java ES is installed in the global zone.
3. Java ES can be installed in a whole root non-global zone even if another Java ES installation is already installed in the global zone.
4. Installing Java ES into the default sparse root non-global zone is not supported. The Java ES installer cannot proceed if a sparse root file system is encountered.
5. Java ES can be installed in the global zone even when Java ES has already been installed in the whole root non-global zone.

Solaris 10 Zones Example

This example installs Java ES software in a Solaris 10 non-global zone.

▼ To Develop a Sequence for Solaris 10 Zones

The following high-level tasks are required:

- Steps**
- 1. Verifying that Solaris 10 is installed on your host**
The global zone is automatically created.
 - 2. Verifying that all the non-global zones specified in your implementation plan have been created by the global zone administrator as “whole root” zones**
For information on creating non-global zones, refer to Chapter 18, “Planning and Configuring Non-Global Zones (Tasks),” in *System Administration Guide: Solaris Containers-Resource Management and Solaris Zones*.
 - 3. Starting the Java ES installer in the desired non-global zone**
 - 4. At component selection, choosing the components you want**
Some components cannot be installed in a non-global zone because they require access to global zone capabilities. These components are unavailable at component selection.
 - 5. Running the installation**
 - 6. Viewing the Installation Summary and Log**
 - 7. Completing postinstallation configuration as needed**
Chapter 6 provides post-installation configuration instructions.

8. Starting components

Chapter 7 provides procedures for starting and stopping the Java ES components.

9. Repeating this process in additional non-global zones as needed

Sun Cluster Software Example

This example installs Messaging Server in a Sun Cluster framework.

Note – Components that can be configured to run in a cluster instead of on a single server include Administration Server, Application Server Calendar Server, Directory Server, HADB, Message Queue, Messaging Server, and Web Server.

Before you install or configure Sun Cluster software, ensure that the combination of hardware and software that you choose for your cluster is currently a supported Sun Cluster configuration.

Requirements and Sequencing Issues

Messaging Server requires Directory Server, but not necessarily a local copy. In addition, Messaging Server requires a local copy of Administration Server. You will need the Sun Cluster Core component as well as the Sun Cluster Agents for Directory Server, Administration Server, and Messaging Server. If a remote Directory Server is used, then the Sun Cluster Agent for Directory Server is not required.

Installing, configuring, and starting the components in the correct order is crucial for a successful Sun Cluster implementation.

1. Installing the Java ES Sun Cluster component
2. Configuring the Sun Cluster framework
3. Installing the additional Java ES components that are required for Messaging Server to operate in the cluster
4. Configuring the Sun Cluster data services using the agents for the relevant Java ES components

At least two installation sessions are performed on each node in the cluster.

Phase I. Installing and Configuring the Sun Cluster Framework

The following tasks must be performed on all nodes in the cluster.

▼ To Develop a Sequence for the Sun Cluster Framework

- Steps**
- 1. Verifying that the hardware is connected correctly for the cluster**
 - *Sun Cluster 3.0–3.1 Hardware Collection for Solaris OS (SPARC Platform Edition)*
<http://docs.sun.com/coll/1024.1>
 - *Sun Cluster 3.0–3.1 Hardware Collection for Solaris OS (x86 Platform Edition)*
<http://docs.sun.com/coll/1142.1>

- 2. Running the Java ES installer**

On Solaris 10, Sun Cluster software can only be installed in the global zone.

- 3. At component selection, choosing only the Sun Cluster component**

Tip – During a Configure Now installation (usually where you have chosen to install all Java ES components), you are prompted whether to enable support for remote Sun Cluster configuration. If you select Yes, postinstallation configuration for Sun Cluster software will be easier.

- 4. Selecting the Configure Later option**

- 5. Following the instructions to configure the Sun Cluster Framework for each host in the cluster**

Follow instructions in Chapter 2, “Installing and Configuring Sun Cluster Software,” in *Sun Cluster Software Installation Guide for Solaris OS*. When the Sun Cluster documentation refers to a Sun Cluster CD-ROM, substitute the name of the equivalent Java ES CD-ROM.

For documentation on creating resource groups and configuring data services, refer to the *Sun Cluster Data Services Planning and Administration Guide for Solaris OS*.

- 6. If needed, installing the special features of Sun Cluster: RSMAPI (SUNWscrif), SCI-PCI adapters (SUNWsci), RSMRDT drivers (SUNWscrdt)**

Sun Cluster Software Installation Guide for Solaris OS

Phase II. Installing and Configuring Components and Agents

The following tasks must be performed on all nodes in the cluster.

▼ To Develop a Sequence for Configuring Components and Agents

Steps 1. **Running the Java ES installer**

2. **At component selection, choosing the following:**

a. **Messaging Server**

Directory Server, the Directory Preparation Tool, and Administration Server are automatically selected.

(Optional) If you are using a remote copy of Directory Server, deselect Directory Server and specify a remote copy when prompted.

Note – The remote Directory Server must be running before installing any other components. For instructions on installing Directory Server, refer to [“Directory Server Only Example” on page 44](#)

b. **Sun Cluster Agents for Sun Java System**

All agents are selected by default.

c. **Expanding the Sun Cluster Agents for Sun Java System component and deselecting all agents *except* Administration Server, Directory Server, and Messaging Server**

3. **Resolving incompatibilities**

The installer verifies software on your node and provides guidance if incompatibilities are identified.

4. **Verifying installation directories**

5. **Selecting the Configure Now or Configure Later option**

Messaging Server and Sun Cluster Agents cannot be configured during installation.

6. **Configuring all the selected components except Sun Cluster Agents**

- [“Directory Server Postinstallation Configuration” on page 138](#)
- [“Administration Server Postinstallation Configuration” on page 130](#)

- “Messaging Server Postinstallation Configuration” on page 141
When specifying installation directories, use a location on the cluster file system for Messaging Server.

7. **Starting all the components except Sun Cluster Agents, in this order:**
 - a. “Starting and Stopping Directory Server” on page 168
 - b. “Starting and Stopping Administration Server and the Server Console” on page 162
 - c. “Starting and Stopping Messaging Server” on page 171
8. **Configuring the data services for the components you have installed and configured**
“Sun Cluster Data Services Configuration” on page 149

The following table contains additional Sun Cluster information.

Task	Relevant Information
Postinstallation configuration information	“Phase I. Sun Cluster Framework” on page 126 “Sun Cluster Data Services Configuration” on page 149
Starting and stopping	“Stopping and Rebooting Sun Cluster Software” on page 176
Uninstalling	“Sun Cluster Uninstallation Behavior” on page 198
Troubleshooting	“Sun Cluster Software Troubleshooting Tips” on page 234
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

Access Manager SDK With Container Configuration Example

This example installs Access Manager SDK, using a copy of Access Manager that is already installed on a remote host.

Note – To use this sequence example, also refer to known issue 6293225 in the *Sun Java Enterprise System 2005Q4 Release Notes*.

Requirements

Before you install Access Manager SDK, the Access Manager core services must be installed and running on a remote host. The web container information and Directory Server configuration information that you provide in this installation example must match the web container and Directory Server configuration information that you provided during installation of Access Manager core services.

Note – When the installer asks for information about the remote web container and Directory Server, default values are displayed based on the local host.

Do not accept the default values; use them only as examples of format. Instead, you must supply the correct information from the remote host.

The Java ES installer does not allow you to configure the web container when you are installing only the Access Manager SDK.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

- Step** ● **Installing and starting Access Manager core services**
“Identity Management Example” on page 76

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

- Steps**
- 1. Running the Java ES installer**
 - 2. At component selection, choosing Access Manager SDK**
 - 3. Resolving incompatibilities**
The installer verifies software on your host and provides guidance if incompatibilities are identified.

4. Selecting the Configure Later option
5. Running the installation
6. Viewing the Installation Summary and Log
7. Verifying that your web container is installed and running
8. Editing the `amsamplesilent` file
 - a. In the `AccessManager-base/SUNWam/bin` directory, make a copy of the `amsamplesilent` file.
 - b. By default, many settings are commented out in the `amsamplesilent` file. Uncomment the following settings:
 - `SERVER_NAME`
 - `SERVER_HOST`
 - `SERVER_PORT`
 - `ADMIN_PORT`
 - `DS_HOST`
 - `DS_DIRMGRPASSWD`
 - `ROOT_SUFFIX`
 - `ADMINPASSWD`
 - `AMLDAPUSERPASSWD`
 - `COOKIE_DOMAIN`
 - `AM_ENC_PWD`
 - `NEW_OWNER`
 - `NEW_GROUP`
 - `PAM_SERVICE_NAME`
 - `WEB_CONTAINER`
 - c. Modify the following parameters in the `amsamplesilent` file:
 - `DEPLOY_LEVEL` should be set to 4.
 - `SERVER_HOST` and `SERVER_PORT` should be set to the host and port of the full server which will be used by Access Manager SDK.
 - `DS_HOST`, `DS_DIRMGRPASSWD`, and `ROOT_SUFFIX` should be set to the hostname, directory manager password, and root suffix of the Host A Directory Server.
 - `ADMINPASSWD` and `AMLDAPUSERPASSWD` should be set to the `amadmin` and `amldapuser` passwords used on Host A.
 - `AM_ENC_PWD` should be set to the password encryption key used on Host A. For the Access Manager SDK, use the same encryption key for `AM_ENC_PWD` as the encryption key specified during the remote installation of Access Manager on Host B. Use the following command to obtain this value: `grep pwd /etc/opt/SUNWam/config/AMConfig.properties`
 - `WEB_CONTAINER` should be set to the corresponding value for the web container being used.

- BASEDIR should be set to the install directory used during the Configure Later installation of Access Manager SDK.
- AM_REALM should be set to Enabled if realm mode is used on Host A, and Disabled if legacy mode is used on Host A.
- Find the settings corresponding to the web container that will be used for the SDK and modify these settings with the details of the web container. For example, if WEB_CONTAINER is set to WS6 (Sun Java System Web Server), then you should modify the settings which are prefixed by WS61 (WS61_INSTANCE , WS61_HOME, WS61_PROTOCOL and so on.)

9. As root, use the edited `amsamplesilent` file to deploy Access Manager.

```
./ amconfig -s ./am.sdk_install
```

10. Restarting your web container

Calendar Server and Messaging Server Example

This example installs Calendar Server and Messaging Server in a 3-host Schema 2 environment. Remote copies of Access Manager and Directory Server are used.

Note – For a Schema 1 example, refer to [“Calendar-Messaging Schema 1 Example” on page 67.](#)

Requirements and Sequence Issues

Access Manager is required if you are implementing single sign-on or Access Manager managed policies. In this case, either Access Manager or a local copy of the Access Manager SDK is required. Access Manager SDK requires Access Manager, but not necessarily a local copy. Calendar Server and Messaging Server both require Directory Server, but not necessarily a local copy. Messaging Server requires a local copy of Administration Server.

In this example, remote copies of Directory Server and Access Manager are used. Access Manager requires a local web container.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

- If you are using this component with Sun Cluster software, you must perform a precise series of tasks before installing any components. Refer to [“Sun Cluster Software Example” on page 58](#)
- The remote Directory Server must be installed and running before installing any components that depend on it.
- The remote Access Manager must be running before installing Access Manager SDK. For instructions on installing Access Manager, refer to [“Identity Management Example” on page 76](#)

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

Step ● **Installing and starting Directory Server**

Because Administration Server provides a graphical interface for Directory Server, you might also want to select Administration Server.

[“Directory Server Only Example” on page 44](#)

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

Step ● **Installing and starting the web container and Access Manager (deselecting Directory Server)**

[“Identity Management Example” on page 76](#)

▼ To Develop a Sequence for Host C

The following high-level tasks are required:

Steps 1. **Running the Java ES installer**

2. **At component selection, selecting Calendar Server, Messaging Server, and Access Manager SDK**

Directory Server, Directory Preparation Tool, and Administration Server are automatically selected.

3. Deselecting Directory Server and specifying a remote copy when prompted

4. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

5. Verifying installation directories

6. Selecting the Configure Now option

Calendar Server and Messaging Server cannot be configured during installation.

Configuration pages are displayed for the local components that can be configured during installation. Do not accept defaults for components that are remote; use the remote information. Gather your configuration information from the tables in Chapter 1, "Configuration Information," in *Sun Java Enterprise System 2005Q4 Installation Reference*.

7. Running the installation

8. Viewing the Installation Summary and Log

9. Completing post-install configuration, including specifying remote components

- "Calendar Server Postinstallation Configuration" on page 134
- "Messaging Server Postinstallation Configuration" on page 141

10. Starting the components in this order:

- a. "Starting and Stopping Administration Server and the Server Console" on page 162
- b. "Starting and Stopping Messaging Server" on page 171
- c. "Starting and Stopping Calendar Server" on page 165

The following table contains additional Calendar Server information.

Task	Relevant Information
Postinstallation configuration	"Calendar Server Postinstallation Configuration" on page 134
Starting and stopping	"Starting and Stopping Calendar Server" on page 165
Uninstalling	"Calendar Server Uninstallation Behavior" on page 189
Troubleshooting	"Calendar Server Troubleshooting Tips" on page 230

Task	Relevant Information
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

The following table contains additional Messaging Server information.

Task	Relevant Information
Postinstallation configuration	“Messaging Server Postinstallation Configuration” on page 141
Starting and stopping	“Starting and Stopping Messaging Server” on page 171
Uninstalling	“Messaging Server Post-uninstallation” on page 210 “Messaging Server Uninstallation Behavior” on page 194
Troubleshooting	“Messaging Server Troubleshooting Tips” on page 233
Upgrading	<i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>

Calendar-Messaging Schema 1 Example

This example installs Calendar Server and Messaging Server in an LDAP Schema 1 environment on two hosts. A remote version of Directory Server is used.

Requirements

Both Calendar Server and Messaging Server require Directory Server, but not necessarily a local copy. In addition, a local copy of Administration Server is required by Messaging Server.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

Step ● Installing and starting Directory Server

Because Administration Server provides a graphical interface for Directory Server, you might also want to select Administration Server.

[“Directory Server Only Example” on page 44](#)

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

Steps 1. Running the Java ES installer.

2. At component selection, choosing Calendar Server and Messaging Server

Directory Server, the Directory Preparation Tool, and Administration Server are automatically selected.

3. Deselecting Directory Server

When you are prompted to choose a local or remote Directory Server, choose remote (the Directory Server that is already installed and running on Host A).

4. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

5. Selecting the Configure Now option

You will receive a message that Calendar Server and Messaging Server cannot be configured during installation.

6. Reviewing the configuration pages for Administration Server

7. Running the installation

8. Viewing the Installation Summary and Log

9. Completing any post-install configuration:

- [“Calendar Server Postinstallation Configuration” on page 134](#)
- [“Messaging Server Postinstallation Configuration” on page 141](#)

10. Starting the components in this order:

- a. [“Starting and Stopping Administration Server and the Server Console” on page 162](#)

- b. [“Starting and Stopping Messaging Server” on page 171](#)
- c. [“Starting and Stopping Calendar Server” on page 165](#)

Communications Express and Messaging Server Example

This example installs Communications Express for messaging services in a 2-host Schema 2 environment. A remote copy of Directory Server is used.

Note – On Linux: To use this sequence example, also refer to known issue 6283991 in the *Sun Java Enterprise System 2005Q4 Release Notes*.

Requirements and Sequence Issues

Communications Express requires either Access Manager or the Access Manager SDK for Schema 2. A local copy of Access Manager SDK is always required, but you can use a remote copy of Access Manager. Directory Server is required for Access Manager and Communications Express, but Directory Server does not need to be on the local host. Communications Express requires a local web container which can be either Application Server or Web Server.

To use messaging services, Communications Express requires a local copy of Messaging Server, which requires a local copy of Administration Server. To use calendar services, Communications Express requires Calendar Server, but Calendar Server does not need to be on the local host. This example uses messaging services.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

- If you are using Messaging Server or Web Server with Sun Cluster software, you must perform a precise series of tasks before installing any components. Refer to [“Sun Cluster Software Example” on page 58](#) to see Sun Cluster guidelines.
- The remote Directory Server must be installed and running before installing any components that depend on it.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

Step ● Installing and starting Directory Server

Because Administration Server provides a graphical interface for Directory Server, you might also want to select Administration Server.

[“Directory Server Only Example” on page 44](#)

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

Steps 1. Running the Java ES installer

2. At component selection, choosing Communications Express, Access Manager, Messaging Server, and Web Server

Administration Server, Directory Server, and the Directory Preparation Tool are automatically selected.

3. Deselecting Directory Server

When you are prompted to choose a local or remote Directory Server, choose remote (the Directory Server that is already installed and running on Host A).

4. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

5. Selecting the Configure Now option

Communications Express cannot be configured during installation, and will require postinstallation configuration.

Configuration pages are displayed for those components that can be configured during installation.

6. Reviewing the configuration pages

7. Running the installation

8. Viewing the Installation Summary and Log

9. Completing post-install configuration:

- [“Access Manager Postinstallation Configuration” on page 127](#)
- [“Messaging Server Postinstallation Configuration” on page 141](#)
- [“Communications Express Postinstallation Configuration” on page 135](#)

10. Starting the components

- “Starting and Stopping Messaging Server” on page 171
- “Starting and Stopping Web Server” on page 176 (Access Manager automatically starts)

11. Using the following URL to access the default Communications Express login page:

```
http://webcontainer-host:webcontainer-port/  
uri-path-CommsExpress
```

12. Using the following URL to access the default Access Manager Login page:

```
http://web-container-host:web-container-port  
/amserver/UI/Login
```

Instant Messaging and Access Manager Example

This example installs Instant Messaging with Access Manager, using a remote Directory Server, and Web Server as the web container.

Requirements and Sequence Issues

For the Instant Messaging Core subcomponent, Access Manager is required, but not necessarily a local copy. For the Instant Messaging Resources subcomponent, the Access Manager SDK must be local to Instant Messaging. Access Manager requires a web container, which can be remote. If you use Access Manager, Directory Server is required, but not necessarily a local copy. If you are using Access Manager with Instant Messaging, you must also use Access Manager SDK.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

- The installer does not automatically select components that Instant Messaging depends on. You are responsible for selecting these components.
- If you are deploying other components with Instant Messaging, the other components must be configured before configuring Instant Messaging.
Java ES components that are commonly deployed with Instant Messaging include Messaging Server, Calendar Server, and Portal Server (with Access Manager).

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

Step ● Installing and starting Directory Server

Because Administration Server provides a graphical interface for Directory Server, you might also want to select Administration Server.

[“Directory Server Only Example” on page 44](#)

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

Steps 1. Running the Java ES installer

2. At component selection, choosing Instant Messaging and Web Server

3. Deselecting Directory Server and specifying the remote copy when prompted

4. Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

5. Verifying installation directories

6. Selecting the Configure Now or Configure Later option

Instant Messaging cannot be configured during installation.

a. For the Configure Now option, configuration pages are displayed for Web Server.

Gather your configuration information from the tables in Chapter 1, “Configuration Information,” in *Sun Java Enterprise System 2005Q4 Installation Reference*

b. For the Configure Later option, configuration pages are not displayed.

7. Running the installation

8. Viewing the Installation Summary and Log

9. Completing post-install configuration

■ [“Web Server Postinstallation Configuration” on page 148](#)

■ [“Configuring Instant Messaging After a Configure Later Installation” on page 140](#) (Optional) For remote components: During Instant Messaging configuration, specify any remote locations for Directory Server, Access Manager, and Web Server.

10. Starting the components in this order:

- a. [“Starting and Stopping Web Server” on page 176](#)
- b. [“Starting and Stopping Instant Messaging Server and Multiplexor” on page 169](#)

Communication and Collaboration Services Example

This example installs most of the Java ES components to implement communication and collaboration services across four hosts.

Note – If you are using any of these components with Sun Cluster software, you must perform a precise series of tasks before installing any Java ES components. Refer to [“Sun Cluster Software Example” on page 58](#)

Requirements and Sequence Issues

Directory Server is required for all the communications components, but not necessarily a local copy. A local copy of Administration Server is required by Messaging Server. Access Manager or the Access Manager SDK is required, but Access Manager can be remote. In this example, Web Server fulfills the Access Manager requirement for a web container. Although Calendar Server and Messaging Server do not require a local web container, Communications Express does. Communications Express can use a remote copy of Calendar Server, but Messaging Server must be local.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

To implement single sign-on, Instant Messaging requires Access Manager and a local or remote web container. Portal Server Secure Remote Access requires Access Manager and a local web container. Portal Server Secure Remote Access also requires Portal Server, but not necessarily a local copy. Portal Server Secure Remote Access must be installed in same location as Portal Server. Access Manager and Portal Server cannot use different web containers.

For large deployments, you might deploy each component on a separate server, in approximately the same order shown in this example. For small deployments, components are installed in separate installation sessions on fewer servers.

Note – To use this sequence example, also refer to known issue 6284663 in the *Sun Java Enterprise System 2005Q4 Release Notes*.

In this example, the following installation sessions are used:

- **Session 1, Host A:** Installing Access Manager and Directory Server
- **Session 2, Host B:** Installing Portal Server and Web Server (using remote Directory Server and Access Manager on Host A)
- **Session 3, Host C:** Installing Calendar Server (using remote Directory Server and Access Manager on Host A)
- **Session 4, Host D:** Installing Communications Express, Messaging Server, Access Manager SDK, and Web Server (using remote Directory Server and Access Manager on Host A, and remote Calendar Server on Host C)
- **Session 5, Host D:** Installing Instant Messaging (using remote Directory Server and Access Manager on Host A) after the other components are installed and functioning
- **Session 6, Host D:** Installing Portal Server Secure Remote Access (using remote Directory Server and Access Manager on Host A)

By dividing the installation into a number of sessions, you are able to verify the components in each session before proceeding to the next session.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

- Step** ● **Installing and starting Access Manager and Directory Server**
Because Administration Server provides a graphical interface for Directory Server, you might also want to select Administration Server.
[“Identity Management Example” on page 76](#)

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

- Step** ● **Installing and starting Portal Server and Web Server, specifying the remote Access Manager and Directory Server that are installed and running on Host A**
A web container and the Access Manager SDK must be local to Portal Server.

- [“Access Manager and Portal Server Example” on page 40](#)
- [“Portal Server Using a Remote Access Manager Example” on page 80](#)

▼ To Develop a Sequence for Host C

The following high-level tasks are required:

- Step** ● **Installing and starting Calendar Server, specifying the remote Access Manager and Directory Server that are installed on Host A**

Access Manager SDK must be local to Messaging Server and Calendar Server.

Install only Calendar Server using the [“Calendar Server and Messaging Server Example” on page 64](#).

▼ To Develop a Sequence for Host D (First Session)

The following high-level tasks are required:

- Steps**
1. **Installing Communications Express, Messaging Server, Access Manager SDK, and Web Server using the Configure Later option**
 2. **Performing Web Server post-installation configuration**
[“To Configure Web Server After a Configure Later Installation” on page 149](#)
 3. **Performing AM SDK configuration to work with the local Web Server and the remote Access Manager**
[“Access Manager SDK With Container Configuration Example” on page 61](#)
 4. **Performing Administration Server post-installation configuration**
[“To Configure Administration Server After a Configure Later Installation” on page 131](#)
 5. **Performing Messaging Server post-installation configuration**
[“Messaging Server Postinstallation Configuration” on page 141](#)
 6. **Starting Messaging Server**
[“To Start Messaging Server” on page 171](#)
 7. **Performing Communications Express post-installation configuration**
During this configuration, provide information for Access Manager on Host A, Calendar Server on Host C, and Messaging Server on Host D.
[“To Configure Communications Express After a Configure Later Installation” on page 135](#)

8. Restarting Web Server on Host D

[“Starting and Stopping Web Server” on page 176](#)

▼ To Develop a Sequence for Host D (Second Session)

The following high-level tasks are required:

Steps 1. **Installing Instant Messaging**

[“Instant Messaging Only Example” on page 47](#)

2. **Performing Instant Messaging post-installation configuration**

[“Instant Messaging Postinstallation Configuration” on page 140](#)

▼ To Develop a Sequence for Host D Third Session)

The following high-level tasks are required:

Steps 1. **Installing Portal Server Secure Remote Access, specifying the remote Access Manager and Directory Server that are installed on Host A**

As a Portal Server Secure Remote Access requirement, Portal Server is also installed.

[“Portal Server Using a Remote Access Manager Example” on page 80](#)

2. **Establishing an initial user and setting up single sign-on**

Identity Management Example

In this example, identity management is implemented by installing Access Manager and Directory Server, with Directory Server on a remote host.

Requirements

Access Manager requires Directory Server, but not necessarily a local copy. Access Manager requires a web container, which in this example is Web Server. The remote Directory Server must be running before installing any other components.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

Step ● **Installing and starting Directory Server**

Because Administration Server provides a graphical interface for Directory Server, you might also want to select Administration Server.

[“Directory Server Only Example” on page 44](#)

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

Steps 1. **Running the Java ES installer**

2. **At component selection, choosing Access Manager and Web Server**

Directory Server and the Directory Preparation Tool are automatically selected.

3. **Deselect Directory Server and specify a remote copy when prompted.**

4. **Resolving incompatibilities**

The installer verifies software on your host and provides guidance if incompatibilities are identified.

5. **Selecting the Configure Now or Configure Later option**

a. **For the Configure Now option, configuration pages are displayed for those components that allow installation-time configuration. Do not accept defaults for components that are remote; use the remote information.**

You will need to gather your configuration information from the tables in Chapter 1, “Configuration Information,” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

b. **For the Configure Later option, configuration pages are not displayed.**

6. **Running the installation**

7. **Viewing the Installation Summary and Log**

8. **Completing any post-install configuration**

For Configure Now:

[“Configuring Access Manager After a Configure Now Installation” on page 128](#)

For Configure Later:

- [“Web Server Postinstallation Configuration” on page 148](#)

- [“Configuring Access Manager After a Configure Later Installation”](#) on page 130

9. Starting the components

[“Starting and Stopping Web Server”](#) on page 176 (Access Manager starts automatically.)

10. Accessing the default Access Manager login page

`http://webserver-host:port/amserver`

11. Establishing an initial user and setting up single sign-on

Web and Application Services Example

HADB (used for high availability session storage) works with Application Server to provide failover capabilities that include session persistence.

Note – If you are using these components with Sun Cluster software, you must perform a precise series of tasks before installing any Java ES components. Refer to [“Sun Cluster Software Example”](#) on page 58 to see Sun Cluster guidelines.

This example provides guidelines for implementing a two-node HADB cluster with load balancing. However, a preferred solution is to install HADB on four hosts with nothing else installed on them. The domain administration server (DAS) with a copy of HADB for administration and a load balancer and Web Server would be installed on a separate machine.

On a partitioned operating system, a preferred solution is that two servers be installed (either host or zone) with at least one HADB process running on each.

Requirements and Sequence Issues

Application Server requires a local copy of Message Queue. Application Server and HADB must be on the same host so you can use the integrated management tools provided by Application Server. The Load Balancing Plugin subcomponent of Application Server requires a web server. This example uses the Java ES Web Server as the container.

The general tasks include:

1. Installing the Java ES components

2. Starting the servers
3. Configuring HADB
4. Configuring load balancing

You can use the following guidelines to install all components on a node or zone. On subsequent nodes, install the components required by your deployment. A minimum of two installation sessions are required.

▼ To Develop a Sequence for Web and Application Services

The following high-level tasks are required:

- Steps**
1. **Verifying that the hardware is connected correctly for your cluster**
 2. **Running the Java ES installer**
 3. **At component selection, choosing Application Server and High Availability Session Store**
Message Queue and all the subcomponents of Application Server except the Application Server Node Agent and Load Balancing Plugin are automatically selected.
 4. **Expanding the Application Server component and selecting Load Balancing Plugin.**

Note – You must install Web Server and Load Balancing Plug-in using the same access permissions.

5. **Resolving incompatibilities**
The installer verifies software on your host and provides guidance if incompatibilities are identified.
6. **Selecting the Configure Now option**
Message Queue requires no configuration.

The configuration pages are displayed for components that can be configured during installation. Gather your configuration information from the table in “HADB Configuration Information” in *Sun Java Enterprise System 2005Q4 Installation Reference*.
7. **Running the installation**
8. **Viewing the Installation Summary and Log**
9. **Starting the components:**

- “Starting and Stopping Application Server” on page 164 (Message Queue automatically starts.)
- “Starting and Stopping Web Server” on page 176

10. Completing HADB postinstallation configuration

Refer to “Configuring HADB After a Configure Later Installation” on page 140.

11. Completing load balancing configuration

Refer to the Chapter 4, “Configuring Load Balancing and Failover,” in *Sun Java System Application Server Enterprise Edition 8.1 2005Q2 High Availability Administration Guide*.

Portal Server Using a Remote Access Manager Example

This example installs Portal Server and its required components on one host, using a copy of Access Manager that is already installed with Directory Server on another host. Access Manager and Portal Server must use the same type of web container.

Note – To use this sequence example, also refer to known issue 6284663 in the *Sun Java Enterprise System 2005Q4 Release Notes*.

Requirements

Portal Server requires Access Manager. Access Manager requires a local or remote copy of Directory Server and a local web container. You can run Portal Server on a separate host from Access Manager, in which case Portal Server requires a local copy of the Access Manager SDK and a local web container. When you install Portal Server and the Access Manager SDK, you need to deselect the unneeded subcomponents of Access Manager. (The installer automatically selects all Access Manager subcomponents when you select Portal Server.)

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

- Step**
- **Verifying that Access Manager and Directory Server are installed and running**
Because Administration Server provides a graphical interface for Directory Server, you might also want to select Administration Server.
[“Identity Management Example” on page 76](#)

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

- Steps**
- 1. Running the Java ES installer**
 - 2. At component selection, selecting Portal Server**
All Access Manager components are automatically selected as well as Directory Server and the Directory Preparation Tool.

The web container is not selected. The Web Container Selection page prompts you to select a web container.
 - 3. Deselecting Directory Server and all subcomponents of Access Manager except Access Manager SDK**
Dependency messages guide you to do the following:
 - a. Select Application Server, Web Server, or a previously installed local web container.**
 - b. Select a remote instance of Access Manager.**
 - 4. Resolving incompatibilities**
The installer verifies software on your host and provides guidance if incompatibilities are identified.
 - 5. Selecting the Configure Now option**
The configuration pages are displayed.
 - 6. In the Access Manager: Administration (1 of 4) page, supplying the following values for the remote Access Manager:**
 - Administrator (amAdmin) Password (retyped)
 - LDAP user (amldapuser) Password (retyped)
 - Password Encryption Key
 - 7. In the Access Manager: Directory Server Information page, specifying the information for the Directory Server on Host A.**

- Directory Server Information
 - Directory Manager Password
 - Suffix
8. **In the Access Manager: Web container for running Sun Java System Access Manager Services, specifying the information about the remote Access Manager on Host A**
Host name should be the fully qualified name on Host A.
9. **In the Portal Server: *webcontainer* page, specifying the web container (and any configuration parameters) that Portal Server is running within**
10. **Running the installation**
11. **Viewing the Installation Summary and Log**
12. **Completing any required post-install configuration:**
- [“Configuring Portal After a Configure Now Installation on a Sun Web Container” on page 143](#)
 - [“Configuring Portal After a Configure Now Installation on a Third-Party Web Container” on page 143](#)

Non-Root Examples

This section contains the following non-root examples:

- [“Access Manager Configured to Run as a Non-root User Example” on page 82](#)
- [“Portal Server on a Non-root Owned Web Server or Application Server Instance Example” on page 85](#)

For other non-root information, see [“Configuring Components With Non-root Identifiers” on page 153](#)

Note – On Linux: To use these sequence examples, also refer to known issue 6284698 in the *Sun Java Enterprise System 2005Q4 Release Notes*.

Access Manager Configured to Run as a Non-root User Example

This example provides an installation sequence and configuration procedures for allowing Access Manager to run in a web container that is not owned by root.

Requirements and Sequence Issues

If your installation plan calls for deploying Access Manager in an instance of Web Server or Application Server that is not owned by the superuser (`root`), you must install Access Manager in a separate installation session from Directory Server and Web Server or Application Server.

The general steps for creating this installation sequence include the following:

- **Session 1, Host A:** Installing Directory Server and Administration Server
- **Session 2, Host B:** Installing Web Server
- **Session 3, Host B:** Installing Access Manager

Note – If you have already deployed Access Manager in a root-owned instance of Web Server or Application Server, uninstall any copy of Access Manager before following the procedure in this section.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

- Steps**
1. **Installing Directory Server and Administration Server using the Configure Now option**
 - In the Common Server Settings page, enter the non-root user for System User and non-root group for System Group.
 - Select port numbers for Directory Server and Administration Server that are higher than 1024 (do not use 389 and 390).
 2. **As the non-root user, starting Directory Server and Administration Server (all processes must be owned by the non-root user)**

▼ To Develop a Sequence for Host B (First Session)

The following high-level tasks are required:

- Steps**
1. **Installing Web Server using the Configure Now option**
 - In the Common Server Settings page, enter the non-root user for System User and non-root group for System Group.
 - In the Web Server: Administration (1 of 2) page, change the Administration Runtime User ID to the non-root user.
 - In the Web Server: Default Web Server Instance page:
 - a. Change the Runtime User ID to the non-root user.

- b. Change the Runtime Group to the non-root group.
- c. Select a value for HTTP Port that is higher than 1024.

2. As the non-root user, starting the Web Server administration instance and Web Server instance

All processes should be owned by the non-root users.

▼ To Develop a Sequence for Host B (Second Session)

The following high-level tasks are required:

Steps 1. Installing Access Manager using the Configure Later option

2. Changing ownership of the following directories from root/other to the non-root user/non-root group:

These shared component directories must be changed because they are configured into the web container classpath by the Access Manager configuration program.

Solaris OS: `/opt/SUNWma` and `/etc/opt/SUNWma`

Linux: `/opt/sun/mobileaccess` and `/etc/opt/sun/mobileaccess`

```
chown -R nonroot-user:nonroot-group
```

```
/opt/SUNWma /etc/opt/SUNWma
```

3. Editing the `amsamplesilent` file

a. Go to the Access Manager `bin` directory:

Solaris OS: `cd AccessManager-base/SUNWam/bin`

Linux: `cd AccessManager-base/identity/bin`

b. Make a copy of the `amsamplesilent` file. For example:

```
cp -p amsamplesilent am.non_root_install
```

c. Edit the copy of the `amsamplesilent` file.

- Set `BASEDIR` to the same value that you selected for the installation directory of Access Manager during installation
- Update `SERVER_HOST`, `SERVER_PORT`, `DS_HOST`, `DS_PORT`, `ROOT_SUFFIX`, `WS61_ADMINPORT` and all related password fields (`DS_DIRMGRPASSWD`, `ADMINPASSWD`, `AMLdapUSERPASSWD`).

4. Using the edited `amsamplesilent` file to deploy Access Manager

```
./amconfig -s ./am.non_root_install
```

a. Set `NEW_OWNER` to the non-root user.

- b. Set `NEW_GROUP` to the non-root group.
- 5. As the non-root user, stopping the Web Server admin instance and Web Server instance
- 6. As root, changing the ownership of the Web Server installation directory


```
chown -R <non-root-user\>:<non-root-group\> WebServer-base
```
- 7. As the non root-user, starting the Web Server admin instance and Web Server instance
- 8. Accessing the Web Server admin console in a browser and logging in as the admin user
- 9. Selecting the instance on which you deployed Access Manager
 - a. Click Manage.
 - b. Click Apply and click Apply Changes.

Portal Server on a Non-root Owned Web Server or Application Server Instance Example

This example provides an installation sequence and configuration procedures for allowing Portal Server to run in a web container that is not owned by root.

Requirements

If your installation plan calls for deploying Portal Server in an instance of Web Server or Application Server not owned by the superuser (`root`), you must install Portal Server in a separate installation session from Web Server or Application Server.



Caution – If you have configured your Portal Server host to run as non-root user, and subsequently apply a patch, some directories will have their ownership reset to root ownership because the patch is applied as root user.

After successfully applying the patch, reconfigure your host to run as non-root user.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

- Step**
- **Installing and starting the web container and Access Manager (deselecting Directory Server)**
[“Identity Management Example” on page 76](#)

Skip this task if Portal Server will be using a copy of Access Manager that is already running on a remote host.

▼ To Develop a Sequence for Host B

The following high-level tasks are required:

Steps 1. Making sure that the non-root instance of Web Server or Application Server is installed and configured on the same host where you are installing Portal Server

- For Web Server:

If Web Server is not yet installed, use the installer to install Web Server, selecting the Configure Now option. Specify the non-root owner in the Runtime user and Runtime group configuration parameters.

[“Web Server Only Example” on page 54](#)

If Web Server is already installed, use the Web Server administrative utilities to create a new web server instance owned by the non-root user.

- For Application Server:

If Application Server is not yet installed, use the installer to install Application Server.

[“Application Server Only Example” on page 42](#)

After Application Server is installed, use the Application Server administrative utilities to create a new Application Server instance owned by the non-root user.

2. Making sure the non-root instance of Web Server or Application Server is running, as well as the administrative instance of Web Server or Application Server

3. Installing Portal Server with the Configure Now option

4. During Portal Server configuration, doing the following:

- Enter the user and group information of the non-root instance owner in the System User and System Group parameters when specifying values on the Common Server Settings page.
- Enter information about the non-root instance when specifying values on the Portal Server: Sun Java System Web Server page or the Portal Server Sun Java System Application Server page.

5. After installation, changing the ownership of the Portal Server directories from root to *Userid: UserGroup*.

Solaris OS:

```
chown -R Userid:UserGroup /opt/SUNWps
chown -R Userid:UserGroup /etc/opt/SUNWps
chown -R Userid:UserGroup /var/opt/SUNWps
```

Linux:

```
chown -R Userid:UserGroup /opt/sun/portal  
chown -R Userid:UserGroup /etc/opt/sun/portal  
chown -R Userid:UserGroup /var/opt/sun/portal
```

6. Setting the permissions for the Portal Server directories.

Solaris OS:

```
chmod 0755 /opt/SUNWps  
chmod 0755 /etc/opt/SUNWps  
chmod 0755 /var/opt/SUNWps
```

Linux:

```
chmod 0755 /opt/sun/portal  
chmod 0755 /etc/opt/sun/portal  
chmod 0755 /var/opt/sun/portal
```

7. Stopping and then starting Web Server or Application Server.

[“Starting and Stopping Application Server” on page 164](#)

[“Starting and Stopping Web Server” on page 176](#)

Installing with the Graphical Interface

This chapter provides instructions for using the interactive graphical interface to install the Sun Java™ Enterprise System (Java ES) software.

This chapter includes the following sections:

- [“Prerequisites” on page 89](#)
- [“Running the Installer in Graphical Mode” on page 90](#)
- [“Adding Components” on page 102](#)
- [“Next Steps” on page 102](#)

Prerequisites

Before beginning the procedure in this chapter, you should have developed an installation sequence, surveyed your system for incompatibilities, and fulfilled any necessary prerequisites. Refer to [“Installation Prerequisites” on page 30](#) for more specific information.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

- For Configure Now: On the Access Manager: Administration (1 of 6) page, select Legacy (version 6.x style). On the Access Manager: Web Container for running Access Manager (4 of 6) page, set the Console Deployment URI to amconsole (the default value).
 - For Configure Later: As root, run the amconfig script to configure Access Manager after installation. To select the Legacy (6.x) installation type, set the following parameters in your configuration script input file, amsamplesilent:
 - AM_REALM=disabled
 - CONSOLE_DEPLOY_URI=/amconsole
-

Running the Installer in Graphical Mode

If you have problems during installation, refer to the troubleshooting information in [Chapter 9](#).

▼ To Begin Installation

Steps 1. (Optional) Provide access to your local display.

If you are logging in to a remote host, make sure your DISPLAY environment variable is properly set to the local display. If the DISPLAY variable is not set properly, the installer runs in text-based mode.

- Example for C Shell (host name myhost):

```
setenv DISPLAY myhost:0.0
```

- Example for Korn Shell (host name myhost):

```
DISPLAY=myhost:0.0
```

You might need to grant display authorization to run the installer on your local display. For example, you can use the following command to grant display authority from myhost to the root user on serverhost:

```
myhost\> xauth extract - myhost:0.0 | rsh -l root serverhost xauth merge -
```

Note – For full instructions on granting such authorization safely, refer to the “Manipulating Access to the Server” chapter in the *Solaris X Window System Developer’s Guide*.

2. If you are not logged in as root, become superuser.

3. Start the graphical installation interface.

A full description of options for the installer command can be found in [Appendix B](#).

- **For CDs.** Navigate to a directory that is *not* on the CD so that you can switch CDs during the installation session. For example:

```
cd /tmp
```

Enter the command to start the installer using the fully qualified path to the installer:

```
mountpoint/os-arch/installer
```

In this command, *mountpoint* is where you mounted the CD and *os-arch* matches your platform, such as `Solaris_sparc`, `Solaris_x86` or `Linux_x86`.

- **For a DVD.** Navigate to the DVD directory whose name matches your platform, and enter the command to start the installer:

```
./installer
```

- **For a Download.** Navigate to the directory where you downloaded the software, and enter the command to start the installer:

```
./installer
```

The Welcome page is displayed.

Note – If you click Cancel at any time, the installer exits after you have confirmed that you do want to terminate the installer session.

4. Click Next to continue.

The Software License Agreement page is displayed.

5. If you accept all the terms of the License, click Yes, Accept License.

If you do not accept all the terms of the License, select Decline. This will end the installation process.

The Language Support page is displayed.

Note – If your installer window is too small to view all the text, you might need to resize the window manually by dragging the corner.

▼ To Select Languages and Components

The packages for the languages you choose will be installed for all the components you select. Each selection causes additional packages to be installed, adding to the disk space required for installation. English is always installed.

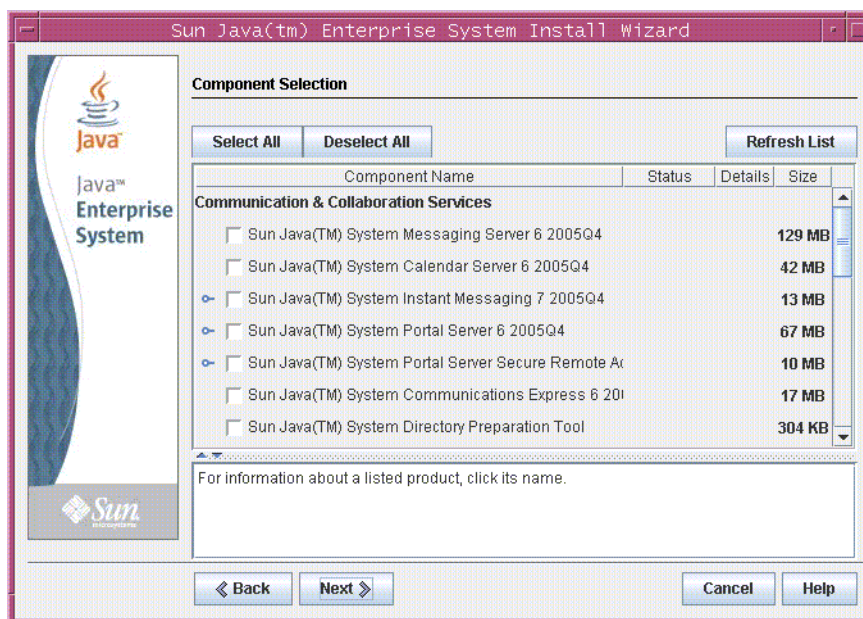
The following points about component selection and the Component Selection page will help you make selections.

- **On Solaris 10.** If you are running the installer in a non-global zone, any components that cannot be installed into a non-global zone will be disabled.
- **On Solaris OS.** If an incompatible version of Application Server or Message Queue is detected, you can choose to upgrade the bundled version during installation. If the installer determines that there is a risk to data or if applications have been deployed, you will be asked if you want to continue. If you answer no, you will need to exit the installer, remove the incompatible versions of Application Server or Message Queue and restart the installation process.

Note – This upgrade performed by the installer does not handle any data migration.

- If an incompatible component that cannot be upgraded by the installer is detected, you need to remove or manually upgrade the component. For upgrade instructions, refer to the *Sun Java Enterprise System 2005Q4 Upgrade Guide*. After resolving the problem, click Refresh List to redisplay the Component Selection panel.

- Steps**
1. **On the Language Support page, select the languages in which you want to install the Java ES components.**
 2. **Click Next to continue.**
The Component Selection page is displayed.
 3. **The Component Selection page displays a list of components, organized in groups of related services.**



- To see information about the individual components, hold the cursor over the item. A description of that item is displayed in the text box at the bottom of the page. Components that are already installed are disabled (grayed out).
 - To see information on the compatibility status of a component, click the ellipsis (...) in the Details column, if available.
4. **Select the components you want to install.**
 - To select all components, choose Select All and click Next.
 - To select some components, individually select the components. As you make each selection, the installer automatically selects any components that the component you selected depends on.
 5. **If applicable, select a web container.**

If you are not sure which component to use for your web container, you can select both Application Server and Web Server, then choose the Configure Now option. You will be offered a choice of web container on a subsequent configuration page.

Access Manager and Portal Server need to use the same type of web container.
 6. **If applicable, select a third-party web container.**

If you are going to use a third-party web container, do the following:

- a. **Do not select Application Server or Web Server at the component selection page.**
When you click Next, the Web Container Selection page is displayed.
 - b. **Choose Use Third-Party Web Container.**
 - c. **Click OK.**
7. **If applicable, specify any remote dependencies.**
If you are going to satisfy dependencies by using components installed on other hosts, do the following:
- a. **After you have made your component selections, expand and scan the entire list of components to see what the installer has automatically selected.**
 - b. **Deselect any component that you are going to access on a remote host, such as Directory Server. When you click Next, the Dependency Warning screen is displayed.**
 - c. **Choose to use a version installed on a remote host.**
 - d. **Click OK.**

▼ To Resolve Dependency and Compatibility Issues

The installer performs a dependency check of the selected components. If there is a problem, the installer might display one or more messages informing you of the problem and directing you to take action.

- Steps**
1. **Resolve component dependency issues and click Next. Repeat this process until you are allowed to proceed.**
The installer then performs a compatibility check of any shared components already installed. If any incompatible versions of components are found, you will be asked to remove them from the host.
 2. **Click Yes to have the installer remove the incompatible shared components or click No to remove the components manually.**

Note – If you select No, you must remove the component before continuing with the installation.

After the offending component has been removed, the installer performs a compatibility check of any shared components already installed. If incompatible versions of shared components are detected, the Shared Components Upgrade Required page is displayed.

3. **Review the incompatible components list and determine if it is safe for the installer to automatically upgrade the shared components listed.**
4. **Click Next to allow the installer to automatically upgrade the shared components listed.**

This upgrade does not happen until you reach the Ready to Install page.

On Solaris OS. If an incompatible system-wide version of the J2SE SDK is detected, the J2SE SDK Upgrade Required page is displayed. The installer performs this check only on the Solaris platform.

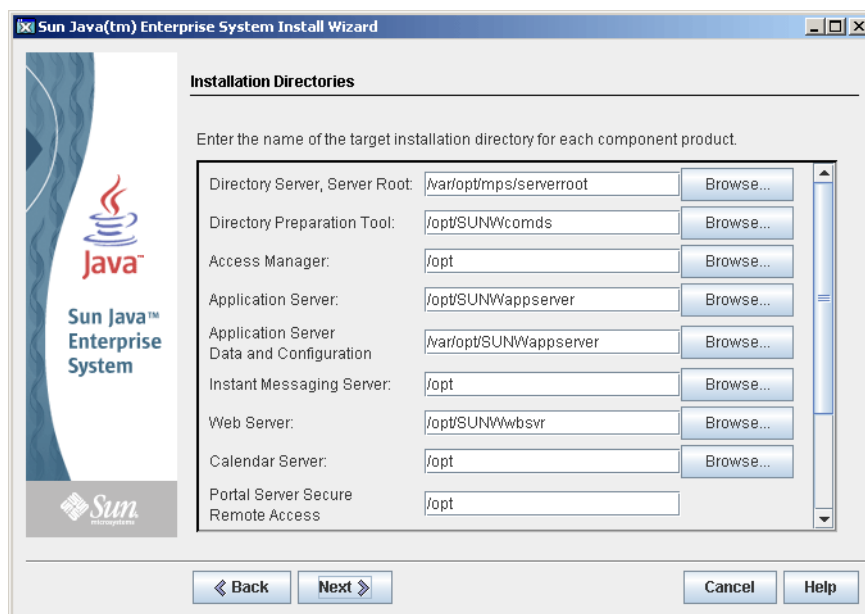


Caution – Do not upgrade shared components without checking the dependencies that exist on the host for non-Java ES applications. First verify that these existing applications are compatible with the required versions of the shared components.

The Installation Directories page is displayed.

▼ To Specify Installation Directories and Initiate the System Check

The Installation Directories page displays the default installation directories for the components you have selected. For example:



Steps 1. Examine the default installation directories.

To see a list of all the default directories and ports, refer to Chapter 3, “Default Installation Directories and Ports,” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

- Verify that the directories are correct for your deployment.
- If the default directories are not acceptable, browse for alternative paths and change as needed.

2. Click Next to initiate the system check.

The installer checks for disk space, memory, operating system patches and operating system resources based on the installation directories provided. The left column of the following table lists the possible results of the system check. The right column specifies what action you should take for each result.

Message Displayed	Your Action
System ready for installation	Click Next to continue.
System ready for installation Includes a warning that memory is not at the recommended level.	Click Next to continue, but add memory when installation is complete. If you do not add memory, performance might be seriously affected.

Message Displayed	Your Action
System not ready for installation	<p>Click View Report for information on the problems that the installer found. If any patches are missing, the patch numbers appear in this report.</p> <p>If you can fix the reported problems without stopping the installer, do so and then click Check Again to recheck the system.</p>

Solaris 10. If the installer is running in a non-global zone, you will receive a message telling you that memory information is not available.

Note – To install any missing operating system patches, do the following:

- a. Go to the SunSolve site: <http://sunsolve.sun.com>
- b. Click Patch Portal.
- c. Enter the patch number in the PatchFinder text box, and click Find Patch.
- d. Download the zip file for the patch.
- e. Expand the zip file. For example:

```
unzip 112785-44.zip
```
- f. A directory is created for the patch files.
- g. Apply the patch. For example:

```
patchadd 117885-44
```
- h. Back in the Java ES installer, click Check Again. All system requirements are rechecked.

3. **When the system check is complete and you are satisfied with the state of the system, click Next.**

▼ To Specify a Configuration Type and Common Server Settings

If some of the components you have chosen can be configured during installation, the Configuration Type page is displayed. You have the following configuration choices:

- **Configure Now.** Allows you to configure components that permit configuration at installation time. Your Configure Now tasks include specifying the common server settings, and the configuration information for the components selected.

Note – Some components cannot be configured during installation. If any of these components were selected, you are warned that you will need to configure these components after installation.

- **Configure Later.** You enter only the minimum values that are necessary for installing the packages. The installer proceeds without doing further configuration. If you chose the Configure Later option, skip to [“Running the Installer in Graphical Mode” on page 90](#).

Steps 1. **Specify a configuration type.**

For a Configure Now installation, you are asked to provide global configuration information. Defaults are displayed, except for passwords (passwords must be a minimum of 8 characters).

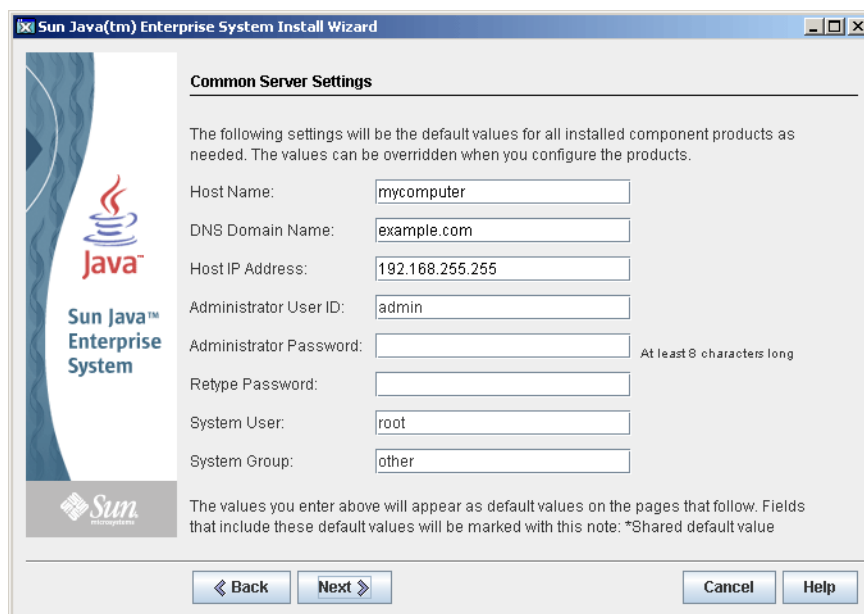
2. **Specify common server settings.**

Tip – Configuration values are gathered by the installer as you proceed through the installation. After installation is completed, you can access this information in the Installation Summary:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

Either accept the defaults, or use alternate data to answer the installer questions regarding these global fields. Values that you enter here appear as default values on the following component configuration pages. Refer to *“Common Server Settings”* in *Sun Java Enterprise System 2005Q4 Installation Reference* for information on these fields. The following sample screen shows the Common Server Settings configuration page.



3. Click Next to proceed.

The components configuration pages for each component that can be configured during installation are displayed one by one.

▼ To Select Component Settings

For a Configure Now installation, the installer presents one or more configuration pages for the selected components that can be configured during installation. The following information can help in your selection:

- For information on the configuration values on each page, click the online help button at the bottom of each page.
- For information on the configuration values for each configuration page, refer to Chapter 1, "Configuration Information," in *Sun Java Enterprise System 2005Q4 Installation Reference*.
- For configuration worksheets, refer to Chapter 2, "Configuration Worksheets," in *Sun Java Enterprise System 2005Q4 Installation Reference*.

Some of the fields in a component configuration page display default values from the Common Server Settings page. These values can be edited. For example, the fields in the Directory Server sample screen that contain default values set by the Common Server Settings page are Administrator User ID and Administrator Password. These fields are marked with the note "Shared default value."

The following example screen shows the initial Directory Server configuration page.

The screenshot shows a window titled "Sun Java(tm) Enterprise System Install Wizard" with a sub-header "Directory Server: Administration (1 of 5)". On the left is a vertical banner with the Java logo and "Sun Java™ Enterprise System" text. The main area contains several input fields: "Administrator User ID" (admin), "Administrator Password" (masked with asterisks), "Retype Password" (masked), "Directory Manager DN" (cn=Directory Manager), "Directory Manager Password" (masked), and "Retype Password" (masked). A note below the fields states: "Certain Directory Server operations can be performed only by a privileged administrator called a Directory Manager. This user's bind DN is typically cn=Directory Manager." At the bottom are "Back", "Next", "Cancel", and "Help" buttons.

Note – Although Sun Cluster software itself cannot be configured during installation, you are offered the option of enabling remote support to simplify postinstallation configuration. The default is Yes.

- Steps**
1. As the individual configuration pages are displayed, specify the information for the settings.
 2. Click **Next** to proceed to the next component configuration page.
 3. When you click **Next** on the final configuration page, installation-time configuration is done.
The Ready to Install page is displayed.

▼ To Install the Software

Before transferring the software to your system, the installer lists the components that you selected. Although shared components are not explicitly listed, they have already been verified and will be installed if they are needed.

- Steps**
1. **Review the components listed and make any necessary changes.**
 - a. **To return to the particular Component Selection page, click the Back button.**
Continue to click Back on successive pages until the desired Component Selection page is again displayed.
 - b. **Click Next to move forward through the installer again.**
You do not need to re-enter previously-entered values.
 2. **Click Next when you are satisfied with the Ready to Install list.**
The Product Registration page is displayed.
 3. **Accept the default “Open registration window during installation” if you want to register your products while software is being installed.**
If not, deselect the default option.
 4. **Click Install to begin installing the component packages.**

Note – If you click Cancel at the Progress page, the installer exits after you have confirmed that you do want to terminate the installer session.

If you click Stop while the installation is in progress, the installer rolls back any components that have already been installed and presents the Summary page. You are asked to confirm whether you want to terminate the installer session.

During installation, the following occurs:

- A progress bar displays the overall percentage complete.
- The names of packages are displayed as they are installed.
- If you accepted the product registration option, a browser window that enables you to register is displayed.

Depending on the size and complexities of your installation, the installation process can be lengthy.

▼ To Complete the Installation Session

When installation is complete, the Installation Complete page is displayed. Any issues from the installation, such as insufficient memory, are noted on this page. In addition, you are provided with access to the installation summary and logs.

- Steps**
1. **Click View Summary or View Install Log to examine information about the installation.**

- **Installation Summary.** Lists each component installed and the settings you specified. If you chose the Configure Now option, this summary includes all the configuration values.
- **Installation Log.** Displays the installer's log messages for components.

This information is available in the following locations after you exit the installer:

On Solaris OS: `/var/sadm/install/logs`

On Linux: `/var/opt/sun/install/logs`

To see a full listing of the Java ES logs, refer to [“Examine Installation Log Files” on page 214](#).

2. **To access the postinstallation instructions, click the box to automatically display the *Installation Guide for UNIX*.**
3. **Click Close to exit the installer.**

Your installation session is done. Components that were installed will need to be started after you have completed all postinstallation tasks.

Adding Components

To install additional components, you can run the installer again. The installer detects the newly-installed components and uses them to satisfy the dependencies of other components. Installed components are disabled at the Component Selection page.

For example, suppose you have installed Access Manager and its required components during this installation. Later, you decide to install Portal Server. The existing instance of Access Manager will be used to meet the Portal Server dependency on Access Manager. You will not be asked to reinstall Access Manager.

Next Steps

After you have completed the installer portion of your Java ES installation, proceed as follows:

- [“Verifying After Installation” on page 158](#) provides instructions for verifying that this phase of installation was successful.
- [Chapter 6](#) provides final instructions on postinstallation configuration. Although you might have done extensive configuration during your installation, most components require some additional configuration.

Installing with the Text-Based Interface

This chapter provides instructions for using the interactive text-based interface to install the Sun Java™ Enterprise System (Java ES) software.

This chapter has the following sections:

- [“Prerequisites” on page 89](#)
- [“How to Use the Text-Based Interface” on page 103](#)
- [“Running the Installer in Text-Based Mode” on page 104](#)
- [“Adding Components” on page 111](#)
- [“Next Steps” on page 112](#)

Prerequisites

Before beginning the procedures in this chapter, you should have developed an installation sequence, surveyed your system for incompatibilities, and fulfilled any prerequisites. Refer to [“Installation Prerequisites” on page 30](#) for specific information on prerequisites.

How to Use the Text-Based Interface

The text-based installer mode does not display a graphical interface, but instead prompts you for information using a series of questions. The following table describes how to respond to the installer’s text-based prompts.

TABLE 4-1 Responding to Text-Based Installer Prompts

Action	Input
To accept default values, as indicated in square brackets ([])	Press Return.
To select items from a list	Type the numbers for the items in a comma-separated sequence and press Return. Spaces are not allowed. For example, to select item 2 in a list, type 2 and press Return. To select items 1, 3, and 4, type 1, 3, 4 and press Return.
To deselect items from a list	Type the numbers for the items in a comma-separated sequence, entering the minus character (-) before each number, and press Return. Spaces are not allowed. For example, to deselect item 2 from the list, type -2 and press Return. To deselect items 1, 3, and 4, type -1, -3, -4 and press Return.
To provide a value to a text field	Type the value and press Return.
To provide a password	Type the password and press Return. The password will not appear on the terminal window.
To return to the previous page	Type the left angle (<) character and press Return.
To exit the session	Type the exclamation mark character (!) and press Return.

Running the Installer in Text-Based Mode

If you have problems during installation, refer to the troubleshooting information in [Chapter 9](#).

▼ To Begin Installation

- Steps**
1. If you are not logged in as `root`, become superuser.
 2. Start the text-based installation interface:

Note – A full description of options for the `installer` command can be found in [Appendix B](#).

- **For CDs.** Navigate to a directory that is *not* on the CD so that you can switch CDs during the installation session. For example:

```
cd /tmp
```

Enter the command to start the installer using the fully qualified path to the installer:

```
mountpoint/os-arch
```

```
/installer -nodisplay
```

In this command, *mount-point* is where you mounted the CD and *os-arch* matches your platform: `Solaris_sparc`, `Solaris_x86` or `Linux_x86`.

- **For a DVD.** Navigate to the DVD directory whose name matches your platform, then enter the command to start the installer:

```
./installer -nodisplay
```

- **For a Download.** Navigate to the directory where you downloaded the software, then enter the command to start the installer:

```
./installer -nodisplay
```

Welcome information is displayed.

3. Press Enter to go to the Software License Agreement.

4. Press Enter to display the Software License Agreement.

Continue pressing Enter to read to the end of the Agreement.

5. If you accept all the terms of the License, type `yes` and press Enter. The Language Support page is displayed.

If you do not accept all the terms of the License, select the default `no` by pressing Enter. This will end the installation process.

▼ To Select Languages and Components

The installer first checks your system for previously installed versions of components and displays a list of the detected components, if any are found, under the title `Component Products Detected on This Host`.

Note – Detected components will not be available for selection, but might require upgrading if the versions do not meet Java ES requirements or dependency requirements of other components.

- Steps**
1. **Specify the additional language packages you want to install by entering a comma-separated list of the numbers associated with the languages, and press Return.**

English is always installed.

2. **Specify which components to install by typing a comma-separated list of numbers associated with the components you want to install, and press Return.**

If the installer finds no previously installed versions of components, the installer displays the Component Selection Main Menu which looks similar to the following.

```
Component Selection - Main Menu
```

```
-----
```

```
Note: "*" indicates that the selection is disabled
```

```
[ ] 1. Sun Java(TM) System Calendar Server 6
[ ] 2. Sun Java(TM) System Directory Preparation Tool
[ ] 3. Sun Java(TM) System Web Server 6.1 SP5
[ ] 4. Sun Java(TM) System Messaging Server 6
[ ] 5. Sun Java (TM) System Web Proxy Server 4.0
[ ] 6. Sun Java(TM) System Administration Server 5
[ ] 7. High Availability Session Store (HADB)
[ ] 8. Sun Cluster 3.1U4
[ ] 9. Sun Java(TM) System Access Manager 7
[ ] 10. Sun Java(TM) System Communications Express 6
[ ] 11. Sun Java(TM) System Message Queue 3 Enterprise Edition
[ ] 12. Sun Java(TM) System Application Server Enterprise Edition 8.1
[ ] 13. Sun Java(TM) System Directory Proxy Server 5
[ ] 14. Sun Java(TM) System Portal Server Secure Remote Access
[ ] 15. Sun Java(TM) System Instant Messaging 7
[ ] 16. Sun Java(TM) System Portal Server 6
[ ] 17. Sun Cluster Agents for Sun Java(TM) System
[ ] 18. Sun Java(TM) System Directory Server 5
[ ] 19. Sun Java (TM) System Delegated Administrator
[ ] 20. Service Registry 3.0
```

```
Enter a comma separated list of products to install [] {"<" goes
back, "!" exits}:
```

3. **Continue through the installer prompts to select the subcomponents for each product you selected, if applicable.**

Note – Not all components have subcomponents. These products will be displayed without interaction.

After you finish selecting components and their subcomponents, the installer performs a dependency check. If there is a problem with dependencies, the installer displays a Product Dependency Check error or warning, depending on the problem. Typical problems might include:

- A local dependency has not been met
In this situation, return to Component Selection and select the appropriate component to satisfy the local dependency.
 - A remote dependency will be met later during postinstallation configuration
If you do not intend to specify a remote installation, return to Component Selection and select the appropriate component to satisfy the dependency locally.
 - Previous versions of components are already installed on the local host
In this situation, upgrade or remove the reported components and ask the installer to check again. To upgrade components from earlier Java ES versions, refer to *Sun Java Enterprise System 2005Q4 Upgrade Guide*.
4. **If any incompatible versions of components are found, you will be asked to remove them from the host. Answer *yes* and press *Return* to have the installer remove them or select the default *no* by pressing *Return* to remove the components manually.**

Note – If you select the default *no*, you must remove the component before continuing with the installation.

▼ To Resolve Dependency and Compatibility Issues

After the installer performs a dependency check for components, it performs a compatibility check of any shared components already installed. If incompatible versions of shared components are detected, the installer displays a Shared Component Upgrades Required report indicating what shared components are not compatible.

Steps 1. **Resolve any component dependency issues and click Next.**

The installer then performs a compatibility check of any shared components that are already installed. If incompatible shared components are found, the installer lists them.

2. **Review the list of incompatible shared components and determine if it is safe for the installer to automatically upgrade the shared components listed.**

On Solaris OS. If an incompatible system-wide version of the J2SE SDK is detected, the J2SE SDK Upgrade Required page is displayed. The installer performs this check only on the Solaris platform because the Linux platform does not have a specific, system-wide installation of the J2SE SDK.



Caution – Do not upgrade shared components without checking the dependencies that exist on the host for non-Java ES applications. First verify that these existing applications are compatible with the required versions of the shared components.

For information about upgrades, see the *Sun Java Enterprise System 2005Q4 Upgrade Guide*.

3. **Press Return to allow the installer to automatically upgrade the shared components listed.**

This upgrade does not happen until you reach the Ready to Install page.

▼ To Specify Installation Directories and Initiate the System Check

A default installation directory will be displayed for each selected component.

- Steps**
1. **Accept the default installation location, or replace the default for your deployment.**
 2. **Repeat this step for every component selected for installation.**
After the installation directory of the final, selected component is chosen, the installer will automatically perform a system check. The installer checks for disk space, memory, operating system patches and operating system resources.
 3. **If operating system patches are found to be missing, apply patches according to the following procedure.**

Note – To install any missing operating system patches, do the following:

- a. Go to the SunSolve site: <http://sunsolve.sun.com>
- b. Click Patch Portal.
- c. Enter the patch number in the PatchFinder text box, and click Find Patch.
- d. Download the zip file for the patch.
- e. Expand the zip file. For example:

```
unzip 112785-44.zip
```

- f. A directory is created for the patch files.
 - g. Apply the patch. For example:
`patchadd 117885-44`
 - h. Back in the Java ES installer, click Check Again. All system requirements are rechecked.
-

▼ To Select a Configuration Type

Step ● Specify a configuration type from the following options:

- **Configure Now.** Allows you to configure components that permit configuration at installation time.

Your Configure Now tasks include specifying the common server settings, and the configuration information for the components selected.

Note – Some components cannot be configured during a Configure Now installation. If you are warned that you will need to configure these components after installation, click Next to proceed and see [Chapter 6](#).

- **Configure Later.** You enter only the minimum values that are necessary for installing the packages.

The installer proceeds without doing further configuration. If you choose this option, skip to “[Running the Installer in Text-Based Mode](#)” on page 104.

▼ To Specify Configuration Data

For a Configure Now installation, you are asked to provide configuration information for the components that allow installation-time configuration. Defaults are displayed, except for passwords (which must be a minimum of 8 characters).

Tip – Your configuration values are gathered by the installer as you proceed through the configuration panels. After installation is done, you can access this information in the Installation Summary:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

Steps 1. **Specify common server settings.**

Either accept the defaults, or use alternate data to answer the installer questions regarding these global fields. Refer to “Common Server Settings” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

2. **Specify component settings.**

Either accept the defaults or use the information you gathered in the component worksheets to answer the installer questions regarding each component. For information on the configuration values on each page, refer to:

- Chapter 1, “Configuration Information,” in *Sun Java Enterprise System 2005Q4 Installation Reference* Provides details on the configuration values for each configuration page.
- Chapter 2, “Configuration Worksheets,” in *Sun Java Enterprise System 2005Q4 Installation Reference* Provides worksheets for gathering your configuration data.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

- For Configure Now—You will be prompted with the following: Install type [Legacy]. Select Legacy (version 6.x style) which is the default. When you are asked for the web container for running Access Manager, set the Console Deployment URI to amconsole.
 - For Configure Later—As root, run the `amconfig` script to configure Access Manager after installation. To select the Legacy (6.x) installation type, set the following parameters in your configuration script input file, `amsamplesilent`:
 - `AM_REALM=disabled`
 - `CONSOLE_DEPLOY_URI=/amconsole`
-

3. **A list of your selected components and subcomponents is displayed. Review this list carefully. If you need to make changes, type < and press Return until you reach the question that requires a change.**

Although shared components are not explicitly listed, they have already been verified and will be installed if they are needed.

▼ To Install the Software

Steps 1. **To start the installation, press Return to accept the default [1].**

The installation process starts and a progress indicator bar informs you of the state of the installation. For example:

```
Java Enterprise System  
|-1%-----25%-----50%--
```

Note – Depending on the size and complexities of your installation, the installation process can be lengthy.

When the installation has successfully completed, the Installation Complete message is displayed.

2. **Examine the postinstallation files**

Files are located in `/var/sadm/install/logs` on Solaris OS and in `/var/opt/sun/install/logs` on Linux.

- [1] **Installation Summary.** Lists each component installed and the settings you specified. If you chose Configure Now configuration, this summary includes all the configuration values.
- [2] **Installation log.** Displays the installer’s log messages for components.
- A separate log file contains information about the installation of shared components.

To see a full listing of the Java ES logs, refer to [“Examine Installation Log Files”](#) on page 214.

3. **Exit the installer.**

Your installer session is done. Components that were installed will need to be started after you have completed all postinstallation tasks. Proceed to [“Next Steps”](#) on page 112

Adding Components

To install additional components, you can run the installer again. The installer detects the newly-installed components and uses them to satisfy the dependencies of other components. Installed components are disabled at the Component Selection page.

For example, suppose you have installed Access Manager and its required components during this installation. Later, you decide to install Portal Server. The existing instance of Access Manager will be used to meet the Portal Server dependency on Access Manager. You will not be asked to reinstall Access Manager.

Next Steps

After you have completed the installer portion of your Java ES installation, proceed as follows:

- [“Verifying After Installation” on page 158](#) provides instructions for verifying that this phase of installation was successful.
- [Chapter 6](#) provides final instructions on postinstallation configuration. Although you might have done extensive configuration during your installation, most components require some additional configuration.

Installing in Silent Mode

Silent installation is a non-interactive method used for installing Sun Java™ Enterprise System (Java ES) on multiple hosts that share similar configurations. This chapter provides instructions for using silent mode to install the Java ES software.

This chapter includes the following sections:

- [“Prerequisites” on page 113](#)
- [“How Silent Installation Works” on page 114](#)
- [“Creating a State File” on page 115](#)
- [“Creating a Platform-Appropriate State File ID” on page 118](#)
- [“Running the Installer in Silent Mode” on page 120](#)
- [“Next Steps” on page 121](#)

Prerequisites

Before beginning the procedure in this chapter, you should have developed an installation sequence, surveyed your system for incompatibilities, and fulfilled any necessary prerequisites. Refer to [“Installation Prerequisites” on page 30](#) for more specific information.

Note – You must use Access Manager Legacy (6.x) installation type if you are installing Access Manager with Portal Server, Messaging Server, Calendar Server, Delegated Administrator, or Instant Messaging. Access Manager Realm (7.x) installation type can only be used if you are *not* installing any of these components.

- For graphical Configure Now: On the Access Manager: Administration (1 of 6) page, select Legacy (version 6.x style). On the Access Manager: Web Container for running Access Manager (4 of 6) page, set the Console Deployment URI to `amconsole` (the default value).
 - For Configure Later: As root, run the `amconfig` script to configure Access Manager after installation. To select the Legacy (6.x) installation type, set the following parameters in your configuration script input file (`amsamplesilent` file):
 - `AM_REALM=disabled`
 - `CONSOLE_DEPLOY_URI=/amconsole`
-

How Silent Installation Works

To run a silent installation, you first run a false installation session to create a *state file* that the actual silent installation process will access. During this false, interactive session, your responses to the installer are captured as a set of name-value pairs in a state file. No software is installed. (Each name-value pair represents a single prompt or field in the installation process.) Using the state file as input, you can then run the installer on many hosts. This process allows you to propagate one configuration across multiple hosts in your enterprise.

The main events in a silent installation are as follows:

1. Verify that your hosts meet the installation prerequisites as stated in [“Installation Prerequisites”](#) on page 30.
2. Create a state file by running the installer.
3. Make a copy of the state file and edit it for each host where you will do a silent installation.
4. Run the silent installation on each host.

Creating a State File

To create a state file, you must run the installer. A state file generated by the installer takes advantage of the installer's real-time dependency checking and error reporting.



Caution – Do not create a state file manually. This method can cause problems at installation time, configuration time, or server startup time.

Generating a State File

A state file is created by running the installer without installing the software. As you proceed through the pages of the installer, your answers are captured and a state file is generated. When you complete the installation, the state file is available in the location that you specified. You can generate the state file by running either the graphical interface installer or the text-based interface installer. The `-no` option is used so no software is installed.

To create a state file using the graphical interface:

```
./installer -no -saveState statefile_path
```

To create a state file using the text-based interface:

```
./installer -no -nodisplay -saveState statefile_path
```

Full syntax for the installer command can be found in [Appendix B](#). Refer to [Appendix B](#) to see an example of a generated state file.

Editing the State File

After you have generated a state file, you must edit it to ensure that the local parameters are set correctly for the various destinations hosts. These parameters include host name, domain name, IP address, and other such settings. You might also need to change the state file key, if you plan to do an installation on a platform that is different from the one on which you created the state file.

This section addresses the following:

- “State File Editing Guidelines” on page 116
- “Editing Local Parameters” on page 116
- “Creating a Platform-Appropriate State File ID” on page 118

State File Editing Guidelines

When editing the state file, follow the guidelines in this section.

- Do not modify parameters, except to edit their values.
 - Do not remove a parameter, even if it does not have a value.
 - Do not add a parameter.
 - Do not change the order in which parameters appear.
- Notice original types and formats and maintain them as you enter new values. For example:
 - If the old value is a host name, enter a host name and not a fully qualified domain name.
 - If the old value starts with a leading slash, make sure that the new value starts with a leading slash.
- Replace any value that you delete. If the parameter is required, installation or configuration could fail if the parameter has been deleted.
- Retain the case of the original value.

Editing Local Parameters

The following table lists parameters that you might need to edit, depending on the components you wish to install. The parameters you must edit also depend on your host setup. For example, the host on which you generated the state file might be in the same domain as the host on which you are installing.

TABLE 5-1 State File Parameters to Edit

Component	Parameter Name
Common Server Settings	CMN_HOST_NAME
	CMN_DOMAIN_NAME
	CMN_IPADDRESS
	CMN_ADMIN_USER
	CMN_ADMIN_PASSWORD
	CMN_SYSTEM_USER
	CMN_SYSTEM_GROUP

TABLE 5–1 State File Parameters to Edit *(Continued)*

Component	Parameter Name
Access Manager	IS_WS_HOST_NAME
	IS_WS_INSTANCE_DIR (if Web Server is the web container)
	CONSOLE_HOST
	IS_SERVER_HOST
	IS_DS_HOST
	IS_DS_HOSTNAME
	COOKIE_DOMAIN_LIST
Administration Server	ADMINSERV_DOMAIN
	ADMINSERV_CONFIG_DIR_HOST
Application Server	ASNA_ADMIN_HOST_NAME
	ASNA_ADMIN_HOST_NAME
	AS_WEB_SERVER_LOCATION
Directory Server	DS_SERVER_IDENTIFIER
	DS_ADM_DOMAIN
	CONFIG_DIR_HOST (if USE_EXISTING_CONFIG_DIR is set to 1)
	USER_DIR_HOST (if USE_EXISTING_USER_DIR is set to 1)
Portal Server	PS_LOAD_BALANCER_URL (format //hostname.domainname:port+deploy_uri)
	PS_DEPLOY_INSTANCE
Portal Server Secure Remote Access	SRA_SERVER_DOMAIN
	SRA_SERVER_HOST
	SRA_GW_HOSTNAME
	SRA_GW_DOMAIN
	SRA_GW_IPADDRESS
	SRA_NLP_HOSTNAME
	SRA_NLP_DOMAIN
	SRA_NLP_IPADDRESS
	SRA_RWP_HOSTNAME
	SRA_RWP_DOMAIN
SRA_RWP_IPADDRESS	

TABLE 5-1 State File Parameters to Edit (Continued)

Component	Parameter Name
Web Server	WS_ADMIN_HOST
Web Proxy Server	WPS_PROXY_DOMAIN

For a description of each parameter, refer to the tables in Chapter 1, "Configuration Information," in *Sun Java Enterprise System 2005Q4 Installation Reference*.

Creating a Platform-Appropriate State File ID

A state file can only be run on a host of the same platform type as the host where the state file was generated unless you edit the state file ID manually. There is a different type of state file ID for various Java ES platforms.

There are two way to create to a state file to run ion a platform other than the one on which it was created:

- Using the Installer
- Using Platform-Specific Distribution Files

▼ To Generate a State File ID Using the Installer

This procedure generates a state file ID by running the installer on the platform on which you want to perform silent installation.

Note – The following command works only if you are generating an ID for the same platform on which you are running the command.

- Steps**
1. If you are not logged in as `root`, become superuser.
 2. Navigate to the directory where the installer is located:

```
cd installer-directory
```

3. Run the installer with the `-id` option.

```
./installer -id
```

The command generates an encrypted identifier.

4. Copy the identifier and paste the value into the state file, as the value for the **STATE_BEGIN** and **STATE_DONE** parameters.

The following is an example of the state file identifier within a state file:

```
[STATE_BEGIN Sun Java(tm) Enterprise System \
f31c7e86a64605bc5b9b629931a30b275a0eb447]
.
.
.
[STATE_DONE Sun Java(tm) Enterprise System \
f31c7e86a64605bc5b9b629931a30b275a0eb447]
```

▼ To Generate a State File ID Using Platform-Specific Distribution Files

This procedure generates a state file ID by using the Java ES distribution files for a specific platform. The Java ES distribution DVD contains all platform-specific distributions. This procedure also works if you download a single platform-specific distribution.

Note – The procedure works even if you are generating an ID for a platform different from the one on which you are running the command.

- Steps** 1. In the *platform/.install* directory, run this command:

```
java -classpath . -D"wizard.idInfo" class
```

where *platform* and *class* are listed in the following table:

Platform	<i>platform</i> Variable	<i>class</i> Variable
Solaris 8 SPARC	Solaris_sparc	EntsysInstall_SunOS_sparc_8
Solaris 9 SPARC	Solaris_sparc	EntsysInstall_SunOS_sparc_9
Solaris 10 SPARC	Solaris_sparc	EntsysInstall_SunOS_sparc_10
Solaris 9 x86	Solaris_x86	EntsysInstall_SunOS_x86_9
Solaris 10 x86	Solaris_x86	EntsysInstall_SunOS_x86_10
Linux x86	Linux_x86	EntsysInstall_Linux_x86_generic

The command generates an encrypted identifier.

2. Copy the identifier and paste the value into the state file, as the value for the `STATE_BEGIN` and `STATE_DONE` parameters.

The following is an example of the state file identifier within a state file:

```
[STATE_BEGIN Sun Java(tm) Enterprise System \  
f31c7e86a64605bc5b9b629931a30b275a0eb447]  
.  
.  
[STATE_DONE Sun Java(tm) Enterprise System \  
f31c7e86a64605bc5b9b629931a30b275a0eb447]
```

Running the Installer in Silent Mode

Run the installer on a host that has the same operating system as the host on which you generated the state file. If you cannot do this, refer to [“Creating a Platform-Appropriate State File ID”](#) on page 118.

If you have problems during installation, refer to [Chapter 9](#).

▼ To Run the Installer in Silent Mode

- Steps**
1. Open a terminal window on the host where you want to install the Java ES components.
 2. If you are not logged in as `root`, become superuser.
 3. Navigate to the directory where the installation program is located.

```
cd installer-directory
```

4. Start the installer with the following options:

```
./installer -nodisplay -noconsole -state statefile
```

where

`-nodisplay` Suppress the graphical display.

`-noconsole` Start the installer in silent mode, suppressing the user interface.

`-state` Use the specified state file as input to a silent installation.

<i>statefile</i>	Specify an absolute or relative pathname to a state file.
------------------	---

Silent installation can be lengthy, depending on the number and type of components that you are installing. While the installer is running, you can monitor its progress by examining changes to the installation log.

▼ To Monitor the Progress of a Silent Installation

Steps 1. **In a terminal window, change to the log file directory:**

On Solaris OS: `cd /var/sadm/install/logs`

On Linux: `cd /var/opt/sun/install/logs`

2. **Locate the log files for the current installation.**

The shared components are installed first and the components products follow.

The *timestamp* variable represents the time the log was created. The variable has the format *MMddhhmm*, where:

<i>MM</i>	Specifies the month
-----------	---------------------

<i>dd</i>	Specifies the date
-----------	--------------------

<i>hh</i>	Specifies the hour
-----------	--------------------

<i>mm</i>	Specifies the minute
-----------	----------------------

3. **Use the `tail` command to watch messages as they are written to the logs. Use this format:**

```
tail -f logfile-name
```

To exit the `tail` program, press Ctrl+C.

Next Steps

After you have completed the installer portion of your Java ES installation, proceed as follows:

- [“Verifying After Installation” on page 158](#) provides instructions for verifying that this phase of installation was successful.

- [Chapter 6](#) provides final instructions on postinstallation configuration. Although you might have done extensive configuration during your installation, most components require some additional configuration.

Configuring Components After Installation

When the Sun Java™ Enterprise System (Java ES) installer finishes installation, most components require additional configuration before the Java ES environment is operational. The extent of this work depends on the configuration type you selected (Configure Now or Configure Later), and whether or not your components will be configured with Sun Cluster software.

If you selected the Configure Later option during installation, the installer placed the component package files in their respective directories. No parameter setting was done, and most components are not operational because runtime services are not available. A number of components include configuration tools for completing a Configure Later installation. When running the configuration tools, you can make any additional changes by following the instructions located in this guide, and in the product documentation for each component.

This chapter contains the following sections:

- “How to Use This Chapter” on page 124
- “MANPATH Setup” on page 124
- “Sun Cluster Postinstallation Configuration” on page 126
- “Access Manager Postinstallation Configuration” on page 127
- “Administration Server Postinstallation Configuration” on page 130
- “Application Server Postinstallation Configuration” on page 131
- “Calendar Server Postinstallation Configuration” on page 134
- “Communications Express Postinstallation Configuration” on page 135
- “Directory Proxy Server Postinstallation Configuration” on page 136
- “Directory Server Postinstallation Configuration” on page 138
- “HADB Postinstallation Configuration” on page 139
- “Instant Messaging Postinstallation Configuration” on page 140
- “Message Queue Postinstallation Configuration” on page 141
- “Messaging Server Postinstallation Configuration” on page 141
- “Portal Server and Portal Server Secure Remote Access Postinstallation Configuration” on page 143
- “Service Registry Postinstallation Configuration” on page 147
- “Web Proxy Server Postinstallation Configuration” on page 148

- “Web Server Postinstallation Configuration” on page 148
- “Sun Cluster Data Services Configuration” on page 149
- “Configuring the Java Virtual Machine (JVM)” on page 153
- “Configuring Components With Non-root Identifiers” on page 153
- “Next Steps” on page 156

How to Use This Chapter

Before acting on the information in this chapter, you should have completed the installation of the Java ES components. You can use the `pkginfo` command or the `rpm` command to verify that the component packages have been installed. A list of packages associated with the components is contained in Chapter 5, “List of Installable Packages,” in *Sun Java Enterprise System 2005Q4 Installation Reference*. A summary report containing the configuration values that were set during installation is available here:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

After completing installation, look through the procedures included in this chapter for the components you installed. If you determine that no additional configuration is required for your components, you can start your components by following the instructions in [Chapter 7](#).

Note – The default installation locations of Java ES components might be different on the various platforms. Due to this, the procedures in this chapter use variables to represent these locations. For example, *ApplicationServer-base* represents the directory where Application Server is installed, regardless of platform.

MANPATH Setup

After installation, the man pages for the Java ES components are located in default directories. You need to add this location to your MANPATH environment variable.

The following table indicates the default locations for the man pages of the Java ES components. If a component is not listed, the component does not have man pages.

TABLE 6–1 Man Pages Default Locations

Component	Location of Man Pages
Administration Server	For Solaris OS: /opt/SUNWasvmn/man For Linux: /opt/sun/man
Application Server	For Solaris OS: /opt/SUNWappserver/share/man For Linux: /opt/sun/appserver/share/man
Common agent container	For Solaris OS: /opt/SUNWcacao/man For Linux: /opt/sun/man
Directory Server	For Solaris OS: /opt/SUNWdsvmn/man For Linux: /opt/sun/man
Sun Cluster	For Solaris OS: /usr/cluster/man/

▼ To Update Your MANPATH Variable

The following example procedure shows how to ensure that the Application Server man pages are available using the C shell.

Steps 1. Add the location of your Java ES component man pages to your MANPATH environment variable.

- On Solaris OS, the following example command sets your MANPATH environment variable for the session:

```
setenv MANPATH {$MANPATH}:/usr/dt/man:/usr/man:/opt/SUNWappserver/share/man
```

To configure this environment variable to apply each time you log in, add the `setenv` command contents to your `.login` or `.cshrc` file.

- On Linux, update the `/etc/man.config` file with the required MANPATH. For example, add this line to the `/etc/man.config` file:

```
MANPATH /opt/sun/man
```

The new man pages will be fully accessible, regardless of path.

Note – For Linux, if users have MANPATH settings in their own shells, the procedure for Solaris OS should be used. This allows their personal settings to override the `/etc/man.config` file.

2. Verify that the man pages are accessible.

For example, the following command should display the `asadmin` man page for Application Server:

```
man asadmin
```

Sun Cluster Postinstallation Configuration

Sun Cluster software provides a high availability platform for managing applications such as databases, application servers and web servers. Before you install or configure Sun Cluster software, ensure that the combination of hardware and software that you choose for your cluster is currently a supported Sun Cluster configuration.

Sun Cluster software can be used to manage the following Java ES components:

- Administration Server
- Application Server
- Application Server EE (HADB)
- Calendar Server
- Directory Server
- Instant Messaging
- Messaging Server
- Message Queue (requires no additional configuration)
- Web Server

If the Java ES components you installed will be included in a Sun Cluster environment, you must first configure the Sun Cluster framework before configuring the components. Then configure the Java ES components you have selected. Finally, depending on the components installed, you might need to configure Sun Cluster data services.

Phase I. Sun Cluster Framework

The Java ES installer performs a simple `pkgadd` installation of the core Sun Cluster packages and sets up the `/usr/cluster/bin` directory. No configuration is done during installation, so your first postinstallation task is to configure the cluster framework as described in the *Sun Cluster Software Installation Guide for Solaris OS*.

During this phase, the `scinstall` utility verifies the Sun Cluster packages. If packages are missing, an error message is displayed. If this happens, you must verify that the correct Sun Cluster packages were installed. Refer to Chapter 5, "List of Installable Packages," in *Sun Java Enterprise System 2005Q4 Installation Reference*.

Phase II. Component Data Services

After you have installed and configured the Sun Cluster framework and the other Java ES components, you are ready to configure the Sun Cluster data services using the Sun Cluster agents software.

Note – To configure Sun Cluster data services, you must have chosen the associated Sun Cluster agents during installation. To see an example Sun Cluster installation sequence, refer to [“Sun Cluster Software Example”](#) on page 58.

For guidelines on configuring the Sun Cluster data services, refer to [“Sun Cluster Data Services Configuration”](#) on page 149.

Access Manager Postinstallation Configuration

Whenever you use the Java ES installer to configure Access Manager on Web Server, you will need to perform the following steps:

1. Start the Web Server administration instance.
2. Log in as the Web Server administrator.
3. Select the Web Server instance on which Access Manager and Portal Server were installed.
4. Click Manage.
5. Click Apply and Apply Changes. This will commit the changes made by Access Manager and Portal Server, and restart the Web Server instance.

Note – For all Access Manager installations, the web container needs to be restarted. If a full installation is being performed on Web Server or Application Server, the installer will stop the web container instance so it need only be started. For instructions on restarting Access Manager, see [“Starting and Stopping Access Manager”](#) on page 161.

Access Manager configuration is described in the following sections:

- [“Configuring Access Manager After a Configure Now Installation”](#) on page 128
- [“Configuring Access Manager After a Configure Later Installation”](#) on page 130

Configuring Access Manager After a Configure Now Installation

Although you can start Access Manager and log into the Access Manager console immediately after running the Java ES installer, you cannot perform basic user management operations until you complete some final configuration steps. These steps differ depending on whether or not Access Manager is using a Directory Server instance that is already provisioned with user data.

The next sections explain what to do in the following cases:

- [“When Directory Server Is Provisioned With User Data” on page 128](#)
- [“When Directory Server Is Not Yet Provisioned With User Data” on page 128](#)

When Directory Server Is Provisioned With User Data

When Directory Server is already provisioned with user data, refer to *Configuring Access Manager With an Existing Directory Server* in the *Sun Java System Access Manager 6 2005Q1 Migration Guide* for a description of the final configuration steps.

When Directory Server Is Not Yet Provisioned With User Data

When Directory Server is not yet provisioned with user data, perform the steps in the following sections:

- [“Enabling the Directory Server Referential Integrity Plug-in” on page 128](#)
- [“Adding Access Manager Indexes to Directory Server” on page 129](#)



Caution – Before performing the tasks in this section, Directory Server must be configured and running. To verify that Directory Server, is running, refer to [“Starting and Stopping Directory Server” on page 168](#).

Enabling the Directory Server Referential Integrity Plug-in

When the Directory Server referential integrity plug-in is enabled, it performs integrity updates on specified attributes immediately after a delete or rename operation. This ensures that relationships between related entries are maintained throughout the database. If the Referential Integrity Plug-in is not already enabled, perform the following procedure.

▼ To Enable the Referential Integrity Plug-in

- Steps**
1. In Directory Server console, click Configuration.
 2. In the navigation tree, double-click Plug-ins to expand the list of Plug-ins.
 3. In the Plug-ins list, click Referential integrity postoperation.
 4. In the properties area, check the Enable plug-in box.
 5. Click Save.
 6. Restart Directory Server to enable the plug-in.

Adding Access Manager Indexes to Directory Server

Directory Server indexes improve the performance of searches of Directory Server data. The following table lists the recommended attributes that you should consider indexing for Access Manager (if they are not already indexed).

TABLE 6-2 Suggested Access Manager Indexes for Directory Server

Attribute	Index Type
nsroledn	Equality, Presence, and Substring
memberof	Equality and Presence
iplanet-am-static-group-dn	Equality
iplanet-am-modifiable-by	Equality
iplanet-am-user-federation-info-key	Equality
sunxmlkeyvalue	Equality and Substring
o	Equality
ou	Equality, Presence, and Substring
sunPreferredDomain	Equality, Presence, and Substring
associatedDomain	Equality, Presence, and Substring
sunOrganizationAlias	Equality, Presence, and Substring

Add indexes using either the Directory ServerConsole or the `ldapmodify` command-line utility. Use `ldapmodify` to load the `AccessManagerindex.ldif` file, which is available in the following directory:

- For Solaris OS: `/etc/opt/SUNWam/config/ldif`
- For Linux: `/etc/opt/sun/identity/config/ldif`

For more information about both the Console and `ldapmodify`, see Chapter 10 of the *Sun Java System Directory Server 5 2005Q1 Administration Guide*.

Configuring Access Manager After a Configure Later Installation

After a Configure Later installation, the packages are installed and you are ready to configure Access Manager using the Access Manager configuration script, `AccessManager-base/bin/amconfig`. Instructions for using this program are contained in the *Sun Java System Access Manager 7 2005Q4 Administration Guide*.

For instructions on configuring Access Manager for a third-party web container (BEA WebLogic or IBM WebSphere Application Server), refer to *Sun Java System Access Manager 7 2005Q4 Administration Guide*.

Note – For all Access Manager installations, the web container needs to be restarted. If a full installation is being performed on Web Server or Application Server, the installer will stop the web container instance so it need only be started. For instructions on restarting Access Manager, see [“Starting and Stopping Access Manager” on page 161](#).

Administration Server Postinstallation Configuration

After a Configure Now installation, Administration Server requires no additional configuration. If this component will be included in a Sun Cluster configuration, proceed to [“Sun Cluster Postinstallation Configuration” on page 126](#).

After a Configure Later installation, packages are installed and you are ready to begin Administration Server configuration using the following procedure. Additional configuration details can be found in the *Sun Java System Administration Server 5 2005Q1 Administration Guide*.

Note – Before configuring Administration Server, Directory Server must already be configured.

▼ To Configure Administration Server After a Configure Later Installation

Steps 1. **Start the configuration utility.**

For example, on Solaris OS:

```
/usr/sbin/mpsadmserver configure
```

Follow the instructions on each screen.

2. **Ensure that access permissions for the files under `server-root /alias` have been set to prevent access by all user accounts other than those of the servers installed there.**

3. **Verify the common server settings and the Administration Server settings.**

See the tables in “Administration Server Configuration Information” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

Note – If Administration Server was installed in the same installation session as Access Manager, most of the configuration was completed during installation.

4. **If needed, configure Administration Server for use with the Sun Cluster software.**

Refer to “Administration Server Data Service” on page 150.

Application Server Postinstallation Configuration

After a Configure Now installation, Application Server requires no postinstallation configuration unless you will be applying Web Server plug-in for load balancing.

Note – To configure Application Server for load balancing, refer to the “Configuring Web Servers for HTTP Load Balancing” section in the Chapter 4, “Configuring Load Balancing and Failover,” in *Sun Java System Application Server Enterprise Edition 8.1 2005Q2 High Availability Administration Guide*.

If needed, configure Application Server for use with the Sun Cluster software. Refer to “Sun Cluster Postinstallation Configuration” on page 126.

▼ To Configure Application Server After a Configure Later Installation

Steps 1. Locate the accessory CD for Application Server.

Accessory contents can also be downloaded from the Sun Download Center at <http://www.sun.com/download/index.jsp>.

2. Refer to the README file in the Addon folder on the CD and follow the procedures detailed there.

3. Modify the *ApplicationServer-base*/samples/common.properties file.

Modify the following properties in the `common.properties` file. If you do not know some paths, you can copy them from the *ApplicationServer-base* /`config/asenv.conf` file.

Solaris Properties

`com.sun.aas.pointbaseRoot=/opt/SUNWappserver/appserver/pointbase`

`com.sun.aas.webServicesLib=/opt/SUNWappserver/appserver/lib`

`com.sun.aas.imqHome=/var/opt/SUNWappserver/domains/domain1/imq`

`com.sun.aas.imqBinDir=/usr/bin`

`com.sun.aas.imqUserMgr=/usr/bin/imqusermgr`

`com.sun.aas.imqLib=/usr/share/lib`

`com.sun.aas.installRoot=/opt/SUNWappserver/appserver`

`com.sun.aas.javaRoot=/usr/jdk/entsys-j2se`

`com.sun.aas.domains.dir=/var/opt/SUNWappserver/domains`

`#admin.password=`

The admin password will not be saved as default. User can enter it and save it manually.

`admin.host=jws-v210-4`

`appserver.instance=server`

`appserver.instance.port=8080`

`admin.user=admin`

`admin.port=4849`

`pointbase.port=9092`

`domain.name=domain1`

Solaris Properties

server.cert.alias=slas

keystore=\${com.sun.aas.domains.dir}/\${domain.name}/config/keystore.jks

keystore.password=changeit

trustStore=\${com.sun.aas.domains.dir}/\${domain.name}/config/cacerts.jks

Linux Properties

admin.password=admin123

server.cert.alias=slas

keystore=\${com.sun.aas.domains.dir}/\${domain.name}/config/keystore.jks

domain.name=domain1

com.sun.aas.imqHome=/var/opt/sun/appserver/domains/domain1/imq

com.sun.aas.imqUserMgr=/opt/sun/mq/bin/imqusermgr

com.sun.aas.domains.dir=/var/opt/sun/appserver/domains

admin.user=admin

appserver.instance=server

com.sun.aas.imqBinDir=/opt/sun/mq/bin

trustStore=\${com.sun.aas.domains.dir}/\${domain.name}/config/cacerts.jks

com.sun.aas.imqLib=/opt/sun/mq/share/lib

keystore.password=changeit

com.sun.aas.pointbaseRoot=/opt/sun/appserver/pointbase

admin.port=4849

pointbase.port=9092

com.sun.aas.webServicesLib=/opt/sun/appserver/lib

admin.host=jws-linuxpc-2

com.sun.aas.javaRoot=/usr/jdk/entsys-j2se

com.sun.aas.installRoot=/opt/sun/appserver

appserver.instance.port=8080

4. If needed, configure Application Server for use with the Sun Cluster software.

Note – To configure Application Server for load balancing, refer to the “Configuring Web Servers for HTTP Load Balancing” section in the Chapter 4, “Configuring Load Balancing and Failover,” in *Sun Java System Application Server Enterprise Edition 8.1 2005Q2 High Availability Administration Guide*.

Calendar Server Postinstallation Configuration

Calendar Server cannot be configured by the Java ES installer (Configure Now).

After a Configure Later installation, use the following procedure to configure Calendar Server.

Note – Skip Step 1 if you have already run the Directory Preparation Tool on the same Directory Server during configuration of another communications component.

▼ To Configure Calendar Server After a Configure Later Installation

- Steps**
1. **Configure Directory Server for communications services (Calendar Server, Messaging Server and Delegated Administrator) by running the Directory Preparation Tool, `comm_dssetup.pl`.**
 - a. **Verify that Directory Server is running. Refer to “Starting and Stopping Directory Server” on page 168.**
 - b. **On the host where Directory Server is installed, run the Directory Preparation Tool:**

```
perl comm_dssetup.pl
```
 - c. **When prompted by the script, select Schema 2 Native Mode as the schema type unless you need to retain compatibility with previous versions of Calendar Server, Messaging Server, or custom applications.**

For more information about making the appropriate choice, see the *Sun Java System Communications Services 6 2005Q4 Schema Migration Guide*.

2. Verify that the second column in the `/etc/hosts` file contains the fully-qualified domain name (FQDN) rather than a simple host name. For example:

```
192.18.99.999 mycomputer.company.com mycomputer loghost
```
3. If you intend to use Delegated Administrator to provision users for Calendar Server, you must perform additional steps to configure Delegated Administrator. Instructions for configuring the utility and provisioning users are contained in the *Sun Java System Communications Services 6 2005Q4 Delegated Administrator Guide*.



Caution – This step only applies if your installation includes Access Manager and LDAP Schema 2, and if this step was not done during configuration of another communications component.

4. Configure Calendar Server by running the Calendar Server configuration program, `CalendarServer-base /cal/sbin/csconfigurator.sh`. For more information on configuring Calendar Server, refer to the *Sun Java System Calendar Server 6 2005Q4 Administration Guide*.
5. If needed, configure Calendar Server for use with the Sun Cluster software. Refer to “[Calendar Server Data Service](#)” on page 151.

Communications Express Postinstallation Configuration

Communications Express cannot be configured during installation (Configure Now).

After a Configure Later configuration installation, the packages are installed and you are ready to configure Communications Express.

▼ To Configure Communications Express After a Configure Later Installation

Note – Skip Step 1 if you have already run the Directory Preparation Tool on the same Directory Server during configuration of another communications component.

- Steps**
1. **Configure Directory Server for communications services (Calendar Server, Messaging Server and Delegated Administrator) by running the Directory Preparation Tool (`comm_dssetup.pl`).**

See [“Calendar Server Postinstallation Configuration”](#) on page 134

Tip – Before proceeding to Step 2, ensure that the components on which Communications Express is dependent are installed and running. For more information, see “Prerequisites for Configuring Communications Express” in the *Sun Java System Communications Express 6 2005Q4 Administration Guide*.

2. **Configure Communications Express using the configuration program, `CommunicationsExpress-base /sbin/config-uw`.**
Instructions are in Chapter 3, “Installing and Configuring Communications Express,” in *Sun Java System Communications Express 6 2005Q4 Administration Guide*.
3. **Complete the additional post configuration tasks needed for Communications Express.**
See Chapter 3, “Installing and Configuring Communications Express,” in *Sun Java System Communications Express 6 2005Q4 Administration Guide*.

Directory Proxy Server Postinstallation Configuration

After a Configure Now installation, no additional configuration is necessary.

After a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for Directory Proxy Server.

▼ To Configure Directory Proxy Server After a Configure Later Installation

- Steps** 1. **Configure the Directory Proxy Server instance using the `quickstart.tcl` script. For example:**

```
# cd /usr/sadm/mps/admin/v5.2/dps
# /usr/sadm/mps/admin/v5.2/bin/tcl8.2/tclsh quickstart.tcl

-cid cid_path -listen
port-number -password
password

-serverroot serverroot_path
-userID dn
```

The arguments of the `quickstart.tcl` script are as follows:

Argument	Description
-cid	Fully qualified path. Allows the script for verify that the following directory exists: <i>cid-path/bin/dps/install/script</i>
-serverroot	A fully qualified path to an installed and configured Administration Server. The script validates that the following files exist: <i>serverroot-path/admin-serv/config/adm.conf</i> <i>serverroot_path/admin-serv/config/jvm12.conf</i>
-listen	Directory Proxy Server port.
-userID	The UID of the Administration Server administrator.
-password	Password of the Administration Server administrator.

2. **Verify the common server settings.**

Refer to “Administration Server Configuration Information” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

3. **Update the common server settings for Directory Proxy Server.**

Refer to “Common Server Settings” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

4. **Verify the configuration.**

Refer to “Directory Proxy Server Configuration Information” in *Sun Java Enterprise System 2005Q4 Installation Reference*.

Directory Server Postinstallation Configuration

After a Configure Now installation, no additional configuration is necessary unless you need to configure Directory Server in 32-bit mode on a 64-bit Solaris SPARC platform. If this is the case, refer to Step 6 in the following Configure Later procedure.

Note – The Directory Server that is bundled with Solaris OS is not the same version as the current Java ES Directory Server component. After you have installed Directory Server, you should consider running the following command to set the default Directory Server to 5.2: `/usr/sbin/directorysoerver -d 5.2`

You will then be able to use the various Directory Server commands against the Java ES Directory Server 5.2. If you are planning to use the version that is bundled with the Solaris OS (Directory Server 5.1), this action is not required.

After a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for Directory Server. Directory Server.

▼ To Configure Directory Server After a Configure Later Installation

Steps 1. **Start the configuration utility. For example:**

```
directoryserver -u 5.2 configure
```

Follow the instructions on each screen.

Note – On Linux, two commands are available, but only one works correctly. Be sure to use `/opt/sun/sbin/directoryserver`.

2. **Update the system configuration to enable core file generation.**

For example:

```
coreadm -e proc-setid
```

Note – If you have installed Directory Server to run as a user other than superuser, Directory Server might not be able to generate a core file during a crash. It is important that you allot enough space for core files, and that you allow Directory Server to generate core files during a crash.

3. (Optional) Many command-line scripts written in Perl can read the bind password interactively (-w option). To enable this functionality, do the following:
 - a. Install the Term::ReadKey Perl module, available separately from CPAN (<http://cpan.org>).
 - b. Edit each Perl script to read the bind password interactively by uncommenting the appropriate lines.
All other Perl script functionality remains available without the Term::ReadKey module.
4. Verify the common server settings and update the settings as needed.
Refer to “Administration Server Configuration Information” in *Sun Java Enterprise System 2005Q4 Installation Reference*.
5. If needed, configure Directory Server for use with the Sun Cluster software.
Refer to “Directory Server Data Service” on page 151.
6. If needed, configure Directory Server in 32-bit mode on a 64-bit Solaris SPARC platform as follows:
 - a. Use the `pkgrm` command to remove the following 64-bit Directory Server packages:
SUNWdsvhx
SUNWdsvx
 - b. Edit the `/var/sadm/install/productregistry` file, removing references to the SUNWdsvhx and SUNWdsvx packages.
 - c. Configure Directory Server.

HADB Postinstallation Configuration

After a Configure Now installation, no additional configuration is necessary.

After a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for HADB.

Configuring HADB After a Configure Later Installation

Postinstallation configuration instructions for HADB and additional information can be found in the *Sun Java System Application Server Enterprise Edition 8.1 2005Q2 High Availability Administration Guide*.

If needed configure HADB for use with the Sun Cluster software. Refer to “Application Server EE (HADB) Data Service” on page 150.

Instant Messaging Postinstallation Configuration

Instant Messaging cannot be configured during installation (Configure Now).

After a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for Instant Messaging.

Configuring Instant Messaging After a Configure Later Installation

When you install the server, the multiplexor is also installed and enabled. If you want to support only a multiplexor on a host, you must disable the server installed on that host. For instructions, refer to the *Sun Java System Instant Messaging 7 2005Q1 Administration Guide*.

Instructions for using the Instant Messaging configure utility, *InstantMessaging-base/configure*, are contained in Chapter 1, Configuring Instant Messaging After Installation in the *Sun Java System Instant Messaging 7 2005Q1 Administration Guide*.

If needed configure Instant Messaging for use with the Sun Cluster software. Refer to “Instant Messaging Data Service” on page 151.

Message Queue Postinstallation Configuration

After installation, Message Queue requires no additional configuration.

If this component will be included in a Sun Cluster configuration, proceed to [“Sun Cluster Postinstallation Configuration”](#) on page 126.

A common *optional* task is to configure Message Queue for automatic startup. To do this, become superuser and edit the following properties in the `imqbrokerd.conf` configuration file (in `/etc/imq` on Solaris OS and in `/etc/opt/sun/mq` on Linux):

- `AUTOSTART`, which specifies (YES or NO) if the broker is automatically started at boot time. The default value is NO.
- `ARGS`, which specifies command line options and arguments to pass to the broker startup command. See the *Sun Java System Message Queue 3 2005Q4 Administration Guide* for a listing and description of `imqbrokerd` command line options. (For example `-name instancename`)
- `RESTART`, which specifies (YES or NO) if the broker is automatically restarted if it abnormally exits. The default value is YES.

Additional configuration for Message Queue is discussed in the *Sun Java System Message Queue 3 2005Q4 Administration Guide*. For example, you might want to change the default administration password.

Messaging Server Postinstallation Configuration

Messaging Server cannot be configured during installation (Configure Now).

After a Configure Later configuration installation, the packages are installed and you are ready to configure Messaging Server using the following procedure.

▼ To Configure Messaging Server After a Configure Later Installation

Note – Skip Step 1 if you have already run the Directory Preparation Tool on the same Directory Server during configuration of another communications component.

- Steps**
1. **Configure Directory Server for communications services (Calendar Server, Messaging Server and the Delegated Administrator) by running the Directory Preparation Tool, `comm_dssetup.pl`.**
See “Calendar Server Postinstallation Configuration” on page 134
 2. **Verify that the second column in the `/etc/hosts` file contains the fully-qualified domain name (FQDN) rather than a simple host name. For example:**

```
192.18.99.999 mycomputer.company.com mycomputer loghost
```
 3. **Configure Messaging Server by running the initial runtime configuration program for Messaging Server, `MessagingServer-base/sbin/configure`.**
For information on configuring Messaging Server, refer to the *Sun Java System Messaging Server 6 2005Q4 Administration Guide*.
 4. **If you intend to use Delegated Administrator to provision users for Messaging Server, you must perform additional steps to configure it.**
Instructions for configuring Delegated Administrator and provisioning users are contained in the *Sun Java System Communications Services 6 2005Q4 Delegated Administrator Guide*.



Caution – This step applies only if your installation includes Access Manager and LDAP Schema 2, and if this step was not done during configuration of another communications component.

5. **Configure for use with the Sun Cluster software, if applicable. Refer to “Messaging Server Data Service” on page 152.**

Portal Server and Portal Server Secure Remote Access Postinstallation Configuration

After a Configure Now or a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for Portal Server using the following procedures.

Configuring Portal Server and Portal Server Secure Remote Access After a Configure Now Installation

Final configuration steps for Portal Server and Portal Server Secure Remote Access differ depending on whether it is deployed in a Sun web container or a third-party web container. The following sections explain the details:

- [“Configuring Portal After a Configure Now Installation on a Sun Web Container” on page 143](#)
- [“Configuring Portal After a Configure Now Installation on a Third-Party Web Container” on page 143](#)

Configuring Portal After a Configure Now Installation on a Sun Web Container

If you are using Application Server or Web Server as the web container for Portal Server and Portal Server Secure Remote Access, you must apply changes to the instance. Follow the instructions in the *Sun Java System Portal Server 6 2005Q4 Administration Guide* and the *Sun Java System Portal Server 6 2005Q4 Release Notes*.

Configuring Portal After a Configure Now Installation on a Third-Party Web Container

If you are using BEA WebLogic Server or IBM WebSphere Application Server as the web container for Portal Server and Portal Server Secure Remote Access, use the following procedure.

▼ To Configure Portal on a Third-Party Web Container

Note – Deployment of Portal Server and Portal Server Secure Remote Access on third-party web containers is only supported on the Solaris OS.

Steps 1. **Stop all web container instances, including the admin instance and, in the case of BEA WebLogic Server, managed server instances.**

2. **Start the web container's admin server instance. If you have installed on a BEA WebLogic Server managed instance, start the managed instance too.**

3. **Deploy Portal Server and Portal Server Secure Remote Access by running the deploy command:**

```
cd PortalServer-base /bin ./deploy
```

When prompted, choose the default for the deploy URI and server instance name, and enter the web container admin password.

4. **Deploy the Portlet samples (that is, the `portletsamples.war` file):**

```
setenv DEPLOY_ADMIN_PASSWORD webcontainer-admin-password
```

```
setenv IDSAME_ADMIN_PASSWORD AccessManager-admin-password
```

```
cd PortalServer-base/lib
```

```
./postinstall_PortletSamples
```

When prompted, enter the web container admin password and the Access Manager admin password.

5. **Restart the web container instance into which Portal Server and Portal Server Secure Remote Access was deployed.**

See your web container documentation for instructions on starting the web container instance. Additional information can be found in the *Sun Java System Portal Server 6 2005Q4 Administration Guide* and the *Sun Java System Portal Server 6 2005Q4 Release Notes*, respectively.

Note – In the case of installation on a BEA WebLogic Server managed server, the WAR files do not get deployed. Deploy the WAR files using the BEA WebLogic Server administration console.

Configuring Portal Server and Portal Server Secure Remote Access After a Configure Later Installation

Final configuration steps for Portal Server differ depending on whether it is deployed in a Sun web container or a third-party web container. The following sections explain the details:

- “Configuring Portal Server After a Configure Later Installation on a Sun Web Container” on page 145
- “Configuring Portal Server After a Configure Later Installation on a Third-Party Web Container” on page 145

Note – Information on configuring Portal Server Secure Remote Access can be found in the *Sun Java System Portal Server 6 2005Q4 Secure Remote Access Administration Guide*.

Configuring Portal Server After a Configure Later Installation on a Sun Web Container

Portal Server provides a common configurator that can be used to configure all Portal Server subcomponents as well as Portal Server Secure Remote Access.

▼ To Configure Portal Server After a Configure Later Installation on Application Server or Web Server

- Steps**
1. **Create a runtime configuration for Portal Server by running the Portal Server configurator, `PortalServer-base/lib/psconfig`.**
Instructions for running the configurator as well as descriptions of the settings used by the configurator are contained in the *Sun Java System Portal Server 6 2005Q4 Administration Guide*.
 2. **Apply changes to the instance.**
Use the instructions in the “Post-Installation Tasks” section in the Postinstallation Configuration chapter of the *Sun Java System Portal Server 6 2005Q4 Administration Guide*.

Configuring Portal Server After a Configure Later Installation on a Third-Party Web Container

Portal Server provides a common configurator that can be used to configure all Portal Server subcomponents as well as Portal Server Secure Remote Access.

Note – Deployment of Portal Server and Portal Server Secure Remote Access on third-party web containers is only supported on the Solaris OS.

▼ To Configure Portal Server After a Configure Later Installation on BEA WebLogic Server or IBM WebSphere Application Server

- Steps**
- 1. Create a runtime configuration for Portal Server by running the Portal Server configurator, *PortalServer-base /lib/psconfig* .**

Instructions for running the configurator as well as descriptions of the settings used by the configurator are contained in the Postinstallation Configuration chapter of the *Sun Java System Portal Server 6 2005Q4 Administration Guide*.
 - 2. Stop all web container instances, including the admin instance and, in the case of BEA WebLogic Server, managed server instances.**
 - 3. Start the web container's admin server instance. If you have installed on a BEA WebLogic Server managed instance, start the managed instance too.**
 - 4. Deploy Portal Server by running the deploy command:**

```
cd PortalServer-base/bin
./deploy
```

When prompted, choose the default for the deploy URI and server instance name, and enter the web container admin password.
 - 5. Deploy the Portlet samples (that is, the *portletsamples.war* file):**

```
setenv DEPLOY_ADMIN_PASSWORD web-container-admin-password
setenv IDSAME_ADMIN_PASSWORD AccessManager-admin-password
cd PortalServer-base/lib ./postinstall_PortletSamples
```

When prompted, enter the web container admin password and the Access Manager admin password.
 - 6. Restart the web container instance into which Portal Server was deployed. See your web container documentation for instructions on starting the web container instance.**

Note – In the case of installation on a BEA WebLogic Server managed server, the WAR files do not get deployed. Deploy the WAR files using the BEA WebLogic Server administration console.

Service Registry Postinstallation Configuration

Service Registry cannot be configured during installation (Configure Now).

After a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for Service Registry using the following procedure.

▼ To Configure Service Registry After a Configure Later Installation Using Default Properties

Steps 1. **Change to the *ServiceRegistry-base* /install directory. For example:**

On Solaris OS:

```
cd /opt/SUNWsoar/install
```

On Linux:

```
cd /opt/sun/SUNWsoar/install
```

2. **Verify that the `JAVA_HOME` environment variable is set.**

The usual value is `/usr/jdk/entsys-j2se`.

3. **Run the following command to configure:**

- On Solaris OS: `/usr/sfw/bin/ant -f ./build-install.xml install`
- On Linux: `/opt/sun/bin/ant --noconfig -f ./build-install.xml install`

Note – To perform configuration using custom property settings, edit the `build-install.xml` file before you run the `install` target. For instructions, refer to the *Service Registry 3 2005Q4 Administration Guide*.

Web Proxy Server Postinstallation Configuration

After a Configure Now installation, no additional configuration is needed.

After a Configure Later configuration installation, the packages are installed and you are ready to configure Web Proxy Server using the following procedure.

▼ To Configure Web Proxy Server After a Configure Later Installation

Steps 1. **Create a properties file with your settings.**

For example, `wps.properties`:

```
WPS_JDK_HOME=/usr/jdk/entsys-j2se/jre WPS_SERVER_ROOT=
/opt/SUNWproxy WPS_ADMIN_NAME=admin WPS_ADMIN_PWD=admin123
WPS_ADMIN_PORT=8889 WPS_START_ON_BOOT=N WPS_ADMIN_SERVER_
USER=root WPS_SERVER_NAME=jws-v60x-4.red.ipplanet.com WPS_SERVER_
PORT=8081 WPS_SERVER_ID=proxy-server1 WPS_ADMIN_SERVER_
ID=proxy-admserv WPS_SERVER_USER=root
```

2. **After you have created the file, run the following command:**

```
WebProxyServer-base//bin/proxy/bin/configureServer -l logfile -f \
path /wps.properties
```

Web Server Postinstallation Configuration

After a Configure Now installation, no additional configuration is needed.

After a Configure Later configuration installation, the packages are installed and you are ready to configure Web Server using the following procedure.

If this component will be included in a Sun Cluster configuration, proceed to [“Sun Cluster Postinstallation Configuration”](#) on page 126.

▼ To Configure Web Server After a Configure Later Installation

- Steps**
1. **Create a runtime configuration for Web Server by running the Web Server configurator, *WebServer-base /setup/configure*.**
 2. **Verify the common server settings and update settings as needed.**
Refer to “Administration Server Configuration Information” in *Sun Java Enterprise System 2005Q4 Installation Reference* as described in the tables in “Web Server Configuration Information” in *Sun Java Enterprise System 2005Q4 Installation Reference*.
 3. **If needed, configure for use with the Sun Cluster software.**
Refer to “Web Server Data Service” on page 152.

Sun Cluster Data Services Configuration

After the cluster has been established and the components have been configured, you are ready to configure Sun Cluster data services for the various Java ES components. The installed Sun Cluster agents are software programs that enable applications to take advantage of clusters. Agent software and additional configuration files comprise data services that enable you to run an application (such as Web Server or an Oracle database) on a cluster instead of on a single server. Combined with the Sun Cluster framework software and multihost disks, data services enable applications to become highly available and scalable.

Note – You can deploy Access Manager and Portal Server in a highly available web container. However, they, like any web application deployed in a web container, are subject to failure. In this case, the web container will not fail over.

More information on data services can be found in the *Sun Cluster Overview for Solaris OS*.

The following sections list the Java ES components whose agents are provided in the Sun Cluster Agents component of the installer. For each component, the high availability service and the installation process are summarized, including the documentation needed. In any data service installation procedure referred to by the documentation, substitute the Java ES Sun Cluster Agents 3.1 8.05 Accessory CD-ROM.

Note – Until you have fully configured the data services and all the supporting layers (volume manager, cluster file system, resource group information), Sun Cluster installation for Java ES is not complete.

Administration Server Data Service

Administration Server can be configured for failover. Refer to *Sun Cluster Data Services Planning and Administration Guide for Solaris OS* for information on installing and configuring the Administration Server data service.

To install the necessary packages, run the Java ES installer on each node, installing the Administration Server and HA Sun Java System Directory Server subcomponent of the Sun Cluster Agents for Sun Java System component. Select the Configure Later option.

During configuration, use a location on the cluster file system as the Server Root.

Application Server Data Service

Application Server can be configured for failover. Use Chapter 1, “Sun Cluster HA for Sun Java System Application Server EE (Supporting HADB Versions as of 4.4),” in *Sun Cluster Data Service for Sun Java System Application Server EE (HADB) Guide for Solaris OS* as a guide to installation and configuration.

To install the necessary packages, run the Java ES installer on each node, installing Application Server and the HA Sun Java System Application Server (PE/SE) subcomponent of the Sun Cluster Agents for Sun Java System components. Select the Configure Later option.

When specifying installation directories, use the location on the node’s local file system for Application Server, and use locations on the cluster file system for AS Configuration and Product Location.

Application Server EE (HADB) Data Service

The Application Server HADB can be mastered for multiple nodes. Use *Sun Cluster Data Service for Sun Java System Application Server EE (HADB) Guide for Solaris OS* as a guide to installation and configuration.

To install the necessary packages, run the Java ES installer on each node, installing the HA Sun Java System HADB subcomponent of the Sun Cluster Agents component. Select the Configure Later option. When the database is created, the configuration and data files are created by default on the local file system of each cluster node. Store static files and data on the local file system of each cluster node.

Calendar Server Data Service

Calendar Server can be configured for failover. See Chapter 7, “Configuring for High Availability (Failover Service),” in *Sun Java System Calendar Server 6 2005Q4 Administration Guide* as a guide to installation and configuration.

To install the necessary packages:

- On the primary node, run the Java ES installer, installing Calendar Server and the HA Sun Java System Calendar Server subcomponent of the Sun Cluster Agents component. Select the Configure Later option. When specifying installation directories, use a location on the cluster file system for Calendar Server.
- On the secondary nodes, run the Java ES installer, installing the HA Sun Java System Calendar Server, selecting the Configure Later option.

Directory Server Data Service

Directory Server can be configured for failover. To install the necessary packages, run the Java ES installer on each node, installing Directory Server and the HA Sun Java System Directory Server subcomponent of the Sun Cluster Agents component. Select the Configure Later option.

When specifying installation directories, use a location on the cluster file system for Directory Server, Server Root.

Instant Messaging Data Service

Instant Messaging can be configured for failover. Refer to the *Sun Java System Instant Messaging 7 2005Q1 Administration Guide* for instructions on configuring high availability for Instant Messaging.

Message Queue Data Service

Message Queue can be configured for failover. Use *Sun Cluster Data Service for Sun Java System Message Queue Guide for Solaris OS* as a guide to installation and configuration.

To install the necessary packages, run the Java ES installer on each node, installing Message Queue and the HA Sun Java System Message Queue subcomponent of the Sun Cluster Agents component. Select the Configure Later option.

During configuration, use a location on each node’s local file system for static files and data, and use a location on the cluster file system for dynamic data.

Messaging Server Data Service

Messaging Server can be configured for failover. Use Chapter 3, “Configuring High Availability,” in *Sun Java System Messaging Server 6 2005Q4 Administration Guide* as a guide to installation and configuration.

To install the necessary packages, run the Java ES installer on each node, installing Messaging Server and the HA Sun Java System Messaging Server subcomponent of the Sun Cluster Agents component. Select the Configure Later option.

When specifying installation directories, use a location on the cluster file system for Messaging Server. During configuration, place the configuration and data on the cluster file system.

Web Server Data Service

Web Server can be configured for failover or scalability. The following sections have information related to each option.

Web Server Data Service for Failover

Use *Sun Cluster Data Service for Sun Java System Web Server Guide for Solaris OS* as a guide to installation and configuration.

To install the necessary packages:

- On the primary node, run the Java ES installer, installing Web Server and the HA/Scalable Sun Java System Web Server subcomponent of the Sun Cluster Agents component.
- On each secondary node, run the Java ES installer, installing the HA/Scalable Sun Java System Web Server subcomponent of the Sun Cluster Agents component.

Web Server Data Service for Scalability

Use *Sun Cluster Data Service for Sun Java System Web Server Guide for Solaris OS* as a guide to installation and configuration.

To install the necessary packages, run the Java ES installer on each node, installing Web Server and the HA/Scalable Sun Java System Web Server subcomponent of the Sun Cluster Agents component. Select the Configure Later option.

Data Services for Other Products

If your installation plan calls for high availability of some other product, acquire the agent that supports the product, then install and configure the agent following the instructions in the appropriate Sun Cluster data service guide. One way to get agents for other products is from the Java ES accessory CD.

- Data service guides for the Solaris SPARC platform are available here:
<http://docs.sun.com/coll/1124.4>
- Data service guides for the Solaris x86 platform are available here:
<http://docs.sun.com/coll/1125.4>

Configuring the Java Virtual Machine (JVM)

After you have finished the required post-installation configuration for your Java ES components, some components might require that you tune the Java Virtual Machine (JVM). The JVM consists of several entities, the most significant being the compiler, which turns Java byte code into machine instructions. In the version of the Java Developer's Kit (JDK) that is included with this Java ES release, there are several choices which can be made for the JVM. The best starting option is the `-server` option. (You can obtain the list of options by using the `java -?` command.) The `-server` option is a good tuning option for a JVM running in server mode.

For garbage collection, the default algorithm is a good place to start.

Another significant tuning option that might need to be configured is the Java heap memory. For example:

- The following command sets the initial Java heap size: `-Xmssize`
- The following command sets the maximum Java heap size: `-Xmxsize`

A good starting point for a heavily used system would be to set the maximum heap size to 1.2 GB.

Configuring Components With Non-root Identifiers

When performing configuration after installation, you can assign a non-root runtime user or group to some component products. For example, you might be deploying Access Manager in an instance of Web Server that is not owned by root.

For purposes of installation to administration, there are many reasons to configure a component with a non-root identifier. You can find examples of using a non-root identifier in “Non-Root Examples” on page 82.

The following sections provide information on configuring the applicable components with non-root identifiers.

Note – You must be root to run the Java ES installer. Because of this, all files placed on the machine by the installer are owned by root.

Configuring Administration Server With Non-root ID

To configure Administration Server with a non-root ID, use the `mpsadmserver configure` command. See the *Sun Java System Administration Server 5 2005Q1 Administration Guide* for more details.

- If you are running the Administration Server as non-root, consider using the same user and group IDs for both the Administration Server as well as the products that are dependant upon it.
- If Directory Server has already been installed, the Administration Server will automatically be owned by the same user and group IDs as applied to the Directory Server.

Configuring Application Server With Non-root ID

To configure Application Server with a non-root ID, you can set up an entire administrative domain owned and operated by a non-root user.

1. Log in to the host using a non-root user ID.
2. Run the `asadmin create-domain` command with the `--domaindir` option, pointing to the directory where you have write permissions. For example:

```
/opt/SUNWappserver/appserver/bin ./asadmin create-domain
--domaindir /export/domains --adminport 5050 --adminuser admin
--passwordfile /tmp/passwordfile --instanceport 9090 domain2
```

In this example `domain2` directory will be created under `/export/domains`
3. Start this domain using the `--domaindir` option again. For example:

```
/opt/SUNWappserver/appserver/bin ./asadmin start-domain
--domaindir /export/domains --user admin --passwordfile
/tmp/passwordfile domain2
```

For more information, see the *Sun Java System Application Server Enterprise Edition 8.1 2005Q2 Administration Guide*.

Configuring Calendar Server With Non-root ID

To configure Calendar Server with a non-root ID, use the Calendar Server configurator. See the *Sun Java System Calendar Server 6 2005Q4 Administration Guide* for details.

Configuring Directory Proxy Server With Non-root ID

To configure Directory Proxy Server with a non-root ID, become superuser and run the `quickstart.tcl` script. This script adopts the user ID specified for the Administration Server so, when Administration Server uses a non-root user ID, Directory Proxy Server will as well.

Configuring Directory Server With Non-root ID

Use the Directory Server configurator to configure Directory Server with a non-root ID. Install the Directory Server packages using the Configure Later option. After running the installer, set the default Directory Server version to 5.2. Run the Directory Server configurator and specify a non-root user ID. Select a port number greater than 1024.

Configuring Messaging Server With Non-root ID

To configure Messaging Server with a non-root ID, use the Messaging Server configurator. See the *Sun Java System Messaging Server 6 2005Q4 Administration Guide* for details.

Configuring Portal Server With Non-root ID

To configure Portal Server with a non-root ID, use the Portal Server configurator. Instructions for running the configurator as well as descriptions of the settings used are contained in the Postinstallation Configuration chapter of the *Sun Java System Portal Server 6 2005Q4 Administration Guide*.

Configuring Web Server With Non-root ID

To configure Web Server with a non-root ID, use the Web Server configurator. See [“Web Server Postinstallation Configuration”](#) on page 148.

Next Steps

After you have completed the configuration tasks in this chapter, verify postinstallation configuration by starting the components as described in [“Verifying After Post-Installation Configuration”](#) on page 160.

Verifying Installed Components

This chapter provides instructions for verifying that the Sun Java™ Enterprise System (Java ES) components have been installed and configured successfully. The procedures here do not address more complex interactions among components that might occur after configuring such functionality as single sign-on.

This chapter includes the following sections:

- “Verifying After Installation” on page 158
- “Verifying After Post-Installation Configuration” on page 160
- “Starting and Stopping Access Manager” on page 161
- “Starting and Stopping Administration Server and the Server Console” on page 162
- “Starting and Stopping Application Server” on page 164
- “Starting and Stopping Calendar Server” on page 165
- “Starting and Stopping Communications Express” on page 167
- “Starting and Stopping Directory Proxy Server” on page 167
- “Starting and Stopping Directory Server” on page 168
- “Starting and Stopping Instant Messaging Server and Multiplexor” on page 169
- “Starting Message Queue” on page 170
- “Starting and Stopping Messaging Server” on page 171
- “Starting the Web Container to Access Portal Server Desktop” on page 172
- “Starting and Stopping Portal Server Secure Remote Access” on page 174
- “Starting and Stopping Service Registry” on page 175
- “Stopping and Rebooting Sun Cluster Software” on page 176
- “Starting and Stopping Web Server” on page 176
- “Starting and Stopping Web Proxy Server” on page 178
- “Next Steps” on page 179

The default installation locations of Java ES components are different on the Solaris OS and the Linux operating system. Due to this difference, the procedures in this chapter use placeholders to represent these locations. For example, *AccessManager-base* represents the base installation directory for Access Manager.

Tip – In most cases, the examples in this chapter are based on default information. If you do not remember the installation or configuration values specified for your component, try the example.

Verifying After Installation

This section provides instructions for verifying that installation of the Java ES component packages was successful. If you performed a Configure Now installation, some of the components are configured and ready to run. However, the purpose of the guidelines in this section is simply to verify that the packages are installed correctly, with no partial packages or missing components.

A good way to verify that packages were installed successfully is to examine the product registry. After installation, the Java ES installer updated the product registry to contain the components that were installed. During uninstallation, this same file is read by the Java ES uninstaller to determine which components are present and can be uninstalled.

Looking at the installation logs is also helpful, as is checking a few of the components to see if the correct version is contained in the appropriate directory.

Finally, you can try to start components that were part of a Configure Now installation, such as Web Server or Directory Server.

Use some or all of the following steps to verify installation.

▼ To Verify That Installation Succeeded

Steps 1. **Verify that no partial packages were installed. On Solaris OS:**

```
pkginfo -p
```

2. **Verify that the correct version of a component is present.**

To see the correct versions for this release, refer to [Appendix A](#). For example, the J2SE version for Solaris should be 1.5.0_03.

```
cd /usr/jdk
ls -l
```

3. **Verify that the installed components are reflected in the product registry.**

a. **On Solaris, use the prodreg tool to view installed packages:**

```
prodreg &
```

- b. Expand the Java Enterprise System Node to view the packages installed by the Java ES installer.
- c. You can also use the following command to view the `productregistry` file directly.

```
view /var/sadm/install/productregistry
```

To exit, press the Esc key, then `:q`.

4. Review the configuration data you provided during installation by opening the summary log:

```
cd /var/sadm/install/logs
view Java_Enterprise_System_Summary_Report_install.*
```

5. For a Configure Now installation, start Portal Server and its related services.

- a. Start Directory Server:

```
/var/opt/mps/serverroot/slaped-hostname/start-slaped
```

- b. Start Web Server:

```
/opt/SUNWwbsvr/https-hostname.domainname/start
```

Starting Web Server automatically starts Portal Server and Access Manager.

- c. Access the Web Server URL:

```
http://hostname
```

- d. Access the administration URL for Web Server:

```
http://hostname:8888
```

6. For a Configure Now installation, stop Portal Server and its related services.

- a. Stop the Web Server administration server:

```
/opt/SUNWwbsvr/https-admserv/stop
```

- b. Stop Web Server:

```
/opt/SUNWwbsvr/https-hostname.domainname/stop
```

- c. Stop Directory Server:

```
/var/opt/mps/serverroot/slaped-hostname/stop-slaped
```

7. For a Configure Now installation, start Portal Server and Access Manager services

```
/var/opt/mps/serverroot/slaped-hostname/start-slaped
/opt/SUNWwbsvr/https-hostname/domainname/start
```

8. For a Configure Now installation, access the Access Manager console

For login, User ID is amadmin, password is password.

`http://hostname/amconsole`

9. For a Configure Now installation, access Portal Server:

For login, User ID is amadmin, password is password.

`http://hostname/portal`

10. If errors occur, restart Web Server and repeat the steps.

Verifying After Post-Installation Configuration

This section provides guidelines for verifying that the Java ES components are working after you have finished post-installation configuration.

To start Java ES, you start the components one after another, in a specific sequence. You start with the basic services provided by Directory Server and your web container (Web Server or an application server). Java ES creates runnable instances of these services during installation. Because Portal Server and Access Manager run inside the web container, they start when you start the web container.

The general sequence for bringing up the entire Java ES component set is shown in the following table. The left column lists the order in which you should perform the startup, the middle column describes the task, and the right column lists the location of the instructions for performing the task.

TABLE 7-1 Preferred Startup Sequence for Java ES

Order	Task	Location of Instructions
1	Start your directory server.	
	A. Start Directory Server.	“Starting and Stopping Directory Server” on page 168
	B. Start Administration Server.	“Starting and Stopping Administration Server and the Server Console” on page 162
	C. Start Server Console.	“Starting and Stopping Administration Server and the Server Console” on page 162

TABLE 7-1 Preferred Startup Sequence for Java ES (Continued)

Order	Task	Location of Instructions
2	Start Directory Proxy Server.	"Starting and Stopping Directory Proxy Server" on page 167
3	Start your chosen web container. If installed, Access Manager and Portal Server are started. If installed and configured, Communications Express is also started.	
	Start Application Server (also starts Message Queue).	"Starting and Stopping Application Server" on page 164
	Start Web Server.	"Starting and Stopping Web Server" on page 176
	Start IBM WebSphere Server.	See the third-party documentation for the server.
	Start BEA WebLogic Server.	See the third-party documentation for the server.
4	Start Access Manager	"Starting and Stopping Access Manager" on page 161
5	Start Portal Server Secure Remote Access.	"Starting and Stopping Portal Server Secure Remote Access" on page 174
6	Start Service Registry	"Starting and Stopping Service Registry" on page 175
7	Start Instant Messaging.	"Starting and Stopping Instant Messaging Server and Multiplexor" on page 169
8	Start Messaging Server.	"Starting and Stopping Messaging Server" on page 171
9	Start Calendar Server.	"Starting and Stopping Calendar Server" on page 165

To shut down the entire Java ES component set, reverse the sequence.

Starting and Stopping Access Manager

To start and stop Access Manager, start and stop the web container in which it is running.

▼ To Access the Access Manager Login Page

Accessing the login page depends on the type of installation you did for Access Manager:

- Legacy type (6.x):

`http://webcontainer-host/:port/amconsole`

or

`http://webcontainer-host/:port/amserver`

- Realm type (7.x):

`http://webcontainer-host/:port/amserver`

- Steps**
1. Use the following URL format to access the default page:

`http://web_container-host:port/amconsole`

The Access Manager login page appears.

2. Log in.

A successful login to Access Manager confirms successful deployment of the software. The default administrator account is `amadmin`.

Starting and Stopping Administration Server and the Server Console

Included here are instructions for starting and stopping Administration Server and the Server Console. For more information, see “Starting and Stopping Administration Server” in the *Sun Java System Administration Server 5 2005Q1 Administration Guide*. Administration Server depends on Directory Server.

▼ To Start Administration Server

- Steps**
1. Enter the following:

On Solaris OS: `/var/opt/mps/serverroot/start-admin`

On non-Solaris OS: Change to the server root directory and enter `./start-admin`

2. **Verify that the Administration Server processes are running. For example, on Solaris OS:**

```
/usr/bin/ps -ef | grep admin-serv/config  
  
./uxwdog -e -d /var/opt/mps/serverroot/admin-serv/config  
ns-httpd -d /var/opt/mps/serverroot/admin-serv/config ns-httpd -d  
/var/opt/mps/serverroot/admin-serv/config ns-httpd -d  
/var/opt/mps/serverroot/admin-serv/config ns-httpd -d  
/var/opt/mps/serverroot/admin-serv/config
```

▼ To Start Server Console

- Steps**
1. **If necessary, configure the `$DISPLAY` variable to display the Server Console on your host.**
 2. **Verify that the Administration Server processes are running. For example, on Solaris OS:**

```
/usr/bin/ps -ef | grep admin-serv/config  
  
./uxwdog -e -d /var/opt/mps/serverroot/admin-serv  
/config ns-httpd -d /var/opt/mps/serverroot/admin-serv  
/config ns-httpd -d /var/opt/mps/serverroot/admin-serv/config  
ns-httpd -d /var/opt/mps/serverroot/admin-serv/config  
ns-httpd -d /var/opt/mps/serverroot/admin-serv/config
```

3. **Enter the following:**

On Solaris OS: `/usr/sbin/mpsadmserver startconsole`

On non-Solaris OS: Change to the server root directory and enter `startconsole`

4. **Verify that the Server Console process is running. For example, on Solaris OS:**

```
/usr/bin/ps -ef | grep console  
  
orion 4871 4812 0 17:46:03 pts/2 0:00 /bin/sh/usr/sbin/mpsconsole  
orion 4990 4871 0 17:46:04 pts/2 0:00 /var/opt/mps/serverroot/startconsole  
orion 4812 4418 0 17:46:02 pts/2 0:00 /bin/sh/usr/sbin/mpsadmserver startconsole
```

▼ To Stop Server Console

- Steps**
1. **To stop Server Console, exit the graphical interface.**
 2. **Verify that Server Console is no longer running. For example:**

```
/usr/bin/ps -ef | grep console
```

▼ To Stop Administration Server

Steps 1. Enter the following:

On Solaris OS: `var/opt/mps/serverroot/stop-admin`

On non-Solaris OS: Change to the server root directory and enter `./stop-admin`

2. Verify that Administration Server is no longer running. For example:

```
/usr/bin/ps -ef | grep admin-serv/config
```

Starting and Stopping Application Server

Application Server is configured as a *domain*. The installer creates the default administrative domain with the default port number 4849. The Admin Server instance name is "server." To use Application Server, start the domain and access the graphical Admin console. More information can be found in the Chapter 2, "Getting Started," in *Sun Java System Application Server Enterprise Edition 8.1 2005Q2 Administration Guide*.

Note – Starting Application Server also starts Message Queue.

▼ To Start the Application Server Domain

Steps 1. On the command line, change to *ApplicationServer-base/bin* and enter:

```
% asadmin start-domain --user admin-id --passwordfile \  
path_to_admin-password_file domainname
```

Enter the values that you provided during installation. A message is displayed telling you that the server is starting:

```
Starting Domain domain1, please wait. Log redirected to install_dir...
```

When the startup process has completed, an additional message is displayed:

```
Domain domain1 started
```

2. Verify that the Application Server processes are running. For example, on Solaris OS:

```
/usr/bin/ps -ef | grep appserv
```

```
/opt/SUNWappserver/appserver/lib/appservDAS domain1
```

▼ To Access the Admin Console

- Step** ● **To access the Admin Console, use the following URL format in your browser:**
`https://localhost:port`

If the browser is running on the host on which the Application Server was installed, specify *localhost* for the host name. Replace *localhost* with the name of the system that the Application Server software is running on if the browser is on another system. Replace the *port* variable with the Admin port number assigned during installation. The default port number assigned during installation is 4849. For example:

```
https://mycomputer.example.com:4849
```

You should see the Admin Console Login screen.

Note – More information on installing the Application Server, the Domain Administration Server, and its various port numbers and concepts can be found in the *Sun Java System Application Server Enterprise Edition 8.1 2005Q2 Installation Guide*.

▼ To Stop Application Server

- Steps**
1. **On the command line, change to *ApplicationServer-base/bin*.**
 2. **Enter the following command to stop the Application Server instances.**

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

3. **Verify that Application Server is no longer running. For example:**

```
/usr/bin/ps -ef | grep appservd
```

Starting and Stopping Calendar Server

Calendar Server depends on Directory Server.

▼ To Start Calendar Server

Steps 1. **Change to the `sbin` directory.**

On Solaris OS: `/opt/SUNWics5/cal/sbin`
On Linux: `/opt/sun/calendar/cal/sbin`

2. **Enter the following command to start Calendar Server.**

```
./start-cal
```

3. **Verify that the Calendar Server processes are running. For example, on Solaris OS:**

```
/usr/bin/ps -ef | grep cal  
  
/opt/SUNWics5/cal/lib/cshttpd -d 3  
/opt/SUNWics5/cal/lib/enpd -p 57997 -c config/ics.conf  
/opt/SUNWics5/cal/lib/csadmin  
/opt/SUNWics5/cal/lib/csnotifyd
```

▼ To Access the Calendar Server Graphical Interface

- Step** ● **If you are already provisioned in the LDAP directory that Calendar Server points to, you can log into Calendar Server. In your browser, use the `http://hostname.domainname[:port]` format to access Calendar Server. For example:**

```
http://mycomputer.example.com:89
```

At initial login, Calendar Server creates a default calendar for you. Your login to Calendar Server confirms successful installation.

▼ To Stop Calendar Server

Steps 1. **Change to the `sbin` directory.**

On Solaris OS: `/opt/SUNWics5/cal/sbin`
On Linux: `/opt/sun/calendar/cal/sbin`

2. **Enter the following command to stop Calendar Server.**

```
./stop-cal
```

3. **Verify that Calendar Server is no longer running. For example:**

```
/usr/bin/ps -ef | grep cal
```

Starting and Stopping Communications Express

Communications Express is a web-based communications client that comprises an address book, a mail client and a calendar. It is accessed by typing the following URL into the address field of a web browser:

```
http://webcontainer-host:  
webcontainer-port/URI path
```

where

- *webcontainer-host* is the host name of the web container instance in which the Communications Express application is configured.
- *webcontainer-port* is port number of the web container instance in which the Communications Express is configured.
- URI path is the URI where Communications Express is deployed.

Starting and Stopping Directory Proxy Server

For all UNIX-type systems, log in as root if the server runs on ports less than 1024. On ports greater than 1024, log in either as root or using the administrator account for the server. Directory Proxy Server depends on Administration Server.

▼ To Start Directory Proxy Server

- Steps**
1. **Change to *DirectoryProxyServer-base/dps-instancename* where *instancename* is usually the host name. For example, the default is:**

```
cd /var/opt/mps/serverroot/dps-host1
```

2. **Enter the following command to start the Directory Proxy Server process.**

```
./start-dps
```

3. **Verify that the Directory Proxy Server process is running. For example, on Solaris OS:**

```
/usr/bin/ps -ef | grep dps  
./ldapfwd -t /var/opt/mps/serverroot/dps-or03/etc/tailor.txt
```

▼ To Stop Directory Proxy Server

- Steps**
1. **Change to *DirectoryProxyServer-base* /*dps*-*instancename* where *instancename* is usually the host name. For example, the default is:**

```
cd /var/opt/mps/serverroot/dps-host1
```

2. **Enter the following command to stop the Directory Proxy Server process.**

```
./stop-dps
```

3. **Verify that Directory Proxy Server is no longer running. For example:**

```
/usr/bin/ps -ef | grep dps
```

Starting and Stopping Directory Server

If Directory Server is part of a cluster, ensure that you are working on the active node for the logical host. Directory Server has no dependencies.

▼ To Start Directory Server

- Steps**
1. **Start Directory Server using one of the following commands:**

- If Directory Server 5.2 is the default version:

On Solaris OS: `/usr/sbin/directoryserver start`

On Linux: `/opt/sun/sbin/directoryserver start`

- If Directory Server 5.2 is *not* the default version:

On Solaris OS: `/usr/sbin/directoryserver -useversion 5.2 start`

On Linux: `/opt/sun/sbin/directoryserver -useversion 5.2 start`

2. **Verify that the Directory Server process is running. For example, on Solaris OS:**

```
/usr/bin/ps -ef | grep slapd
```

```
./ns-slapd -D /var/opt/mps/serverroot/slapd-host1 -i /var/opt/mps/ \  
serverroot/slapd-host1
```


▼ To Stop Directory Server

Steps 1. **Stop Directory Server using one of the following commands:**

- If Directory Server 5.2 is the default version:

On Solaris OS: `/usr/sbin/directoryserver stop`
On Linux: `/opt/sun/sbin/directoryserver stop`

- If Directory Server 5.2 is *not* the default version:

On Solaris OS: `/usr/sbin/directoryserver -useversion 5.2 stop`
On Linux: `/opt/sun/sbin/directoryserver -useversion 5.2 stop`

2. **Verify that Directory Server is no longer running. For example:**

```
/usr/bin/ps -ef | grep slapd
```

Starting and Stopping Instant Messaging Server and Multiplexor

Starting the Instant Messaging server enables Sun Java System Instant Messenger clients to connect to it. Stopping the Instant Messaging server closes all connections and disconnects all clients. The configuration of a given instance specifies whether only the multiplexor, only the server or both these components are enabled. Instant Messaging depends on Directory Server and Web Server.

Note – For information on starting the Instant Messaging client (and the server on the Windows operating system), refer to the *Sun Java System Instant Messaging 7 2005Q1 Administration Guide*.

▼ To Start Instant Messaging Server and Multiplexor

Steps 1. **Change to the *InstantMessaging-base/sbin/* directory. For example:**

On Solaris OS: `cd /opt/SUNWiim/sbin`
On Linux: `cd /opt/sun/im/sbin`

2. **Enter the following command to start the Instant Messaging Server and Multiplexor process:**

```
./imadmin start
```

3. Verify that the Instant Messaging processes are running:

```
./imadmin status

Server          [UP}
Multiplexor     [UP]
Agent:calendar  [DOWN]
Watchdog        [UP]
```

▼ To Stop Instant Messaging

Steps 1. **Change to the *InstantMessaging-base/sbin/* directory. For example:**

```
On Solaris OS: cd /opt/SUNWiim/sbin
On Linux: cd /opt/sun/im/sbin
```

2. Enter the following command to stop the Instant Messaging Server and Multiplexor process:

```
./imadmin stop
```

3. Verify that the Instant Messaging processes are not running:

```
./imadmin check
```

Starting Message Queue

The heart of the Message Queue service is the Message Server. The Message Server performs message routing and delivery services using one or more brokers. The `imqbrokerd` command starts a broker.

▼ To Start Message Queue Message Server Broker

Steps 1. **Change to the *MessageQueue-base/bin* directory.**

2. Enter the following command to start the Message Queue Message Server broker:

```
./imqbrokerd
```

3. Verify that the broker process is running. For example:

```
On Solaris OS: /usr/bin/ps -ef | grep imqbrokerd
/bin/sh /usr/bin/imqbrokerd
```

```
On Linux: /bin/ps -ef | grep imqbrokerd
/bin/sh ./imqbrokerd
```

Starting and Stopping Messaging Server

The Messaging Server `start-msg` utility starts all of the messaging server processes, or optionally, one specified service. The services started can be controlled by enabling or disabling the configuration parameters. Messaging Server depends on Directory Server and Administration Server.

▼ To Start Messaging Server

Steps 1. Change to the *MessagingServer-base/sbin* directory.

2. Enter the following command to start the Messaging Server:

```
./start-msg
```

3. Verify that the Messaging Server processes are running.

Notice that the list of processes varies according to the Messaging Server features you have configured to use.

```
/usr/bin/ps -ef | grep SUNWmsgsr
/opt/SUNWmsgsr/lib/enpd
/opt/SUNWmsgsr/lib/stored -d
/opt/SUNWmsgsr/lib/popd -d 5
/opt/SUNWmsgsr/lib/imapd -d 5 -D 6
/opt/SUNWmsgsr/lib/mshttpd -d 5 -D 6
/opt/SUNWmsgsr/lib/dispatcher
/opt/SUNWmsgsr/lib/job_controller
/opt/SUNWmsgsr/lib/tcp_lmtp_server
/opt/SUNWmsgsr/lib/tcp_smtp_server
/opt/SUNWmsgsr/lib/tcp_smtp_server
/opt/SUNWmsgsr/lib/imsched
/opt/SUNWmsgsr/lib/watcher
```

▼ To Stop Messaging Server

Steps 1. Change to the *MessagingServer-base/sbin* directory.

2. Enter the following command to stop the Messaging Server:

```
./stop-msg
```

3. Verify that the Messaging Server processes are not running. For example.

```
/usr/bin/ps -ef | grep SUNWmsgsr
```

Some Messaging Server processes might take several minutes to stop because they wait for their current transactions to complete.

▼ To Access Messenger Express

Messenger Express is a web-based electronic mail program that enables end users to access their mailboxes using a browser.

- Steps**
1. If you are already provisioned in the LDAP directory to which Messaging Server points, you can log in using your browser. Use the `http://hostname.domainname[:port]` format to access Messenger Express. For example:
`http://mycomputer.example.com:80`
 2. If the LDAP directory is not yet provisioned, you can login as `admin`, specifying the password you entered during configuration.

Starting the Web Container to Access Portal Server Desktop

The Portal Server startup and shutdown mechanisms are part of the startup and shutdown mechanisms for the web container on which it runs (Sun Java Systems or third-party). It also depends on Directory Server, Access Manager and the Access Manager SDK. See the following sections to start your Sun web container, Access Manager, and Portal Server after installation and configuration:

- [“Starting and Stopping Application Server” on page 164](#)
- [“Starting and Stopping Web Server” on page 176](#)

Portal Server administration is managed using the Access Manager Administration Console. See [“Starting and Stopping Access Manager” on page 161](#) to open the Access Manager Administration Console.

The following procedures pertain to accessing the end-user Portal Server Desktop.

▼ To Access the Portal Server Desktop from a Sun Web Container

Steps 1. In a browser window, use the following URL to display the sample Desktop:

`http://servername:port/portal`

Display of the sample Desktop confirms successful deployment of Portal Server.

2. For a mobile device, use the following URL:

`http://servername:port/portal/dt`

▼ To Access the Portal Server Desktop from BEA WebLogic

Step ● In a new browser, use the following URL to display the sample Desktop:

`http://beaweblogic-host:port/portal`

Display of the sample Desktop confirms successful deployment of Portal Server on BEA WebLogic.

▼ To Access the Portal Server Desktop from IBM WebSphere

Step ● In a new browser, use the following URL to display the sample Desktop:

`http://ibmwebsphere-hostname:port/portal`

Display of the sample Desktop confirms successful deployment of Portal Server on IBM WebSphere.

Starting and Stopping Portal Server Secure Remote Access

The Secure Remote Access components of Portal Server offers browser-based secure remote access to portal content and services from any remote device with a Java technology-enabled browser. The Gateway component presents the content securely from internal web servers and application servers through a single interface to a remote user. Portal Server Secure Remote Access depends on Portal Server and Access Manager or the Access Manager SDK.

▼ To Start Portal Server Secure Remote Access Gateway

- Steps**
1. After installing the Gateway component and creating the required profile, run the following command to start the Gateway:

```
/gateway-install-root/SUNWps/bin/gateway -n default start
```

`default` is the default gateway profile created during installation. You can create your own profiles later, and restart the Gateway with the new profile.

2. Run the following command to check if the Gateway is running on the specified port:

```
netstat -a | grep port-number
```

The default Gateway port is 443.

▼ To Stop Portal Server Secure Remote Access Gateway

- Steps**
1. Use the following command to stop the Gateway:

```
/gateway-install-root/SUNWps/bin/gateway stop
```

This command stops all the Gateway instances that are running on that particular host.

2. Run the following command to check that the Gateway processes are no longer running:

```
/usr/bin/ps -ef | entsys
```

Starting and Stopping Service Registry

Service Registry installation creates an Application Server domain in the following location:

- On Solaris OS: `/var/opt/SUNWsoar/domains/registry`
- Linux: `/var/opt/sun/SUNWsoar/domains/registry`

The administrative domain has port number 6489. Service Registry is automatically deployed as a web application in the registry domain.

▼ To Start Service Registry

Steps 1. **Change to the Service Registry install directory.**

On Solaris OS: `cd /opt/SUNWsoar/install`

On Linux: `cd /opt/sun/SUNWsoar/install`

2. **Run the following command:**

On Solaris OS: `/usr/sfw/bin/ant -f ./build-install.xml
appserver.domain.start`

On Linux: `/opt/sun/bin/ant --noconfig -f ./build-install.xml
appserver.domain.start`

Next Steps A message is displayed telling you that the server is starting. When the startup process has completed, an additional message is displayed.

▼ To Access the Admin Console

Steps 1. **To access the Admin Console for the Service Registry domain, use the following URL format in your browser:**

`https://hostname:port`

2. **Specify your local host as *hostname* if you are running your web browser on the same system where the Application Server and Service Registry are installed.**

Otherwise, instead of specifying your local host as *hostname*, use the name of the system that the Application Server software is running on.

The default port number assigned during installation is 6489. For example:

`https://mycomputer.example.com:6489`

Next Steps You should see the Admin Console Login screen. The default login name and password are as follows:
Login: admin
Password: 12345678

▼ To Stop Service Registry

- Steps**
- 1. Change to the Service Registry install directory.**
On Solaris OS: `cd /opt/SUNWsoar/install`

Linux: `cd /opt/sun/SUNWsoar/install`
 - 2. Run the following command:**
On Solaris OS: `/usr/sfw/bin/ant -f ./build-install.xml appserver.domain.stop`

On Linux: `/opt/sun/bin/ant --noconfig -f ./build-install.xml appserver.domain.stop`
 - 3. If you want to stop the domain and then start it again immediately, use the Ant target `appserver.domain.bounce`.**

Stopping and Rebooting Sun Cluster Software

Although Sun Cluster software is not started and stopped like other components, the software can be stopped by rebooting into noncluster mode. For instructions, refer to the *Sun Cluster System Administration Guide for Solaris OS*.

Starting and Stopping Web Server

When you install Web Server, two server instances are installed by default: an Administration Server instance and a Web Server instance. Web Server has no dependencies.

▼ To Start Web Server Administration Server and Instance

- Steps**
1. On the command line, change to *WebServer-base/https-admserv*.
 2. Enter the following command to start the Web Server administration process.

```
./start
```

3. Change to *WebServer-base/https- hostname.domainname*.

4. Enter the following command to start the Web Server instance.

```
./start
```

You should receive the following message: startup: Server started successfully.

5. Verify that the Web Server processes are running. For example, on Solaris OS:

```
/usr/bin/ps -ef | grep SUNWwbsvr
```

```
./webservd-wdog -r /opt/SUNWwbsvr -d /opt/SUNWwbsvr/https-admserv/config -n http
./webservd-wdog -r /opt/SUNWwbsvr -d /opt/SUNWwbsvr/https-host1.example.com
webservd -r /opt/SUNWwbsvr -d /opt/SUNWwbsvr/https-admserv/config -n https-admserv
webservd -r /opt/SUNWwbsvr -d /opt/SUNWwbsvr/https-admserv/config -n https-admserv
webservd -r /opt/SUNWwbsvr -d /opt/SUNWwbsvr/https-host1.example.com/config
webservd -r /opt/SUNWwbsvr -d /opt/SUNWwbsvr/https-host1.example.com/config
```

6. Access the Administration Server graphical interface.

In the browser, enter the `http://hostname.domainname:adminport` format. For example:

```
http://host1.example.com:8888
```

Your login confirms successful installation.

▼ To Stop Web Server Administration Server and Instance

- Steps**
1. On the command line, change to *WebServer-base/https-admserv*.
 2. Enter the following command to stop the Web Server administration process.

```
./stop
```

3. Change to *WebServer-base/https- hostname.domainname*.

4. Enter the following command to stop the Web Server instance.

```
./stop
```

5. Verify that the Web Server processes are no longer running. For example:

```
ps -ef | grep SUNWwbsvr
```

Starting and Stopping Web Proxy Server

Instructions for starting and stopping Web Proxy Server are contained in this section.

▼ To Start Web Proxy Server Admin Server and Instance

When you install Web ServerAdministration Server instance and a Web Proxy Server instance.

- Steps**
1. On the command line, start the Admin Server by changing to *WebProxyServer-base/proxy-admserv*:
 - Solaris OS: `/opt/SUNWproxy/proxy-admin start`
 - Linux: `/opt/sun/webproxyserver/proxy-admin start`
 2. On the command line, start the Web Proxy Server instance by changing to the *WebProxyServer-base/proxy-hostname.domainname* :
 - Solaris OS: `/opt/SUNWproxy/proxy-server1 start`
 - Linux: `/opt/sun/webproxyserver/proxy-server1 start`

▼ To Access the Administration Server Graphical Interface

- Step**
- Use the `http://hostname.domainname:adminport` format to access the Administration Server graphical interface. For example:

```
http://host1/example.com:8888
```

Your login confirms successful installation.

▼ To Stop Web Proxy Server

- Steps**
1. On the command line, stop the Admin Server by changing to *WebProxyServer-base/proxy-admserv*:

- Solaris OS: `/opt/SUNWproxy/proxy-admin stop`
 - Linux: `/opt/sun/webproxyserver/proxy-admin stop`
2. **On the command line, stop the Web Proxy Server instance by changing to the *WebProxyServer-base/proxy-hostname.domain* :**
- Solaris OS: `/opt/SUNWproxy/proxy-server1 stop`
 - Linux: `/opt/sun/webproxyserver/proxy-server1 stop`

Next Steps

If you have completed this chapter, you have verified that the Java ES components that you installed and configured are functional. You can now begin administering the components. The following documentation can help you get started:

- Java ES component documentation:
<http://docs.sun.com/prod/entsys.05Q4>
- *Sun Cluster System Administration Guide for Solaris OS*
- *Sun Cluster Data Services Planning and Administration Guide for Solaris OS*

Uninstalling Components

This chapter provides instructions for uninstalling Sun Java™ Enterprise System (Java ES) components that have been installed using the Java ES installer.

This chapter includes the following sections:

- “How the Uninstaller Works” on page 181
- “Uninstallation Prerequisites” on page 183
- “Planning for Uninstallation” on page 184
- “Running the Uninstaller” on page 201
- “Uninstalling Sun Cluster Software” on page 208
- “Post-uninstallation Tasks” on page 208

How the Uninstaller Works

Java ES provides an uninstallation program for removing components that were installed on your system using the Java ES installer. Like the Java ES installer, the uninstaller can be run in graphical, text-based, or silent mode.

During installation, the Java ES installer places the Java ES uninstaller at the following location:

- Solaris OS: `/var/sadm/prod/SUNWentsys4`
- Linux: `/var/sadm/prod/sun-entsys4`

Note – You can use the optional `-no` parameter to run the uninstaller without uninstalling any software. This option is useful for familiarizing yourself with the uninstaller and for creating a state file for a subsequent silent uninstallation.

Limitations of the Uninstaller

Like the Java ES installer, the uninstaller can be run in graphical, text-based, or silent mode.

- The uninstaller only removes components that were installed by the Java ES installer. To remove components that were not installed by the Java ES installer, follow instructions in the component documentation.
- The uninstaller must be run separately on each host that contains Java ES components. Remote uninstallation is not supported. For each host, you can select one or more components for removal.
- The uninstaller does not remove Java ES shared components.
- The uninstaller might remove configuration and user data files. The files vary for each component.

After the uninstallation process is completed, you might have to remove some additional files and directories. For product-by-product information, refer to [“Reviewing Uninstallation Behavior for Java ES Components” on page 186](#).

- The uninstaller checks component dependencies only for the system on which the uninstaller is running, issuing warnings when a dependency is discovered.
- The uninstaller does not unconfigure installations on third-party web containers.
- The uninstaller does not unconfigure Access Manager SDK installations on any web container. You must reconfigure the web container manually (for example, restore the original classpath).



Caution – Do not use the uninstaller to remove Sun Cluster software unless Sun Cluster software was installed but never used to configure a cluster node. For more information, see [“Uninstalling Sun Cluster Software” on page 208](#)

Handling Interdependencies

The uninstaller might behave differently depending on which components you installed and how they are interrelated.

- The uninstaller recognizes dependencies among products that are installed on the same host. If you attempt to uninstall a component that has dependent products installed on the host, the uninstaller issues a warning.

For example, if you attempt to uninstall Access Manager from the host where Portal Server is also installed, the uninstaller warns you that Portal Server cannot function without Access Manager.

- In most cases, you can uninstall a component if no other component depends on it. For example, Portal Server depends on Access Manager but Access Manager does not depend on Portal Server. If you attempt to uninstall Portal Server, the uninstaller does not issue a warning because Access Manager can function without Portal Server.



Caution – When uninstalling a component, you must identify which products are configured for that component (some additional configuration might be required). Otherwise, you could have components on your system that are configured to support products that are no longer present.

The uninstaller does not recognize the following interdependencies:

- Dependencies from remote hosts
- Dependencies resulting from configuration

Component Dependencies from Remote Hosts

Some component dependencies can be satisfied with components deployed on remote hosts. The uninstaller does not recognize these dependency relationships.

For example, if you uninstall Directory Server, the uninstaller does not warn you that Access Manager depends on Directory Server, even if both products are deployed on the same host. This is because another Directory Server instance on yet another host *could* support Access Manager.

Component Dependencies Resulting from Configuration

The uninstaller does not recognize a component dependency that is the result of postinstallation configuration.

For example, suppose you install both Portal Server and Calendar Server on the same host, and then configure Portal Server to use Calendar Server for the Portal Server calendar channel. After this configuration, Portal Server depends on Calendar Server. However, if you then uninstall Calendar Server, the uninstaller does not warn you that Portal Server depends on Calendar Server because the uninstaller does not know about the postinstallation configuration.

Uninstallation Prerequisites

The following table lists the tasks that you should perform before uninstallation. Some of the tasks might not apply to your particular situation.

The left column lists the order in which you should perform the tasks and the right column contains other useful information and the location of instructions.

TABLE 8-1 Pre-uninstallation Checklist

Task Description	Instructions or Helpful Information
1. Review the needs and behaviors of each component you are going to uninstall.	“Reviewing Uninstallation Behavior for Java ES Components” on page 186
2. Identify component dependencies that result from configuration and take appropriate measures, such as backing up data, unconfiguring the dependent component from the supporting component, or uninstalling the components in the proper order.	“Handling Interdependencies” on page 182
3. Make a copy of the product registry file. The backup copy is helpful in recovering from a failed uninstallation.	On Solaris OS: /var/sadm/install/productregistry On Linux: /var/opt/sun/install/productregistry
4. Back up or archive configuration or user data for components you are uninstalling if you plan to reuse this data in subsequent installations.	“Reviewing Uninstallation Behavior for Java ES Components” on page 186
5. Make sure the Directory Server instance that hosts the configuration directory is running. Note: In most cases, the web container and Directory Server should be running, while the other servers should be shut down before uninstalling.	This Directory Server instance must be running so the uninstaller can unconfigure the components you are uninstalling.
6. If necessary, gather administrator access information for Administration Server, Directory Server, and Access Manager.	“Granting Administrator Access for the Uninstaller” on page 199
7. If uninstalling Access Manager, remove the schema before uninstallation.	Use the following LDIF file to remove the schema: /etc/opt/SUNWam/config/ds_remote_schema_uninstall.ldif
8. Before uninstalling Messaging Server that has been installed on its own system, unconfigure Administration Server.	To unconfigure Administration Server: cd /usr/sbin/mpsadmserver unconfigure

Planning for Uninstallation

Before using the uninstaller, you should survey your installation and plan the steps you might have to take to prevent loss of data or loss of interdependency connections. It is important to understand how the various Java ES components behave when they are uninstalled.

This section contains the following subsections:

- “Surveying Installed Java ES Software” on page 185
- “Reviewing Uninstallation Behavior for Java ES Components” on page 186
- “Granting Administrator Access for the Uninstaller” on page 199

Surveying Installed Java ES Software

Perform one of the following procedures to review the Java ES component software that is already installed on each host.

▼ To Use the Uninstaller for Viewing Installed Software

- Steps**
1. **As root, navigate to the directory where the uninstaller is located:**
 - Solaris OS: `/var/sadm/prod/SUNWentsys4`
 - Linux: `/var/sadm/prod/sun-entsys4`
 2. **To survey the local system, run the uninstaller without uninstalling software.**
 For graphical mode:

```
./uninstall -no
```

 For text-based mode:

```
./uninstall -no -nodisplay
```

 To see the full syntax for the `uninstall` command, refer to [“Uninstall Command” on page 243](#).
 3. **Proceed through the uninstaller pages until you reach the list of installed products.**
 4. **After viewing the list of installed components, exit the uninstaller.**
 No software has been uninstalled.

▼ To Use the Solaris prodreg Utility to View Installed Software

- Step**
- **You can use the `prodreg` utility to view information about all packages installed on your system, including Java ES components.**
 This information is useful when checking for component dependencies. The `prodreg` utility also indicates packages that are incomplete and might need special handling. On the Solaris 10, and Solaris 9 operating systems and some versions of the Solaris 8 operating system, run the utility as follows:

```
prodreg
```

For more information, see the `prodreg` man page.

Reviewing Uninstallation Behavior for Java ES Components

Review the relevant tables in this section to see what the uninstaller does with Java ES components. Plan the steps you might have to take to prevent loss of data or loss of interdependency connections.

This section contains the following subsections:

- “Access Manager Uninstallation Behavior” on page 186
- “Administration Server Uninstallation Behavior” on page 187
- “Application Server Uninstallation Behavior” on page 188
- “Calendar Server Uninstallation Behavior” on page 189
- “Communications Express Uninstallation Behavior” on page 190
- “Delegated Administrator Uninstallation Behavior” on page 191
- “Directory Server Uninstallation Behavior” on page 192
- “Directory Proxy Server Uninstallation Behavior” on page 193
- “Instant Messaging Uninstallation Behavior” on page 193
- “Messaging Server Uninstallation Behavior” on page 194
- “Message Queue Uninstallation Behavior” on page 194
- “Portal Server Uninstallation Behavior” on page 195
- “Portal Server Secure Remote Access Uninstallation Behavior” on page 196
- “Service Registry Uninstallation Behavior” on page 197
- “Sun Cluster Uninstallation Behavior” on page 198
- “Web Server Uninstallation Behavior” on page 198
- “Web Proxy Server Uninstallation Behavior” on page 199

Access Manager Uninstallation Behavior

TABLE 8-2 Access Manager Uninstallation Details

Topic	Details
Configuration Data	No entries in Directory Server will be removed (including Access Manager specific data).
Dependencies	Directory Server Web container

TABLE 8-2 Access Manager Uninstallation Details (Continued)

Topic	Details
Products Requiring this Installation	<ul style="list-style-type: none"> ■ Portal Server (must reside on the same host as Access Manager SDK) ■ Calendar Server, when configured for single sign-on (SSO) ■ Instant Messaging, when configured for Portal Server, SSO ■ Messaging Server, when configured for SSO ■ Communications Express, when configured for SSO and when Schema 2 is used
Pre-Uninstallation Tasks	Remove the schema using <code>/etc/opt/SUNWam/config/ds_remote_schema_uninstall.ldif.</code>
Post-Uninstallation Tasks	<p>Uninstallation unconfigures Access Manager from the web container for full installations on Web Server or Application Server only. It does not unconfigure Access Manager from third-party web containers. It also does not unconfigure SDK installations on any web container (such as, Web Server, Application Server, BEA WebLogic, IBM WebSphere).</p> <p>Additionally, remove the following files located in the directory <code>/var/sadm/install</code> if they exist:</p> <p><code>.lockfile.pkg.lock</code></p>

Administration Server Uninstallation Behavior

TABLE 8-3 Administration Server Uninstallation Details

Topic	Details
Configuration Data	<ul style="list-style-type: none"> ■ Proxy information for managing other servers is lost upon uninstallation. ■ Configuration data used by Administration Server to manage other servers remains within the Configuration Directory Server. This information can be reused upon a subsequent installation of Administration Server.
Dependencies	Directory Server
Products Requiring this Installation	<p>Directory Proxy Server and Messaging Server require Administration Server. Directory Server can be configured to require Administration Server.</p> <p>Note: If you remove Administration Server and not Directory Server, then Directory Server must be managed using other utilities that come with Directory Server. Refer to Directory Server documentation at http://docs.sun.com/coll/DirectoryServer_05Q4 for more information.</p>

TABLE 8-3 Administration Server Uninstallation Details (Continued)

Topic	Details
Tasks Before Uninstallation	Make sure the Configuration Directory Server is running, and that you can provide the administrator user ID and password.
Post-Uninstallation	None

Application Server Uninstallation Behavior

TABLE 8-4 Application Server Uninstallation Details

Topic	Details
Configuration Data and User Data	<ul style="list-style-type: none"> ■ The default domain created during installation is removed during uninstallation. ■ Configured administrative domains, including all administrative server and Application Server instances, are not removed during uninstallation. ■ All Administration Server and Application Server instances are stopped prior to the completion of uninstallation.
Dependencies	Requires Message Queue on the same system.
Products Requiring this Installation	<ul style="list-style-type: none"> ■ Access Manager (if configured for Application Server) ■ Portal Server (if configured for Application Server) ■ Communications Express (if configured for Application Server)
Pre-Uninstallation Tasks	To preserve configuration data, make a copy of the administration domain directories.
Post-Uninstallation	<p>To completely remove Application Server from your system, remove any remaining Application Server log files and directories. Default locations for Application Server directories are:</p> <p>Solaris OS:</p> <pre>/var/opt/SUNWappserver /opt/SUNWappserver</pre> <p>Linux:</p> <pre>/var/opt/sun/appserver /opt/sun/appserver</pre> <p>Refer to “Message Queue Uninstallation Behavior” on page 194 for information on Message Queue post-uninstallation tasks.</p>

Calendar Server Uninstallation Behavior

TABLE 8-5 Calendar Server Uninstallation Details

Topic	Details
Configuration Data and User Data	<p>Configuration data and user data are not removed during uninstallation, and will be overwritten upon subsequent installation.</p> <p>Customizations to Calendar Server are removed during uninstallation.</p>
Dependencies	<ul style="list-style-type: none">■ Directory Server■ Access Manager, when configured for single sign-on (SSO) or if you want to use Schema 2■ Messaging Server (or some other mail server, for Calendar Server email notification service)
Products Requiring this Installation	<ul style="list-style-type: none">■ Portal Server (when configured to use Calendar Server for the Portal Server's calendar channel)■ Communications Express
Pre-Uninstallation Tasks	<p>If you plan to reuse configuration data and user data, follow the migration process as described in the <i>Sun Java System Calendar Server 6 2005Q4 Administration Guide</i>.</p>
Post-Uninstallation Tasks	<p>Remove any remaining log files and Calendar Server directories that are not needed.</p>

Communications Express Uninstallation Behavior

TABLE 8-6 Communications Express Uninstallation Details

Topic	Details
Configuration Data and User Data	<p>All configuration data, user data and UI customizations remain after uninstallation.</p> <p>Communications Express files are maintained in two locations:</p> <p>Package Installation by default:</p> <p>Solaris OS: <code>/opt/SUNWuwc</code></p> <p>Linux: <code>/opt/sun/uwc</code></p> <p>Application Deployment created by default during configuration:</p> <p>Solaris OS: <code>/var/opt/SUNWuwc</code></p> <p>Linux: <code>/var/opt/sun/uwc</code></p> <p>When you uninstall Communications Express, the uninstaller removes the data from only the package installation location. The data at application deployment location is still present. You can access the application from application deployment location.</p> <p>However, all configuration data and UI customizations will be overwritten during re-configuration. User data remains after re-configuration.</p>
Dependencies	<ul style="list-style-type: none"> ■ Application Server (if configured to run under Application Server) ■ Web Server (if configured to run under Web Server) ■ Access Manager (when configured for SSO) ■ Directory Server ■ Calendar Server ■ Messaging Server
Products Requiring this Installation	None
Pre-Uninstallation Tasks	Unconfigure Communications Express. Refer to the “Unconfiguring Communications Express” section in the <i>Sun Java System Communications Express 6 2005Q4 Administration Guide</i> .
Post-Uninstallation Tasks	Remove any remaining log files and Communications Express directories that are not needed.

Delegated Administrator Uninstallation Behavior

TABLE 8-7 Delegated Administrator Uninstallation Details

Topic	Details
Configuration Data	<p>Configuration data and user data are not removed during uninstallation. This data will be overwritten upon a subsequent installation.</p> <p>Customizations to Delegated Administrator are removed during uninstallation.</p>
Dependencies	<ul style="list-style-type: none">■ Directory Server■ Access Manager■ One of these web containers: Web Server or Application Server
Products Requiring this Installation	None
Pre-Uninstallation Tasks	If you plan to reuse configuration data and user data, read “Preserve an Existing Configuration” in <i>Sun Java System Communications Services 6 2005Q4 Delegated Administrator Guide</i> .
Post-Uninstallation Tasks	Remove any remaining log files and Delegated Administrator directories that are not needed.

Directory Server Uninstallation Behavior

TABLE 8-8 Directory Server Uninstallation Details

Topic	Details
Configuration Data and User Data	<p>If you are uninstalling the Directory Server instance hosting the configuration directory, the configuration directory information is removed during uninstallation. If you are uninstalling the Directory Server instance hosting user data, the Directory Server LDAP database is removed during uninstallation.</p> <p>Caution: To avoid loss of data, make sure to back up Directory Server information before uninstalling. Directory Server has several tools and utilities to backup Directory Server and migrate configuration data. Refer to Directory Server documentation at http://docs.sun.com/coll/DirectoryServer_05Q4 for more information.</p> <p>Caution: You do not receive a warning before proceeding with uninstallation of your configuration directory (containing configuration information under the <code>o=NetscapeRoot</code> suffix). If you uninstall a centralized configuration directory that other directories rely on for configuration information, you cannot subsequently administer those directories.</p>
Dependencies	None
Products Requiring this Installation	<ul style="list-style-type: none">■ Administration Server■ Calendar Server■ Directory Proxy Server■ Access Manager■ Instant Messaging■ Messaging Server■ Portal Server■ Communications Express
Pre-Uninstallation Tasks	<ul style="list-style-type: none">■ Back up the configuration directory for Directory Server and the Directory Server LDAP database as needed.■ Make sure the Directory Server instance hosting the configuration directory is running, and that you can provide the administrator user ID and password.
Post-Uninstallation Tasks	Uninstallation of Directory Server might require manual removal of remaining files and directories.

Directory Proxy Server Uninstallation Behavior

TABLE 8-9 Directory Proxy Server Uninstallation Details

Topic	Details
Configuration Data	<ul style="list-style-type: none">■ Configuration data for the instance of Directory Proxy Server you are uninstalling is removed during uninstallation.■ Shared configuration data between several instances of Directory Proxy Server remains after uninstallation.■ Directory Proxy Server has no user data.
Dependencies	Directory Proxy Server has a logical dependency upon the local or remote Directory Server that acts as Configuration Directory Server. Directory Proxy Server depends upon a local Administration Server.
Products Requiring this Installation	None
Pre-Uninstallation Tasks	None
Post-Uninstallation Tasks	None

Instant Messaging Uninstallation Behavior

TABLE 8-10 Instant Messaging Uninstallation Details

Topic	Details
Configuration Data and User Data	All configuration data remains after uninstallation, and can be reused upon a subsequent installation.
Dependencies	<ul style="list-style-type: none">■ Directory Server■ Access Manager SDK
Products Requiring this Installation	Portal Server, when configured to use Instant Messaging channel
Pre-Uninstallation Tasks	None
Post-Uninstallation Tasks	None

Messaging Server Uninstallation Behavior

TABLE 8–11 Messaging Server Uninstallation Details

Topic	Details
Configuration Data and User Data	All configuration data and customizations remain after uninstallation, and can be reused upon subsequent installation.
Dependencies	<ul style="list-style-type: none">■ Directory Server■ Administration Server (must reside on same host)■ Web Server (for mailing functionality such as filters)■ Access Manager (if using Schema 2)
Products Requiring this Installation	<ul style="list-style-type: none">■ Calendar Server■ Portal Server, when configured with messaging channels■ Communications Express, when messaging is used
Pre-Uninstallation Tasks	None
Post-Uninstallation Tasks	Depending on your circumstances, you might have to perform post-uninstallation tasks as explained in “Messaging Server Post-uninstallation” on page 210

Message Queue Uninstallation Behavior

TABLE 8–12 Message Queue Uninstallation Details

Topic	Details
Configuration Data	Instance-specific configuration data, user repository and access control file remains after uninstallation, and can be reused upon subsequent reinstallation.
Dependencies	Directory Server (optional)
Products Requiring this Installation	Application Server (must reside on same host as Message Queue)

TABLE 8–12 Message Queue Uninstallation Details (Continued)

Topic	Details
Pre-Uninstallation Tasks	<ul style="list-style-type: none"> ■ Stop any running brokers. You will be prompted for user name (admin) and password: <code>imqcmd shutdown bkr [-b hostName:port]</code> ■ If you are not planning to reinstall Message Queue and therefore want to delete dynamic data, the flat-file user repository, and the access control file associated with each broker instance, remove this data using the following command. <code>imqbrokerd -name instanceName -remove instance</code> ■ If you upgrade Message Queue using the Message Queue upgrade script, make a note of your process. The upgrade script does not write install information to the Java ES registry. More information may be found in the <i>Sun Java Enterprise System 2005Q4 Upgrade Guide</i>.
Post-Uninstallation Tasks	<p>If you are not planning to reinstall Message Queue, use the commands in the component documentation to clean up your system. Message Queue documentation is available here: http://docs.sun.com/coll/MessageQueue_35_SP1</p>

Portal Server Uninstallation Behavior

TABLE 8–13 Portal Server Uninstallation Details

Topic	Details
Configuration Data and User Data	<ul style="list-style-type: none"> ■ Configuration data is removed during uninstallation. Unconfiguring includes removing services created in Access Manager by Portal Server. ■ Providers for user channels are not removed during installation and can be reused upon subsequent installation. ■ Customized configuration data (display profiles, property files, resources strings, and other customizations) is not removed by the uninstaller. It can be reused upon subsequent installation only if Portal Server is reinstalled to the same host with the same configuration.

TABLE 8-13 Portal Server Uninstallation Details (Continued)

Topic	Details
Dependencies	<ul style="list-style-type: none"> ■ Directory Server ■ Application Server or Web Server (Can also be configured to be dependent on IBM WebSphere or BEA WebLogic.) ■ Access Manager <p>If configured to use Portal Server channels:</p> <ul style="list-style-type: none"> ■ Calendar Server ■ Messaging Server ■ Instant Messaging
Products Requiring this Installation	None
Pre-Uninstallation Tasks	None
Post-Uninstallation Tasks	<ul style="list-style-type: none"> ■ If you are running Portal Server within Web Server and you choose to remove Portal Server only, you must restart Access Manager. For more information, refer to “Access Manager Post-uninstallation Issues” on page 209 ■ If Portal Server is deployed to the IBM WebSphere web container, there might be additional uninstallation tasks.

Portal Server Secure Remote Access Uninstallation Behavior

TABLE 8-14 Portal Server Secure Remote Access Details for Uninstallation

Topic	Details
Configuration Data	<ul style="list-style-type: none"> ■ All configuration data for the Portal Server Secure Remote Access Core component is removed during uninstallation. ■ All web applications that have been deployed are undeployed. ■ Users do not have configuration data access to Portal Server Secure Remote Access Gateway, Netlet Proxy, and Rewriter Proxy components.

TABLE 8–14 Portal Server Secure Remote Access Details for Uninstallation *(Continued)*

Topic	Details
Dependencies	<ul style="list-style-type: none">■ Portal Server Secure Remote Access depends on Portal Server.■ Portal Server, Secure Remote Access Gateway, Netlet Proxy, and Rewriter Proxy components depend on Access Manager SDK.■ Portal Server and Portal Server Secure Remote Access Support must reside on the same host and in the same directory.■ Access Manager SDK must reside on the same host as Gateway, Netlet Proxy, and Rewriter Proxy. Gateway, Netlet Proxy, and Rewriter Proxy cannot be in the same directory.■ You can remove any Portal Server Secure Remote Access component without removing any dependent component.■ You can remove Gateway and leave Access Manager SDK on the host.
Products Requiring this Installation	None
Pre-Uninstallation Tasks	None
Post-Uninstallation Tasks	None

Service Registry Uninstallation Behavior

The Registry configuration process installs the Registry database and server keystore in the following directory:

- Solaris OS: `/var/opt/SUNWsoar`
- Linux: `/var/opt/sun/SUNWsoar`

The directory is not removed when the Service Registry is uninstalled. This allows you to preserve the database for use in a future installation or release if you want. To do so, copy the `/var/opt/SUNWsoar/3.0` directory (on Solaris OS) or `/var/opt/sun/SUNWsoar/3.0` (on Linux) to another location before you reinstall the Registry, then copy it back after you reinstall.

Sun Cluster Uninstallation Behavior

TABLE 8–15 Sun Cluster Software Uninstallation Details

Topic	Details
Configuration Data	Do not use the Java Enterprise System uninstaller to remove Sun Cluster software, except to remove software that was installed but never used to configure a cluster node. For more information, refer to “Uninstalling Sun Cluster Software” on page 208 .
Dependencies	Sun Cluster core and agents for Sun Cluster must be removed together.
Products Requiring this Installation	None
Pre-Uninstallation Tasks	Sun Cluster software should only be uninstalled using the utilities provided with your Sun Cluster installation.
Post-Uninstallation Tasks	You might need to update the <code>productregistry</code> file after uninstalling Sun Cluster software. For more information, refer to “Uninstalling Sun Cluster Software” on page 208 .

Web Server Uninstallation Behavior

TABLE 8–16 Web Server Uninstallation Details

Topic	Details
Configuration Data and User Data	<ul style="list-style-type: none">■ User data is not removed during uninstallation but configuration data is removed.■ The Web Server administrative server instance and configured Web Server instance directories are removed. The initially-configured document root directory is preserved.■ Web Server administrative server and Web Server instances are stopped prior to the completion of the uninstallation.
Dependencies	None
Products Requiring this Installation	<ul style="list-style-type: none">■ Access Manager, if configured to run under Web Server■ Portal Server, if configured to run under Web Server■ Communications Express■ Application Server Load Balancing Plugin (if Application Server uses Web Server as its web container)
Pre-Uninstallation Tasks	None

TABLE 8–16 Web Server Uninstallation Details (Continued)

Topic	Details
Post-Uninstallation Tasks	To preserve configuration data, backup the Administrative Server and Web Server instance directories under the installation location.

Web Proxy Server Uninstallation Behavior

TABLE 8–17 Web Proxy Server Uninstallation Details

Topic	Details
Configuration Data	Only the certificate database files in the alias directory under the installation location are preserved. All other files are removed.
Dependencies	Directory Server (optional) if external LDAP access control has been selected.
Pre-Uninstallation Tasks	Stop all instances of Web Proxy Server.
Post-Uninstallation Tasks	The certificate database is preserved under the <i>WebProxyServer-base/alias</i> directory. You need to move the certificate database and delete the old installation directory before reinstalling.

Granting Administrator Access for the Uninstaller

Depending on the components you choose to uninstall, you might need to grant the uninstaller administrator access to Access Manager, Administration Server, and Directory Server.

- Access Manager administrator access is required to undeploy the Access Manager web applications from the Application Server and to remove the Access Manager schema.
- Administration Server and Directory Server administrator access is required to manage the configuration directory during uninstallation.

The following table describes the information that the uninstaller needs for granting administrator access. The left column of each table lists the graphical mode labels and state file parameters for the information you must provide. The right column describes the information.

TABLE 8–18 Required Administration Information

Label and State File Parameter	Description
Access Manager	
Administrator User ID IS_IAS81_ADMIN	User ID of the Application Server administrator.
Administrator Password IS_IAS81_ADMINPASSWD	Password of the Application Server administrator.
Directory Manager DN IS_DIRMGRDN	Distinguished Name (DN) of the user who has unrestricted access to Directory Server. Default value is cn=Directory Manager.
Directory Manager Password IS_DIRMGRPASSWD	Password of the Directory Manager.
Administration Server	
Administrator User ID ADMINSERV_CONFIG_ADMIN_USER	User ID of the configuration directory administrator. Administration Server uses this identity when managing configuration directory data.
Administrator User Password ADMINSERV_CONFIG_ADMIN_PASSWORD	Password for the configuration directory administrator.
Directory Server	
Administrator User ID CONFIG_DIR_ADM_USER	User with administrator privileges for the configuration directory. This user can modify Directory Server configuration, including creating and removing suffixes. Access control restrictions apply.
Administrator Password CONFIG_DIR_ADM_PASSWD	Password for the Administrator.
Portal Server	
Administrator Password PS_DEPLOY_ADMIN_PASSWORD	
Access Manager Administrator Password PS_IS_ADMIN_PASSWORD	

TABLE 8–18 Required Administration Information (Continued)

Label and State File Parameter	Description
Directory Server Administrator Password	
PS_DS_DIRMGR_PASSWORD	
Directory Server Administrator Domain	
PS_DS_DIRMGR_DN	

Running the Uninstaller

After you have completed the relevant tasks in “[Uninstallation Prerequisites](#)” on page 183, you are ready to run the uninstaller. This section contains information on the three ways in which the uninstaller can be used.

- “[Running the Uninstaller in Graphical Mode](#)” on page 201
- “[Running the Uninstaller in Text-Based Mode](#)” on page 204
- “[Running the Uninstaller in Silent Mode](#)” on page 206

Information on syntax of the `uninstall` command can be found in [Appendix B](#).

Running the Uninstaller in Graphical Mode

This section provides instructions for using the interactive graphical interface to uninstall the Java ES components.

▼ To Start the Graphical Uninstaller

Steps 1. (Optional) Provide access to your local display.

If you are logging in to a remote machine, make sure your `DISPLAY` environment variable is properly set to the local display. If the `DISPLAY` variable is not set properly, the installer runs in text-based mode.

- Example for C Shell (machine name `myhost`):

```
setenv DISPLAY myhost:0.0
```

- Example for Korn Shell (machine name `myhost`):

```
DISPLAY=myhost:0.0
```

You might need to grant display authorization to run the installer on your local display. For example, you can use the following command to grant display authority from `myhost` to the root user on `serverhost`:

```
myhost\> xauth extract - myhost:0.0|rsh -l root serverhost xauth merge -
```

Note – For full instructions on granting such authorization safely, refer to the “Manipulating Access to the Server” chapter in the *Solaris X Window System Developer’s Guide*.

2. **If you are not logged in as root, become superuser.**
3. **Navigate to the directory where the uninstaller is located:**
 - Solaris OS: `/var/sadm/prod/SUNWentsys4`
 - Linux: `/var/sadm/prod/sun-entsys4`
4. **Start the graphical uninstaller:**

```
./uninstall
```

The Welcome page is displayed.
5. **Click Next to proceed.**

The Select Components page is displayed.

▼ To Select Components to Uninstall

- Steps**
1. **Examine the components and select those you want to uninstall.**
 - Components that are installed on your system are enabled and can be selected. Components that are not installed on your system are disabled and cannot be selected.
 - Some components contain subcomponents. Expand the components to view the subcomponents.
 - If you deselect a component that contains subcomponents, expand the component to verify the subcomponent list.
 2. **After you are satisfied with your selections, click Next.**
 3. **If the uninstaller detects any recognizable component dependencies, or potential loss of configuration data among the products selected, a warning is displayed. Your choices are:**
 - a. **Click Continue to continue with uninstallation.**
 - b. **Click Close to return to the Component Selection page.**

▼ To Grant Administrator Access

Depending on the components you selected for removal, the uninstaller prompts you for administrator IDs and passwords. For details on the information you must provide the uninstaller, refer to [“Granting Administrator Access for the Uninstaller”](#) on page 199.

Note – In addition, the uninstaller might also prompt you for a port number or a host name.

- Steps**
1. Provide the required administrator information.
 2. Click Next to proceed to the Ready To Uninstall page.

▼ To Uninstall Software

Before removing software from your system, the uninstaller lists the components you have selected for removal and the total disk space that will be reclaimed.

- Steps**
1. Review the uninstallation selections you have made.
 - a. If changes are needed, click Back through successive pages until the Component Selection page is displayed.
 - b. Make changes as needed on the Component Selection page.
 - c. Click Next to proceed again through the uninstaller pages.

The uninstaller remembers previously-specified values. You can modify any value you previously specified.
 2. Click Next when you are satisfied with your selections.

The uninstaller begins removing software from your system and displays the following:

 - A progress bar that displays the overall completion percentage
 - The name of the package currently being removed
 - After all component software has been removed, the uninstaller displays the Uninstallation Complete page.
 3. Click View Summary or View Log for information about the uninstallation.
 - **Uninstallation summary.** Shows the components that were uninstalled and a list of configuration information for the components.
 - **Uninstallation log.** Shows all messages that were generated by the uninstaller during uninstallation.

- You can also review the uninstallation summary and log files:

On Solaris OS: `/var/sadm/install/logs`

On Linux: `/var/opt/sun/install/logs`

4. Click **Close** to exit the uninstaller.
5. If you installed **Access Manager** or **Messaging Server**, go to **“Post-uninstallation Tasks”** on page 208.

Running the Uninstaller in Text-Based Mode

The text-based interface allows you to run the uninstaller directly from a terminal window by responding to prompts displayed in the window.

Tip – Refer to **“How to Use the Text-Based Interface”** on page 103 to learn about text-based prompts for uninstallation.

If you have problems during uninstallation, refer to [Chapter 9](#).

▼ To Start the Uninstaller in Text-Based Mode

Steps 1. If you are not logged in as `root`, become superuser.

2. Navigate to the uninstaller directory:

- Solaris OS: `/var/sadm/prod/SUNWentsys4`
- Linux: `/var/sadm/prod/sun-entsys4`

3. Run the uninstaller:

```
./uninstall -nodisplay
```

The Welcome message is displayed followed by a list of all possible Java ES components on your system.

▼ To Select Components for Uninstallation

Steps 1. The uninstaller selects for removal any Java ES components it finds on your system by listing the numbers corresponding to the installed components. Press **Return** to uninstall all components.

Alternately, choose specific components by typing a comma-separated list of the numbers corresponding to the components you want to uninstall, and press **Return**.

Note – Components that are not installed on your system are disabled and cannot be chosen.

2. If the uninstaller detects component dependencies among the products selected for removal, a warning about a potential loss of configuration data is displayed. Your choices are:
 - a. Type **Yes** and press **Return** to continue with uninstallation.
 - b. Type **No** and press **Return** to return to **Component Selection**.
 - c. Type the character **!** and press **Return** to exit the uninstallation.

▼ To Grant Administrator Access

- Step**
- If you selected a component for which the uninstaller needs an administrative ID or password, the uninstaller prompts you for administrator IDs and passwords.
For details on the information you must provide the uninstaller, refer to [“Granting Administrator Access for the Uninstaller”](#) on page 199.

Note – Depending on the components you selected for removal, the uninstaller might also prompt you for a port number or a host name.

▼ To Uninstall the Software

Before removing software from your system, the uninstaller displays a summary page, showing the components selected for removal.

- Steps**
1. Review your selections.
 - a. If changes are needed, type the **<** character and press **Return** to go back through successive pages until the **Component Selection** list appears.
 - b. Make changes as needed on the **Component Selection** list.
 - c. Proceed again through the uninstaller screens.
 2. When you are satisfied with your selections, type the number **1** and press **Return**.
The uninstaller begins removing software from your system. During uninstallation, the uninstaller displays a progress bar that displays the overall completion percentage.

After all component software has been removed, you can view the uninstallation summary and log.

3. Type 1 or 2 and press Return to see information about the uninstallation.

- **Uninstallation summary.** Type 1 to see the components that were uninstalled and a list of configuration information for the components.
- **Uninstallation log.** Type 2 to list all messages that were generated by the uninstaller during uninstallation.

You can also view the uninstallation summary and log files:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

4. Type the ! character to exit the uninstaller.

Go to [“Post-uninstallation Tasks” on page 208](#) if you uninstalled Access Manager or Messaging Server.

Running the Uninstaller in Silent Mode

Silent uninstallation is useful for uninstalling Java ES components on multiple hosts that share similar configurations. The procedure for uninstalling in silent mode is similar to the procedure for installing in silent mode as described in [Chapter 5](#).

▼ To Create a State File

To perform a silent uninstallation, you must first generate a state file by running a false uninstallation in either graphical or text-based mode. Refer to [“Generating a State File” on page 115](#).

Steps 1. **If you are not logged in as root, become superuser.**

2. **Navigate to the uninstaller directory:**

- Solaris OS: `/var/sadm/prod/SUNWentsys4`
- Linux: `/var/sadm/prod/sun-entsys4`

3. **If you are using the graphical interface of the uninstaller, provide access to your local display. See [“Running the Uninstaller in Graphical Mode” on page 201](#).**

4. **Run the silent uninstaller. For example:**

Graphical mode:

```
./uninstall -no -saveState statefile_path
```

Text-based mode:

```
./uninstall -no -nodisplay -saveState statefile_path
```

To see the full syntax for the uninstall command, refer to [“Uninstall Command” on page 243](#).

5. Proceed through the uninstaller to completion.

As you respond to the prompts, the uninstaller records your answers in the specified state file. When you complete the uninstallation, the state file is available in the location that you specified. No software has been uninstalled.

6. Make a copy of the state file for each host on which you are going to perform a silent uninstallation.

7. Edit each file providing information specific to the host where you will run that silent uninstallation.

For guidelines on editing state files, refer to [“Editing the State File” on page 115](#). Editing the state file might also include generating a state file ID, as explained in [“Creating a Platform-Appropriate State File ID” on page 118](#).

▼ To Run the Uninstaller in Silent Mode

- Steps**
1. **Verify that you have properly prepared and edited the state file for the host where you want to uninstall Java ES components.**
 2. **Open a terminal window.**
 3. **If you are not logged in as root, become superuser.**
 4. **Navigate to the uninstaller directory:**
 - Solaris OS: `/var/sadm/prod/SUNWentsys4`
 - Linux: `/var/sadm/prod/sun-entsys4`
 5. **Start the uninstaller. For example:**

```
./uninstall -noconsole -state statefile_path
```

To see the full syntax for the uninstall command, refer to [“Uninstall Command” on page 243](#).

▼ To Monitor the Progress of a Silent Uninstallation

- Steps**
1. **In a terminal window, navigate to the log file directory:**
 - On Solaris OS: `/var/sadm/install/logs`
 - On Linux: `/var/opt/sun/install/logs`

2. **Locate the log files for the current uninstallation. The log file of interest for monitoring purposes is:**

```
Java_Enterprise_System_uninstall.Btimestamp
```

The *timestamp* variable represents the time the log was created. The variable has the following format *MMddhhmm*, where:

MM Specifies the month

dd Specifies the date

hh Specifies the hour

mm Specifies the minute

3. **Use the `tail` command to watch messages as they are written to the logs. For example:**

```
tail -f logfile_name
```

To exit the `tail` program, press Ctrl+C.

Uninstalling Sun Cluster Software

Do not use the Java ES uninstaller to remove Sun Cluster software unless Sun Cluster software was installed but never used to configure a cluster node. Sun Cluster software should be uninstalled using the utilities provided with the Sun Cluster software. Sun Cluster Core and Sun Cluster Agents for Sun Java System must be removed together. For more information on unconfiguring and uninstalling Sun Cluster software, refer to the *Sun Cluster Software Installation Guide for Solaris OS*.

After uninstalling Sun Cluster software manually, run the Java ES uninstaller to remove Sun Cluster and Sun Cluster Agents from the product registry.

Post-uninstallation Tasks

This section provides instructions for tasks that you might need to perform after uninstalling Java ES components from your system. The actual tasks required depend on which components you chose to uninstall.

- [“Access Manager Post-uninstallation Issues” on page 209](#)

- “Application Server Post-uninstallation Tasks” on page 209
- “Messaging Server Post-uninstallation” on page 210
- “Service Registry Post-uninstallation Tasks” on page 210
- “Web Server Post-uninstallation Tasks” on page 210

Access Manager Post-uninstallation Issues

If you uninstall Access Manager but not its web container (Application Server or Web Server), you need to apply configuration changes to the instance where Access Manager was deployed.

In some cases the uninstaller might not be able to remove some or all of the Access Manager files. In this case, do a final cleanup by removing these two directories and their contents:

```
/opt/SUNWam
```

or if Access Manager was not installed in the default location:

```
AccessManager_base/SUNWam
```

Application Server Post-uninstallation Tasks

If you uninstall Access Manager but not the Application Server in which it is deployed, you must complete the following procedure.

▼ To Finish Application Server Uninstallation

- Steps**
1. **If necessary, start the Application Server admin instance. For example, on a Solaris host:**

```
cd /opt/SUNWappserver/appserver/bin
./asadmin start-domain --user admin_user --passwordfile
path_to_admin-password_file domainname
```
 2. **In a browser, go to the Application Server administration console. The default URL is `https://hostname:4849`.**
 3. **In the left pane, click the key to the left of Application Server Instances.**
 4. **Select the server or the name of the application server instance on which Access Manager was deployed.**
 5. **Click Apply Changes.**

Messaging Server Post-uninstallation

In some cases, the uninstaller might not be able to remove some or all of your installation files. To do a final cleanup, remove the Messaging Server base directory and its contents. The default base directory is at the following location:

```
/opt/SUNWmsgsr
```

You can also remove the configuration directory for Messaging Server at the following location:

```
/var/opt/SUNWmsgsr
```

After uninstalling Messaging Server, undo any `sendmail` configuration for Messaging Server.

Service Registry Post-uninstallation Tasks

In some cases, the uninstaller might not be able to remove some or all of your installation files. To do a final cleanup, remove the Service Registry base directory and its contents at the following location:

- On Solaris OS: `/opt/SUNWsoar`
- On Linux: `/opt/sun/SUNWsoar`

The directory that contains the Service Registry database is not removed when you uninstall the Registry:

- On Solaris OS: `/var/opt/SUNWsoar`
- On Linux: `/var/opt/sun/SUNWsoar`

You can remove it manually if you wish. However, to preserve the database for use in a future installation or release, copy the following directory to another location before you reinstall the Registry, then copy it back after you reinstall:

- On Solaris OS: `/var/opt/SUNWsoar/3.0`
- On Linux: `/var/opt/sun/SUNWsoar/3.0`

Web Server Post-uninstallation Tasks

If you uninstall Access Manager but not the Web Server in which it is deployed, you must complete the following complete the following procedure.

▼ To Finish Web Server Uninstallation

Steps 1. If necessary, start the Web Server admin instance:

```
cd /opt/SUNWwbsvr/https-admserv
./start
```

2. **Access the Web Server administration console.**
3. **Click Apply Changes to restart the web container.**

Troubleshooting

This chapter provides suggestions on how to resolve Sun Java™ Enterprise System (Java ES) installation and uninstallation problems.

This chapter includes the following sections:

- “Troubleshooting Techniques” on page 213
- “Installation Problems” on page 218
- “Uninstallation Problems” on page 222
- “Common Agent Container Problems” on page 225
- “Component Troubleshooting Tips” on page 228

Troubleshooting Techniques

This section provides general guidelines for analyzing and identifying the source of problems during installation and uninstallation of Java ES.

This section contains the following subsections:

- “Examine Installation Log Files” on page 214
- “Examine Component Log Files” on page 215
- “Verify Product Dependencies” on page 215
- “Check Resources and Settings” on page 216
- “Check Postinstallation Configuration” on page 216
- “Check the Distribution Media” on page 216
- “Check Directory Server Connectivity” on page 216
- “Verify Passwords” on page 217
- “Examine the Installed or Uninstalled Components” on page 217
- “Verify Administrator Access” on page 217

Examine Installation Log Files

If a problem occurs during installation or uninstallation, check the appropriate log file in the logs directory:

Solaris OS: /var/sadm/install/logs

Linux: /var/opt/sun/install/logs

Examining the uninstall and installer log files (along with the Java ES configuration log and component logs) can help locate the source of problems. For example, you can compare the packages listed in the installation log to the packages listed in the uninstallation log.

Most logs have two versions:

- An A version of the log file records completion.
- A B version of the log file contains more detailed log messages.

The following table lists the formats of the log files.

TABLE 9-1 Java ES Log File Name Formats

Logged Entity	Log File Name Format
Installer: components	Java_Enterprise_System_install.Atimestamp
	Java_Enterprise_System_install.Btimestamp
	Java_Enterprise_System_Config_Log.id
uninstaller	Java_Enterprise_System_uninstall.Atimestamp
	Java_Enterprise_System_uninstall.Btimestamp
	Java_Enterprise_System_Config_Log.id
Installation summary	Java_Enterprise_System_Summary_Report_install.timestamp
	JavaES_Config_log.timestamp
	JavaES_PanelFlow_log.timestamp
	JavaES_MasterLog_log.timestamp
	Java_Enterprise_System_Summary_Report_uninstall.timestamp

To use the log files for troubleshooting, attempt to isolate the first problem that occurred. Often, the first problem leads to successive problems.

▼ To Use Log Files for Troubleshooting

The log files can give you clues that determine your next steps, such as these:

- If there was a configuration problem, look at the configuration summary to examine the settings you used.

- If there was a directory conflict, check that you did not specify a directory that is reserved by a component.

Steps 1. **Review the installation summary file, which provides a high-level description of what was installed and configured.**

If a problem occurred, see what component caused the problem. If multiple problems occurred, isolate the first.

2. **Review the detailed log files.**

a. **Look for the first error or warning that occurred and attempt to resolve it. Sometimes resolving one error resolves a number of seemingly unrelated errors that follow.**

b. **Find the name of the component or package that caused the problem.**

Examine Component Log Files

If a problem occurs starting a component, examine its log files. Locations of many component log files are listed in [“Component Troubleshooting Tips”](#) on page 228.

Verify Product Dependencies

A number of components have installation-time interdependencies. Problems that affect one component can affect other components. First, you should familiarize yourself with the information in *Sun Java Enterprise System 2005Q4 Installation Planning Guide*

- Review the summary file and log files to see whether related products have failed. These might provide a clue as to what to fix first.
- Check that you have specified correct connection information. For example:
 - Does the information that you provided when configuring Directory Server match the directory information you provided for components that use Directory Server?
 - Does the Access Manager information that you provided for Portal Server or Portal Server SRA match the information you provided for Access Manager?

In addition to component interdependencies, some components depend on the existence of Solaris packages that might not be installed on the host, and their absence could cause installation failures. Read the “Software Requirements” section of the Release Notes for details.

Check Resources and Settings

The following host-level issues can cause installation problems.

- **Updates.** Have you applied the recommended updates (patches)?
- **Disk Space.** How is the disk partitioned, and to what partitions do installation directories point? The installation directories `/var/sadm` and `/etc/opt`, or the non-default directories that you specify, need sufficient disk space.
- **Network Ports.** During configuration, you supply port numbers for Java ES components. Check the following:
 - Examine the standard port numbers in the file `/etc/services`.
 - Look at the summary log file to compare your settings with the standards. Did you mistype a port number or set one server to the port that is typically used for another?
 - Use the command `netstat -a` to view current port use on the system. Did you assign a port number that was already in use?

IP Addresses. During configuration, you specify IP addresses. Check that you entered the correct IP addresses. These are some questions to resolve:

- Does this system have multiple network interfaces, each with its own IP address?
- In a high availability configuration, did you specify the IP address of the logical host or the IP address of a cluster node?

Check Postinstallation Configuration

If you are having problems starting components, verify that the procedures outlined in [Chapter 6](#) were done correctly.

Check the Distribution Media

If you are installing from a DVD or CD, examine the media for dirt or damage. Dirty discs can result in installation problems.

Check Directory Server Connectivity

If you are installing a component that relies on Directory Server, problems can be caused by one of these problems:

- You specified an incorrect user ID and password for Directory Server.
- You specified an incorrect LDAP port.

- Directory Server is unreachable.

The interactive modes of the installer check for Directory Server connectivity during installation, but silent mode does not. If you perform a silent installation when Directory Server is not available, installation of Access Manager or Portal Server could fail.

Remove Web Server Files and Directory

To prevent the overwriting of customized files, such as edited configuration files, Web Server cannot be installed into a directory that contains files.

If you are reinstalling Web Server, check the installation directories to ensure that they are empty. If they are not empty, archive the files elsewhere and retry the installation.

Verify Passwords

The installer requires that you enter a number of passwords for components. If you are installing different components on different hosts, it is important to ensure that you supply matching passwords on each host.

To resolve password problems, you might need to uninstall and then reinstall. If the uninstall fails, refer to [“Installation Fails Due to Leftover Files During Uninstallation” on page 218](#).

Examine the Installed or Uninstalled Components

If you have installed components but are having problems and cannot reinstall or uninstall, check the packages installed using the Solaris `pkginfo` or the Linux `rpm` command. Compare the results with the Java ES packages listed in Chapter 5, “List of Installable Packages,” in *Sun Java Enterprise System 2005Q4 Installation Reference* uninstalled. Additional information is in [“Installation Fails Due to Leftover Files During Uninstallation” on page 218](#).

Tip – On Solaris 9 and Solaris 10, you can also use the `prodreg` tool which provides a graphical interface to the product registry that indexes both components and their packages, superseding the `pkg` utilities. To invoke `prodreg`, type the command name at the command line. For more information, refer to the `prodreg(1)` man page.

Verify Administrator Access

During uninstallation, you might need to grant administrator access to the uninstaller, as described in [“Granting Administrator Access for the Uninstaller” on page 199](#).

Installation Problems

This section addresses the following problems you might encounter during installation.

- “Installation Fails Due to Leftover Files During Uninstallation” on page 218
- “Installation Fails Due to Removed Shared Components in Product Registry After Uninstallation” on page 219
- “Cannot Configure IBM WebSphere as the Portal Server Web Container” on page 220
- “Unexpected External Error Occurs” on page 221
- “Graphical Installer Seems Unresponsive” on page 221
- “Silent Installation Fails: “State File is Incompatible or Corrupted”” on page 221
- “Silent Installation Fails” on page 222
- “Man Pages Do Not Display” on page 222

Installation Fails Due to Leftover Files During Uninstallation

Uninstallation can leave behind components or packages. In such a case, you must manually remove the components or packages before you reinstall Java ES. You might discover this problem in the following ways:

- The uninstaller fails, providing the name of the package it failed to uninstall.
- You want to install a component but the installer reports that the component is already installed, even though you removed it.

▼ To Clean up a Partial Installation

- Steps** 1. Use the following command to determine whether any packages were partially installed.

For Solaris OS:

```
pkginfo -p
```

For Linux:

```
rpm -qa |grep sun | xargs rpm -V
```

The command output lists any partially installed packages. Using the package names returned, refer to Chapter 5, “List of Installable Packages,” in *Sun Java Enterprise System 2005Q4 Installation Reference* to discover what component the packages belong to.

2. Remove components or packages.

- On Solaris 9 or 10, use the `prodreg` tool.

The `prodreg` tool manages the package-based components on your host. You can view components and their packages, with full information, including interdependencies. You can use the `prodreg` tool to safely uninstall components and remove packages. Once you have removed a component with the `prodreg` tool, you can reinstall.

- On Solaris 8, use the `pkgrm` command.

The `pkgrm` command requires that you remove components one package at a time. This command does not update the product registry. Depending on what has happened, you can restore the archived product registry file or manually edit the product registry file so that it no longer refers to the removed components.

To edit the product registry file, open the file `/var/sadm/install/productregistry`. This XML file describes each component. Each component description opens with a `<compid\>` tag and closes with a `</compid\>` tag. Delete the entire entry for the component.

- On Linux, use the `rpm -e` command.

To edit the product registry file, open the file `/var/opt/sun/install/productregistry`. This XML file describes each component. Each component description starts with a `<compid\>` tag and ends with a `</compid\>` tag. Delete the entire entry for the component.

3. Clean the `/opt`, `/etc/opt` and `/var/opt` directories.

4. Run the installer again.

Installation Fails Due to Removed Shared Components in Product Registry After Uninstallation

As of the Java ES 2005Q4 release, shared components are listed in the product registry file after installation.

The Java ES uninstaller removes selectable components from the system but does not remove shared components. After an uninstallation, the product registry still contains entries for the shared components. If you manually remove any Java ES shared components after an uninstallation, these components are not removed from the product registry. Thus, the next Java ES 2005Q4 installation fails because the installer assumes that the manually deleted shared components are present (because they still have entries in the product registry file).

Tip – Avoid manually removing Java ES shared components from your system.

Suggested Fix. Either remove the corresponding entries from the product registry file or remove the product registry file itself. Removing entries from the product registry file can cause the file to become corrupted, so you might prefer to remove the whole product registry. Before doing this, verify that products other than Java ES components are not using the product registry file.

On Linux: There is no equivalent of the graphical product registry file on Linux, so if you removed such rpm files by mistake, you must manually edit the product registry file.

Cannot Configure IBM WebSphere as the Portal Server Web Container

WebSphere might not be running, or you might have specified a WebSphere value that does not match the WebSphere native configuration. There are two approaches to troubleshooting this issue.

Check the Configuration

One approach is to check the configuration of your WebSphere instance.

▼ To Check the WebSphere Configuration

- Steps**
1. Ensure that WebSphere is running.
 2. Examine the values for the following installer fields:
 - WebSphere Virtual Host (PS_IBM_VIRTUAL_HOST in the state file)
 - Application Server Name (PS_IBM_APPSERV_NAME in the state file)
 3. Use the WebSphere tools to check the configuration to make sure it matches the values you are entering.
 4. Try again.

Create New Instances

Another approach is to create new instances of the WebSphere entities.

▼ To Create New Instances of WebSphere Entities

- Steps**
1. Use the `adminclient.sh` to start the WebSphere console.
 2. Create a new virtual host instance and a new Application Server instance name.
 3. Click the entry under Nodes (typically the host name), and select **Regen WebServer Plugin**.
This process saves the new entries into the `plugin` configuration file, which the installer checks for the legal names.
 4. Return to the installer and enter the values you just created.

Unexpected External Error Occurs

A power failure or system failure might have occurred, or you might have entered CTRL/C to stop the installer process.

Suggested Fix. If the failure occurred during the installation or configuration process, you are probably left with a partial installation. Run the uninstaller. If the uninstaller fails, follow the instructions under [“Uninstallation Fails, Leaving Behind Files”](#) on page 223

Graphical Installer Seems Unresponsive

The installer sometimes creates an image on the screen before the image is ready for input. You cannot repeatedly click Next in the installation wizard without waiting.

Suggested Fix. The button that represents the default choice includes a blue rectangle. This rectangle sometimes appears after the button itself appears. Wait until you see the blue rectangle before clicking a button.

Silent Installation Fails: “State File is Incompatible or Corrupted”

If you are using a state file that was created on the same platform on which you are using it, the problem might be due to an unknown file corruption error. There are two approaches to troubleshooting this issue.

Generate a New State File

- If you created the state file on the same platform on which you are running the silent installation, generate a new state file and reinstall.

- If you are using a state file that was created on a different platform or version, the problem is that state files must be run on the same type of platform on which they are created. For example, if you created the state file on Solaris 9, you cannot use it on Solaris 8, or, if you created the state file on the x86 platform, you cannot use it on the SPARC platform.

Create a New Platform-Appropriate ID

If the platform on which you created the state file is not the same as the platform on which you are running the silent installation, create a new, platform-appropriate ID for the file. For instructions on how to do this, refer to [“Creating a Platform-Appropriate State File ID”](#) on page 118.

Silent Installation Fails

If you edited the state file, you might have introduced errors. Check the following and regenerate the state file as described in [“Creating a State File”](#) on page 115.

- Are all local host parameters set, and are they set to consistent values?
- Are parameter values in the correct case?
- Did you delete a required parameter without entering a replacement?
- Are all port numbers valid and unassigned?

Man Pages Do Not Display

The most likely reason for this is that your MANPATH environment variable is not set correctly for the components you installed. Refer to [“MANPATH Setup”](#) on page 124.

Uninstallation Problems

This section addresses the following problems you might encounter during uninstallation.

- [“Cannot Find Uninstaller”](#) on page 222
- [“Uninstallation Fails, Leaving Behind Files”](#) on page 223
- [“Product Registry Is Corrupted”](#) on page 224

Cannot Find Uninstaller

The Java ES installation program places the uninstaller on your system at the following location:

- Solaris OS: `/var/sadm/prod/SUNWentsys4`
- Linux: `/var/sadm/prod/sun-entsys4`

If the uninstaller is not in this directory, one of the following might have occurred:

- Java ES was never installed on this host.
- The Java ES uninstaller previously removed all components and itself from this host.

During uninstallation, if the uninstaller detects that there are no Java ES components on a host, it uninstalls itself.

- During a failed installation, one of the following occurred:
 - The uninstaller was never installed on the host.
 - The uninstaller was removed, but some Java ES components remain on the host.

Suggested Fix. Manually clean up your system as described in [“Uninstallation Fails, Leaving Behind Files”](#) on page 223.

Uninstallation Fails, Leaving Behind Files

If manual cleanup is necessary because the uninstaller left behind files or processes, perform the following procedure to remove packages from your system.

▼ To Manually Clean Up Packages

Steps 1. **Determine which packages you want to remove.**

Compare the packages on your system with the Java ES packages listed in Chapter 5, “List of Installable Packages,” in *Sun Java Enterprise System 2005Q4 Installation Reference*. You can use the Solaris `pkginfo` or `prodreg` utility or the Linux `rpm` command to determine which packages are installed. (See [“Installation Fails Due to Leftover Files During Uninstallation”](#) on page 218)

2. **Stop all running processes for Java ES components.**

Brief instructions for stopping processes are contained in [Chapter 6](#) component documentation.

3. **Back up all custom configuration and user data you plan to use in subsequent installations.**

[“Reviewing Uninstallation Behavior for Java ES Components”](#) on page 186 provides some information on configuration and user data that should be backed up. For more information, refer to the component documentation for each component.

4. Use the `pkgrm` or `rpm -e` command to remove Java ES component packages.
5. Remove any remaining component directories and their content that you do not plan to use in subsequent installations. If you do plan to use these directories later, move them elsewhere.
6. Update the product registry file, which is located here:
On Solaris OS: `/var/sadm/install/productregistry`
On Linux: `/var/opt/sun/install/productregistry`

The uninstaller uses this registry to determine which components are installed on a host. Both the installer and uninstaller update the product registry upon completion of an installation or uninstallation.

Note – If you manually remove packages rather than using the uninstaller, then you must edit the product registry so it correctly reflects the software installed on your system.

7. Clean up the log files for your system, which are located here:
Solaris OS: `/var/sadm/install/logs`
Linux: `/var/opt/sun/install/logs`

The log files might not correctly reflect the state of your system after you manually remove packages.

Product Registry Is Corrupted

During uninstallation, the uninstaller uses the product registry file to determine what needs to be uninstalled:

On Solaris OS: `/var/sadm/install/productregistry`
On Linux: `/var/opt/sun/install/productregistry`

- If the uninstaller fails, you might need to retry after you restore the product registry from your backup copy.
- If you manually remove packages, the product registry is not automatically updated. When you subsequently run the uninstaller, you might encounter problems because the product registry does not correctly reflect your system. In this case, you can try to reinstall and then run the uninstaller again.

Common Agent Container Problems

This section addresses the following problems that might arise in relation to the common agent container shared component:

- “Port Number Conflicts” on page 225
- “Compromised Security Around the Root Password” on page 226
- “Error Notification About Lock File” on page 227

Port Number Conflicts

The common agent container inside Java ES occupies the following port numbers by default:

- JMX port (TCP) = 10162
- SNMP Adaptor port (UDP) = 10161
- SNMP Adaptor port for traps (UDP) = 10162
- Commandstream Adaptor port (TCP) = 10163
- RMI connector port (TCP) = 10164

If your installation already reserves any of these port numbers, change the port numbers occupied by the common agent container as follows.

For further information on the common agent container `cacaoadm` command, see the `cacaoadm` man page. If you cannot see this man page at the command line, verify that your `MANPATH` is set correctly. Refer to “[MANPATH Setup](#)” on page 124.

Checking Port Numbering

▼ To Verify Solaris Port

Steps 1. As root, stop the common agent container management daemon:

```
# /opt/SUNWcacao/bin/cacaoadm stop
```

2. Change the port number using the following syntax:

```
# /opt/SUNWcacao/bin/cacaoadm set-param param=value
```

For example, to change the port occupied by the SNMP Adaptor from the default 10161 to 10165:

```
# /opt/SUNWcacao/bin/cacaoadm set-param snmp-adaptor-port=10165
```

3. Restart the common agent container management daemon:

```
# /opt/SUNWcacao/bin/cacoadm start
```

▼ To Verify Linux Port

Steps 1. As root, stop the common agent container management daemon:

```
# /opt/sun/cacao/bin/cacoadm stop
```

2. Change the port number using the following syntax:

```
# /opt/sun/cacao/bin/cacoadm set-param param=value
```

For example, to change the port occupied by the SNMP Adaptor from 10161 to 10165:

```
# /opt/sun/cacao/bin/cacoadm set-param snmp-adaptor-port=10165
```

3. Restart the common agent container management daemon:

```
# /opt/sun/cacao/bin/cacoadm start
```

Compromised Security Around the Root Password

It might be necessary to regenerate security keys on a host running Java ES. For example, if there is a risk that a root password has been exposed or compromised, you should regenerate security keys. The keys used by the common agent container services are stored in the following locations:

Solaris OS: `/etc/opt/SUNWcacao/security`

Linux: `/etc/opt/sun/cacao/security`

Under normal operation, these keys can be left in their default configuration. If you need to regenerate the keys due to a possible key compromise, you can regenerate the security keys using the following procedure.

Security Key Problems

▼ To Generate Keys for Solaris OS

Steps 1. As root, stop the common agent container management daemon.

```
# /opt/SUNWcacao/bin/cacoadm stop
```

2. Regenerate the security keys.

```
# /opt/SUNWcacao/bin/cacoadm create-keys --force
```

3. Restart the common agent container management daemon.

```
# /opt/SUNWcacao/bin/cacaoadm start
```

Note – In the case of Sun Cluster software, you must propagate this change across all nodes in the cluster. For more information, see “How to Finish a Rolling Upgrade to Sun Cluster 3.1 8/05 Software” in *Sun Cluster Software Installation Guide for Solaris OS*.

▼ To Generate Keys for Linux

Steps 1. As root, stop the common agent container management daemon.

```
# /opt/sun/cacao/bin/cacaoadm stop
```

2. Regenerate the security keys.

```
# /opt/sun/cacao/bin/cacaoadm create-keys --force
```

3. Restart the common agent container management daemon.

```
# /opt/sun/cacao/bin/cacaoadm start
```

For more information on the `cacaoadm(1M)` command, see the `cacaoadm` man page.

Error Notification About Lock File

When you issue a `cacaoadm` subcommand, it is possible that another user issued a command at exactly the same time. However, only one `cacaoadm` subcommand can be run at a time.

On Solaris OS, the following error message is generated:

```
If cacaoadm daemon is running, it is busy executing another command.  
Otherwise remove lock file /var/opt/SUNWcacao/run/lock
```

On Linux, the following error message is generated:

```
If cacaoadm daemon is running, it is busy executing another command.  
Otherwise remove lock file /var/opt/sun/cacao/run/lock.
```

The first recommended action when you receive this notification message is to wait a few moments and retry.

If you receive the same notification message when you retry, then it is possible that a lock file has not been removed by the common agent container management daemon. This can happen in the case of a crash. The lock file prevents further `cacaoadm` subcommands from being run.

Remove the lock file from the location indicated in the error message.

Component Troubleshooting Tips

This section provides various quick tips on components, with references to useful documentation.

This section contains the following subsections:

- “Access Manager Troubleshooting Tips” on page 228
- “Administration Server Troubleshooting Tips” on page 229
- “Application Server Troubleshooting Tips” on page 230
- “Calendar Server Troubleshooting Tips” on page 230
- “Communications Express Troubleshooting Tips” on page 231
- “Delegated Administrator Troubleshooting Tips” on page 231
- “Directory Proxy Server Troubleshooting Tips” on page 231
- “Directory Server Troubleshooting Tips” on page 232
- “Instant Messaging Troubleshooting Tips” on page 232
- “Message Queue Troubleshooting Tips” on page 232
- “Messaging Server Troubleshooting Tips” on page 233
- “Portal Server Troubleshooting Tips” on page 233
- “Portal Server Secure Remote Access Troubleshooting Tips” on page 233
- “Service Registry Troubleshooting Tips” on page 234
- “Sun Cluster Software Troubleshooting Tips” on page 234
- “Web Server Troubleshooting Tips” on page 235
- “Web Proxy Server Troubleshooting Tips” on page 236
- “Additional Troubleshooting Information” on page 236

Access Manager Troubleshooting Tips

TABLE 9-2 Access Manager Troubleshooting Tips

Topic	Details
Configuration File	AMConfig.properties Solaris OS: /etc/opt/SUNWam/config Linux: /etc/opt/sun/identity/config

TABLE 9-2 Access Manager Troubleshooting Tips (Continued)

Topic	Details
Log and Debug Files	Log file directory: <ul style="list-style-type: none"> ■ Solaris OS: /var/opt/SUNWam/logs ■ Linux: /var/opt/sun/identity/logs Debug file directory: <ul style="list-style-type: none"> ■ Solaris OS: /var/opt/SUNWam/debug ■ Linux: /var/opt/sun/identity/debug
Debug Mode	Refer to the Auditing Features chapter in the <i>Sun Java System Access Manager 7 2005Q4 Developer's Guide</i> .

Administration Server Troubleshooting Tips

TABLE 9-3 Administration Server Troubleshooting Tips

Topic	Details
Log Files	Installation log directory: <ul style="list-style-type: none"> ■ <i>AdministrationServer-base/admin-serv/logs/</i> Configuration log files: <ul style="list-style-type: none"> ■ <i>Administration_Server_install.Atimestamp</i> ■ <i>Administration_Server_install.B timestamp</i> For more information on logging options, refer to the <i>Sun Java System Administration Server 5 2005Q1 Administration Guide</i> .
Troubleshooting	Refer to the .

Application Server Troubleshooting Tips

TABLE 9-4 Application Server Troubleshooting Tips

Topic	Details
Log Files	Log file directory: Solaris OS: <code>/var/sadm/install/logs/</code> Linux: <code>/var/opt/sun/install/logs/</code> Application Server instance log directory (default location for the initially created instance): Solaris OS: <code>/var/opt/SUNWappserver/domains/domain1/logs</code> Linux: <code>/var/opt/sun/appserver/domains/domain1/logs</code> Message log file name: <code>server.log</code> , for each server instance
Configuration Files	Configuration file directory: <code>/var</code>
Troubleshooting	Refer to the <i>Sun Java System Application Server Enterprise Edition 8.1 2005Q2 Troubleshooting Guide</i> .

Calendar Server Troubleshooting Tips

TABLE 9-5 Calendar Server Troubleshooting Tips

Topic	Details
Log Files	Administration Service (csadmin): <code>admin.log</code> Distributed Database Service (csdwpd): <code>dwp.log</code> HTTP Service (cshttpd): <code>http.log</code> Notification Service (csnotifyd): <code>notify.log</code> Calendar Backup Service (csstored): <code>store.log</code> Default log directory: <code>/var/opt/SUNWics5/logs</code> For more information, refer to <i>Sun Java System Calendar Server 6 2005Q4 Administration Guide</i> .
Configuration File	<code>/opt/SUNWics5/cal/config/ics.conf</code>

TABLE 9-5 Calendar Server Troubleshooting Tips (Continued)

Topic	Details
Debug Mode	To use debug mode, a Calendar Server administrator sets the <code>logfile.loglevel</code> configuration parameter in the <code>ics.conf</code> file. For example: <pre>logfile.loglevel = "debug"</pre> For more information, refer to <i>Sun Java System Calendar Server 6 2005Q4 Administration Guide</i> .
Troubleshooting	Refer to <i>Sun Java System Calendar Server 6 2005Q4 Administration Guide</i> .

Communications Express Troubleshooting Tips

TABLE 9-6 Communications Express Troubleshooting Tips

Topic	Details
Log Files	Default log files: <code>uwc-deployed-path/logs/uwc.log</code>
Troubleshooting	Refer to the Chapter 6, "Troubleshooting," in <i>Sun Java System Communications Express 6 2005Q4 Administration Guide</i> .

Delegated Administrator Troubleshooting Tips

TABLE 9-7 Delegated Administrator Troubleshooting Tips

Topic	Details
Log Files	Runtime log file: <code>/opt/SUNWcomm/log</code>
Troubleshooting	Refer to Appendix C, "Debugging Delegated Administrator," in <i>Sun Java System Communications Services 6 2005Q4 Delegated Administrator Guide</i> .

Directory Proxy Server Troubleshooting Tips

TABLE 9-8 Directory Proxy Server Troubleshooting Tips

Topic	Details
Log Files	Default log file: <code>DirectoryProxyServer-base/dps-hostname/logs/fwd.log</code> For more information, refer to the <i>Sun Java System Directory Proxy Server 5 2005Q1 Administration Guide</i> .

TABLE 9-8 Directory Proxy Server Troubleshooting Tips (Continued)

Topic	Details
Troubleshooting	Refer to the <i>Sun Java System Directory Proxy Server 5 2005Q1 Administration Guide</i> .

Directory Server Troubleshooting Tips

TABLE 9-9 Directory Server Troubleshooting Tips

Topic	Details
Log Files	Installation log file: Solaris OS: /var/sadm/install/logs Linux: /var/opt/sun/install/logs Configuration log files: Directory_Server_install.Atimestamp Directory_Server_install.Btimestamp For information on managing log files, refer to the <i>Sun Java System Directory Server 5 2005Q1 Administration Guide</i> .
Troubleshooting	Refer to the <i>Sun Java System Directory Server 5 2005Q1 Administration Guide</i> .

Instant Messaging Troubleshooting Tips

For information on troubleshooting Instant Messaging, refer to the client online help and the *Sun Java System Instant Messaging 7 2005Q1 Administration Guide*.

Message Queue Troubleshooting Tips

TABLE 9-10 Messaging Server Troubleshooting Tips

Topic	Details
Troubleshooting	Refer to the Troubleshooting Problems chapter of the <i>Sun Java System Message Queue Administration Guide</i> and the MQ Forum, at: http://swforum.sun.com/jive/forum.jspa?forumID=24 .
Performance	Refer to "Analyzing and Tuning a Message Service" <i>Sun Java System Message Queue 3 2005Q4 Administration Guide</i> .

Messaging Server Troubleshooting Tips

TABLE 9–11 Messaging Server Troubleshooting Tips

Topic	Details
Executable Location	/opt/SUNWmsgsr/sbin
Log Files	<i>MessagingServer-base</i> /data/log
Troubleshooting	Refer to the <i>Sun Java System Messaging Server 6 2005Q4 Administration Guide</i> .

Portal Server Troubleshooting Tips

Portal Server uses the same log files and debug files as Access Manager.

TABLE 9–12 Portal Server Troubleshooting Tips

Topic	Details
Debug Files	Solaris OS: /var/opt/SUNWam/debug Linux: /var/opt/sun/identity/debug
Log Files	Solaris OS: /var/opt/SUNWam/logs Linux: /var/opt/sun/identity/logs
Troubleshooting	Refer to the <i>Sun Java System Portal Server 6 2005Q4 Administration Guide</i> .

Portal Server uses the same log files and debug files as Access Manager.

- desktop.debug
- desktop.dpadmin.debug

Tip – The `dpadmin`, `par`, `rdmgr`, and `sendrdm` Portal Server command line utilities have options to generate debugging messages. They are described in the *Portal Server Administration Guide*.

Portal Server Secure Remote Access Troubleshooting Tips

Portal gateway debug logs are located in the following directories:

- Solaris OS: /var/opt/SUNWps/debug
- Linux: /var/opt/sun/portal/debug

Note – Logs for Portal Server services (such as NetFile) are in `/var/opt/SUNWam/debug` when logging is turned on from Access Manager Administration Console.

Service Registry Troubleshooting Tips

TABLE 9–13 Service Registry Troubleshooting Tips

Topic	Details
Log Files	Application Server instance log: Solaris OS: <code>/var/opt/SUNWsoar/domains/registry/logs/server.log</code> Linux: <code>/var/opt/sun/SUNWsoar/domains/registry/logs/server.log</code>
Troubleshooting	Refer to the <i>Service Registry 3 2005Q4 Administration Guide</i> and <i>Service Registry 3 2005Q4 Administration Guide</i> .

Sun Cluster Software Troubleshooting Tips

TABLE 9–14 Sun Cluster Software Troubleshooting Tips

Topic	Details
Log Files	Default log directory: <code>/var/cluster/logs/install</code> Error messages: <code>/var/adm/messages</code>
Troubleshooting	Refer to the <i>Sun Cluster Software Installation Guide for Solaris OS</i> .

Web Server Troubleshooting Tips

TABLE 9–15 Web Server Troubleshooting Tips

Topic	Details
Log Files	<p>There are two types of Web Server log files: the <code>errors</code> log file and the <code>access</code> log file, both located in the following directories:</p> <ul style="list-style-type: none">■ Solaris OS: <code>/opt/SUNWwbsvr/https-instanceName/logs</code>■ Linux: <code>/opt/sun/webserver/https-instanceName/logs</code> <p>The <code>errors</code> log file lists all the errors a server has encountered. The <code>access</code> log records information about requests to the server and the responses from the server. For more information, refer to the <i>Sun Java System Web Server 6.1 SP4 Administrator's Guide</i>.</p>
Troubleshooting	Refer to the <i>Sun Java System Web Server 6.1 SP4 Installation and Migration Guide</i> .
Configuration File Directory	<code>/opt/SUNWwbsvr/https-instance-name /config</code>
Debug Mode	<p>The following options are available:</p> <ul style="list-style-type: none">■ Log output might be used for diagnostics and debugging. You can set the value of the <code>loglevel</code> attribute of the <code>LOG</code> element in the <code>/server_root/https-instanceName/config/server.xml</code> file to the following values: <code>info</code>, <code>fine</code>, <code>finer</code> or <code>finest</code>. These values indicate the verbosity of debug messages, with <code>finest</code> giving maximum verbosity. For more information about the <code>LOG</code> element, refer to the <i>Sun Java System Web Server 6.1 SP4 Administrator's Configuration File Reference</i>.■ A debug flag might be enabled to start the server web container in debug mode ready for attachment with a Java Platform Debugger Architecture (JPDA) debugger. To do this, set the value of the <code>jvm.debug</code> flag of the <code>JAVA</code> attribute in the <code>/instance_root/https-serverName/config/server.xml</code> file to <code>true</code>. For more information, refer to the <i>Sun Java System Web Server 6.1 SP4 Administrator's Configuration File Reference</i>.■ The Sun Java System Studio 5, Standard Edition, plugin enables the debugging of web applications. For more information, refer to the <i>Sun Java System Web Server 6.1 SP4 Programmer's Guide to Web Applications</i>.

Web Proxy Server Troubleshooting Tips

TABLE 9-16 Web Proxy Server Troubleshooting Tips

Topic	Details
Log Files	Default log location: <code>/opt/SUNWproxy/proxy-instancename/logs</code> For more information, refer to the <i>Sun Java System Web Proxy Server 4.0.2 Administration Guide</i> .
Configuration File Directory	<code>/opt/SUNWproxy/proxy-instancename/config</code>
Debug Mode	You can set the value of the <code>loglevel</code> attribute of the LOG element in the <code>/server-root/proxy-instance-name/config/server.xml</code> file: info, fine, finer, finest.

Additional Troubleshooting Information

The following information in this guide is also useful for troubleshooting:

- [Chapter 6](#) contains instructions for performing post-installation configuration.
- [Chapter 8](#) contains information on problems that might occur while uninstalling the Java ES software.

Java ES Components for This Release

This appendix lists the selectable and shared components that are part of the Sun Java™ Enterprise System (Java ES) software.

- “Selectable Components” on page 237
- “Shared Components” on page 239

Selectable Components

In the component selection page of the Java ES installer, the selectable components are grouped by the services they help to provide. The following list also shows the subcomponents that are installed with each component.

Communication & Collaboration Services

- Sun Java System Messaging Server 6 2005Q4
- Sun Java System Calendar Server 6 2005Q4
- Sun Java System Instant Messaging 7 2005Q4
 - Instant Messaging Server Core; includes server and multiplexor software
 - Instant Messenger Resources
 - Access Manager Instant Messaging Service
- Sun Java System Portal Server 6 2005Q4
- Sun Java System Portal Server Secure Remote Access 6 2005Q4
 - Secure Remote Access Core
 - Gateway
 - Netlet Proxy
 - Rewriter Proxy
- Sun Java System Communications Express 6 2005Q4

- Sun Java System Directory Preparation Tool 6 2005Q4
- Communication Services Delegated Administrator 2005Q4
 - Delegated Administrator Console and Utility
 - Delegated Administrator Server

Web & Application Services

- Sun Java System Application Server Enterprise Edition 8.1 2005Q4
 - Domain Administration Server
 - Application Server Node Agent
 - Command Line Administration Tool
 - Load Balancing Plugin
 - Can be used with either Web Server 6.x or Apache Web Server 1.3.33 or above, selectable at configuration. Default is Web Server.
 - PointBase Database
 - Sample Applications
- Sun Java System Web Server 6.1 SP5 2005Q4
- Sun Java System Web Proxy Server 4.0 2005Q4
- Sun Java System Message Queue 3 2005Q4 Enterprise Edition
- Service Registry 3 2005Q4

Directory & Identity Services

- Sun Java System Access Manager 7 2005Q4
 - Identity Management and Policy Services Core (includes Delegated Administrator)
 - Access Manager Administration Console
 - Common Domain Services for Federation Management
 - Access Manager SDK
- Sun Java System Directory Server 5 2005Q4
- Sun Java System Directory Proxy Server 5 2005Q4

Availability Services

- High Availability Session Store (HADB) 4.4.2
- Sun Cluster 3.1 8/05
 - Sun Cluster Core
 - Sun Cluster Agents for Sun Java System
 - HA/Scalable Sun Java System Web Server
 - HA Sun Java System Application Server
 - HA Sun Java System Message Queue
 - HA Sun Java System Calendar Server

- HA Sun Java System Administration Server
- HA Sun Java System Directory Server
- HA Sun Java System Messaging Server
- HA Sun Java System Application Server EE (HADB)
- HA Sun Java System Instant Messaging

Administrative Services

- Sun Java System Administration Server 5 2005Q4

Note – Sun Cluster software and the Sun Cluster Agents are not available on Linux operating systems.

Shared Components

Shared components provide the local services and technology support for the selectable components. When you install Java ES components, the installer automatically installs the shared components required if they are not already installed.

This release of Java ES includes these shared components:

- Ant (Jakarta ANT Java/XML-based build tool) 1.6.2
- Apache Derby Database 10.0.2.1
- Apache Apache Common Logging (ACL) 1.0.3
- Berkeley Database 4.2.52
- Common agent container 1.1
- ICU (International Components for Unicode) 3.2
- IMSDK (Instant Messaging SDK) 6.2.8
- J2SE™ (Java 2 Platform, Standard Edition) platform 5.0 Update 3
- JAF (JavaBeans™ Activation Framework) 1.0.3
- JATO (Java Studio Enterprise Web Application Framework) 2.1.5
- JavaHelp™ Runtime 2.0
- JavaMail™ Runtime 1.3.2
- JAXB (Java Architecture for XML Binding) Runtime 1.0.4
- JAXP (Java API for XML Processing) 1.2.6
- JAXR (Java API for XML Registries) Runtime 1.0.7
- JAXRPC (Java API for XML-based Remote Procedure Call) Runtime 1.1.2
- JCAPI (Java Calendar API) 1.2
- JDMK (Java Dynamic Management™ Kit) Runtime 5.1
- JSS (Java Security Services) 2.1.4 and 4.1
- KTSE (KT Search Engine) 1.3.2
- LDAP C SDK 5.11
- LDAP Java SDK 4.18

- MA Core (Mobile Access Core) 1.0.6
- NSPR (Netscape Portable Runtime) 4.5.2
- NSS (Network Security Services) 3.10
- SAAJ (SOAP with Attachments API for Java) 1.2.1
- SASL (Simple Authentication and Security Layer) 2.18
- Sun Explorer Data Collector (Solaris OS only) 4.3.1
- Sun Java Monitoring Framework 1.0.1
- Sun Java Web Console 2.2.4
- WSCL (Web services Common Library) 1.0

Installation Commands

This appendix describes the command syntax and options for running the Sun Java™ Enterprise System (Java ES) installer and uninstaller.

- “Installer Command” on page 241
- “Uninstall Command” on page 243

Installer Command

The Java ES `installer` command has the following format:

```
installer [option]...
```

The following table describes the options for the `installer` command.

TABLE B-1 Java ES Installer Command-line Options

Option	Description
<code>-help</code>	Defines command-line options for the installer.
<code>-id</code>	Prints a state file ID to the screen.
<code>-no</code>	Runs the installer without installing software.
<code>-noconsole</code>	Starts the installer in silent mode, suppressing the graphical interface. Use this option with the <code>-state</code> option to run the installer in silent mode.
<code>-nodisplay</code>	Starts the installer in text-based mode (does not launch the graphical interface).

TABLE B-1 Java ES Installer Command-line Options (Continued)

Option	Description
<code>-saveState [statefile]</code>	<p>Instructs the installer to generate a state file at the location specified by <i>statefile</i>. State files are used when performing a silent installation.</p> <p>If the specified file does not exist, the command creates it.</p> <p>If you omit the <i>statefile</i> value, the installer writes to the default file, <i>statefile.out</i>.</p> <p>You can specify the same state file in subsequent installation sessions. After the first session, <i>n</i> is appended to the file name, where <i>n</i> is an integer that is incremented for each session, beginning with zero (0).</p>
<code>-state statefile</code>	<p>Uses the specified state file to provide input for silent installation. Use this option with the <code>-noconsole</code> option for starting silent installation.</p>

Examples

To run the installer in graphical mode from the installation directory:

```
./installer
```

To run the installer in text-based mode:

```
./installer -nodisplay
```

To run the graphical installer without installing software:

```
./installer -no
```

To create a state file without installing software:

- In graphical mode

```
./installer -no -saveState myInstallStatefile
```

- In text-based mode

```
./installer -no -nodisplay -saveState myInstallStatefile
```

To create a state file while installing software:

```
./installer [-nodisplay] -saveState myInstallStatefile
```

To run the installer in silent mode:

```
./installer -nodisplay -noconsole -state myInstallStatefile
```

Uninstall Command

The Java ES `uninstall` command has the following format:

```
uninstall [option]...
```

The following table describes the options for the `uninstall` command.

TABLE B-2 Java ES Uninstall Command-line Options

Option	Description
<code>-help</code>	Defines command line options for the uninstaller.
<code>-id</code>	Prints a state file ID to the screen.
<code>-no</code>	Runs the uninstaller without removing software.
<code>-noconsole</code>	Starts the uninstaller in silent mode, suppressing the graphical interface. Use this option with the <code>-state</code> option to run the uninstaller in silent mode.
<code>-nodisplay</code>	Starts the uninstaller in text-based mode (does not launch the graphical interface).
<code>-saveState [statefile]</code>	Instructs the uninstaller to generate a state file at the location specified by <i>statefile</i> . State files are used when performing a silent uninstallation. If the specified file does not exist, the command creates it. If you omit the <i>statefile</i> value, the uninstaller writes to the default file, <i>statefile.out</i> . You can specify the same state file in subsequent uninstallation sessions. After the first session, <i>n</i> is appended to the file name, where <i>n</i> is an integer that is incremented for each session, beginning with zero (0).
<code>-state statefile</code>	Uses the specified state file to provide input for silent uninstallation. Use this option with the <code>-noconsole</code> option for starting silent uninstallation.

Examples

After installation, the Java ES installer places the uninstaller here:

- Solaris OS: `/var/sadm/prod/SUNWentsys4`
- Linux: `/var/sadm/prod/sun-entsys4`

To run the uninstaller in graphical mode from within the uninstaller directory:

```
./uninstall
```

To run the uninstaller in text-based mode:

```
./uninstall -nodisplay
```

To run the graphical uninstaller without removing software:

```
./uninstall -no
```

To create a state file without removing software:

- In graphical mode

```
./uninstall -no -saveState myUninstallStatefile
```

- In text-based mode

```
./uninstall -no -nodisplay -saveState myUninstallStatefile
```

To create an uninstaller state file while uninstalling software:

```
./uninstall [-nodisplay] -saveState myUninstallStatefile
```

To run the uninstaller in silent mode:

```
./uninstall -nodisplay -noconsole -state myUninstallStatefile
```

Example State File

state file that has been prepared for a

This appendix contains an example of a silent installation state file. The `PSP_SELECTED_COMPONENTS` parameter indicates the components that were selected during the interactive installation.

```
#
# Wizard Statefile created: Tue May 17 20:50:02 CST 2005
# Wizard path: /tmp/.jes_CaChE/Solaris_x86/.install/EntsysInstall_
SunOS_x86_9.class
#
#
# Install Wizard Statefile section for Sun Java(tm) Enterprise
System
#
#
[STATE_BEGIN Sun Java(tm) Enterprise System ad21547ce1f4b70d10b1c
361c2d8ffb10611158c]
LICENSE_TYPE =
PSP_SELECTED_COMPONENTS = LDAPJDK, JDK, NSPR, NSS, JSS, JATO, JAXP,
WSCL, JAXB, JavaActivationFramework, JavaMail, SOAPRuntime, JAXR,
JAXRPC, ApacheCommonLogging, DSConfigurator, SASL, LDAPCSDK, ICU,
Dssetup, AdminConsole, DirectoryServ32, MiscPackages, MAPplugin,
ISConfigurator, appserv, WSCommon, ASCommon, Ant, JavaHelpRuntime,
SunONEMessageQueue, Tomcat, SunWebConsole, JDMK, ASAdmin, ASCore,
OrionUninstaller, ISAdministrationConsole, InstantMessaging,
InstantMessagingConfig, IMAPI, InstantMessengerResources, NSPRD,
NSSU, webproxyserver, SunCluster, Explorer, Cacao, SCCore,
SCDirServer, HADBConfigurator, HADB, ASSamples, ASPointBase,
SCAppServer, MFWK, MFWK-CFG, MFWK-AGENT, MFWK-MAN,
InstantMessagingServer, CalendarServ, SunONEWebServerEn, KTSE,
SunONEWebServer, ASNA, SCCalServer, PortalSRA, PSRAL10NConfigurator,
PortalServer, PSL10NConfigurator, MAPCore, WebNFS, ExternalJARs,
IdentityServerSDK, BDB, IdentityServerSDKAlone,
ISCommonDomainDeployment,
SunONEIdentityServerManagementandPolicyServices, PortalServerCore,
SRACore, SCMsgServer, CommDA, JCAPI, ASConfigurator, AdminServ,
MessagingServ, UWC, IdentityServerInstantMessagingService,
```

```

DPSConfigurator, DirectoryProxyServ, SRAGateway, IdentityServ,
SRARewriterProxy, DerbyDB, DAS, RegistryServer, SRANetletProxy,
SCMQ, LB, SUNWcomic, SUNWcomis, SCAdminServer, SCInstantMessaging,
SCHADB, SCWebServer, SCAgents
PSP_EXIT_ON_DEPENDENCY_WARNING = no
PSP_LOG_CURRENTLY_INSTALLED = yes
REMOVE_BUNDLED_PRODUCTS = Yes
CCCP_UPGRADE_EXTERNAL_INCOMPATIBLE_JDK =
CMN_SRA_INSTALLDIR = /opt
CMN_DS_SERVER_ROOT = /var/opt/mps/serverroot
CMN_WPS_INSTALLDIR = /opt/SUNWproxy
CMN_REG_SERVER_ROOT = /opt
CMN_IS_INSTALLDIR = /opt
CMN_AS_DOMAINSDIR = /var/opt/SUNWappserver
CMN_DPS_INSTALLDIR = /
CMN_DSSETUP_INSTALLDIR = /opt/SUNWcomds
CMN_PS_INSTALLDIR = /opt
CMN_COMMDA_INSTALLDIR = /opt/SUNWcomm
CMN_WS_INSTALLDIR = /opt/SUNWwbsvr
CMN_UWC_INSTALLDIR = /opt/SUNWuwcc
CMN_IIM_INSTALLDIR = /opt
CMN_CS_INSTALLDIR = /opt
CMN_UNINSTALL_INSTALLDIR =
CMN_AS_INSTALLDIR = /opt/SUNWappserver
CMN_MS_INSTALLDIR = /opt/SUNWmsgsr
CONFIG_TYPE = Custom
CMN_HOST_NAME = myComputer
CMN_DOMAIN_NAME = example.com
CMN_IPADDRESS = 192.168.255.255
CMN_ADMIN_USER = admin
CMN_ADMIN_PASSWORD = admin123
CMN_SYSTEM_USER = root
CMN_SYSTEM_GROUP = other
WS_ADMIN_USER = admin
WS_ADMIN_PASSWORD = admin123
WS_ADMIN_PORT = 8888
WS_ADMIN_SYSTEM_USER = root
WS_ADMIN_HOST = myComputer.example.com
WS_INSTANCE_USER = root
WS_INSTANCE_GROUP = other
WS_INSTANCE_PORT = 80
WS_INSTANCE_CONTENT_ROOT = /opt/SUNWwbsvr/docs
WS_INSTANCE_AUTO_START = N
AS_ADMIN_USER_NAME = admin
AS_PASSWORD = admin123
AS_ADMIN_PORT = 4849
AS_JMX_PORT = 8686
AS_HTTP_PORT = 8080
AS_HTTPS_PORT = 8181
AS_MASTER_PASSWORD = admin123
ASNA_ADMIN_HOST_NAME = myComputer
ASNA_ADMIN_USER_NAME = admin
ASNA_PASSWORD = admin123
ASNA_MASTER_PASSWORD = admin123
ASNA_ADMIN_PORT = 4849

```

```

ASNA_NODE_AGENT_NAME = myComputer
AS_WEB_SERVER_LOCATION = /opt/SUNWwbsvr/https-myComputer.example.com
AS_WEB_SERVER_PLUGIN_TYPE = Sun Java System Web Server
DS_ADMIN_USER = admin
DS_ADMIN_PASSWORD = admin123
DS_DIR_MGR_USER = cn=Directory Manager
DS_DIR_MGR_PASSWORD = admin123
DS_SERVER_IDENTIFIER = myComputer
DS_SERVER_PORT = 389
DS_SUFFIX = dc=red,dc=sun,dc=com
DS_ADM_DOMAIN = example.com
DS_SYSTEM_USER = root
DS_SYSTEM_GROUP = other
USE_EXISTING_CONFIG_DIR = 0
CONFIG_DIR_HOST = myComputer.example.com
CONFIG_DIR_PORT = 389
CONFIG_DIR_ADM_USER = admin
CONFIG_DIR_ADM_PASSWD = admin123
USE_EXISTING_USER_DIR = 0
USER_DIR_HOST = myComputer.example.com
USER_DIR_PORT = 389
USER_DIR_ADM_USER = admin
USER_DIR_ADM_PASSWD = admin123
USER_DIR_SUFFIX = dc=red,dc=sun,dc=com
DS_DISABLE_SCHEMA_CHECKING = 0
DS_ADD_SAMPLE_ENTRIES = 0
DS_POPULATE_DATABASE = 1
DS_POPULATE_DATABASE_FILE_NAME =
ADMINSERV_ROOT = /var/opt/mps/serverroot
ADMINSERV_PORT = 390
ADMINSERV_DOMAIN = example.com
ADMINSERV_SYSTEM_USER = root
ADMINSERV_SYSTEM_GROUP = other
ADMINSERV_CONFIG_ADMIN_USER = admin
ADMINSERV_CONFIG_ADMIN_PASSWORD = admin123
ADMINSERV_CONFIG_DIR_HOST = myComputer.example.com
ADMINSERV_CONFIG_DIR_PORT = 389
DPS_PORT = 489
DPS_SERVERROOT =
DPS_CDS_ADMIN = admin
DPS_CDS_PWD = admin123
IS_LDAPUSERPASSWD = 123admin
IS_ADMINPASSWD = admin123
IS_LDAP_USER = amldapuser
IS_ADMIN_USER_ID = amAdmin
AM_ENC_PWD = 123admin
AM_REALM = disabled
DeploymentServer = AppServer
PortalSelected = TRUE
IS_WS_HOST_NAME =
IS_WS_INSTANCE_DIR =
IS_WS_INSTANCE_PORT =
IS_WS_DOC_DIR =
IS_SERVER_PROTOCOL = http
IS_APPSERVERBASEDIR = /opt/SUNWappserver/appserver

```

```

IS_AS_CONFIG_DIR =
IS_IAS81INSTANCE = server
IS_IAS81INSTANCEDIR = /var/opt/SUNWappserver/domains/domain1
IS_IAS81INSTANCE_PORT = 8080
IS_IAS81_ADMIN = admin
IS_IAS81_ADMINPASSWD = admin123
IS_IAS81_ADMINPORT = 4849
ASADMIN_PROTOCOL = https
IS_SUNAPPSERVER_DOCS_DIR = /var/opt/SUNWappserver/domains/domain1
    /docroot
IS_BEA_INSTALL_DIR =
IS_BEA_ADMIN_PASSWD =
IS_BEA_ADMIN_PORT =
IS_BEA_DOMAIN =
IS_BEA_INSTANCE =
IS_BEA_DOC_ROOT_DIR =
IS_BEA_WEB_LOGIC_JAVA_HOME_DIR =
IS_BEA_MANAGED_SERVER =
IS_IBM_INSTALL_DIR =
IS_IBM_VIRTUAL_HOST =
IS_IBM_APPSERV_NAME =
IS_IBM_APPSERV_PORT =
IS_IBM_DOC_DIR_HOST =
IS_IBM_WEB_SERV_PORT =
IS_IBM_WEBSPPHERE_JAVA_HOME =
IS_WAS40_NODE =
CONSOLE_HOST = myComputer.example.com
CONSOLE_DEPLOY_URI = amconsole
PASSWORD_SERVICE_DEPLOY_URI = ampassword
IS_SERVER_HOST = myComputer.example.com
IS_SERVER_PORT = 8080
CONSOLE_PORT =
SERVER_DEPLOY_URI = amserver
COOKIE_DOMAIN_LIST = .sun.com
USE_DSAME_SERVICES_WEB_CONTAINER =
CDS_DEPLOY_URI = amcommon
ADMIN_COMPONENT_SELECTED = true
IS_DS_HOST = myComputer.example.com
IS_DS_HOSTNAME = myComputer
IS_DS_PORT = 389
IS_ROOT_SUFFIX = dc=red,dc=sun,dc=com
IS_DIRMGRDN = cn=Directory Manager
IS_DIRMGRPASSWD = admin123
IS_EXISTING_DIT_SCHEMA = n
IS_LOAD_DIT = y
IS_ORG_OBJECT_CLASS = sunISManagedOrganization
IS_ORG_NAMING_ATTR = o
IS_USER_OBJECT_CLASS = inetorgperson
IS_USER_NAMING_ATTR = uid
IS_DIRECTORY_MODE = 1
PS_DEPLOY_TYPE = SUNONE8
PS_DEPLOY_DIR = /opt/SUNWappserver/appserver
PS_DEPLOY_INSTANCE = server
PS_DEPLOY_PROTOCOL = http
PS_DEPLOY_PORT = 8080

```



```
PS_DEPLOY_DOCROOT = /var/opt/SUNWappserver/domains/domain1/docroot
PS_DEPLOY_DOMAIN = domain1
PS_DEPLOY_INSTANCE_DIR = /var/opt/SUNWappserver/domains/domain1
PS_DEPLOY_ADMIN_PORT = 4849
PS_DEPLOY_ADMIN = admin
PS_DEPLOY_ADMIN_PASSWORD = admin123
PS_DEPLOY_ADMIN_PROTOCOL = https
PS_DEPLOY_PRODUCT_DIR =
PS_DEPLOY_PROJECT_DIR =
PS_DEPLOY_NOW = y
PS_DEPLOY_JDK_DIR = /usr/jdk/entsys-j2se
PS_DEPLOY_VIRTUAL_HOST =
PS_DEPLOY_CELL =
PS_DEPLOY_NODE =
PS_DEPLOY_URI = /portal
PS_LOAD_BALANCER_URL = http://myComputer.example.com:8080/portal
PS_SAMPLE_PORTAL = y
PS_IS_INSTALLDIR = /opt
PS_IS_LDAP_AUTH_PASSWORD = 123admin
PS_IS_ADMIN_PASSWORD = admin123
PS_DS_DIRMGR_DN = cn=Directory Manager
PS_DS_DIRMGR_PASSWORD = admin123
SRA_DEPLOY_URI = /portal
SRA_IS_INSTALLDIR = /opt
SRA_SERVER_DOMAIN = example.com
SRA_GATEWAY_PROTOCOL = https
SRA_GATEWAY_DOMAIN = example.com
SRA_GATEWAY_PORT = 443
SRA_GATEWAY_PROFILE = default
SRA_LOG_USER_PASSWORD = admin123
SRA_GW_PROTOCOL = https
SRA_GW_HOSTNAME = myComputer
SRA_GW_SUBDOMAIN =
SRA_GW_DOMAIN = example.com
SRA_GW_PORT = 443
SRA_GW_IPADDRESS = 192.168-255-255
SRA_GW_PROFILE = default
SRA_GW_START = n
SRA_NLP_HOSTNAME = myComputer
SRA_NLP_SUBDOMAIN =
SRA_NLP_DOMAIN = example.com
SRA_NLP_PORT = 10555
SRA_NLP_IPADDRESS = 192.168.255.255
SRA_NLP_GATEWAY_PROFILE = default
SRA_NLP_START = n
SRA_RWP_HOSTNAME = myComputer
SRA_RWP_SUBDOMAIN =
SRA_RWP_DOMAIN = example.com
SRA_RWP_PORT = 10443
SRA_RWP_IPADDRESS = 192.168.255.255
SRA_RWP_GATEWAY_PROFILE = default
SRA_RWP_START = n
SRA_IS_CREATE_INSTANCE = y
SRA_SERVER_PROTOCOL = http
SRA_SERVER_HOST = myComputer.example.com
```

```
SRA_SERVER_PORT = 8080
SRA_SERVER_DEPLOY_URI = /portal
SRA_IS_ORG_DN = dc=red,dc=sun,dc=com
SRA_IS_SERVICE_URI = /amserver
SRA_IS_PASSWORD_KEY = 123admin
SRA_CERT_ORGANIZATION = Sun Microsystems
SRA_CERT_DIVISION = Software
SRA_CERT_CITY = Santa Clara
SRA_CERT_STATE = CA
SRA_CERT_COUNTRY = US
SRA_CERT_PASSWORD = admin123
SRA_CERT_SELFSIGNED =
HADB_DEFAULT_AMDINPORT = 1862
HADB_DEFAULT_RESDIR = /var/opt
HADB_AUTO_START = N
HADB_DEFAULT_GROUP = root
HADB_ALLOW_GROUPMANAGE = N
WPS_ADMIN_USER = admin
WPS_ADMIN_PASSWORD = admin123
WPS_ADMIN_PORT = 8888
WPS_ADMIN_RUNTIME_USER = root
WPS_INSTANCE_RUNTIME_USER = nobody
WPS_INSTANCE_PORT = 8080
WPS_INSTANCE_AUTO_START = N
WPS_PROXY_DOMAIN = myComputer.example.com
[STATE_DONE Sun Java(tm) Enterprise System
ad21547ce1f4b70d10b1c361c2d8ffb10611158c]
```

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