

Oracle® Application Server

Installation Guide

10g Release 2 (10.1.2) for hp HP-UX Itanium, and Linux Itanium

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Preface

The Oracle Application Server Installation Guide covers requirements, new features in the Oracle Universal Installer, Oracle Application Server concepts that affect installation, installation procedures, and troubleshooting tips. In addition, this guide also provides some sample topologies for installing and running Oracle Application Server.

Intended Audience

This book is intended for users who are comfortable running some system administration operations, such as creating users and groups and adding users to groups.

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Structure

This guide contains the following chapters and appendixes:

Chapter 1, "Summary of Installation Steps"

This chapter provides an overview of the installation steps.

Chapter 2, "Requirements"

This chapter lists the requirements for installing and running Oracle Application Server.

Chapter 3, "Things You Should Know Before Starting the Installation"

This chapter provides an overview of Oracle Application Server and its components. Understanding how the components fit together can help you make some installation decisions.

Chapter 4, "Installing Middle Tiers"

This chapter describes the Middle Tier installation, which includes the core, and J2EE and Web Cache components.

Chapter 5, "Post-Installation Tasks"

This chapter describes additional setup steps that you should do after installation.

Appendix A, "Silent and Non-Interactive Installation"

This appendix describes how to install Oracle Application Server using response files.

Appendix B, "Default Port Numbers"

This appendix lists the port numbers assigned to components by the installer.

Appendix C, "Ports to Open in Firewalls"

This appendix shows the ports that you have to open in a firewall if you are installing and running Oracle Application Server in such environments.

Appendix D, "Deinstallation and Reinstallation"

This appendix describes how to remove Oracle Application Server from your computer.

Appendix E, "Configuration Assistants"

This appendix describes the configuration assistants run by the installer.

Appendix F, "Troubleshooting"

This appendix describes how to solve problems that might arise during installation and deinstallation.

Appendix G, "Red Hat Enterprise Linux AS/ES Installation Notes"

This appendix provides some information about Red Hat Enterprise Linux AS/ES.

Related Documents

For additional information, see the following manuals:

- *Oracle Application Server Administrator's Guide*
- *Oracle Application Server Concepts*

Conventions

This guide uses the following conventions:

Convention	Meaning
boldface text	Boldface type in text indicates objects (such as buttons and fields) on screens.
<code>code</code>	Text in the code font indicates filenames, commands, or contents of configuration files.
<i>italicized code</i>	Italicized code font indicates placeholder text that you need to replace with an appropriate value.
[]	Brackets enclose optional clauses from which you can choose one or none.
...	Ellipses indicate that extraneous information have been omitted.

Summary of Installation Steps

Oracle Application Server is a completely standards-based application server that provides a comprehensive and fully integrated platform for running web sites, J2EE applications, and Web services. This chapter provides an overview of the different installation processes to install Oracle Application Server. The other chapters in this guide describe the steps in detail.

To install Oracle Application Server:

1. Read Oracle Application Server Release Notes for the most current information.
You can find the latest version of the release notes on Oracle Technology Network (<http://www.oracle.com/technology/documentation>).
2. Check that the computer where you want to install and run Oracle Application Server meets the requirements. This includes:
 - [Section 2.1, "Check Hardware Requirements"](#)
 - [Section 2.2, "Check the Software Requirements"](#)
 - [Section 2.3, "Check Kernel Parameters and Shell Limits"](#)
 - [Section 2.4, "Ports"](#)
 - [Section 2.5, "Operating System Groups"](#)
 - [Section 2.6, "Operating System User"](#)
 - [Section 2.7, "Environment Variables"](#)
 - [Section 2.8, "Network Topics"](#)
 - [Section 2.9, "Prerequisite Checks Performed by the Installer"](#)
3. Read [Chapter 3, "Things You Should Know Before Starting the Installation"](#) to understand how the different components of Oracle Application Server work together. This chapter describes what the Oracle Application Server Middle Tier components are, where you can install them, and what values the installer expects on some of the installation screens.
4. Install Oracle Application Server Middle Tier. Follow the procedures in [Chapter 4, "Installing Middle Tiers"](#).
5. After you install Oracle Application Server, access the Welcome page and perform some basic tasks to ensure that the installation was successful.

Requirements

Before installing Oracle Application Server, ensure that your computer meets the requirements described in this chapter. This chapter contains the following sections:

- [Section 2.1, "Check Hardware Requirements"](#)
- [Section 2.2, "Check the Software Requirements"](#)
- [Section 2.3, "Check Kernel Parameters and Shell Limits"](#)
- [Section 2.4, "Ports"](#)
- [Section 2.5, "Operating System Groups"](#)
- [Section 2.6, "Operating System User"](#)
- [Section 2.7, "Environment Variables"](#)
- [Section 2.8, "Network Topics"](#)
- [Section 2.9, "Prerequisite Checks Performed by the Installer"](#)

2.1 Check Hardware Requirements

Depending on your operating system, see one of the following sections for information on checking the hardware requirements:

- [Table 2-1, "Hardware Requirements for HP-UX Systems"](#)
- [Table 2-2, "Hardware Requirements for Linux Systems"](#)

The tables list the system requirements for running Oracle Application Server. The installer checks many of these requirements at the start of the installation process and warns you if any of them is not met. To save time, you can manually check only the ones that are not checked by the installer. Refer to the appropriate table to see which requirements are not checked by the installer.

You can also run the system checks performed by the installer without doing an installation, by running the `runInstaller` command as shown. The `runInstaller` command is on the Oracle Application Server CD-ROM (Disk 1).

CD-ROM:

```
prompt> mount_point/1012disk1/runInstaller -executeSysPrereqs
```

The results are displayed on the screen as well as written to a log file. For more information on the types of checks performed, see [Section 2.9, "Prerequisite Checks Performed by the Installer"](#).

Table 2–1 Hardware Requirements for HP-UX Systems

Item	Minimum Requirement	Checked by Installer
Network	The computer must be connected to a network. You cannot install Oracle Application Server on a "standalone" computer that is not connected to a network.	No
IP	The computer's IP address must be static. Oracle Application Server does not support HP-UX systems using DHCP.	No
Memory	<p>The memory requirements provided for the various installation types represents enough physical memory to install and run Oracle Application Server. However, for most production sites, you should configure at least 1 GB of physical memory. For sites with substantial traffic, increasing the amount of memory further may improve your performance. For Java applications, you should either increase the maximum heap allocated to the OC4J processes, or configure additional OC4J processes to utilize this memory. See the Oracle Application Server Performance Guide for details.</p> <p>In determining the optimal amount of memory for your installation, the best practice is to load test your site. Resource requirements can vary substantially for different applications and different usage patterns. In addition, some operating system utilities for monitoring memory can overstate memory usage (partially due to the representation of shared memory). The preferred method for determining memory requirements is to monitor the improvement in performance resulting from the addition of physical memory in your load test. Refer to your platform vendor documentation for information on how to configure memory and processor resources for testing purposes.</p> <p>Oracle Application Server middle tier:</p> <ul style="list-style-type: none"> ■ J2EE and Web Cache: 512 MB <p>To determine the amount of memory, enter the following command:</p> <pre># /usr/sbin/dmesg grep "Physical:"</pre>	Yes
Disk space	<p>Oracle Application Server middle tier:</p> <ul style="list-style-type: none"> ■ J2EE and Web Cache: 2.3 GB <p>The installer may display inaccurate disk space requirement figures. Refer to the figures listed above for disk space requirements.</p> <p>To determine the amount of free disk space, use the <code>bdf</code> command:</p> <pre>prompt> bdf dir</pre> <p>Replace <code>dir</code> with the Oracle home directory or with the parent directory if the Oracle home directory does not exist yet. For example, if you plan to install Oracle Application Server in <code>/opt/oracle/infra</code>, you can replace <code>dir</code> with <code>/opt/oracle</code> or <code>/opt/oracle/infra</code>.</p>	No
Space in /tmp directory	<p>400 MB</p> <p>To determine the amount of free disk space in the <code>/tmp</code> directory, enter the following command:</p> <pre>prompt> bdf /tmp</pre> <p>If the <code>/tmp</code> directory does not have enough free space, you can specify a different directory by setting the <code>TMP</code> environment variable. See Section 2.7.5, "TMP and TMPDIR" for details.</p>	Yes

Table 2–1 Hardware Requirements for HP-UX Systems

Item	Minimum Requirement	Checked by Installer
Swap space	<p>1.5 GB of available swap space</p> <p>To determine the amount of available swap space, enter the following command:</p> <pre># /usr/sbin/swapinfo -a</pre> <p>If necessary, see your operating system documentation for information on how to configure additional swap space.</p>	Yes
Monitor	<p>256 color display</p> <p>To determine your monitor's display capabilities, run the following command:</p> <pre>prompt> /usr/contrib/bin/X11/xdpyinfo</pre> <p>Look for the "depths" line. You need a depth of at least 8 (bits per pixel).</p>	Yes

Table 2–2 Hardware Requirements for Linux Systems

Item	Minimum Requirement	Checked by Installer
Network	The computer must be connected to a network. You cannot install Oracle Application Server on a "standalone" computer that is not connected to a network.	No
IP	The computer's IP address must be static. Oracle Application Server does not support Linux Itanium systems using DHCP.	No
Memory	<p>The memory requirements provided for the various installation types represents enough physical memory to install and run Oracle Application Server. However, for most production sites, you should configure at least 1 GB of physical memory. For sites with substantial traffic, increasing the amount of memory further may improve your performance. For Java applications, you should either increase the maximum heap allocated to the OC4J processes, or configure additional OC4J processes to utilize this memory. See the Oracle Application Server Performance Guide for details.</p> <p>In determining the optimal amount of memory for your installation, the best practice is to load test your site. Resource requirements can vary substantially for different applications and different usage patterns. In addition, some operating system utilities for monitoring memory can overstate memory usage (partially due to the representation of shared memory). The preferred method for determining memory requirements is to monitor the improvement in performance resulting from the addition of physical memory in your load test. Refer to your platform vendor documentation for information on how to configure memory and processor resources for testing purposes.</p> <p>Oracle Application Server middle tier:</p> <ul style="list-style-type: none"> ■ J2EE and Web Cache: 512 MB <p>To determine the amount of memory, enter the following command:</p> <pre># grep MemTotal /proc/meminfo</pre>	Yes

Table 2–2 Hardware Requirements for Linux Systems (Cont.)

Item	Minimum Requirement	Checked by Installer
Disk space	<p>Oracle Application Server middle tier:</p> <ul style="list-style-type: none"> ■ J2EE and Web Cache: 1 GB <p>The installer may display inaccurate disk space requirement figures. Refer to the figures listed above for disk space requirements.</p> <p>To determine the amount of free disk space, use the <code>df</code> command:</p> <pre>prompt> df -k dir</pre> <p>Replace <i>dir</i> with the Oracle home directory or with the parent directory if the Oracle home directory does not exist yet. For example, if you plan to install Oracle Application Server in <code>/opt/oracle/infra</code>, you can replace <i>dir</i> with <code>/opt/oracle</code> or <code>/opt/oracle/infra</code>.</p>	No
Space in <code>/tmp</code> directory	<p>400 MB</p> <p>To determine the amount of free disk space in the <code>/tmp</code> directory, use the <code>df</code> command:</p> <pre>prompt> df -k /tmp</pre> <p>If the <code>/tmp</code> directory does not have enough free space, you can specify a different directory by setting the TMP environment variable. See Section 2.7.5, "TMP and TMPDIR" for details.</p>	Yes
Swap space	<p>1.5 GB of available swap space</p> <p>To determine the amount of available swap space, enter the following command:</p> <pre># grep SwapTotal /proc/meminfo</pre> <p>If necessary, see your operating system documentation for information on how to configure additional swap space.</p>	Yes
Monitor	<p>256 color display</p> <p>To determine your monitor's display capabilities, run the following command:</p> <pre>prompt> /usr/X11R6/bin/xdpyinfo</pre> <p>Look for the "depths" line. You need a depth of at least 8 (bits per pixel).</p>	Yes

2.1.1 Tips for Reducing Memory Usage

If you need to reduce memory consumption:

- Configure only the components that you need.
- After installation, start up only the components that you need. See the Oracle Application Server Administrator's Guide for details.
- Run Application Server Control only when you need to administer an instance. In most cases, you do not need Application Server Control running all the time.

If you are running multiple Oracle Application Server instances on one computer, each Application Server Control can consume a lot of memory. Running Application Server Control only when you need it can free up memory for other components.

2.2 Check the Software Requirements

Depending on your operating system, see one of the following sections for information on checking the software requirements:

- [Section 2.2.1, "Checking the Software Requirements for HP-UX"](#)
- [Section 2.2.2, "Checking the Software Requirements for Linux"](#)

The installer also checks that your computer contains the required patches. If it determines that some required patches are missing, it displays an error.

In addition to the software requirements for the computer, you must have a compatible browser.

The following browsers are supported:

- Microsoft Internet Explorer 5.5, 6.0 (supported on Microsoft Windows only)
- On Windows XP with SP2, use the Microsoft Internet Explorer 6.0.2900.2180.xpsp_sp2_rtm.040803-2158. This is the version packaged with SP2.
- Netscape 7.1, 7.2
- Mozilla 1.5. You can download Mozilla from <http://www.mozilla.org>. Note that Firefox, the standalone Mozilla browser, is currently not certified. But check the Oracle*MetaLink* site (<http://metalink.oracle.com>) for the most current list of certified browsers.
- Safari 1.2 (on Apple Macintosh computers)

For the most current list of supported browsers, check the Oracle*MetaLink* site (<http://metalink.oracle.com>).

2.2.1 Checking the Software Requirements for HP-UX

Check that the software listed in [Table 2–3](#) is installed on the system. The procedure that follows the table describes how to ensure the correct software is installed on the system.

Note: Oracle Application Server 10g Release 2 (10.1.2) is certified with the following Operating System specific software. For the most current list of supported Operating System specific software, for example JDK version, Operating System version, check *Oracle MetaLink* (<http://metalink.oracle.com>).

Table 2–3 Software Requirements for HP-UX 11i Version 2 Systems

Item	Requirement
Operating System	HP-UX 11i Version 2 (11.23) Itanium or higher
Patches (or higher versions)	<ul style="list-style-type: none"> ■ PHSS_29657: u2comp/be/plugin library Patch ■ PHSS_29658: Aries cumulative patch ■ PHSS_29660: linker + fdp cumulative patch <p>The following patches are required if ANSI C is installed on the system:</p> <ul style="list-style-type: none"> ■ PHSS_30227: HP C Compiler (A.05.52) ■ PHSS_30226: aC++ Compiler (A.05.52)
Package	No additional packages required.

To ensure that the system meets these requirements, follow these steps:

1. To determine which version of HP-UX is installed, enter the following command:

```
# uname -a
HP-UX hostname B.11.23 U ia64 3594319402 unlimited-user license
```

In this example, the version is HP-UX 11i Version 2 (11.23) Itanium.

2. To determine whether a bundle or product is installed, enter the following command:

```
# /usr/sbin/swlist -l product | more
```

If a required product is not installed, you must install it. See your operating system documentation for information on installing products.

3. To determine whether a patch is installed, enter a command similar to the following:

```
# /usr/sbin/swlist -l patch | grep PHKL_29198
```

Alternatively, to list all installed patches, enter the following command:

```
# /usr/sbin/swlist -l patch | more
```

If a required patch is not installed, download it from the following URL and install it:

<http://itresourcecenter.hp.com>

2.2.2 Checking the Software Requirements for Linux

Depending on your distribution of Linux, see one of the following sections for information on checking the software requirements:

- [Software Requirements for Red Hat Enterprise Linux AS/ES 3.0 Systems](#)
- [Software Requirements for SUSE Linux Enterprise Server 9 Systems](#)

Oracle does not support customized kernels or modules not supported by the Linux vendor.

2.2.2.1 Software Requirements for Red Hat Enterprise Linux AS/ES 3.0 Systems

[Table 2–4](#) lists the software requirements for Red Hat Enterprise Linux AS/ES 3.0 systems and the procedure that follows the table describes how to ensure your system meets these requirements and any additional requirements for installing Oracle Application Server.

Note: Red Hat Enterprise Linux AS/ES 3.0 and SUSE Linux Enterprise Server 9 are certified and supported. For the most current list of supported Linux Operating Systems, check Oracle *MetaLink* (<http://metalink.oracle.com>).

Table 2–4 *Software Requirements for Red Hat Enterprise Linux AS/ES 3.0 Systems*

Item	Requirement
Operating System	<p>Red Hat Enterprise Linux AS/ES 3.0</p> <p>For more information on Red Hat, see:</p> <p>http://www.redhat.com</p> <p>The minimum supported kernel versions are:</p> <ul style="list-style-type: none"> ■ kernel-2.4.21-20.EL ■ kernel-smp-2.4.21-20.EL ■ kernel-hugemem-2.4.21-20.EL
Red Hat Update	Update 3

Table 2–4 Software Requirements for Red Hat Enterprise Linux AS/ES 3.0 Systems

Item	Requirement
Software packages (check that these versions or higher versions are installed)	glibc-2.3.2-95.27 glibc-common-2.3.2-95.27 binutils-2.14.90.0.4-35 compat-glibc-7.x-2.2.4.32.6 compat-libstdc++-7.3-2.96.128 compat-libstdc++-devel-7.3-2.96.128 gcc-3.2.3-42 gcc-c++-3.2.3-42 libstdc++-3.2.3-42 libstdc++-devel-3.2.3-42 openmotif21-2.1.30-8 pdksh-5.2.14-21 setarch-1.3-1 make-3.79.1-17 gnome-libs-1.4.1.2.90-34.1 sysstat-4.0.7-4.EL3.3 compat-db-4.0.14-5 <p>Note: For Red Hat Enterprise Linux AS/ES 3.0, the equivalent version of openmotif 2.1.30-8 is openmotif21-2.1.30-8. The openmotif21-2.1.30-8 package can be installed from disk number 3 of the Red Hat Enterprise Linux AS/ES 3.0 distribution by entering:</p> <pre>\$ rpm -ivh openmotif21-2.1.30-8</pre>

To ensure that the system meets all the requirements, follow these steps:

1. Log in as the root user.
2. To determine which distribution and version of Linux is installed, enter the following command:

```
# cat /etc/issue
Red Hat Enterprise Linux AS release 3 (Taroon Update 3)
```

Note: Red Hat Enterprise Linux AS/ES 3.0 and SUSE Linux Enterprise Server 9 are certified and supported. For the most current list of supported Linux Operating Systems, check Oracle *MetaLink* (<http://metalink.oracle.com>).

3. To check that Update 3 is installed:

```
# cat /etc/redhat-release
Red Hat Enterprise Linux AS release 3 (Taroon Update 3)
```

4. To determine whether any other package is installed, enter a command similar to the following:

```
# rpm -q package_name
```

If a package is missing, download it and install it using the following command:

```
# rpm -i package_name
```

When installing a package, make sure you are using the correct architecture and optimization rpm file. To check the architecture of an rpm file, run the following command:

```
# rpm -q package_name --queryformat "%{arch}\n"
```

In the following example, the glibc rpm file is suitable for an Itanium architecture

```
# rpm -q glibc --queryformat "%{arch}\n"
ia64
```

2.2.2.2 Software Requirements for SUSE Linux Enterprise Server 9 Systems

Table 2–5 lists the software requirements for SUSE Linux Enterprise Server 9 systems and the procedure that follows the table describes how to ensure your system meets these requirements and any additional requirements for installing Oracle Application Server.

Note: Oracle Application Server 10g Release 2 (10.1.2) is certified with the following Operating System specific software. For the most current list of supported Operating System specific software, for example JDK version, Operating System version, check *OracleMetaLink* (<http://metalink.oracle.com>).

Table 2–5 Software Requirements for SUSE Linux Enterprise Server 9 Systems

Item	Requirement
Operating System	<p>SUSE Linux Enterprise Server 9</p> <p>For more information on SUSE Linux Enterprise Server, see:</p> <p>http://www.suse.com</p> <p>For SUSE Linux Enterprise Server 9, the minimum supported kernel versions are:</p> <ul style="list-style-type: none"> ■ kernel-bigsmpt-2.6.5-7.97 ■ kernel-default-2.6.5-7.97 ■ kernel-smp-2.6.5-7.97
Software packages (check that these versions or higher versions are installed)	<p>glibc-2.3.3-98.28</p> <p>gcc-3.3.3-43.24</p> <p>gcc-c++-3.3.3-43.24</p> <p>libstdc++-3.3.3-43.24</p> <p>libstdc++-devel-3.3.3-43.24</p> <p>openmotif21-libs-2.1.30MLI4-119.1</p> <p>pdcksh-5.2.14-780.1</p> <p>make-3.80-184.1</p> <p>gnome-libs-1.4.1.7-671.1</p> <p>gnome-libs-devel-1.4.1.7-671.1</p> <p>sysstat-5.0.1-35.1</p> <p>binutils-2.15.90.0.1.1-32.5</p> <p>db1-1.85-85.1</p> <p>compat-2004.7.1-1.2</p> <p>libaio-0.3.98-18.3</p> <p>libaio-devel-0.3.98-18.3</p>

To ensure that the system meets all the requirements, follow these steps:

1. Log in as the `root` user.
2. To determine which distribution and version of Linux is installed, enter the following command:

```
# cat /etc/issue
Welcome to SUSE LINUX Enterprise Server 9 (ia64) - Kernel \r (\l)..  

```

Note: Red Hat Enterprise Linux AS/ES 3.0 and SUSE Linux Enterprise Server 9 are certified and supported. For the most current list of supported Linux Operating Systems, check Oracle *MetaLink* (<http://metalink.oracle.com>).

3. To determine the kernel version, enter the following command:

```
# uname -r
2.6.5-7.97-default
```

4. To determine whether any other package is installed, enter a command similar to the following:

```
# rpm -q package_name
```

If a package is missing, download it and install it using the following command:

```
# rpm -i package_name
```

When installing a package, make sure you are using the correct architecture and optimization rpm file. To check the architecture of an rpm file, run the following command:

```
# rpm -q package_name --queryformat "%{arch}\n"
```

In the following example, the `glibc` rpm file is suitable for an Itanium architecture

```
# rpm -q glibc --queryformat "%{arch}\n"
ia64
```

5. Create the following symbolic link for the Perl executable if it does not already exist:

```
# ln -sf /usr/bin/perl /usr/local/bin/perl
```

6. Create the following symbolic link for the `fuser` executable if it does not already exist:

```
# ln -sf /bin/fuser /sbin/fuser
```

7. If the `orarun` package was installed on a SUSE Linux Enterprise Server system, complete the following steps as the `oracle` user to reset the environment:

- a. Enter the following commands:

```
prompt> cd /etc/profile.d
prompt> mv oracle.csh oracle.csh.bak
prompt> mv oracle.sh oracle.sh.bak
prompt> mv alljava.sh alljava.sh.bak
prompt> mv alljava.csh alljava.csh.bak
```


- b. Use any text editor to comment out the following line from the `$HOME/.profile` file:


```
. ./oracle
```
 - c. Log out of the `oracle` user account.
 - d. Log into the `oracle` user account for the changes to take effect.
8. If any Java packages are installed on the system, unset the Java environment variables, for example `JAVA_HOME`.

Note: Oracle recommends that you do not install any of the Java packages supplied with the SUSE Linux Enterprise Server distribution.

9. Check the `/etc/services` file to make sure that the following port ranges are available on the system:
 - ports 1812-1829 required for Oracle Enterprise Manager (console)
 - ports 1830-1849 required for Oracle Enterprise Manager (agent)
 - ports 1850-1869 required for Oracle Enterprise Manager (RMI)

If necessary, remove entries from the `/etc/services` file and reboot the system. To remove the entries, you can use the perl script included in the `utils/3167528/` directory of CD-ROM Disk 1. Run the script as the `root` user. This script is also available as patch 3167528.

This patch is available from:

<http://metalink.oracle.com>

If these ports are not available, the associated configuration assistants will fail during the installation.

10. If you use Network Information Service (NIS):
 - a. Make sure that the following line exists in the `/etc/yp.conf` file:


```
hostname.domainname broadcast
```
 - b. Make sure that the following line exists in the `/etc/nsswitch.conf` file:


```
hosts: files nis dns
```

11. Make sure that the `localhost` entry in the `/etc/hosts` file is an IPv4 entry. If the IP entry for `localhost` is IPv6 format, installation cannot succeed. The following example shows an IPv6 entry:

```
# special IPv6 addresses
::1          localhost ipv6-localhost ipv6-loopback
::1          ipv6-localhost ipv6-loopback
```

To correct this example `/etc/hosts` file, comment the `localhost` entry as follows:

```
# special IPv6 addresses
# ::1          localhost ipv6-localhost ipv6-loopback
::1          ipv6-localhost ipv6-loopback
```

To comment the entries, you can use the perl script included in the `utils/4015045/` directory of CD-ROM Disk 1. Run the script as the root user. This script is also available as patch 4015045. This patch is available from:

<http://metalink.oracle.com>

2.3 Check Kernel Parameters and Shell Limits

Depending on your operating system, see one of the following sections for information on checking the software requirements:

- [Section 2.3.1, "Configuring Kernel Parameters on HP-UX"](#)
- [Section 2.3.2, "Configuring the Kernel Parameters on Linux"](#)

2.3.1 Configuring Kernel Parameters on HP-UX

The computers on which you plan to install OracleAS Web Cache require their kernel parameters to be set to the minimum values listed in the following sections:

Kernel Parameter Settings for OracleAS Web Cache

This section applies if you are installing OracleAS Web Cache:

1. Start System Administration Manager (SAM) as the root user:

```
# /usr/sbin/sam
```
2. Choose the Kernel Configuration area, then choose the Configurable Parameters area.
3. Check the value for `maxfiles_lim` is at least 65536. If necessary, modify that value. See the SAM online help for more information on completing this step.
4. Exit from SAM.
5. If you modified the value, reboot the system:

```
# /sbin/shutdown -r now
```

2.3.2 Configuring the Kernel Parameters on Linux

The computers on which you plan to install OracleAS Web Cache require their kernel parameters to be set to the minimum values listed in the following sections:

Kernel Parameter Settings for OracleAS Web Cache

This section applies if you are installing OracleAS Web Cache:

1. Run the following command to check that the `nofile` kernel parameter is set to at least 65536:

```
prompt> ulimit -Hn
```

2. If the command returns a value less than 65536, add this line to the `/etc/security/limits.conf` file (use a text editor to edit the file):

```
*          hard    nofile  65536
```

You need to be the root user to edit the `/etc/security/limits.conf` file.

3. Reboot the computer for the new value to take effect.

Set Shell Limits for the oracle User

To improve the performance of the software on Linux systems, you must increase the following shell limits for the `oracle` user, depending on the user's default shell:

Bourne or Bash Shell Limit	Korn Shell Limit	C or tcsh Shell Limit	Hard Limit
<code>nofile</code>	<code>nofile</code>	<code>descriptors</code>	65536
<code>noproc</code>	<code>processes</code>	<code>maxproc</code>	16384

To increase the shell limits:

1. Add the following lines to `/etc/security/limits.conf` file:

```
*      soft  nproc      2047
*      hard  nproc      16384
*      soft  nofile     2048
*      hard  nofile     65536
```

2. Add the following line to the `/etc/pam.d/login` file, if it does not already exist:

```
session    required    /lib/security/pam_limits.so
```

3. Depending on the `oracle` user's default shell, make the following changes to the default shell start-up file:

- For the Bourne, Bash, or Korn shell, add the following lines to the `/etc/profile` file:

```
if [ $USER = "oracle" ]; then
    if [ $SHELL = "/bin/ksh" ]; then
        ulimit -p 16384
        ulimit -n 65536
    else
        ulimit -u 16384 -n 65536
    fi
fi
```

- For the C or tcsh shell, add the following lines to the `/etc/csh.login` file:

```
if ( $USER == "oracle" ) then
    limit maxproc 16384
    limit descriptors 65536
endif
```

2.4 Ports

Many Oracle Application Server components, such as Oracle HTTP Server, OracleAS Web Cache, and Oracle Enterprise Manager, use ports. You can have the installer assign default port numbers, or specify the port numbers yourself. Further details are discussed in the following topics.

- [Section 2.4.1, "Checking If a Port Is in Use"](#)
- [Section 2.4.2, "Using Default Port Numbers"](#)
- [Section 2.4.3, "Using Custom Port Numbers \(the Static Ports Feature\)"](#)

Why the Default Port for Oracle HTTP Server Is Port 7777 and Not Port 80

By default, the installer configures Oracle HTTP Server to use port 7777, not port 80. Port 7777 is the default port because on UNIX, components that use port numbers lower than 1024 require additional steps to be done as the root user before the components can run. Because the installer does not have root access, it has to use a port greater than 1024.

If you want Oracle HTTP Server to use a different port, such as port 80, use the "static ports" feature, which enables you to specify port numbers for components. Although you can change the port number after installation, it is easier to set the port number during installation.

2.4.1 Checking If a Port Is in Use

To check if a port is being used, you can run the `netstat` command as follows:

```
prompt> netstat -an | grep portnum
```

2.4.2 Using Default Port Numbers

If you want to use default port numbers for components, then you do not have to do anything. Refer to [Appendix B, "Default Port Numbers"](#) for a list of default port numbers and ranges. Make sure that at least one port is available in the port range for each component. If the installer is unable to find a free port in the range, then the installation will fail.

2.4.3 Using Custom Port Numbers (the Static Ports Feature)

To instruct the installer to assign custom port numbers for components:

1. Create a file containing the component names and port numbers. [Section 2.4.3.1, "Format of the staticports.ini File"](#) describes the file format. This file is typically called the `staticports.ini` file, but you can name it anything you want.
2. In the installer, on the Specify Port Configuration Options screen, select **Manual** and enter the *full path* to the file.

If you do not specify the full path to the file, then the installer will not be able to find the file. The installer will then assign default ports for all the components without displaying any warning.

2.4.3.1 Format of the staticports.ini File

The `staticports.ini` file has the following format. Replace *port_num* with the port number that you want to use for the component.

```
# J2EE and Web Cache
Oracle HTTP Server port = port_num
Oracle HTTP Server Listen port = port_num
Oracle HTTP Server SSL port = port_num
Oracle HTTP Server Listen (SSL) port = port_num
Oracle HTTP Server Diagnostic port = port_num
Java Object Cache port = port_num
DCM Java Object Cache port = port_num
DCM Discovery port = port_num
Oracle Notification Server Request port = port_num
Oracle Notification Server Local port = port_num
Oracle Notification Server Remote port = port_num
Application Server Control port = port_num
```

```

Application Server Control RMI port = port_num
Oracle Management Agent port = port_num
Web Cache HTTP Listen port = port_num
Web Cache HTTP Listen (SSL) port = port_num
Web Cache Administration port = port_num
Web Cache Invalidation port = port_num
Web Cache Statistics port = port_num
Log Loader port = port_num

```

The easiest way to create the file is to use the `staticports.ini` file on the CD-ROM (Disk 1) as a template:

1. Copy the `staticports.ini` file from the CD-ROM to the computer.

Table 2–6 Location of the `staticports.ini` File on CD-ROM

Media	Location of <code>staticports.ini</code> File
CD-ROM	Disk 1: <code>mount_point/1012disk1/stage/Response/staticports.ini</code>

2. Edit the local copy (the file on the hard disk) to include the desired port numbers.

You do not need to specify port numbers for all components in the `staticports.ini` file. If a component is not listed in the file, then the installer uses the default port number for that component.

The following example sets the Application Server Control port and some OracleAS Web Cache ports. For components not specified, the installer will assign default port numbers.

```

Application Server Control port = 2000
Web Cache Administration port = 2001
Web Cache Invalidation port = 2002
Web Cache Statistics port = 2003

```

When installation is complete, you can check the `ORACLE_HOME/install/portlist.ini` file to see the assigned ports.

Notes on Choosing Port Numbers:

- Port numbers cannot be greater than 65535.
 - If you use a port number less than 1024 for a component, you must run the component as the root user.
 - If you use a port number less than 1024 for a component, the installer will not be able to start up the component at the end of installation. You may need to configure the component first before you can start it up. See the appropriate component documentation for details.
 - You still have to comment out ports 389 and 636 in the `/etc/services` file if you want to use these port numbers for Oracle Internet Directory..
 - If you plan to set port numbers for Oracle HTTP Server and OracleAS Web Cache, be sure you read [Section 2.4.3.3, "Ports for Oracle HTTP Server and OracleAS Web Cache"](#).
-

The installer verifies that the ports specified in the file are available by checking memory. Only ports that are being used by running processes are detected. The configuration files are not checked to determine which ports an application is using.

The installer will not assign a port that is not available. If the installer detects that a specified port is not available, then it displays an alert. To fix this:

1. Edit the `staticports.ini` file to specify a different port, or shut down the application that is using the port.
2. Click **Retry**. The installer re-reads the `staticports.ini` file and verifies the entries in the file again.

Using portlist.ini as the staticports.ini File

The `staticports.ini` file uses the same format as the `ORACLE_HOME/install/portlist.ini` file, which is created *after* an Oracle Application Server installation. If you have installed Oracle Application Server and you want to use the same port numbers in another installation, then you can use the `portlist.ini` file from the first installation as the `staticports.ini` file for subsequent installations.

2.4.3.2 Error Conditions that Will Cause the Installer to Use Default Ports Instead of Specified Ports

Check your `staticports.ini` file carefully because a mistake can cause the installer to use default ports without displaying any warning. Following are some things that you should check:

- If you specify the same port for more than one component, then the installer will use the specified port for the first component only. For the other components, it will use default ports. The installer does not display a warning if you have specified the same port for multiple components.
- If you have syntax errors in the `staticports.ini` file (for example, if you omitted the `=` character for a line), then the installer ignores the line. For the components specified on such lines, the installer assigns default ports. The installer does not display a warning for lines with syntax errors.
- If you misspell a component name, then the installer assigns the default port for the component. Names of components in the file are case sensitive. The installer does not display a warning for lines with unrecognized names.
- If you specify a non-numeric value for the port number, then the installer ignores the line and assigns the default port number for the component. The installer does not display a warning for lines with non-numeric values.
- If you specify a relative path to the `staticports.ini` file (for example, `./staticports.inior` just `staticports.ini`), then the installer will not find the file. The installer continues without displaying a warning and it will assign default ports to all components. You must specify a full path to the `staticports.ini` file.

2.4.3.3 Ports for Oracle HTTP Server and OracleAS Web Cache

Be sure you understand the following when setting ports for these components.

In the `httpd.conf` file for Oracle HTTP Server, the `Port` and `Listen` directives specify the ports used by OracleAS Web Cache and Oracle HTTP Server respectively. The correct lines in the `staticports.ini` file for setting these ports depend on which components you are configuring.

To Configure OracleAS Web Cache and Oracle HTTP Server

1. Set the port for OracleAS Web Cache.

OracleAS Web Cache uses the port specified by the `Port` directive (Figure 2-1). To set this port, use the following line in the `staticports.ini` file:

```
Web Cache HTTP Listen port = port_number
```

To configure the SSL port for OracleAS Web Cache, use the following line:

```
Web Cache HTTP Listen (SSL) port = port_number
```

You cannot set the port number using the Oracle HTTP Server port line in this case. If your `staticports.ini` file contains both Oracle HTTP Server port and Web Cache HTTP Listen port, then the Oracle HTTP Server port line is ignored. For example, if you have the following lines in the `staticports.ini` file:

```
Web Cache HTTP Listen port = 7979
Oracle HTTP Server port = 8080
```

then the `Port` directive would be set to 7979.

2. Set the port for Oracle HTTP Server.

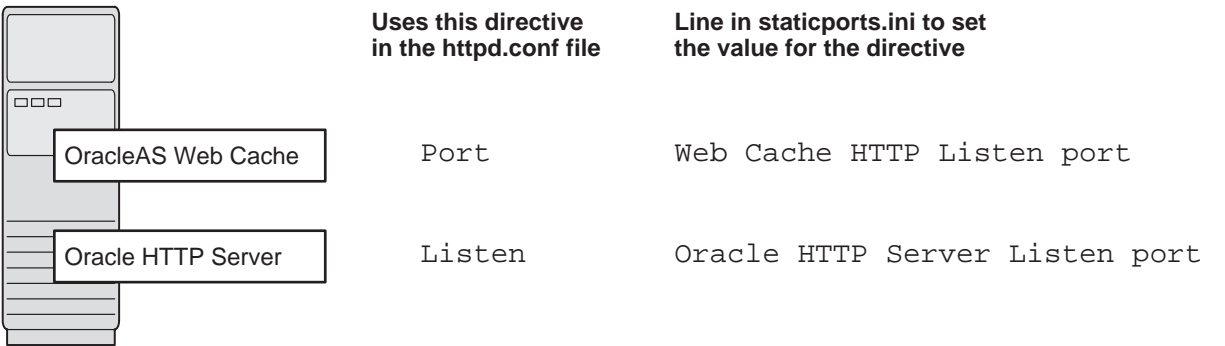
Oracle HTTP Server uses the port specified by the `Listen` directive. To set this port, use the following line in the `staticports.ini` file:

```
Oracle HTTP Server Listen port = port_number
```

To configure the SSL Listen port, use the following line:

```
Oracle HTTP Server Listen (SSL) port = port_number
```

Figure 2-1 Configuring Both OracleAS Web Cache and Oracle HTTP Server



To Configure Oracle HTTP Server Without OracleAS Web Cache

If you are configuring Oracle HTTP Server only, then Oracle HTTP Server uses both `Port` and `Listen` directives (Figure 2-2). In this case, you must set both directives to use the same port number.

To set these ports, use the Oracle HTTP Server port and Oracle HTTP Server Listen port lines in the `staticports.ini` file. For example:

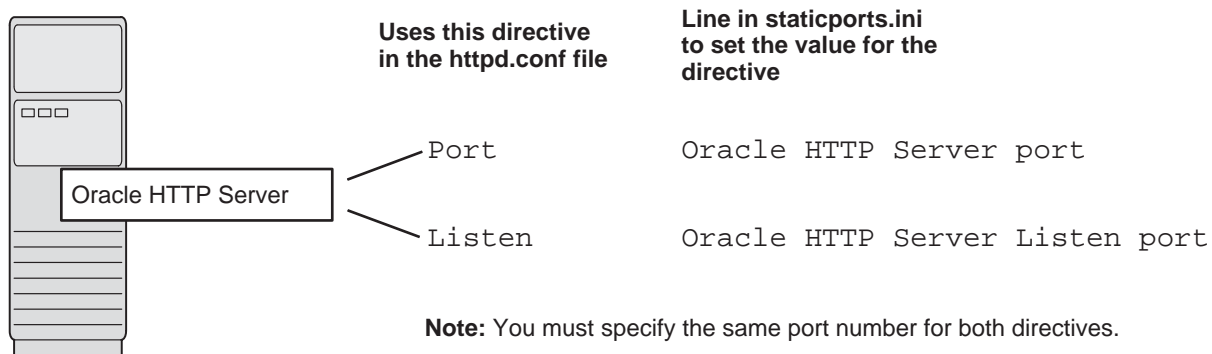
```
Oracle HTTP Server port = 8080
Oracle HTTP Server Listen port = 8080
```

To set the SSL version of these ports, use the following lines. As in the non-SSL version, the port numbers must be the same.

```
Oracle HTTP Server SSL port = 443
Oracle HTTP Server Listen (SSL) port = 443
```

If you also specify the Web Cache lines in `staticports.ini`, then they will be ignored because you are not configuring OracleAS Web Cache.

Figure 2–2 Configuring Only Oracle HTTP Server



2.5 Operating System Groups

If you plan to install Oracle Application Server on a computer that does not have Oracle products, create a group to own the "inventory" directory. See [Section 2.5.1, "Create a Group for the Inventory Directory"](#).

To create a local operating system group:

Enter the following command to create the `oinstall` group:

```
# /usr/sbin/groupadd oinstall
```

For more information about operating system users and groups, see your operating system documentation or contact your system administrator.

2.5.1 Create a Group for the Inventory Directory

If you plan to install Oracle Application Server on a computer that does not have Oracle products, create a group to own the inventory directory. The installer writes its files in the inventory directory to keep track of the Oracle products installed on the computer.

This guide uses the name `oinstall` for this operating system group.

By having a separate group for the inventory directory, you allow different users to install Oracle products on the computer. Users need write permission for the inventory directory. They can achieve this by belonging to the `oinstall` group.

For the first time installation of any Oracle product on a computer, the installer displays a screen where you enter a group name for the inventory directory, and a screen where you enter the location of the inventory directory.

The default name of the inventory directory is `oraInventory`.

If you are unsure if there is already an inventory directory on the computer, look in the `/var/opt/oracle/oraInst.loc` file for HP-UX systems and the

`/etc/oraInst.loc` file on Linux systems. This file lists the location of the inventory directory and the group who owns it. If the file does not exist, the computer does not have Oracle products installed on it.

2.6 Operating System User

Create an operating system user to install and upgrade Oracle products. This guide refers to this user as the `oracle` user. The `oracle` user running the installer must have write permission for these directories:

- the Oracle home directory, which contains files for the product you are installing
- the inventory directory, which is used by the installer for all Oracle products

If the computer contains other Oracle products, you might already have a user for this purpose. Look in the `/var/opt/oracle/oraInst.loc` file for HP-UX systems and the `/etc/oraInst.loc` file on Linux systems. This file lists the location of the inventory directory and the group who owns it. If the file does not exist, the computer does not have Oracle products installed on it.

If you do not already have a user for installing Oracle products, create a user with the following properties:

Table 2–7 *Properties of the Operating System User Who Runs the Installer*

Item	Description
Login name	You can use any name for the user. This guide refers to the user as the <code>oracle</code> user.
Group identifier	The primary group of the <code>oracle</code> user must have write permission for the <code>oraInventory</code> directory. See Section 2.5.1, "Create a Group for the Inventory Directory" for more information about this group. You can use any name for the group. This guide uses the name <code>oinstall</code> .
Home directory	The home directory for the <code>oracle</code> user can be consistent with the home directories of other users.
Login shell	The default login shell can be the C, Bourne, or Korn shell.

Note: Use the `oracle` user only for installing and maintaining Oracle products. Never use it for purposes unrelated to the installer. Do not use root as the `oracle` user.

To create a local operating system user:

1. To create the `oracle` user, enter a command similar to the following:

```
# /usr/sbin/useradd -g oinstall -G dba[,oper] oracle
```

In this command:

- The `-g` option specifies the primary group, which must be the Oracle Inventory group, for example `oinstall`
- The `-G` option specifies the secondary groups, which must include the OSDBA group and if required, the OSOPER group, for example `dba` or `dba, oper`

2. Set the password of the `oracle` user:

```
# passwd oracle
```

To check which groups an operating system user belongs to, run the `groups` command with the name of the user. For example:

```
prompt> groups oracle
```

For more information about operating system users and groups, see your operating system documentation or contact your system administrator.

2.7 Environment Variables

The operating system user who will be installing Oracle Application Server needs to set (or unset) the following environment variables.

[Table 2–8](#) summarizes whether you set or unset an environment variable.

Table 2–8 *Environment Variable Summary*

Environment variable	Set or Unset
ORACLE_HOME and ORACLE_SID	Must not be set.
PATH , CLASSPATH , and Shared Library Path Environment Variables	Must not contain references to directories in any Oracle home directories
DISPLAY	Set it to the monitor where you want the installer window to appear.
TMP and TMPDIR	Optional. If unset, defaults to <code>/tmp</code> .
TNS_ADMIN	Must not be set.
ORA_NLS	Must not be set.
LD_BIND_NOW (Linux Only)	Must not be set.

2.7.1 Environment Variable Tips

Here are some tips when working with environment variables:

- If you set environment variables in the `.profile` file, they might not be read. To ensure environment variables are set to the correct values, check their values in the shell where you will be running the installer.
- To check the value of environment variables, use the `env` command. This displays all the currently defined environment variables and their values.

```
% env
```

- If you use the `su` command to switch users (for example, switching from the root user to the `oracle` user), check the environment variables when you are the new user because the environment variables might not be passed to the new user. This can happen even if you run `su` with the `-` parameter (`su - user`).

```
# /* root user */
# su - oracle
% env
```

2.7.2 ORACLE_HOME and ORACLE_SID

These environment variables must not be set.

2.7.3 PATH, CLASSPATH, and Shared Library Path Environment Variables

Edit your PATH, CLASSPATH, and shared library path environment variables so that they do not reference any Oracle home directories.

[Table 2–9](#) lists the shared library path environment variables for different platforms

Table 2–9 Shared Library Path Environment Variables

Platform	Environment variable
HP-UX	SHLIB_PATH and LD_LIBRARY_PATH
Linux	LD_LIBRARY_PATH

2.7.4 DISPLAY

Set the DISPLAY environment variable to point to the X server that will display the installer. The format of the DISPLAY environment variable is:

hostname:display_number.screen_number

Example (C shell):

```
% setenv DISPLAY test.mydomain.com:0.0
```

Example (Bourne or Korn shell):

```
$ DISPLAY=test.mydomain.com:0.0; export DISPLAY
```

You can test the display by running the xclock program:

```
$ xclock &
```

Oracle Application Server requires a running X server during installation only. The frame buffer X server installed with your operating system requires that you remain logged in and have the frame buffer running during installation. If you do not wish to do this, then you must use a virtual frame buffer, such as X Virtual Frame Buffer (XVFB) or Virtual Network Computing (VNC).

Visit Oracle Technology Network

(<http://www.oracle.com/technology/index.html>) for information about obtaining and installing XVFB or other virtual frame buffer solutions. Search OTN for "frame buffer".

2.7.5 TMP and TMPDIR

The installer uses a temporary directory for swap space. The installer checks for the TMP and TMPDIR environment variables to locate the temporary directory. If this environment variable does not exist, the installer uses the /tmp directory.

If you want the installer to use a temporary directory other than /tmp, set the TMP and TMPDIR environment variables to the full path of an alternate directory. The oracle user must have right permission for this directory and the directory must meet the requirements listed in [Section 2.1, "Check Hardware Requirements"](#).

Example (C shell):

```
% setenv TMP /tmp2
```

```
% setenv TMPDIR /tmp2
```

Example (Bourne or Korn shell):

```
$ TMP=/tmp2; export TMP
$ TMPDIR=/tmp2; export TMPDIR
```

If you do not set this environment variable, and the default directory does not have enough space, then the installer displays an error message that says the environment variable is not set. You can either set the environment variable to point to a different directory or free up enough space in the default directory. In either case, you have to restart the installation.

2.7.6 TNS_ADMIN

This section describes two requirements:

- The TNS_ADMIN environment variable must not be set. If set, it can cause errors during installation.
- The /etc and the /var/opt/oracle directories must not contain a tnsnames.ora file.

These requirements are necessary to prevent conflicts between the Net configuration files for different Oracle products.

If you need to set TNS_ADMIN or if you have the tnsnames.ora file in /etc or /var/opt/oracle, do the following steps before installing Oracle Application Server.

1. If you have the tnsnames.ora file in /etc or /var/opt/oracle, move the file from these directories to a different directory. Alternatively, you can rename the file.
2. Make sure the TNS_ADMIN environment variable is not set.

Example (C shell):

```
% unsetenv TNS_ADMIN
```

Example (Bourne or Korn shell):

```
$ unset TNS_ADMIN
```

After installation, you can merge the contents of the newly created tnsnames.ora file with your existing tnsnames.ora file.

2.7.7 ORA_NLS

To make sure that the Oracle Application Server installation completes successfully, unset this environment variable.

Example:

```
$ unset ORA_NLS
```

2.7.8 LD_BIND_NOW (Linux Only)

To make sure that the Oracle Application Server installation completes successfully on Linux systems, unset this environment variable.

Example:

```
$ unset LD_BIND_NOW
```

2.8 Network Topics

Typically, the computer on which you want to install Oracle Application Server is connected to the network, has local storage to contain the Oracle Application Server installation, has a display monitor, and has a CD-ROM drive.

This section describes how to install Oracle Application Server on computers that do not meet the typical scenario. It covers the following cases:

- [Section 2.8.1, "Installing on Multihomed \(Multi-IP\) Computers"](#)
- [Section 2.8.2, "Copying CD-ROMs to Hard Drive, and Installing from the Hard Drive"](#)
- [Section 2.8.3, "Installing from a Remote CD-ROM Drive"](#)
- [Section 2.8.4, "Installing on Remote Computers"](#)

2.8.1 Installing on Multihomed (Multi-IP) Computers

If you are installing Oracle Application Server on a computer with multiple network cards, the installer uses the first name in the `/etc/hosts` file. If this is not the name that you want to use, you can do one of the following:

- Re-order the lines in the `/etc/hosts` file so the desired hostname appears first, run the installer, then revert the file back to its original state after installation.
- If you do not want to edit the `/etc/hosts` file, you can start up the installer with the `OUI_HOSTNAME` parameter. Specify the hostname that you want to use in this parameter. For example:

```
prompt> mount_point/1012disk1/runInstaller OUI_HOSTNAME=myserver.mydomain.com
```

2.8.2 Copying CD-ROMs to Hard Drive, and Installing from the Hard Drive

Instead of installing from the Oracle Application Server CD-ROMs, you can copy the contents of the CD-ROMs to a hard drive and install from there. This might be easier if you plan to install many instances of Oracle Application Server on your network, or if the computers where you want to install Oracle Application Server do not have CD-ROM drives.

When you install from the hard drive, the installer does not prompt you to swap CD-ROMs. It can find all the files if they are in the proper locations (see [Figure 2-3](#)).

Space Requirement

Ensure that the hard drive contains enough space to hold the contents of the CD-ROMs.

This space is in addition to the space required for installing Oracle Application Server (listed in [Section 2.1](#)).

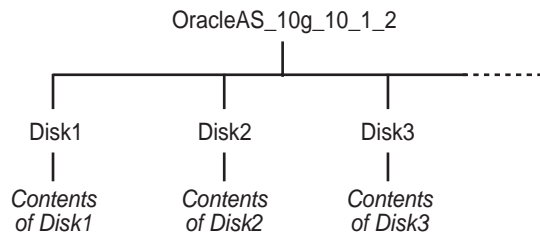
To Copy the CD-ROMs:

1. Create a directory structure on your hard drive as shown in [Figure 2-3](#).

You need to create a parent directory (called `OracleAS_10g_10_1_2` in the example, but you can name it anything you like), and, under the parent directory,

create subdirectories called `Disk1`, `Disk2`, and so on. The names of the subdirectories must be `DiskN`, where *N* is the CD-ROM number.

Figure 2–3 Directory Structure for Copying CD-ROMs to Disk



2. Copy the contents of each CD-ROM into the corresponding directory.

```

prompt> cp -pr /cdrom_mount_point/10.1.2disk1/* /path/to/hard/drive/Disk1/
prompt> cp -pr /cdrom_mount_point/10.1.2disk2/* /path/to/hard/drive/Disk2/
... Repeat for each CD-ROM.

```

To run the installer from the copied files, invoke the `runInstaller` executable from the `Disk1` directory. Run it from the computer that will be running Oracle Application Server.

```

prompt> /path/to/hard/drive/Disk1/runInstaller

```

2.8.3 Installing from a Remote CD-ROM Drive

If the computer where you want to install Oracle Application Server does not have a CD-ROM drive, you can copy the discs to the hard drive of a computer with the proper disc drive as described in [Section 2.8.2](#) and then perform a remote installation from that computer using the instructions described in [Section 2.8.4](#).

2.8.4 Installing on Remote Computers

You can run the installer on a remote computer ("remote_computer"), but have the installer screens display on your local computer ("local_computer"). The installer will install Oracle Application Server on the remote computer.

1. Allow remote_computer to display on local_computer. You need to run this command on the local computer's console.

```

local_computer> xhost +remote_computer

```

If you do not run `xhost`, you might get an Xlib error similar to "Failed to connect to server", "Connection refused by server," or "Can't open display" when starting the installer.

2. On local_computer, perform a remote login (using `telnet` or `rlogin`) to remote_computer. Log in as the `oracle` user, as described in [Section 2.6, "Operating System User"](#). Ensure that the user has set the environment variables correctly, as described in [Section 2.7, "Environment Variables"](#).

```

local_computer> rlogin -l oracle remote_computer.mydomain.com
- OR -
local_computer> telnet remote_computer.mydomain.com

```

3. Set the `DISPLAY` environment variable on remote_computer to point to local_computer.

Example (C shell):

```
remote_computer> setenv DISPLAY local_computer.mydomain.com:0.0
```

Example (Bourne or Korn shell):

```
remote_computer> DISPLAY=local_computer.mydomain.com:0.0; export DISPLAY
```

4. Run the installer. See [Section 3.11, "Starting the Oracle Universal Installer"](#).

Note: You can use a PC X emulator to run the installer if it supports a PseudoColor color model or PseudoColor visual. Set the PC X emulator to use a PseudoColor visual, and then start the installer. Refer to the X emulator documentation for instructions on how to change the color model or visual settings.

2.8.5 Installing on NFS-Mounted Storage

To run Oracle Application Server on NFS systems, you have to use a certified NFS-mounted storage system.

Currently Oracle Application Server is certified to run on these NFS systems:

- Network Appliance (NetApp) filers

The NetApp system should be exported to at least the remote install user and remote root user. You can do this using `exportfs` command:

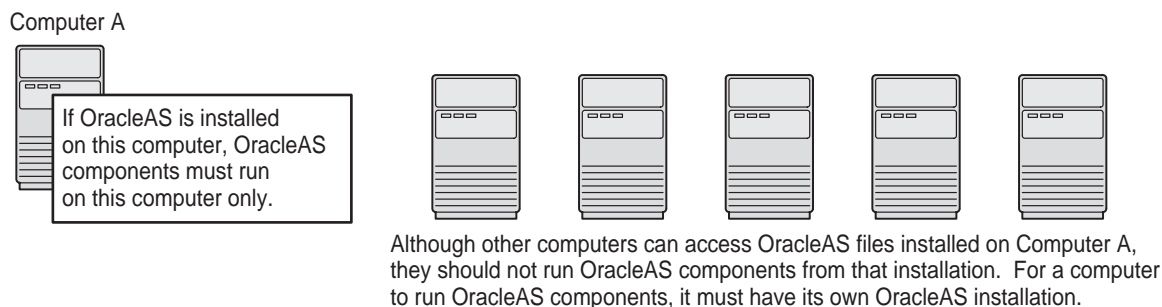
```
prompt> exportfs -i /vol/vol1
```

To check the latest certification list for any updates, visit Oracle Technology Network (<http://www.oracle.com/technology/index.html>).

2.8.6 Running Multiple Instances from One Installation

Oracle Application Server components are intended to be run only on the computer where they are installed. You cannot run the components on remote computers, even though the computers can access the files through NFS.

Figure 2–4 Run Oracle Application Server Only on the Computer Where It Is Installed



2.8.7 Support for NIS and NIS+

You can install and run Oracle Application Server in NIS and NIS+ environments.

2.9 Prerequisite Checks Performed by the Installer

Table 2–10 lists the checks performed by the installer:

Table 2–10 *Prerequisite Checks Performed by the Installer*

Item	Description
Operating system version	See Section 2.2, "Check the Software Requirements" for supported versions.
Operating system patches	See Section 2.2, "Check the Software Requirements" for a list of required patches.
Memory	See Section 2.1, "Check Hardware Requirements" for recommended values.
Swap space	See Section 2.1, "Check Hardware Requirements" for recommended values.
TMP space	See Section 2.1, "Check Hardware Requirements" for recommended values.
Instance name	The installer checks that the computer on which you are installing Oracle Application Server does not already have an instance of the same name.
Oracle home directory name	The installer checks that the Oracle home directory name does not contain any spaces.
Path to Oracle home directory	The installer checks that the path to the Oracle home directory is not longer than 127 characters.
Oracle home directory contents	The installer checks that the Oracle home directory does not contain any files that might interfere with the installation.
Oracle home directory	You should install Oracle Application Server in a new directory.
Static port conflicts	The installer checks the ports listed in the <code>staticports.ini</code> file, if specified. See Section 2.4, "Ports" .
Monitor	The installer checks that the monitor is configured to display at least 256 colors.
Display permission	The installer checks that the user has permissions to display on the monitor specified by the <code>DISPLAY</code> environment variable.
<code>DISPLAY</code> environment variable	The installer checks that the <code>DISPLAY</code> environment variable is set.

Things You Should Know Before Starting the Installation

This chapter contains the following topics:

- [Section 3.1, "Oracle Home Directory"](#)
- [Section 3.3, "First-Time Installation of Any Oracle Product"](#)
- [Section 3.2, "Oracle Home Name"](#)
- [Section 3.4, "Installing Additional Languages"](#)
- [Section 3.5, "The ias_admin User and Restrictions on its Password"](#)
- [Section 3.6, "Comparing Installing Components against Configuring Components"](#)
- [Section 3.7, "Where Does the Installer Write Files?"](#)
- [Section 3.8, "Why Do I Need to be Able to Log In as Root at Certain Times During Installation?"](#)
- [Section 3.9, "Running root.sh During Installation"](#)
- [Section 3.10, "Setting the Mount Point for the CD-ROM"](#)
- [Section 3.11, "Starting the Oracle Universal Installer"](#)

3.1 Oracle Home Directory

The directory in which you install Oracle Application Server is called the Oracle home. During installation, you specify the full path to this directory and a name for this Oracle home.

```
/opt/oracle/OraHome_j2ee_10_1_2
```

Names of Oracle homes must be 128 characters or fewer, and can contain only alphanumeric characters and underscores.

Notes: Spaces are not allowed anywhere in the Oracle home directory path. For example, you cannot install in `"/opt/oracle/app server/j2ee10_1_2"` because of the space character in `"app server"`. The installer does not check for this until several screens after you have entered the path.

You cannot install Oracle Application Server in an existing Oracle home.

3.1.1 Installing in a Non-Empty Oracle Home

You cannot install Oracle Application Server in a directory that already contains some files. For example, if you cancel an installation, or if an installation failed, then you have to clean the directory before you can reinstall Oracle Application Server in it. Also, the installer cannot *repair* an installation.

See Also: For instructions on how to clean up the directory, refer to [Section F.3.3, "Message About Installing in a Non-Empty Directory"](#).

3.2 Oracle Home Name

One of the screens in the installer prompts you for the Oracle home directory (which is the destination directory) and also an Oracle home name. This Oracle home name does not need to be the same as the directory name.

The Oracle home name can consist of alphanumeric and the underscore (_) characters, and cannot be longer than 128 characters.

3.3 First-Time Installation of Any Oracle Product

If Oracle Application Server is the first Oracle product to be installed on a computer, the installer displays a screen where you specify an "inventory" directory (also called the "oraInventory" directory). This inventory directory is used by the installer to keep track of all Oracle products installed on the computer.

The inventory directory is separate from the Oracle home directory for Oracle Application Server.

To ensure other users in the `oinstall` group have access to the inventory directory (so that they can install Oracle products), do not use the `oracle` user's home directory as the inventory directory because home directories might not have the proper permissions set up for the `oinstall` group. Instead, you can put the inventory directory in the `/opt/oracle` directory (for example, `/opt/oracle/oraInventory`).

If you have installed an Oracle product previously on the computer, the installer uses the existing inventory directory. Ensure that you have write permissions on that directory. The best way of ensuring this is to run the installer as the same operating system user who installed the existing Oracle products.

Oracle recommends creating an operating system user to perform all tasks related to installation of Oracle products. See [Section 2.6, "Operating System User"](#).

3.4 Installing Additional Languages

By default, the installer installs Oracle Application Server with text in English and in the operating system language. If you need additional languages, then click the **Product Languages** button in the Select a Product to Install screen.

When you select additional languages to install, the installer installs text in the selected languages. It also installs fonts required to display the languages.

For some components, languages are installed only if you select them during installation. In this case, if you access the application in a language that is not available, then it will fall back on the server locale language.

For other components, available languages are installed regardless of what you select during installation. In this case, however, fonts are installed only for the languages that

are explicitly selected. When you access the application, it uses text in your language because the language was installed. However, if you do not have the appropriate fonts to render the text, then the text appears as square boxes. This usually applies to the Chinese, Japanese, and Korean languages. You can install fonts after installation.

See Also: Refer to [Section F.3.7, "User Interface Does Not Display in the Desired Language or Does Not Display Properly"](#).

You must install all languages that you need during installation. If you run Oracle Application Server in an environment that uses a language that you did not install, then the user interface can display text in that language and/or in English, or it can display square boxes (caused by missing fonts) instead of text.

Note: Note that you cannot install additional languages after installation.

3.5 The `ias_admin` User and Restrictions on its Password

The installer prompts you to specify the password for the `ias_admin` user. The `ias_admin` user is the administrative user for Oracle Application Server instance. To manage Oracle Application Server instances using Application Server Control, log in as `ias_admin`.

Password for the `ias_admin` User

The password for the `ias_admin` user has the following restrictions:

- Passwords must be shorter than 30 characters.
- Passwords can contain only alphanumeric characters from your database character set, the underscore (`_`), the dollar sign (`$`), and the number sign (`#`).
- Passwords must begin with an alphabetic character. Passwords cannot begin with a number, the underscore (`_`), the dollar sign (`$`), or the number sign (`#`).
- Passwords cannot be Oracle reserved words. The *Oracle Database SQL Reference* lists the reserved words. You can find this document on Oracle Technology Network (<http://www.oracle.com/technology/documentation>).

Note: When entering your password, check that the state of the Caps Lock key is what you want it to be. Passwords are case-sensitive.

You must remember the password because you need to enter it when you log on to Application Server Control as the `ias_admin` user, to manage Oracle Application Server.

See Also: For details about resetting the password if you forget it, refer to Oracle Application Server Administrator's Guide.

3.6 Comparing Installing Components against Configuring Components

When you select components on the Select Configuration Options screen, the installer installs and configures the selected components. For the unselected components, the installer still installs them, but does not configure them.

In most cases, you can configure components that you did not select on the Select Configuration Options screen after installation using the Application Server Control.

See Also: Refer to Oracle Application Server Administrator's Guide for details.

3.7 Where Does the Installer Write Files?

The installer writes files to the following directories:

Table 3–1 Directories Where the Installer Writes Files

Directory	Description
Oracle home directory	This directory contains Oracle Application Server files. You specify this directory when you install Oracle Application Server.
Inventory directory	When you install the first Oracle product on a computer, you specify this directory, which the installer uses to keep track of which Oracle products are installed on the computer. In subsequent installations, the installer uses the same inventory directory.
<code>/var/opt/oracle</code> or <code>/etc</code> directory	This directory contains information on locations of Oracle homes on the computer.
<code>/tmp</code> directory	The installer writes files needed only during installation to a "temporary" directory. By default, the "temporary" directory is <code>/tmp</code> . To specify a different directory, set the TMP environment variable. See Section 2.7.5, "TMP and TMPDIR" for details.

3.8 Why Do I Need to be Able to Log In as Root at Certain Times During Installation?

At least once during installation, the installer prompts you to log in as the root user and run a script. You need to be root because the script edits files in the `/var/opt/oracle` or `/etc` directory.

3.9 Running root.sh During Installation

The installer prompts you to run the `root.sh` script in a separate window. This script creates files in the local bin directory (`/usr/local/bin`, by default).

If the script finds files of the same name, it prompts you if you want to override the existing files. You should back up these files (you can do this from another window), then overwrite them.

The following lines show the prompts from the `root.sh` script. The default values are enclosed in square brackets.

```
Enter the full pathname of the local bin directory: [/usr/local/bin]:
The file "dbhome" already exists in /usr/local/bin. Overwrite it? (y/n)[n]: y
Copying dbhome to /usr/local/bin ...
The file "oraenv" already exists in /usr/local/bin. Overwrite it? (y/n)[n]: y
Copying oraenv to /usr/local/bin ...
The file "coraenv" already exists in /usr/local/bin. Overwrite it? (y/n)[n]: y
Copying coraenv to /usr/local/bin ...
```

3.10 Setting the Mount Point for the CD-ROM

The Oracle Application Server CD-ROMs are in RockRidge format. To manually mount or unmount the disk, you must have root privileges. Be sure to unmount the disk before removing it from the drive.

To mount the first disk, log in as the root user and follow the steps in one of the following sections, depending on your platform:

- ["Mounting the First Disk on HP-UX"](#) on page 3-5
- ["Mounting the First Disk on Linux"](#) on page 3-5

Mounting the First Disk on HP-UX

To mount the first disk, follow these steps:

1. Insert Oracle Application Server disk 1 into the disk drive.
2. Create the /SD_CDROM directory if it does not already exist:

```
# /usr/bin/mkdir /SD_CDROM
```

3. To mount the disk, enter a command similar to the following:

```
# /usr/sbin/mount -F cdfs -o rr /dev/dsk/cxdydz /SD_CDROM
```

In the preceding example, /SD_CDROM is the disk mount point directory and /dev/dsk/cxdydz is the device name for the disk device, for example /dev/dsk/c0d2t0.

Mounting the First Disk on Linux

On most Linux systems, the disk mounts automatically when you insert it into the disk drive. To mount the first disk, follow these steps:

1. Insert Oracle Application Server disk 1 into the disk drive.
2. To verify that the disk mounted automatically, enter the following command:

- Red Hat:

```
# ls /mnt/cdrom
```

- SUSE Linux Enterprise Server:

```
# ls /media/cdrom
```

3. If the command in step 2 fails to display the contents of the disk, enter the following command:

- Red Hat:

```
# mount -t iso9660 /dev/cdrom /mnt/cdrom
```

- SUSE Linux Enterprise Server:

```
# mount -t iso9660 /dev/cdrom /media/cdrom
```

3.11 Starting the Oracle Universal Installer

1. If the computer does not mount CD-ROMs automatically, you need to set the mount point manually. See [Section 3.10, "Setting the Mount Point for the CD-ROM"](#) for details.
2. Log in as the `oracle` user.
3. Insert Oracle Application Server Disk 1 into the CD-ROM drive.
4. Run the Oracle Universal Installer using the command shown after the notes:

Notes:

- Be sure you are not logged in as the root user when you start the Oracle Universal Installer. If you are, then only the root user will have permissions to manage Oracle Application Server.
 - Do not start the installation inside the `mount_point` directory. If you do, then you may not be able to eject the installation disk. The `cd` command changes your current directory to your home directory.
 - The Oracle Universal Installer cannot display Korean or Chinese fonts on Linux systems because the JDK does not support these fonts.
-
-

- For HP-UX and Linux:

CD-ROM users:

```
prompt> cd  
prompt> mount_point/runInstaller
```

This launches Oracle Universal Installer, through which you can install Oracle Application Server.

Installing Middle Tiers

This chapter explains the procedure to install Oracle Application Server Middle Tier, and contains the following topics:

- [Section 4.1, "Components in the Middle Tier"](#)
- [Section 4.2, "Installing Oracle Application Server"](#)
- [Section 4.3, "Determining Port Numbers Used by Components"](#)

4.1 Components in the Middle Tier

Oracle Application Server Middle Tier provides components for deploying and running applications. The J2EE and Web Cache type of installation provides a framework for developing JavaServer Pages, servlets, and Enterprise JavaBeans applications. It contains the following components:

- Oracle HTTP Server
- Oracle Application Server Containers for J2EE
- Oracle Application Server Web Cache

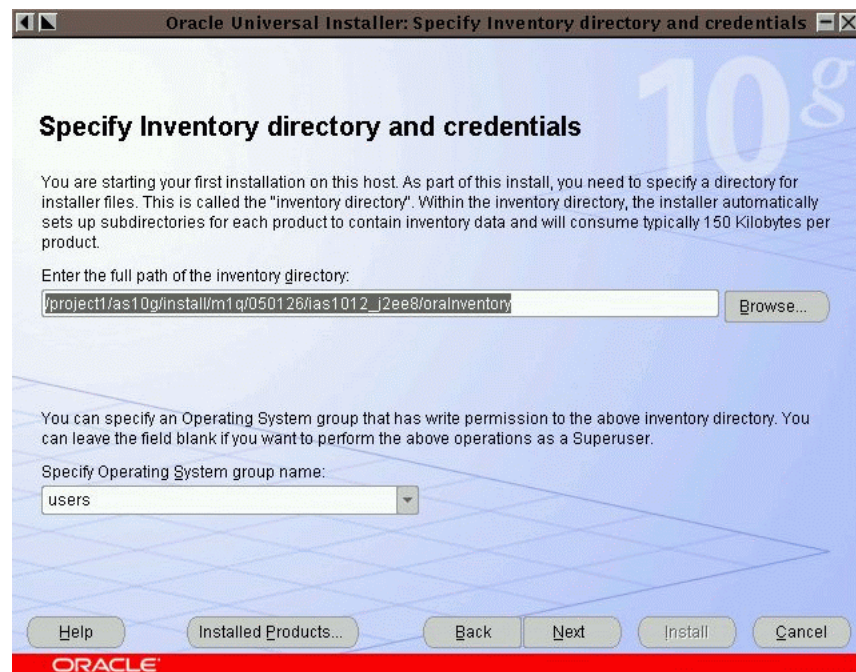
4.2 Installing Oracle Application Server

To install Oracle Application Server Middle Tier J2EE and Web Cache instance, perform the following steps:

1. Mount the disk as described in [Section 3.10, "Setting the Mount Point for the CD-ROM"](#).
2. Start the Installer as described in [Section 3.11, "Starting the Oracle Universal Installer"](#). The Oracle Universal Installer Welcome screen is displayed as shown in [Figure 4-1](#). It provides information about the Oracle Universal Installer (OUI).

Figure 4–1 Oracle Universal Installer Welcome Screen

3. Click **Next**.
4. If there are no Oracle products installed on the computer, complete the Specify Inventory Directory and Credentials screen as shown in [Figure 4–2](#)

Figure 4–2 Specify Inventory Directory Screen

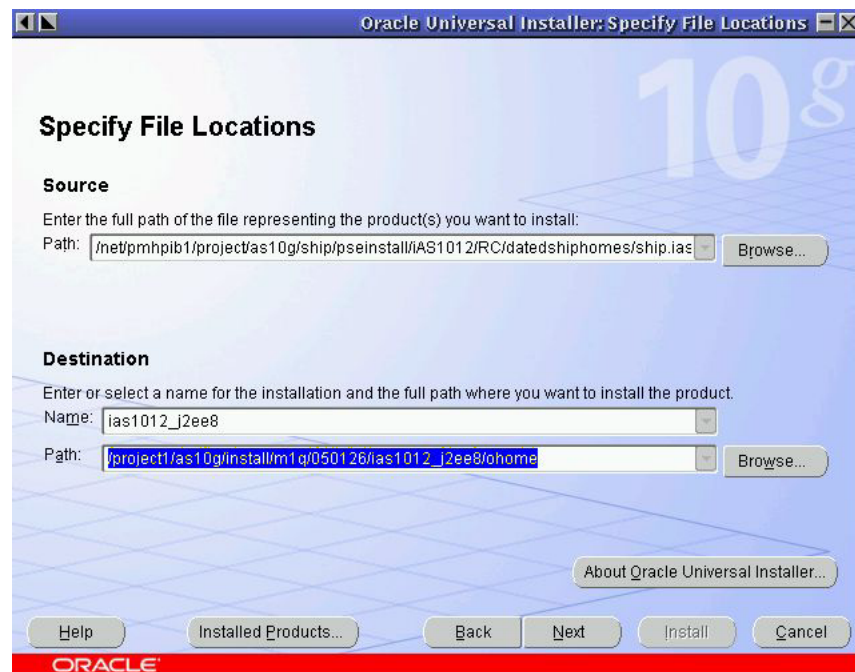
If this is the first installation of an Oracle product on the computer, enter the inventory path and choose the user group to own the inventory files on the Specify Inventory Directory and Credentials screen (Figure 4-2) and click **Next**.

Note: The Specify Inventory Directory screen does not appear if an Oracle product is installed on the computer.

For more information on the Inventory Directory, see [Section 2.5.1, "Create a Group for the Inventory Directory"](#).

5. Complete the Specify File Locations screen shown in [Figure 4-3](#).

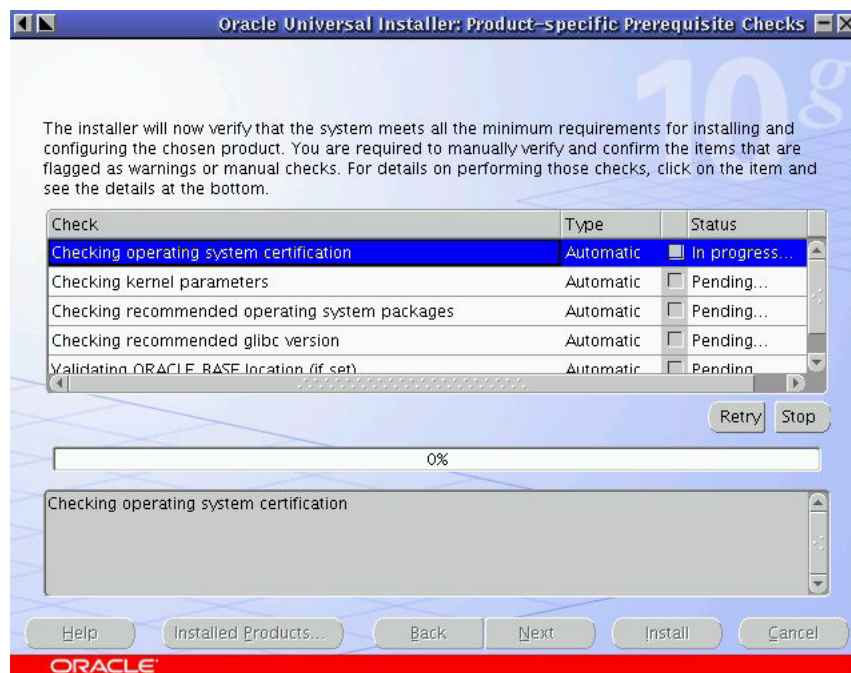
Figure 4-3 Specify File Locations Screen



On the Specify File Locations screen (Figure 4-3), enter the following information in the fields provided:

- a. Source Path: The default value is displayed. Do not change this value.
 - b. Destination Name: Enter the desired Oracle home name.
 - c. Destination Path: Browse or enter the path to the directory where you want to install the Oracle Application Server Middle Tier.
6. Click **Next**.

On Linux systems, the Product Specific Prerequisite Checks screen is displayed.

Figure 4–4 Product Specific Prerequisite Checks Screen

Make sure the system meets all the requirements listed on this screen. Click **Next**.

The Language Selection screen is displayed:

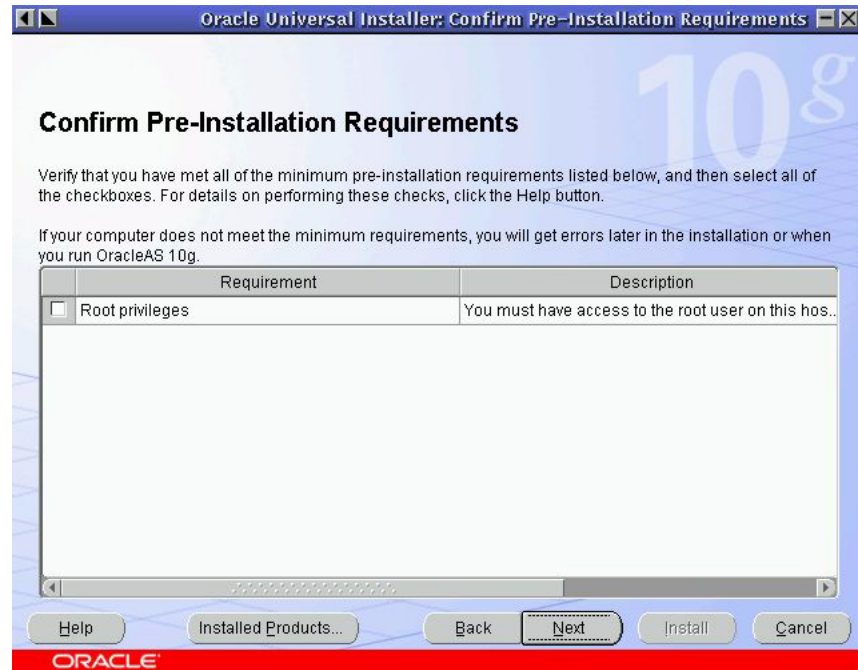
Figure 4–5 Language Selection Screen

- Choose the language for the installation.

8. Click **Next**.

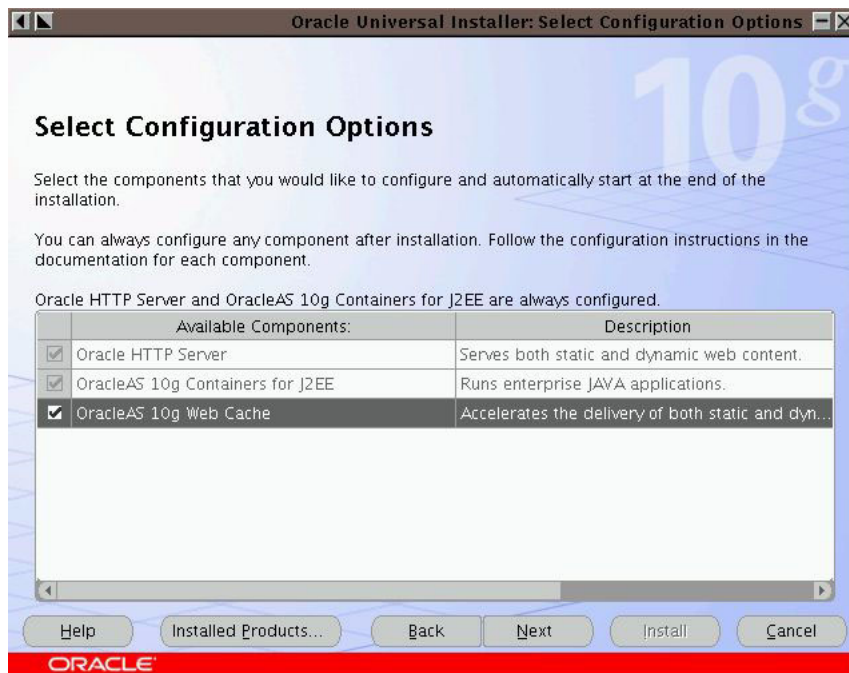
The Confirm Pre-Installation Requirements screen is displayed as shown in [Figure 4-6](#).

Figure 4-6 Confirm Pre-Installation Requirements Screen

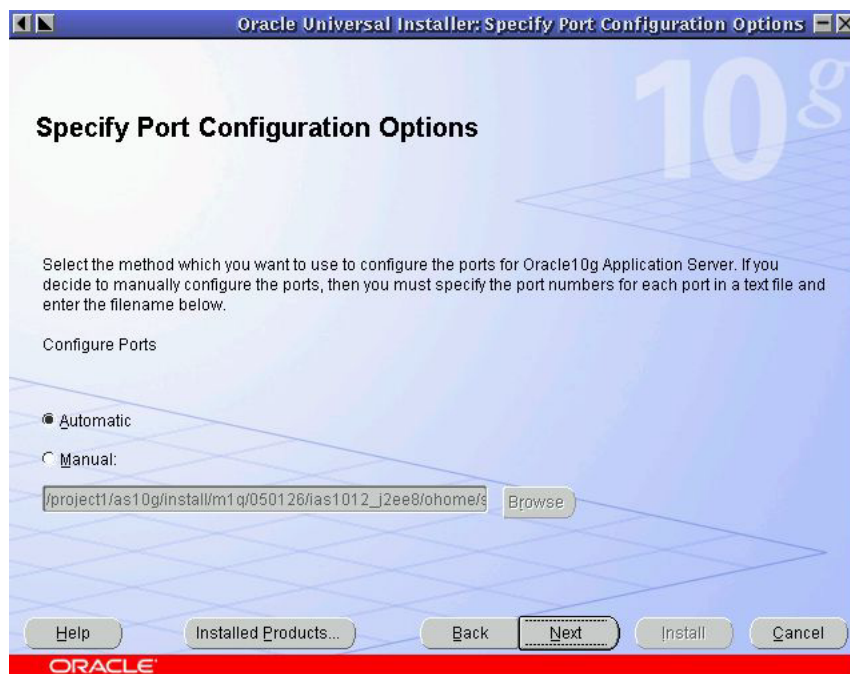


9. Verify that you meet all the requirements listed, and select the checkboxes and click **Next**.

10. On the Select Configuration Options screen, shown in [Figure 4-7](#), select **OracleAS 10g Web Cache** and click **Next**.

Figure 4–7 Select Configuration Options Screen

11. The Specify Port Configuration Options screen is displayed as shown in [Figure 4–8](#).

Figure 4–8 Specify Port Configuration Options Screen

12. If you want to use default ports for the components, then select **Automatic**.

If you do not want to use the default ports, and you have created a `staticports.ini` file, then select **Manual** and enter the fullpath to your `staticports.ini` file in the field provided.

13. Click **Next**. The Specify Instance Name and `ias_admin` Password screen is displayed as shown in Figure 4-9.

Figure 4-9 Specify Instance Name and `ias_admin` Password Screen

Specify Instance Name and `ias_admin` Password

All OracleAS 10g instances installed on a host must have unique names. The hostname and domain name of the host are appended to the instance name.

Each OracleAS 10g instance has its own password, regardless of which user performed the installation. Passwords are not shared across instances, even if the instances were installed by the same user.

The password must have a minimum of 5 alphanumeric characters, maximum 30 characters, and at least one of the characters must be a number.

Administrator Username: `ias_admin`

Instance Name:

`ias_admin` Password:

Confirm Password:

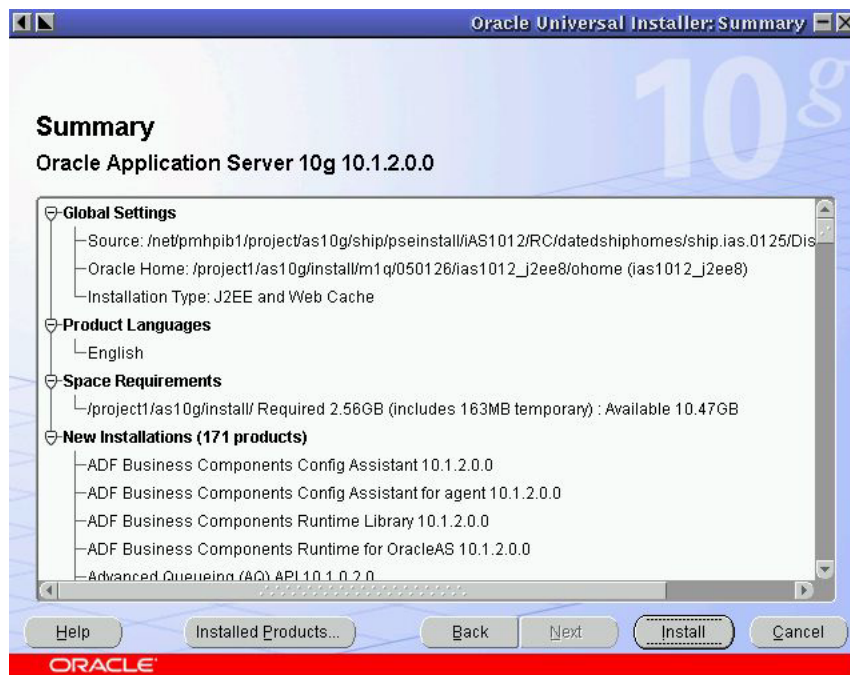
Help Installed Products... Back Next Install Cancel

ORACLE

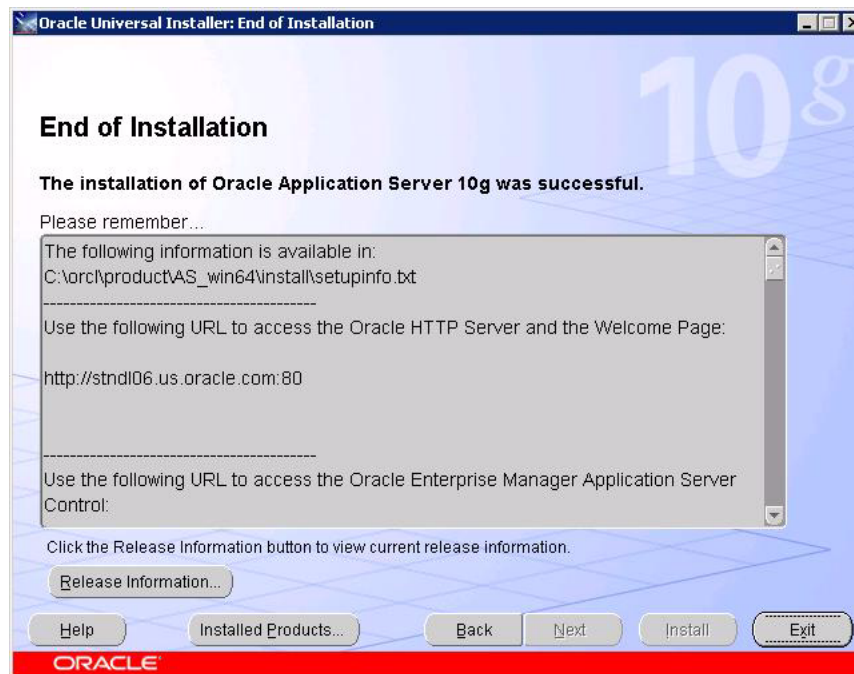
14. Enter the following information in the fields provided:
 - a. Instance Name: Enter a name for this instance. Instance names can contain alphanumeric characters and the `_` (underscore) character.
 - b. `ias_admin` Password and Confirm Password: Set the password for the `ias_admin` user. This is the administrative user for the instance.

See Also: [Section 3.5, "The `ias_admin` User and Restrictions on its Password"](#) for more information about the password restrictions.

15. Click **Next**. The Summary screen is displayed as shown in Figure 4-10. Review the selections made on previous screens, and click **Install**.

Figure 4–10 Summary Screen

16. The End of Installation screen is displayed as shown in [Figure 4–11](#), indicating that the installation has completed. Click **Exit** to exit the installer.

Figure 4–11 End of Installation Screen

4.3 Determining Port Numbers Used by Components

After installation, you might need to know port numbers used by certain components.

To get a list of port numbers look in the `ORACLE_HOME/install/portlist.ini` file. `ORACLE_HOME` refers to the directory containing the Oracle Application Server installation.

Note: If you change the port number for a component after installation, then `portlist.ini` will not be updated.

Post-Installation Tasks

This chapter contains the following topics:

- [Section 5.1, "State of Oracle Application Server Instances After Installation"](#)
- [Section 5.2, "Passwords for Oracle Application Server Components"](#)
- [Section 5.3, "Backup and Recovery"](#)
- [Section 5.4, "SSL"](#)
- [Section 5.6, "Component Configuration After Installation"](#)
- [Section 5.7, "What to Do Next"](#)

5.1 State of Oracle Application Server Instances After Installation

After installation, the components that you have configured are started.

You can view the Welcome page and the Application Server Control page in a browser. The URLs for these pages are displayed in the last screen of the Oracle Universal Installer. You can view the contents of the last screen in the file `ORACLE_HOME/install/setupinfo.txt`.

You can use scripts or you can use the Oracle Enterprise Manager Application Server Control to start and stop Oracle Application Server components. For details, refer to the *Oracle Application Server Administrator's Guide*.

5.2 Passwords for Oracle Application Server Components

By default, all passwords for Oracle Application Server components are set to be the same as the Oracle Application Server instance password. For security reasons, you should change the passwords of the various components to have different values.

Refer to the *Oracle Application Server Administrator's Guide* and the component guides in the Oracle Application Server Documentation Library for details on how to alter the passwords for the components you have installed.

5.3 Backup and Recovery

After installation would be a good time to start backing up the files, and to set up your backup and recovery strategy. For details, refer to the *Oracle Application Server Administrator's Guide*.

5.4 SSL

By default, most components are not configured for SSL. To enable SSL, refer to the SSL section in the *Oracle Application Server Administrator's Guide*.

5.5 Operating System Locale and NLS_LANG Environment Variable

If you installed Oracle Application Server in a non-English language environment, please check your settings as described in these sections:

- [Section 5.5.1, "Check the Operating System Locale"](#)
- [Section 5.5.2, "Check the NLS_LANG Setting"](#)

5.5.1 Check the Operating System Locale

To make sure the default locale is set properly, verify that the LC_ALL or LANG environment variables are set with the appropriate values. To check the current setting, run the `locale` command:

```
prompt> locale
```

5.5.2 Check the NLS_LANG Setting

To check the NLS_LANG setting:

1. Make sure the value of the NLS_LANG environment variable is compatible with the default locale setting of the operating system. See the Oracle Application Server Globalization Guide for details, including a list of files that set this variable. You might need to edit the value of the NLS_LANG variable in these files.
2. Check that the NLS_LANG setting in the `ORACLE_HOME/opmn/conf/opmn.xml` file is identical to the NLS_LANG environment variable.

Example: The NLS_LANG setting in the `opmn.xml` file might look something like this:

```
<environment>
  <variable id="TMP" value="/tmp"/>
  <variable id="NLS_LANG" value="JAPANESE_JAPAN.JA16SJIS"/>
</environment>
```

5.6 Component Configuration After Installation

If you did not configure a component during installation (that is, if you did not select the component in the Select Configuration Options screen), then you can configure some components after installation. Some components have dependencies that you have to complete before you can configure the component.

5.7 What to Do Next

After installing Oracle Application Server, you should read the *Oracle Application Server Administrator's Guide*. Specifically, you should read the "Getting Started After Installing Oracle Application Server" chapter.

You should also perform a complete Oracle Application Server environment backup after installing Oracle Application Server. This enables you to restore a working

environment in case something goes wrong. For details on how to perform a complete Oracle Application Server environment backup, refer to the *Oracle Application Server Administrator's Guide*.

You should also perform a complete Oracle Application Server environment backup after each successful patchset upgrade and after each successful configuration change.

Silent and Non-Interactive Installation

This appendix describes how to install Oracle Application Server in silent mode. This appendix contains the following topics:

- [Section A.1, "Silent Installation"](#)
- [Section A.2, "Non-Interactive Installation"](#)
- [Section A.3, "Pre-Installation"](#)
- [Section A.4, "Create the Response File"](#)
- [Section A.5, "Start the Installation"](#)
- [Section A.6, "Post-Installation"](#)
- [Section A.7, "Security Tips for Silent and Non-Interactive Installations"](#)
- [Section A.8, "Deinstallation"](#)

A.1 Silent Installation

Silent installation eliminates the need to monitor the Oracle Application Server installation because there is no graphical output and no input by the user.

You can perform a silent installation of Oracle Application Server by supplying a response file in the Oracle Universal Installer and specifying the `-silent` flag on the command line. The response file is a text file containing variables and parameter values, which provide answers to the installer prompts.

Use silent installation of Oracle Application Server when there are similar installations on more than one computer. In addition, use silent installation when performing the Oracle Application Server installation from a remote location using the command line.

A.2 Non-Interactive Installation

Non-interactive installations also use a response file to automate the Oracle Application Server installation. In non-interactive installations, there is graphical output and a user may enter input.

Non-interactive installation of Oracle Application Server is also accomplished by supplying the Oracle Universal Installer with a response file but without specifying the `-silent` flag on the command line. If you have not provided responses to all of the installer prompts, then you need to enter information during the installation.

Use non-interactive installation of Oracle Application Server when there are specific screens you want to observe during installation.

A.3 Pre-Installation

If the `oraInst.loc` file does not exist in the `/var/opt/oracle` directory for HP-UX or in the `/etc` directory for Linux, you must create it before starting the silent and non-interactive installation of Oracle Application Server. This file is used by the installer.

1. Log in as the root user.

```
prompt> su
```

2. Using a text editor such as `vi` or `emacs`, create the `oraInst.loc` file in the `/var/opt/oracle` directory for HP-UX and in the `/etc` directory for Linux. Enter the following line in the file:

```
inventory_loc=oui_inventory_directory
```

Replace `oui_inventory_directory` with the full path to the directory where you want the installer to create the inventory directory. Make sure that the `oinstall` operating system group has write permissions to this directory. For example:

```
inventory_loc=/opt/oracle/oraInventory
```

Make sure that the `oinstall` operating system group has write permissions to this directory. For more information about the inventory directory and the group that owns it, see [Section 2.5.1, "Create a Group for the Inventory Directory"](#).

3. Create an empty `/etc/oratab` file.

```
# touch /etc/oratab
```

4. Exit from the root user.

```
# exit
```

A.4 Create the Response File

Before doing a silent or non-interactive installation, you must provide information specific to your installation in a response file. The installer will fail if you attempt an installation using a response file that is not configured correctly. Response files are text files that you can create or edit in a text editor.

This section contains the following topics:

- [Creating Response Files from Templates](#)
- [Creating Response Files by Using the Record Mode in the Installer](#)
- [Example Response File](#)

A.4.1 Creating Response Files from Templates

Templates for response files are available in the `stage/Response` directory on Disk 1 of the Oracle Application Server CD-ROM. The Response file template available for the J2EE and Web Cache installation types is as follows:

```
oracle.iappserver.iapptop.Core.rsp
```

Refer to the template file for descriptions of the parameters in the file.

Note: For Boolean parameters, specify either `true` or `false`.

A.4.2 Creating Response Files by Using the Record Mode in the Installer

You can run the installer in record mode to save your inputs to a file that you can use later as a response file. This feature is useful if you need to perform the same installation on different computers.

To run the installer in record mode:

1. Start up the installer with the `-record` and `-destinationFile` parameters.

```
prompt> /path/to/runInstaller -record -destinationFile newResponseFile
```

Replace *newResponseFile* with the full path to the response file that you want the installer to create. Example: `/opt/oracle/myResponse.rsp`.

2. Enter your values in the installer screens. The installer will write these values to the file specified in the `-destinationFile` parameter.

When you get to the Summary screen, the installer automatically writes all your values to the specified file. At this point, you can complete the installation on this computer, or you can exit without performing the installation.

Secure information such as passwords, is not written to the file, so you must modify the response file before you can use it.

Modify the following parameters:

```
ACCEPT_LICENSE_AGREEMENT=true
oracle.iappserver.instance:szl_InstanceInformation={"instancename",
"instancepassword", "instancepassword"}
PreReqConfigSelections=""
nValidationRepositoryHost=0
nValidationRepository=0
nValidationStartProcPortals=0
nValidationStartProcBusiness=0
nValidationClusterSupport=0
nValidationStartProcCore=0
nValidationClusterRepository=0
oracle.iappserver.instance:nValidationInstanceInfo=0
silent=true

oracle.iappserver.iapptop:startupProcesses=""
oracle.iappserver.iapptop:SHOW_IAS_COMPONENT_CONFIG_PAGE=false
oracle.iappserver.iapptop:n_ValidationPreReqConfigSelections=0
oracle.iappserver.iapptop:nValidationPortListSelect=0
oracle.iappserver.iapptop:nValidationOID2=0
oracle.iappserver.iapptop:nValidationInstanceInfo=0
oracle.iappserver.iapptop:nValidationOID=0
```

Refer to the generated response file for descriptions of the parameters in the file.

A.4.3 Example Response File

The following section describes a sample response file for the Oracle Application Server J2EE and Web Cache installation type.

Note: Ensure that you read the description of each parameter=*value* in the provided sample file, and edit its *value* accordingly for your environment.

A.4.3.1 Example Response File for Standalone J2EE and Web Cache

The following is an example of a response file for a silent installation of standalone instance of J2EE and Web Cache as described in [Section 4.2, "Installing Oracle Application Server"](#).

Note: If you do not copy the CD-ROMs to the hard drive, then the installer will prompt you to switch CD-ROMs during installation. To complete the installation without any prompting, you must copy the contents of the CD-ROMs to the hard drive and specify the LOCATION_FOR_DISK*n* parameters.

```
RESPONSEFILE_VERSION=2.2.1.0.0
UNIX_GROUP_NAME=<Value Unspecified>
FROM_LOCATION=" ../stage/products.xml"
FROM_LOCATION_CD_LABEL=<Value Unspecified>
NEXT_SESSION_RESPONSE=<Value Unspecified>
ORACLE_HOME=<Value Required>
ORACLE_HOME_NAME="OHOME1"
TOPLEVEL_COMPONENT={"oracle.iappserver.iapptop","10.1.2.0.0"}
DEINSTALL_LIST={"oracle.iappserver.iapptop","10.1.2.0.0"}
SHOW_SPLASH_SCREEN=true
SHOW_WELCOME_PAGE=false
SHOW_COMPONENT_LOCATIONS_PAGE=false
SHOW_CUSTOM_TREE_PAGE=false
SHOW_SUMMARY_PAGE=true
SHOW_INSTALL_PROGRESS_PAGE=true
SHOW_REQUIRED_CONFIG_TOOL_PAGE=true
SHOW_CONFIG_TOOL_PAGE=true
SHOW_XML_PREREQ_PAGE=true
SHOW_RELEASE_NOTES=true
SHOW_END_OF_INSTALL_MSGS=true
SHOW_ROOTSH_CONFIRMATION=true
SHOW_END_SESSION_PAGE=true
SHOW_EXIT_CONFIRMATION=true
NEXT_SESSION=true
NEXT_SESSION_ON_FAIL=true
SHOW_DEINSTALL_CONFIRMATION=true
SHOW_DEINSTALL_PROGRESS=true
ACCEPT_LICENSE_AGREEMENT=true
RESTART_SYSTEM=<Value Unspecified>
CLUSTER_NODES=<Value Unspecified>
OUI_HOSTNAME=<Value Unspecified>
REMOVE_HOMES=<Value Unspecified>
COMPONENT_LANGUAGES={"en"}
oracle.sysman.agent:DEPENDENCY_LIST={ "oracle.assistants.emcf:10.1.0.2.0" }
oracle.logloader:DEPENDENCY_LIST={ "oracle.opmn:10.1.2.0.0" }
oracle.iappserver.iapptop:OPTIONAL_CONFIG_TOOLS=<Value Unspecified>
oracle.networking.netca:OPTIONAL_CONFIG_TOOLS=<Value Unspecified>
szl_RepositoryUserInput=<Value Unspecified>
szl_PortListSelect=<Value Unspecified>
oracle.iappserver.iapptop:szl_InstanceInformation=<Value Unspecified>
```



```

oracle.iappserver.instance:szl_InstanceInformation=<Value Unspecified>
szl_ClusterRepository=<Value Unspecified>
szlSpecifyRepositoryID=<Value Unspecified>
szlSpecifyRepositoryCluster=<Value Unspecified>
szlSpecifyOIDLogin=<Value Unspecified>
szOIDwithSSLStatus=<Value Unspecified>
startupProcesses=<Value Unspecified>
n_farmRepository=<Value Unspecified>
mailServerName=<Value Unspecified>
b_securityAccess=<Value Unspecified>
b_reportsStartup=<Value Unspecified>
b_formsStartup=<Value Unspecified>
b_configureWireless=<Value Unspecified>
b_configurePortal=<Value Unspecified>
b_configurePersonalization=<Value Unspecified>
b_configureJazn=<Value Unspecified>
b_configureDisco=<Value Unspecified>
b_configureCalypso=<Value Unspecified>
b_clusterSupport=<Value Unspecified>
b_FileBasedClustering=<Value Unspecified>
b_FarmRepository=<Value Unspecified>
SHOW_IAS_COMPONENT_CONFIG_PAGE=<Value Unspecified>
PreReqConfigSelections=<Value Unspecified>
OIDport=<Value Unspecified>
OIDhost=<Value Unspecified>
nValidationRepositoryHost=<Value Unspecified>
nValidationRepository=<Value Unspecified>
n_ValidationPreReqConfigSelections=<Value Unspecified>
nValidationStartProcPortals=<Value Unspecified>
nValidationStartProcBusiness=<Value Unspecified>
nValidationClusterSupport=<Value Unspecified>
nValidationStartProcCore=<Value Unspecified>
nValidationPortListSelect=<Value Unspecified>
nValidationClusterRepository=<Value Unspecified>
nValidationOID2=<Value Unspecified>
oracle.iappserver.iapptop:nValidationInstanceInfo=<Value Unspecified>
oracle.iappserver.instance:nValidationInstanceInfo=<Value Unspecified>
nValidationOID=<Value Unspecified>
s_groupid=<Value Unspecified>
s_group=<Value Unspecified>

```

A.5 Start the Installation

To make the installer use the response file, specify the location of the response file that you want to use as a parameter when starting the installer.

To perform a non-interactive installation:

```

prompt> setenv DISPLAY hostname:0.0
prompt> runInstaller -responseFile absolute_path_and_filename

```

To perform a silent installation, use the `-silent` parameter:

```

prompt> runInstaller -silent -responseFile absolute_path_and_filename

```

A.6 Post-Installation

The success or failure of the non-interactive and silent installations is logged in the `installActions<time_stamp>.log` file. Additionally, the silent installation creates the `silentInstall<time_stamp>.log` file. The log files are created in the `oraInventory` directory.

The `silentInstall<time_stamp>.log` file contains the following line if the installation was successful:

```
The installation of OracleAS <Installation Type> was successful.
```

The `installActions<time_stamp>.log` file contains specific information for each Oracle Application Server installation type.

See Also: [Appendix E, "Configuration Assistants"](#)

Note: Application Server Control Configuration Assistant and DCM Repository Backup Assistant success messages appear for first time installation of Oracle Application Server.

A.7 Security Tips for Silent and Non-Interactive Installations

One of the pieces of information in the response file is the installation password. The password information is in clear text.

To minimize security issues regarding the password in the response file, adhere to the following guidelines:

- Set the permissions on the response files so that they are readable only by the operating system user who will be performing the silent or non-interactive installation.
- If possible, remove the response files from the system after the silent or non-interactive installation is completed.

A.8 Deinstallation

You can perform a silent deinstallation of Oracle Application Server by supplying a silent deinstallation parameter to the response file that you used for installation.

Add the following parameter to your installation response file:

```
REMOVE_HOMES="{<ORACLE_HOME to be removed>}"
```

For example:

```
REMOVE_HOME="/local_location/oracle_home"
```

Note: You still need to follow the deinstallation steps described in [Appendix D, "Deinstallation and Reinstallation"](#). One of the key steps is to run the `deconfig` tool before running the silent deinstallation command. The silent deinstallation command only replaces the step where you run the installer interactively to deinstall the instance.

To perform a silent deinstallation, use the `-deinstall` parameter as follows:

```
prompt> runInstaller -silent -deinstall -responseFile absolute_path_and_filename
```


Default Port Numbers

The installer, by default, assigns port numbers to components from a set of default port numbers. This appendix contains a list of these port numbers.

If you want to use a different set of port numbers, then you have to create a file called `staticports.ini`, in which you list the port numbers that you want to use. For details, refer to [Section 2.4.3, "Using Custom Port Numbers \(the Static Ports Feature\)"](#).

B.1 Method of Assigning Default Port Numbers

The installer assigns default port numbers to each component using the following method:

1. The installer checks if the default port number is in use. If it is not in use, then the installer assigns it to the component.
2. If the default port number is already in use by an Oracle product or by any running application, then the installer tries the lowest available number in the port number range and assigns it to the component. It keeps trying the port numbers in the range until it finds one that is available.

B.2 Default Port Numbers

[Table B–1](#) lists the default port numbers for components. The last column of this table specifies the component name as it appears in the `staticports.ini` file, which enables you to override the default port numbers. For details, refer to [Section 2.4.3, "Using Custom Port Numbers \(the Static Ports Feature\)"](#).

Table B–1 Default Port Numbers and Ranges (Grouped by Component)

Component	Default Port	Port Number Range	Name in <code>staticports.ini</code>
Oracle Process Manager and Notification Server (OPMN)			
Oracle Notification Server Request Port	6003	6003 - 6099	Oracle Notification Server Request port
Oracle Notification Server Local Port	6100	6100 - 6199	Oracle Notification Server Local port
Oracle Notification Server Remote Port	6200	6200 - 6299	Oracle Notification Server Remote port
Oracle Application Server Containers for J2EE (OC4J)			

Table B–1 (Cont.) Default Port Numbers and Ranges (Grouped by Component)

Component	Default Port	Port Number Range	Name in staticports.ini
OC4J AJP	3301	3301 - 3400	Not settable through staticports.ini
OC4J RMI	3201	3201 - 3300	Not settable through staticports.ini
JMS	3701	3701 - 3800	Not settable through staticports.ini
IIOP	3401	3401 - 3500	Not settable through staticports.ini
IIOPS1	3501	3501 - 3600	Not settable through staticports.ini
IIOPS2	3601	3601 - 3700	Not settable through staticports.ini
Oracle HTTP Server			
Oracle HTTP Server Listener (OracleAS Web Cache not configured)	7777	7777 - 7877	Oracle HTTP Server Listen port
Oracle HTTP Server Listener (SSL)	4443	4443 - 4543	Oracle HTTP Server Listen (SSL) port
Oracle HTTP Server Listener (non-SSL, OracleAS Web Cache configured)	7778	7777 - 7877	Oracle HTTP Server port
Oracle HTTP Server Listener (SSL, OracleAS Web Cache configured)	4444	4443 - 4543	Oracle HTTP Server SSL port
Java Object Cache	7000	7000 - 7099	Java Object Cache port
DCM Java Object Cache	7100	7100 - 7199	DCM Java Object Cache port
SOAP server	9998	9998 - 9999	Not settable through staticports.ini
Port Tunneling	7501	7501 - 7599	Not settable through staticports.ini
Oracle HTTP Server Diagnostic port	7200	7200 - 7299	Oracle HTTP Server Diagnostic port
OracleAS Web Cache			
OracleAS Web Cache - HTTP Listener	7777	7777 - 7877	Web Cache HTTP Listen port
OracleAS Web Cache - HTTP Listener (SSL)	4443	4443 - 4543	Web Cache HTTP Listen (SSL) port
OracleAS Web Cache Administration	4000	4000 - 4300	Web Cache Administration port
OracleAS Web Cache Invalidation	4001	4000 - 4300	Web Cache Invalidation port
OracleAS Web Cache Statistics	4002	4000 - 4300	Web Cache Statistics port
Oracle Enterprise Manager Application Server Control			
Application Server Control	1810	1810 - 1829	Application Server Control port

Table B–1 (Cont.) Default Port Numbers and Ranges (Grouped by Component)

Component	Default Port	Port Number Range	Name in staticports.ini
Oracle Management Agent	1830	1830 - 1849	Not settable through staticports.ini
Application Server Control - RMI	1850	1850 - 1869	Application Server Control RMI port
Application Server Control - SSL	1810	1810 - 1829	This port number is assigned after installation, when you configure Application Server Control for SSL. See the Oracle Application Server Administrator's Guide for details.
Enterprise Manager Console HTTP port (orcl)	5500		Not settable through staticports.ini
Enterprise Manager Agent port (orcl)	1831		Not settable through staticports.ini
Log Loader	44000	44000 - 44099	Log Loader port

Ports to Open in Firewalls

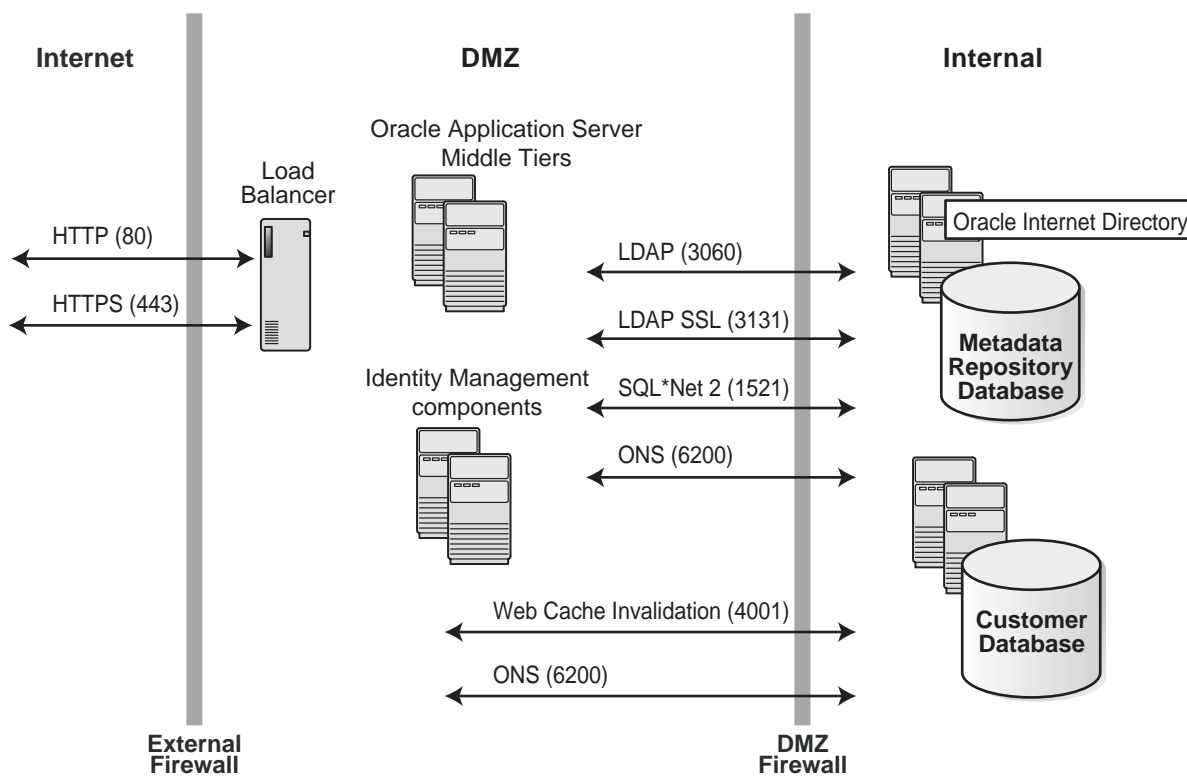
If you plan to install Oracle Application Server behind firewalls, then you need to open certain ports in the firewall during installation, and also during runtime.

When you are installing Middle Tiers or Identity Management components, you need access to the Oracle Internet Directory, OracleAS Metadata Repository, Oracle Notification Server and OracleAS Web Cache (the invalidation port). You need to open ports used by these components in the firewall, as shown in [Figure C-1](#):

- LDAP: port 3060
- LDAP SSL: port 3131
- SQL*Net 2: port 1521
- Oracle Notification Server: port 6200
- Web Cache Invalidation: port 4001

Note: The port numbers listed here are the default ports for the components. You may have different ports in your environment.

Figure C–1 Ports Needed to Be Opened in the Firewall When Installing Oracle Application Server Behind Firewalls



Deinstallation and Reinstallation

This appendix guides you through the deinstallation and reinstallation process for Oracle Application Server.

- [Section D.1, "New Tool: Deconfig Tool"](#)
- [Section D.2, "Deinstallation Procedure Overview"](#)
- [Section D.3, "Deinstalling Middle Tier"](#)
- [Section D.4, "Harmless Errors in the Log File"](#)
- [Section D.5, "Reinstallation"](#)

D.1 New Tool: Deconfig Tool

The Deconfig tool that you need to run as part of the deinstallation procedure. This tool removes entries in OracleAS Metadata Repository and Oracle Internet Directory for the Oracle Application Server instance that you want to deinstall.

To run the Deconfig tool, run the Perl interpreter on the `ORACLE_HOME/bin/deconfig.pl` script. Use the Perl interpreter provided with Oracle Application Server.

```
prompt> cd $ORACLE_HOME/bin
prompt> $ORACLE_HOME/perl/bin/perl deconfig.pl [-u oid_user]
[-w password] [-r realm] [-dbp sys_db_password]
```

If you run it without any parameters, then the tool prompts you for the necessary information.

D.1.1 Parameters

-u oid_user

Specify the Oracle Internet Directory user.

You can specify the Oracle Internet Directory user using the user's simple name or the user's distinguished name (DN). For example, the user's simple name can be `jdoo@mycompany.com`, which corresponds to the DN `cn=jdoo,l=us,dc=mycompany,dc=com`.

The Oracle Internet Directory user needs to have privileges for deinstalling the components that are configured in the Oracle Application Server instance that you want to deinstall. These privileges are the same as for installing and configuring the component.

For example, if you are deinstalling an OracleAS Infrastructure instance that is running Oracle Delegated Administration Services and Oracle Application Server Single Sign-On, then make sure the user has privileges to configure these components.

If you want to run the tool as the Oracle Internet Directory superuser, then be sure to use `cn=orcladmin`, and not just `orcladmin`. These are two different users.

-w *password*

Specify the password for the Oracle Internet Directory user.

-r *realm*

Specify the realm in which to authenticate the user. This value is required only if your Oracle Internet Directory has more than one realm.

-dbp *sys_db_password*

Specify the password for the SYS user in the database. This is the OracleAS Metadata Repository database used by Oracle Internet Directory.

This value is required only if you are deinstalling an Identity Management-only instance that has Oracle Internet Directory configured.

If you specify this parameter and it is not needed, then the password value is simply not used.

-help or -h

You can also run the Deconfig tool with the `-h` or `-help` parameter to display help.

D.1.2 Log Files Generated by the Deconfig Tool

The Deconfig tool writes log entries to the `ORACLE_HOME/cfgtoollogs/DeconfigureWrapper.log` file.

D.2 Deinstallation Procedure Overview

Follow these high-level steps to deinstall Oracle Application Server (the details are provided in later sections):

1. Run the Deconfig tool on the instance.
2. Run the installer and click the **Deinstall Products** button.
3. Clean up any remaining files.

Items to Remove or Clean Up

To deinstall Oracle Application Server 10g Release 2 (10.1.2) instances, you have to clean up the items listed in [Table D-1](#). The procedures are described later in this appendix.

Table D–1 *Items to Deinstall*

Item to Clean Up	Tool to Use
Files from the Oracle home directory	Installer If the installer does not remove all the files, you can remove the remaining files using the <code>rm</code> command.
Entries for the deleted instance in the Inventory directory	Installer
Instance name from Farm page	Installer
Entries for the deleted instance in the <code>/var/opt/oracle</code> or <code>/etc</code> directory	You have to remove the entries manually. See: ■ Step 7 on page D-3 if you are deinstalling middle tiers.
Entries for the deleted instance in Oracle Internet Directory	Deconfig tool

Note: The installer does not permit custom deinstallation of individual components.

D.3 Deinstalling Middle Tier

To deinstall Oracle Application Server Middle Tier:

1. Log in as the operating system user who installed the instance you want to deinstall.
2. Stop all processes associated with the instance you want to deinstall.
See the Oracle Application Server Administrator's Guide for details on how to stop the processes.
3. Run the Deconfig tool.

```
prompt> cd $ORACLE_HOME/bin
prompt> $ORACLE_HOME/perl/bin/perl deconfig.pl [parameters]
```

See [Section D.1, "New Tool: Deconfig Tool"](#) for parameter details.

4. Start the installer.

```
prompt> $ORACLE_HOME/oui/bin/runInstaller
```
5. Follow these steps in the installer.
 - a. Welcome screen: Click **Deinstall Products**.
 - b. Inventory screen: Select the instance you want to deinstall, and click **Remove**.
 - c. Confirmation screen: Verify the components selected for deinstallation. Click **Yes** to continue.
 - d. Deinstallation Progress screen: Monitor the progress of the deinstallation.
 - e. Exit the installer when the deinstallation is complete.
6. Delete any remaining files in the deleted instance's Oracle home directory.

```
prompt> rm -rf $ORACLE_HOME
```
7. Remove the line for the deinstalled middle-tier from the `/etc/oratab` file.

Towards the end of the file, you should see lines that specify the Oracle home directory. Remove the line for the Oracle home that you deinstalled. For example, if your Oracle home is `/private1/j2ee`, the line would look like the following:

```
*:/private1/j2ee:N
```

D.4 Harmless Errors in the Log File

After you deinstall the J2EE and Web Cache instance, you may get the unable to delete file and unable to find make file errors in the `oraInstalltimestamp.err` file. These error messages would appear as follows:

```
Ignoring Exception during de-install
oracle.sysman.oii.oii.OiiDeinstallException:
An error occurred during runtime. oracle.sysman.oii.oii.OiiDeinstallException:
An error occurred during runtime.
...
Ignoring Exception during de-install
oracle.sysman.oii.oii.OiiDeinstallException:
Unable to delete file
/home/j2ee/sysman/emd/targets.xml
oracle.sysman.oii.oii.OiiDeinstallException: Unable to delete file
/home/j2ee/sysman/emd/targets.xml
at instantiateFileEx.deinstallAction(instantiateFileEx.java:935)
...
Ignoring Exception during de-installoracle.sysman.oii.oii.OiiDeinstallException:
Unable to find make file:
/home/j2ee/network/lib/ins_net_client.mk
oracle.sysman.oii.oii.OiiDeinstallException: Unable to find make file:
/home/j2ee/network/lib/ins_net_client.mk
at ssmakeux.deinstallAction(ssmakeux.java:246)
...
```

These are harmless error messages and you can ignore them.

D.5 Reinstallation

The installer does not allow reinstallation of an Oracle Application Server instance in a directory that already contains an Oracle Application Server instance. To reinstall Oracle Application Server in the same directory, you have to deinstall the existing instance and then install it.

See Also: For help with common deinstallation problems, refer to [Appendix F, "Troubleshooting"](#).

Configuration Assistants

This appendix lists the configuration assistants and the location of their log files.

- [Section E.1, "Troubleshooting Configuration Assistants"](#)
- [Section E.2, "Description of Oracle Application Server Configuration Assistants"](#)

E.1 Troubleshooting Configuration Assistants

This section contains the following topics:

- [Section E.1.1, "General Tips"](#)
- [Section E.1.2, "Configuration Assistant Result Codes"](#)

E.1.1 General Tips

If a configuration assistant fails, then try the following steps to correct the problem:

1. Review the installation log files listed in [Section F.1, "Log Files"](#).
2. Review the log files for the failed configuration assistant. Configuration assistant log files are listed in [Section E.2, "Description of Oracle Application Server Configuration Assistants"](#). Try to fix the issue that caused the error.
3. If the failed configuration assistant has any dependencies, then run the dependencies again. You must do this even if the dependency completed successfully.
4. Select the configuration assistant in the installer to run the failed configuration assistant, and then click **Retry**.

If the configuration assistant fails again after you click **Retry**, then remove the file and re-run the configuration assistant again.

If the configuration assistant fails again after you click **Retry**, then remove the component entry from the file. For example, the following lines show the OracleAS Web Cache entry in the `targets.xml` file:

```
<Target TYPE="oracle_webcache" NAME="instance2.domain.com_Web Cache"
DISPLAY_NAME="Web Cache">
  <Property NAME="HTTPPort" VALUE="7777" />
  <Property NAME="logFileName" VALUE="webcache.log" />
  <Property NAME="authrealm" VALUE="Oracle Web Cache Administrator" />
  <Property NAME="AdminPort" VALUE="4000" />
  <Property NAME="HTTPProtocol" VALUE="http" />
  <Property NAME="logFileDir" VALUE="/sysman/log" />
  <Property NAME="HTTPMachine" VALUE="domain.com" />
  <Property NAME="HTTPQuery" VALUE="" />
```

```

    <Property NAME="controlFile" VALUE="/ORACLE_HOME/webcache/bin/webcachectl" /
  >
    <Property NAME="MonitorPort" VALUE="4002" />
    <Property NAME="HTTPPath" VALUE="/" />
    <Property NAME="authpwd" VALUE="administrator" />
    <Property NAME="authuser" VALUE="administrator" />
    <CompositeMembership>
      <MemberOf TYPE="oracle_ias" NAME="domain.com" ASSOCIATION="null" />
    </CompositeMembership>
  </Target>

```

5. If an optional configuration assistant fails and it does not have any dependencies, then run the remaining configuration assistants. Uncheck the cancelled optional configuration assistant, highlight and check the next listed configuration assistant, and click **Retry**.
6. If configuration assistant failure occurs when running configuration assistant commands on the command line, then re-run the configuration assistant commands again.

You can use the generated script file named `configtoolcmds.pl` located in the directory to execute the failed configuration assistant again. The `configtoolcmds.pl` script is generated after you exit the installer. During silent or non-interactive installation, the `configtoolcmds.pl` script is generated immediately after the configuration assistant fails.

7. If you see a **Fatal Error. Reinstall** message, then find the cause of the problem by analyzing the log files. You cannot recover from a fatal error by correcting the problem and continuing the installation. You must remove the current installation and reinstall Oracle Application Server. The following tasks describe the recovery procedure:
 - a. Deinstall the failed installation using the procedure described in [Appendix D, "Deinstallation and Reinstallation"](#).
 - b. Correct the cause of the fatal error.
 - c. Reinstall Oracle Application Server.

E.1.2 Configuration Assistant Result Codes

If a configuration assistant fails, then the installation screen displays the error message, and the configuration assistant writes its result code ([Table E-1](#)) to the following log file:

Table E-1 Result Codes for Configuration Assistants

Result Code	Description
0	Configuration assistant succeeded
1	Configuration assistant failed
-1	Configuration assistant cancelled

E.2 Description of Oracle Application Server Configuration Assistants

[Table E-2](#) lists the Oracle Application Server configuration assistants in alphabetical order. Different installations use different configuration assistants depending on the installation type and configuration options that you selected.

Table E–2 Oracle Application Server Configuration Assistants

Configuration Assistant	Description	Log File Locations
ADF Business Components Configuration Assistant	Integrates Oracle Application Development Framework Runtime Libraries with Oracle Enterprise Manager Application Server Control. This configuration assistant requires the <code>ORACLE_HOME/jlib/emConfigInstall.jar</code> file.	<code>ORACLE_HOME/oraInventory/logs/installActions^{timestamp}.log</code>
Application Server Control Configuration Assistant	Starts the Oracle Management Agent and the Application Server Control to deploy applications through the Oracle Enterprise Manager Application Server Control.	<code>ORACLE_HOME/cfgtoollogs/configtool^{timestamp}.log</code>
DCM Repository Backup Assistant	Enables you to back up your DCM repository.	<code>ORACLE_HOME/dcm/logs</code>
HTTP Server Configuration Assistant	Configures Oracle HTTP Server, registers it with Oracle Enterprise Manager Application Server Control, and adds an entry to the <code>ORACLE_HOME/sysman/emd/targets.xml</code> file.	<code>ORACLE_HOME/Apache/Apache/logs</code> <code>ORACLE_HOME/Apache/Apache/httpd.log</code> <code>ORACLE_HOME/cfgtoollogs/configtool^{timestamp}.log</code>
Java Security Configuration Assistant	Changes the default password, and sets or reassigns new passwords for JAAS security.	<code>ORACLE_HOME/cfgtoollogs/jaznca.log</code>
OC4J Configuration Assistant	Integrates OC4J with Application Server Control. It performs the following steps: <ul style="list-style-type: none"> ■ Add entries to the <code>targets.xml</code> file. ■ Add entries to the <code>iasadmin.properties</code> file. This configuration assistant requires the <code>deploy.ini</code> file.	<code>ORACLE_HOME/cfgtoollogs/configtool^{timestamp}.log</code>
OC4J Instance Configuration Assistant	Configures OC4J instances for deployed Oracle Application Server applications.	<code>ORACLE_HOME/cfgtoollogs/configtool^{timestamp}.log</code>
OPMN Configuration Assistant	Starts OPMN and OPMN-managed processes.	<code>ORACLE_HOME/cfgtoollogs/configtool^{timestamp}.log</code> <code>ORACLE_HOME/opmn/logs/ipm.log</code> <code>ORACLE_HOME/opmn/logs/ons.log</code>
Register DCM Plug-Ins With EM	Registers DCM plug-ins with Oracle Enterprise Manager.	<code>ORACLE_HOME/cfgtoollogs/configtool^{timestamp}.log</code> <code>ORACLE_HOME/dcm/logs/dcmctl_logs</code>

Table E–2 (Cont.) Oracle Application Server Configuration Assistants

Configuration Assistant	Description	Log File Locations
Web Cache Configuration Assistant	Configures OracleAS Web Cache and registers it with Oracle Enterprise Manager Application Server Control.	ORACLE_HOME/cfgtoollogs/ configtoolstimestamp.log
Oracle Net Configuration Assistant	Configures the middle tier to use LDAP naming by default.	ORACLE_HOME/cfgtoollogs/ configtoolstimestamp.log
OracleAS Instance Configuration Assistant	Configures the OracleAS Instance.	ORACLE_HOME/cfgtoollogs/ configtoolstimestamp.log

Troubleshooting

This appendix describes solutions to common problems that you might encounter when installing Oracle Application Server. It contains the following sections:

- [Section F.1, "Log Files"](#)
- [Section F.2, "General Troubleshooting Tips"](#)
- [Section F.3, "Installation Problems and Solutions"](#)
- [Section F.4, "Need More Help?"](#)

F.1 Log Files

The installer writes the following log files:

- `oraInventory_location/logs/installActiontimestamp.log`
- `oraInventory_location/logs/oraInstalltimestamp.err`
- `oraInventory_location/logs/oraInstalltimestamp.out`

F.2 General Troubleshooting Tips

If you encounter an error during installation of Oracle Application Server:

- Read the *Oracle Application Server Release Notes* for the latest updates. The release notes are available with the platform-specific documentation. The most current version of the release notes is available on Oracle Technology Network (<http://www.oracle.com/technology/documentation>).
- Verify that your computer meets the requirements specified in [Chapter 2, "Requirements"](#).
- If you entered incorrect information on one of the installation screens, then return to that screen by clicking **Back** until you see the screen.
- If a configuration assistant failed, then check the log file for that configuration assistant. [Section E.2, "Description of Oracle Application Server Configuration Assistants"](#) lists the configuration assistants and the location of their log files. If you do not see log files from some configuration assistants in the `ORACLE_HOME/cfgtoollogs` directory, then exit the installer. This causes the installer to copy the log files to that directory.
- If an error occurred while the installer is copying or linking files:
 1. Note the error and review the installation log files.

2. Remove the failed installation by following the steps in [Appendix D, "Deinstallation and Reinstallation"](#).
3. Correct the issue that caused the error.
4. Restart the installation.

F.3 Installation Problems and Solutions

This section describes common Oracle Application Server installation problems and solutions:

- [Section F.3.1, "Location of Log Files"](#)
- [Section F.3.2, "Linking Failed, ORA Errors"](#)
- [Section F.3.3, "Message About Installing in a Non-Empty Directory"](#)
- [Section F.3.4, "Unable to Clean Up a Failed Installation"](#)
- [Section F.3.5, "Forgot the Password for the cn=orcladmin Account"](#)
- [Section F.3.6, "cn=orcladmin Account Becomes Locked"](#)
- [Section F.3.7, "User Interface Does Not Display in the Desired Language or Does Not Display Properly"](#)
- [Section F.3.8, "General Configuration Assistant Failures"](#)
- [Section F.3.9, "OPMN Configuration Assistant - Start HTTP Server Failures"](#)

F.3.1 Location of Log Files

Problem

Log files are inaccessible.

Solution

There are two sets of log files:

- The installer writes the following log files:
 - `oraInventory_location/logs/installActionstimestamp.log`
 - `oraInventory_location/logs/oraInstalltimestamp.err`
 - `oraInventory_location/logs/oraInstalltimestamp.out`
- The configuration assistants write log files in the `ORACLE_HOME/cfgtoollogs` directory.

F.3.2 Linking Failed, ORA Errors

Problem

Linking failed, and ORA errors were displayed during installation

Solution

Exit the installer and check the log files for any error message. In particular, check the `ORACLE_HOME/install/make.log` file.

Remove the failed installation. Before reinstalling Oracle Application Server, make sure that your computer meets all the requirements listed in [Chapter 2, "Requirements"](#).

Check especially the following requirements:

- Check that the kernel parameters are set to the proper values. Note that if you change the value of a kernel parameter, you must exit the installer and restart your computer for the new value to take effect.
- Check that you are installing Oracle Application Server in a valid directory. For example, you cannot install Oracle Application Server in a database Oracle home.

F.3.3 Message About Installing in a Non-Empty Directory

Problem

The installer displays a message that you are installing into a non-empty directory.

Solution

If you started an installation and went beyond the Specify File Locations screen, but did not complete the installation, then the installer has already created the Oracle home directory that you specified. If you later try to install again in the same directory, which contains some files created by the installer, then the installer gives a warning that the directory is not empty.

Perform the following steps:

1. In the Warning dialog box, click **No** to return to the Specify File Locations screen.
2. Click **Installed Products**. The Inventory screen is displayed.

If your Oracle home is listed in the Inventory screen, then you have to deinstall the Oracle home. For details, refer to [Appendix D, "Deinstallation and Reinstallation"](#).

If your Oracle home is not listed in the Inventory screen, then you can just delete the files from the Oracle home and continue with the installation.

F.3.4 Unable to Clean Up a Failed Installation

Problem

Installation was not successful.

Solution

You have to deinstall it first before you can install Oracle Application Server again. For instructions, refer to [Appendix D, "Deinstallation and Reinstallation"](#).

F.3.5 Forgot the Password for the cn=orcladmin Account

Problem

You forgot the password for the cn=orcladmin account.

Solution

You can reset the password in the database. The DSE root attribute name is orclsupassword.

Note that after a certain number of failed attempts to connect, the `cn=orcladmin` account becomes locked. In this case, you have to unlock the account. Refer to the [Section F.3.6, "cn=orcladmin Account Becomes Locked"](#) for instructions on how to unlock the account.

F.3.6 cn=orcladmin Account Becomes Locked

Problem

The `cn=orcladmin` account becomes locked after ten failed attempts to connect. This is controlled by the password policy. Ten failed attempts is the default value.

Solution

If you know the `cn=orcladmin` password, then you can unlock the account by running the following command:

```
prompt> ORACLE_HOME/bin/oidpasswd connect=dbsid unlock_su_acct=true
```

where `dbsid` is the SID for the database. For example:

```
prompt> ORACLE_HOME/bin/oidpasswd connect=asdb unlock_su_acct=true
OID DB user password: enter_ODS_password
OID superuser account unlocked successfully.
```

The command prompts for the password of the Operational Data Source (ODS) schema. By default, the ODS password is the same as for the `cn=orcladmin` and `ias_admin` accounts, which you entered during installation.

To change the password policy, refer to *Oracle Internet Directory Administrator's Guide*.

F.3.7 User Interface Does Not Display in the Desired Language or Does Not Display Properly

Problem

Messages in the user interface do not appear in the desired language. They are not displayed correctly.

Solution

Currently Oracle Application Server does not support adding or removing languages after installation.

If you are serving non-English content, then ensure that you add all the languages that you need during installation. To add languages during installation, click the **Product Languages** button in the Select a Product to Install screen. To check what languages are installed by default, refer to [Section 3.4, "Installing Additional Languages"](#).

If you are serving non-English content from the OracleAS Metadata Repository and forgot to click the Product Languages during the installation then the user interface might not display properly because the required fonts were not installed. You can fix this by installing the fonts on the OracleAS Metadata Repository system from the "OracleAS Metadata Repository Upgrade Assistant and Utilities" CD-ROM or from the Oracle Application Server DVD-ROM by performing the following steps:

1. Insert and mount the "OracleAS Metadata Repository Upgrade Assistant and Utilities" CD-ROM or the Oracle Application Server DVD-ROM.

2. CD-ROM: Copy the contents of the `utilities/fonts` directory on the CD-ROM to the `ORACLE_HOME/jdk/jre/lib/fonts` directory.

DVD-ROM: Copy the contents of the `repca_utilities/utilities/fonts` directory on the DVD-ROM to the `ORACLE_HOME/jdk/jre/lib/fonts` directory.

F.3.8 General Configuration Assistant Failures

This part of the section describes general tips for troubleshooting configuration assistant failures. Refer to the following sections for specific configuration assistant failures.

See Also : [Appendix E, "Configuration Assistants"](#).

Problem

Configuration assistant failed.

Solution

Check the following:

- Check the log files for the failed configuration assistant to determine the problem. The log files are located in the `ORACLE_HOME/cfgtoollogs` directory.
Fix the problem indicated in the log file, and click **Retry** to rerun the failed configuration assistant.

F.3.9 OPMN Configuration Assistant - Start HTTP Server Failures

Problem

The OPMN Configuration Assistant - Start HTTP Server fails when you re-run it.

Solution

The problem is that Oracle HTTP Server is already running. Before re-running the configuration assistant, stop Oracle HTTP Server with the following command:

```
prompt> $ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=HTTP_Server
```

Then re-run the OPMN Configuration Assistant - Start HTTP Server.

F.4 Need More Help?

If this appendix does not solve the problem you encountered, then try the following sources:

- *Oracle Application Server Release Notes*, available on the Oracle Technology Network (<http://www.oracle.com/technology/documentation>)
- *Oracle MetaLink* (<http://metalink.oracle.com>)

If you do not find a solution for your problem, then open a service request.

Red Hat Enterprise Linux AS/ES Installation Notes

This appendix provides some information about using Oracle Application Server with Red Hat Enterprise Linux AS/ES. The topics include:

- [Section G.1, "Red Hat Enterprise Linux AS/ES Distributions"](#)
- [Section G.2, "Hardware Compatibility"](#)
- [Section G.3, "Package Download"](#)
- [Section G.4, "Useful Linux References"](#)

G.1 Red Hat Enterprise Linux AS/ES Distributions

Red Hat Enterprise Linux AS/ES is available from Red Hat through the following channels:

- **Boxed product**

Purchase the boxed product from the Red Hat web site:

<http://www.redhat.com>

- **RHN (Red Hat Network) store**

To obtain Red Hat Enterprise Linux AS/ES from the RHN store:

- a. **Register with the RHN (Red Hat Network):**

<http://www.redhat.com>

Information about different service levels is available from the following web sites:

<http://www.redhat.com/software/rhn/offerings/>

<http://rhn.redhat.com/help/faq/>

- b. **Download a Red Hat ISO CD-ROM image.** Note that ISO CD-ROM images are not available to all service level subscriptions.

G.2 Hardware Compatibility

Before purchasing Red Hat Enterprise Linux AS/ES, check whether the hardware is certified to run the Red Hat distribution using the following Red Hat web site:

<http://hardware.redhat.com/hcl/>

G.3 Package Download

[Table 2–4](#) lists the packages required by Oracle Application Server 10g Release 2 (10.1.2), download the RPMs from the Red Hat Network web site.

The packages may also be available on the distribution CD from Red Hat. Use the `rpm` utility to install the packages from the Red Hat Enterprise Linux AS/ES CD-ROMs.

G.4 Useful Linux References

The Linux Technology Center gathers together all the resources—downloads, sample code, tutorials, discussion forums, news, and more—associated with Linux technology and Oracle Products:

<http://www.oracle.com/technology/tech/linux/>

For updated information on this release of Oracle Application Server, and a global repository of technical knowledge, register with Oracle MetaLink:

<http://metalink.oracle.com>

Use the search engine to find relevant articles. For example, enter `Red Hat` or `linux kernel` to find articles concerning Linux.

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