

Oracle® Application Server

Quick Installation Guide

10g Release 2 (10.1.2) for Solaris Operating System (x86) and Solaris Operating System (x86-64)

B25852-01

July 2006

ORACLE®

Oracle Application Server Quick Installation Guide, 10g Release 2 (10.1.2) for Solaris Operating System (x86) and Solaris Operating System (x86-64)
B25852-01

Copyright © 2006, Oracle. All rights reserved.

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software--Restricted Rights (June 1987). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

1 Introduction

This guide describes how to install the following Oracle Application Server installation types:

- J2EE and Web Cache middle tier
- OracleAS Infrastructure
- Portal and Wireless middle tier
- Business Intelligence and Forms middle tier

Contents of this Guide

- [Section 2, "Documentation Accessibility"](#) on page 4
- [Section 3, "Installation Types Covered in this Guide"](#) on page 5
- [Section 4, "Requirements"](#) on page 7
- [Section 5, "Starting up the Installer"](#) on page 27
- [Section 6, "Installing J2EE and Web Cache \(Java Developer Topology\)"](#) on page 30

- Section 7, "Installing Portal and Wireless or Business Intelligence and Forms Developer Topology (includes OracleAS Infrastructure)" on page 35
- Section 8, "Accessing the Welcome Page" on page 50
- Section 9, "Installing OracleAS Metadata Repository in an Existing Oracle Database" on page 51
- Section 10, "Additional Resources" on page 52

2 Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at

<http://www.oracle.com/accessibility/>

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

TTY Access to Oracle Support Services

Oracle provides dedicated Text Telephone (TTY) access to Oracle Support Services within the United States of America 24 hours a day, seven days a week. For TTY support, call 800.446.2398.

3 Installation Types Covered in this Guide

This guide is intended for users who want to install Oracle Application Server in these configurations:

- Java Developer topology: Intended for Java developers. This topology installs a **J2EE and Web Cache** middle tier, on which you can deploy your applications.
- Portal and Wireless Developer topology: Intended for Java developers who want to use OracleAS Portal, Oracle Application Server Wireless, Oracle Internet Directory, or Oracle Application Server Single Sign-On features, in addition to J2EE and Web Cache features. This topology installs a **Portal and Wireless** middle tier and the **OracleAS Infrastructure**.
- Business Intelligence and Forms Developer topology: Intended for developers who want to use OracleAS Personalization, OracleBI Discoverer, OracleAS Reports Services, or OracleAS Forms Services features, in addition to J2EE and Web Cache and Portal and Wireless features. This topology installs a **Business Intelligence and Forms** middle tier and the **OracleAS Infrastructure**.

If you want more complex topologies, read the *Oracle Application Server Installation Guide* for complete installation instructions.

Before installing Oracle Application Server, you should read the *Oracle Application Server Release Notes* for the latest information.

4 Requirements

Check that your computer meets the minimum requirements:

- [Section 4.1, "Check System Requirements"](#)
- [Section 4.2, "Install Required Solaris Patches"](#)
- [Section 4.3, "Check Solaris Packages"](#)
- [Section 4.4, "Check for 32-bit Application Support"](#)
- [Section 4.5, "Check Kernel Parameters Required by OracleAS Web Cache"](#)
- [Section 4.6, "Check Kernel Parameters Required by OracleAS Metadata Repository"](#)
- [Section 4.7, "Resource Controls in Solaris 10"](#)
- [Section 4.8, "Create an Operating System Group for the Inventory Directory"](#)
- [Section 4.9, "Create an Operating System Group for Database Administration"](#)
- [Section 4.10, "Create an Operating System User"](#)
- [Section 4.11, "Check Environment Variables"](#)
- [Section 4.12, "Check If Port 1521 Is in Use"](#)

4.1 Check System Requirements

Your computer must meet the following requirements.

Operating Systems Supported

- For Solaris x86: Solaris 9 and Solaris 10
- For Solaris x86-64: Solaris 10

Other System Requirements

The following table shows other system requirements.

Table 1 *Minimum System Requirements*

	J2EE and Web Cache	Portal and Wireless	Business Intelligence and Forms	OracleAS Infrastructure
Memory (see (1) below)	512 MB	1 GB	1 GB	1 GB
Disk space	712 MB	1.26 GB	1.83 GB	4.12 GB (see (2) below)
Space in TEMP directory	400 MB	400 MB	400 MB	400 MB
Swap space	1.5 GB	1.5 GB	1.5 GB	1.5 GB

Notes:

- (1) If you plan to install OracleAS Infrastructure plus either Business Intelligence and Forms or Portal and Wireless on the same computer, you need to have at least 1.5 GB of memory.
- (2) You can install the data files for the OracleAS Metadata Repository database on a disk that is different from the disk where you are installing OracleAS Infrastructure. If you do this, make sure the disk for the data files has at least 1.3 GB of free space.

Complete the following steps to check these requirements:

1. To determine the physical RAM size, enter the following command:

```
prompt> /usr/sbin/prtconf | grep "Memory size"
```

2. To determine the amount of free disk space, enter the following command:

```
prompt> df -h dir
```

Replace *dir* 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

`/opt/oracle/infra`, you can replace *dir* with `/opt/oracle` or `/opt/oracle/infra`.

3. To determine the amount of available swap space, enter the following command:

```
# /usr/sbin/swap -s
```

If necessary, see your operating system documentation for information on how to configure additional swap space.

4.2 Install Required Solaris Patches

Check that your computer has the following patches:

Patches Required for Solaris 9 on Solaris x86

- 111713-06, SunOS 5.9_x86: Shared library patch for C++
- 111728-03, SunOS 5.9_x86: Math Library (libm) patch
- 112234-12, SunOS 5.9_x86: Kernel Patch
- 113986-10, SunOS 5.9_x86: linker Patch
- 115114-02, SunOS 5.9_x86: Patch for assembler
- 116013-02, SunOS 5.9_x86: ps utility patch (Available only from your local Sun solution center)

Patches Required for Solaris 10 on Solaris x86 and Solaris x86-64

Following patches are required for Solaris 10 for all installations:

- 118345-03 SunOS 5.10_x86: ld & libc.so.1 Patch
- 119961-02 SunOS 5.10_x86, x64, Patch for assembler

How to Check for Patches

To determine which patches are installed on your computer:

1. Run the `showrev` command with the `-p` option. The following command saves the sorted output to a file called `patchList`.

```
prompt> showrev -p | sort > patchList
```

2. Open the file in a text editor, and search for patch numbers.

If You Need Patches

You can download patches from <http://sunsolve.sun.com>.

4.3 Check Solaris Packages

Check that your computer has the following packages:

SUNWarc

```
SUNWbtool  
SUNwhea  
SUNWlibm  
SUNWlibms  
SUNWsprot  
SUNWtoo  
SUNWilof  
SUNWilcs  
SUNWi15cs  
SUNWxwfont
```

Note: You may also require additional font packages for Java, depending on your locale. For more information, refer to:

<http://java.sun.com/j2se/1.4.2/font-requirements.html>

To check if the required operating system packages are installed on your computer, run the following command:

```
# pkginfo -i SUNWarc SUNWbtool SUNwhea SUNWlibm  
SUNWlibms SUNWsprot SUNWtoo SUNWilof SUNWilcs  
SUNWi15cs
```

If your computer is missing a package, contact your system administrator.

4.4 Check for 32-bit Application Support

Oracle Application Server 10g Release 2 runs as a 32-bit application. Therefore, the operating system must be configured to support 32-bit applications. To check if this requirement is met, run the `isainfo` command with the `-v` option as follows:

On a 32-bit operating system:

```
prompt> /usr/bin/isainfo -v
32-bit i386 applications
```

On a 64-bit operating system:

```
prompt> /usr/bin/isainfo -v
64-bit amd64 applications
32-bit i386 applications
```

If the output does not show both lines, you need to reconfigure your computer. Check with your system administrator.

4.5 Check Kernel Parameters Required by OracleAS Web Cache

This section applies if you are installing OracleAS Web Cache:

- If you are installing the J2EE and Web Cache middle tier, the OracleAS Web Cache component is optional.
 - If you are installing the Portal and Wireless or Business Intelligence and Forms middle tier, the OracleAS Web Cache component is always installed.
1. Run the following command to check that the `rlim_fd_max` 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/system` file (use a text editor to edit the file):

```
set rlim_fd_max=65536
```

You need to be the root user to edit the `/etc/system` file.

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

4.6 Check Kernel Parameters Required by OracleAS Metadata Repository

This section applies only if you are installing the OracleAS Infrastructure.

1. Open the `/etc/system` file in a text editor.
2. Check that these parameters are set at these minimum values:

- `set semsys:seminfo_semmni=100`

Defines the maximum number of semaphore sets in the entire system.

- `set semsys:seminfo_semmns=1024`

Defines the maximum semaphores on the system. The 1024 is only a minimum value for computers that will be running the OracleAS Metadata Repository.

- `set semsys:seminfo_semmsl=256`

Defines the minimum recommended value, for initial installation only.

- `set shmsys:shminfo_shmmax=4294967295`

Defines the maximum allowable size of one shared memory segment (4 GB = 4294967295).

- `set shmsys:shminfo_shmuni=100`

Defines the maximum number of shared memory segments in the entire system.

4.7 Resource Controls in Solaris 10

In Solaris 10, all System V interprocess communication (IPC) facilities are configured automatically or handled by resource controls. Many applications that previously required system tuning may now run automatically because of increased defaults and the automatic allocation of resources. This is due to the reason that the default values for Solaris 10 are higher than those recommended by Oracle. The Solaris 9 default value recommendations by Oracle apply to the corresponding Solaris 10 Resource Control as shown in [Table 2](#):

Table 2 *Solaris 9 Kernel with Corresponding Solaris 10 Resource Control and Default Value*

Solaris 9 Kernel	Solaris 10 Resource Control	Applicable Default Value (for Solaris 9)
<code>seminfo_semmni</code>	<code>project.max-sem-ids</code>	100

Table 2 (Cont.) Solaris 9 Kernel with Corresponding Solaris 10 Resource Control and Default Value

Solaris 9 Kernel	Solaris 10 Resource Control	Applicable Default Value (for Solaris 9)
seminfo_semmsl	process.max-sem-nse ms	256
shminfo_shmmax	project.max-shm-memory	4294967295
shminfo_shmmni	project.max-shm-ids	100

Configuring Resource Controls

Perform the following steps to view the current value specified for resource controls, and to change the value if necessary:

1. To view the current values of the resource control, enter the following commands:

```
# id -p
project id uid=0(root) gid=0(root) projid=1
(user.root)
```

The `id -p` command will verify the project id.

```
# prctl -n project.max-shm-memory -i project
user.root
# prctl -n project.max-sem-ids -i project user.root
```

2. To modify the existing resource control values, enter the following commands:

- a. To modify the value of `max-shm-memory` to 6 GB:

```
# prctl -n project.max-shm-memory -v 6gb -r -i
project user.root
```

- b. To modify the value of `max-sem-ids` to 256:

```
# prctl -n project.max-sem-ids -v 256 -r -i
project user.root
```

For more information on Solaris 10 tuning, refer to:

<http://docs.sun.com/app/docs/doc/817-0404/6mg74vs8v?a=view>

4.8 Create an Operating System Group for the Inventory Directory

If this is the first Oracle product to be installed on the computer, create an operating system group for the "inventory" directory. The installer creates files in the inventory directory to keep track of the Oracle products that are installed on the computer.

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

In [Section 4.10, "Create an Operating System User"](#), you will create an operating system user, and set this group to be the user's primary 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.

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. 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.

How to Create a Group

To create a local operating system group, use the Solaris Management Console:

1. Set the DISPLAY environment variable to point to the monitor where you want the Solaris Management Console window to appear. The format of the DISPLAY environment variable is:

hostname:display_number.screen_number

Example (C shell):

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

Example (Bourne or Korn shell):

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

2. Start up the Solaris Management Console.

```
prompt> /usr/sadm/bin/smc
```
3. In the left frame, expand **This Computer**, then expand **System Configuration**.
4. Click **Users**. This displays the Log In window.

5. In the Log In window, log in as the root user.
6. In the left frame, expand **Users** and select **Groups**.
7. Select Action > Add Group.
8. In **Group Name**, enter the `oinstall` as the name of the group.
9. (optional) In **Group ID Number**, enter an ID number for the group.
10. Click **OK**.

4.9 Create an Operating System Group for Database Administration

Using the same steps in the previous section, create an operating system group called "dba". When you create an operating system user in the next step, you will set this dba group to be the user's secondary group.

4.10 Create an Operating System User

Create an operating system user to install and upgrade Oracle products. This guide refers to this user as the `oracle` user.

How to Create a User

To create a local operating system user, use the Solaris Management Console:

1. Set the DISPLAY environment variable to point to the monitor where you want the Solaris Management Console window to appear. The format of the DISPLAY environment variable is:

hostname:display_number.screen_number

Example (C shell):

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

Example (Bourne or Korn shell):

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

2. Start up the Solaris Management Console.

```
prompt> /usr/sadm/bin/smc
```
3. In the left frame, expand **This Computer > System Configuration**.
4. Click **Users**. This displays the Log In window.

5. In the Log In window, in **User Name**, enter `root`. In **Password**, enter the root password.
6. In the left frame, expand **Users** and select **User Accounts**.
7. Select **Action > Add User > With Wizard**.
8. In **User Name**, enter the name of the user (`oracle`). The **Full Name** and **Description** fields are optional. Click **Next**.
9. In **User ID Number**, accept the default value. Click **Next**.
10. Select **User Must Use This Password At First Login**, and enter a password for the user. Click **Next**.
11. In **Primary Group**, select the primary group for the user. This is the group you created earlier for the inventory directory. See [Section 4.8, "Create an Operating System Group for the Inventory Directory"](#). Click **Next**.
12. In **Path**, enter a home directory for the user. Click **Next**.
13. Review the mail server information and click **Next**.
14. Review the user information and click **Finish** to create the user.

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
```

4.11 Check Environment Variables

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

Table 3 *Environment Variables*

Environment Variable	Set or Unset
DISPLAY	Set it to the monitor where you want the installer window to appear.
ORACLE_HOME	Must not be set.
ORACLE_SID	Must not be set.
TNS_ADMIN	Must not be set.
PATH, CLASSPATH, and LD_LIBRARY_PATH	Must not contain references to directories in any Oracle home directories.
TMP	Optional. If unset, defaults to /tmp.

4.11.1 How to Set Environment Variables This section describes how to set environment variables:

Using the C shell:

```
% setenv variable_name value
```

Example (C shell):

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

Using the Bourne or Korn shell:

```
$ variable_name=value; export variable_name
```

Example (Bourne or Korn shell):

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

4.11.2 Environment Variable Tips This section describes some things to look out for when setting 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
```

4.12 Check If Port 1521 Is in Use

This section is applicable only if you are installing the OracleAS Infrastructure.

The OracleAS Infrastructure installs an Oracle database, which uses port 1521 by default. To check if port 1521 is in use:

```
prompt> netstat -an | grep 1521
```

If port 1521 is in use by a third-party application, you need to configure the application to use a different port.

If port 1521 is in use by an existing Oracle database listener, you need to stop the listener before installing the OracleAS Infrastructure.

See the *Oracle Application Server Installation Guide* for details.

5 Starting up the Installer

To start the installer:

1. Log in to the computer as a user who is a member of the Administrators group.
2. Insert the disk:
CD-ROM: Insert Oracle Application Server Disk 1.
DVD-ROM: Insert the Oracle Application Server DVD-ROM.
3. If your computer does not have automount, see [Section 5.1, "Mounting the CD-ROM or DVD-ROM"](#) for steps on mounting the CD-ROM or DVD-ROM manually.

On Solaris, if you are using Volume Manager, the CD-ROM or DVD-ROM should mount automatically, usually on `/cdrom`.

4. Start up the installer:

Note: Do not run the installer from the mount point directory. Note the "cd" command below; it changes your current directory to your home directory so that you do not start up the installer from the mount point.

CD-ROM:

```
prompt> cd  
prompt> /cdrom/1012disk1/runInstaller
```

DVD-ROM:

```
prompt> cd  
prompt> /cdrom/application_server/runInstaller
```

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

5.1 Mounting the CD-ROM or DVD-ROM

Follow these steps if your computer does not automount the CD-ROM or DVD-ROM:

1. Insert the CD-ROM or DVD-ROM.
2. Log in as the root user.

```
prompt> su  
Password:
```

3. Create the CD-ROM or DVD-ROM mount point directory:

```
# mkdir /cdrom
```

4. Mount the CD-ROM or DVD-ROM drive on the mount point directory:

```
# mount options device_name /cdrom
```

For example:

```
# mount -r -F hsfs device_name /cdrom
```

You can also use the same commands and options to mount the DVD-ROM.

5. Log out from the root user.

```
# exit
```

6 Installing J2EE and Web Cache (Java Developer Topology)

This topology installs the J2EE and Web Cache middle tier, which provides the following components:

- Oracle HTTP Server - this is the Web server.
- Oracle Application Server Containers for J2EE ("OC4J") - this is a J2EE container that you can use for deploying and testing your J2EE applications.
- OracleAS Web Cache - this component caches objects to reduce the load on Oracle HTTP Server and improve performance.

To install a J2EE and Web Cache middle tier:

1. Start up the installer. See [Section 5, "Starting up the Installer"](#) for details.
2. Welcome screen

Click **Next**.

3. If this is the first Oracle product to be installed on this computer, the installer displays these additional screens:

- a. Specify Inventory directory and credentials screen

Enter the full path of the inventory directory: Enter a full path to the inventory directory. This directory is different from the Oracle home directory for the product files.

Example: `/opt/oracle/oraInventory`

Specify Operating System group name: Select the operating system group that will have write permission for the inventory directory.

Example: `oinstall`

Click **Next**.

- b. Run oraInstRoot.sh dialog

When prompted, run the `oraInstRoot.sh` script as the root user in a different shell. The script is located in the inventory directory.

After running the script, click **Continue**.

4. Specify File Locations screen

Name: Enter a name to identify this Oracle home.

Example: OH_J2EE

Path: Enter the full path to the destination directory. This is the Oracle home. If the destination directory does not exist, the installer creates it.

Example: /opt/ora_j2ee

Click **Next**.

5. Select a Product to Install screen

Select **Oracle Application Server 10g** and click **Next**.

6. Select Installation Type screen

Select **J2EE and Web Cache** and click **Next**.

7. Confirm Pre-Installation Requirements screen

Check that you meet the requirements listed on this screen, select all the checkboxes, and click **Next**.

8. Select Configuration Options screen

Select **Oracle Application Server 10g Web Cache** if you want to use caching capabilities with this Oracle Application Server instance.

Do not select **Oracle Application Server 10g Farm Repository**.

Do not select **Identity Management Access**.

Click **Next**.

9. Specify Port Configuration Options screen

Select **Automatic** and click **Next**.

10. Specify Instance Name and ias_admin Password screen

Instance Name: Enter a name for this instance. Instance names can contain alphanumeric and _ (underscore) characters. If you have more than one Oracle Application Server instance on a computer, the instance names must be unique.

Example: J2EE

ias_admin Password and Confirm Password: Enter and confirm the password for the ias_admin user. This is the administrative user for this instance.

Passwords must consist of at least five characters, and one of the characters must be a number.

Click **Next**.

11. Summary screen

Verify your selections and click **Install**. The installer now installs the files.

12. Run root.sh dialog

Note: Do not run this script until you see the dialog.

In a different window, log in as the root user and run the `root.sh` script. The script is located in this instance's Oracle home directory.

After you have run the `root.sh` script, click **OK**.

13. Configuration Assistants screen

This screen displays the progress of configuration assistants, which configure Oracle Application Server components.

14. End of Installation screen

Click **Exit** to quit the installer.

7 Installing Portal and Wireless or Business Intelligence and Forms Developer Topology (includes OracleAS Infrastructure)

These topologies enable you to deploy applications that use components such as OracleAS Portal, Oracle Application Server Wireless, and OracleBI Discoverer.

To set up the Portal and Wireless Developer Topology, you need to install:

1. OracleAS Infrastructure
2. Portal and Wireless middle tier

To set up the Business Intelligence and Forms Developer Topology, you need to install:

1. OracleAS Infrastructure
2. Business Intelligence and Forms middle tier

The Portal and Wireless and Business Intelligence and Forms middle tiers use services from the OracleAS Infrastructure, so you have to install the OracleAS Infrastructure first.

Tip: You can install the OracleAS Infrastructure and the Portal and Wireless or Business Intelligence and Forms middle tier on different computers.

7.1 Install OracleAS Infrastructure

To install OracleAS Infrastructure with a new database and a new Oracle Internet Directory:

1. Start up the installer. See [Section 5, "Starting up the Installer"](#) for details.
2. Welcome screen
Click **Next**.
3. If this is the first Oracle product to be installed on this computer, the installer displays these additional screens:
 - a. Specify Inventory directory and credentials screen

Enter the full path of the inventory directory: Enter a full path to the inventory directory. This directory is different from the Oracle home directory for the product files.

Example: `/opt/oracle/oraInventory`

Specify Operating System group name: Select the operating system group that will have write permission for the inventory directory.

Example: oinstall

Click **Next**.

b. Run oraInstRoot.sh dialog

When prompted, run the `oraInstRoot.sh` script as the root user in a different shell. The script is located in the inventory directory.

After running the script, click **Continue**.

4. Specify File Locations screen

Name: Enter a name to identify this Oracle home.

Example: OH_INFRA

Path: Enter the full path to the destination directory. This is the Oracle home. If the destination directory does not exist, Oracle Universal Installer creates it.

Example: `/opt/oracle/oraInfra`

Click **Next**.

5. Select a Product to Install screen
Select **OracleAS Infrastructure** and click **Next**.
6. Select Installation Type screen
Select **Identity Management and OracleAS Metadata Repository** and click **Next**.
7. Confirm Pre-Installation Requirements screen
Check that you meet the requirements listed on this screen, select all the checkboxes, and click **Next**.
8. Select Configuration Options screen
Select **Oracle Internet Directory**.
Select **OracleAS Single Sign-On**.
Select **OracleAS Delegated Administration Service**.
Select **OracleAS Directory Integration and Provisioning**.
Do not select **OracleAS Certificate Authority**.
Do not select **High Availability and Replication**.
Click **Next**.
9. Specify Port Configuration Options screen

Select **Automatic** and click **Next**.

10. Specify Namespace in Internet Directory screen

Select **Suggested Namespace** and click **Next**.

11. Specify Database Configuration Options screen

Global Database Name: Enter a name for the OracleAS Metadata Repository database, and append your domain name to the database name.

The database name portion of the global database name:

- can contain only alphanumeric characters
- must not be longer than eight characters
- must not contain the word "PORT" or "HOST" in uppercase characters. If you need to use these words, use lowercase characters.

The domain name portion of the global database name:

- can contain alphanumeric, underscore (_), minus (-), and pound (#) characters
- must not be longer than 128 characters

Example: `orcl.yourcompany.com`

SID: Enter the system identifier for the OracleAS Metadata Repository database. Typically this is the global database name, but without the domain name. The SID must be unique across all databases.

The SID name has the same naming restrictions as the database name portion of the global database name (listed above).

Example: `orcl`

Select Database Character Set: Select the character set that you want to use for the database.

Database File Location: Specify the full path to the parent directory for the data files directory. The directory you specify must exist, and you must have write permissions in it.

The installer installs the data files in a subdirectory of the path you specify. The installer uses the database name for the name of the subdirectory. For example, if you specify `orcl.yourcompany.com` for the global database name and `/data/dbfiles` for the database file location, the installer places database files in the following directory:
`/data/dbfiles/orcl.`

The file system that contains the directory must have at least 1.3 GB of free disk space. Additional disk space is required for production databases, depending on the amount of data that you plan to store.

Click **Next**.

12. Specify Database Schema Passwords screen

Set the passwords for the administrative database users, which are privileged accounts used for database administration. You can use the same password for all users, or specify different passwords for each user.

Click **Next**.

13. Specify Instance Name and ias_admin Password screen

Instance Name: Enter a name for this instance. Instance names can contain alphanumeric and _ (underscore) characters. If you have more than one Oracle Application Server instance on a computer, the instance names must be unique.

Example: `infra`

ias_admin Password and Confirm Password: Enter and confirm the password for the `ias_admin` user. This is the administrative user for this instance.

Passwords must consist of at least five characters, and one of the characters must be a number.

Example: `welcome99`

Click **Next**.

14. Summary screen

Verify your selections and click **Install**. The installer now installs the files.

15. Run `root.sh` dialog

Note: Do not run this script until you see the dialog.

In a different window, log in as the root user and run the `root.sh` script. The script is located in this instance's Oracle home directory.

After you have run the `root.sh` script, click **OK**.

16. Configuration Assistants screen

This screen displays the progress of configuration assistants, which configure Oracle Application Server components.

17. End of Installation screen

Click **Exit** to quit the installer.

7.2 Install Portal and Wireless or Business Intelligence and Forms Middle tier

The following procedure installs a Portal and Wireless or Business Intelligence and Forms middle tier and configures it to use the OracleAS Infrastructure installed in [Section 7.1, "Install OracleAS Infrastructure"](#).

1. Start up the installer. See [Section 5, "Starting up the Installer"](#) for details.
2. Welcome screen
Click **Next**.
3. If this is the first Oracle product to be installed on this computer, the installer displays these additional screens:
 - a. Specify Inventory directory and credentials screen

Enter the full path of the inventory directory: Enter a full path to the inventory directory. This directory is different from the Oracle home directory for the product files.

Example: `/opt/oracle/oraInventory`

Specify Operating System group name: Select the operating system group that will have write permission for the inventory directory.

Example: `oinstall`

Click **Next**.

b. Run oraInstRoot.sh dialog

When prompted, run the `oraInstRoot.sh` script as the root user in a different shell. The script is located in the inventory directory.

After running the script, click **Continue**.

4. Specify File Locations screen

Name: Enter a name to identify this Oracle home.

Example: `OH_PORTAL`

Path: Enter the full path to the destination directory. This is the Oracle home. If the destination directory does not exist, Oracle Universal Installer creates it.

Example: /opt/oracle/oraPortal

Click **Next**.

5. Select a Product to Install screen

Select **Oracle Application Server 10g** and click **Next**.

6. Select Installation Type screen

Select **Portal and Wireless** or **Business Intelligence and Forms** and click **Next**.

7. Confirm Pre-Installation Requirements screen

Check that you meet the requirements listed on this screen, select all the checkboxes, and click **Next**.

8. Select Configuration Options screen

For Portal and Wireless, select:

- **Oracle Application Server Portal**
- **Oracle Application Server Wireless**

For Business Intelligence and Forms, select:

- Oracle Application Server Portal
- Oracle Application Server Wireless
- Oracle Business Intelligence Discoverer
- Oracle Application Server Personalization
- Oracle Application Server Reports Services
- Oracle Application Server Forms Services

Click **Next**.

9. Specify Port Configuration Options screen

Select **Automatic** and click **Next**.

10. Enter connect information for Oracle Internet Directory, which you installed when you installed the OracleAS Infrastructure:

a. Register with Oracle Internet Directory screen

Hostname: Enter the name of the computer where Oracle Internet Directory is running.

Port: Enter the port number at which Oracle Internet Directory is listening. To determine Oracle Internet Directory's port number, look in the `ORACLE_`

HOME/install/portlist.ini file, where ORACLE_HOME is where you installed the OracleAS Infrastructure.

If you select **Use only SSL connections with this Oracle Internet Directory**, then you must obtain the port number from "Oracle Internet Directory (SSL)" parameter in the portlist.ini file.

Click **Next**.

b. Specify OID Login

Username: Enter orcladmin. This is the name of the Oracle Internet Directory administrator.

Password: The password for the orcladmin user is the same as the password for the ias_admin user in the infrastructure. You entered this password when you installed the infrastructure (see step 13 in [Section 7.1, "Install OracleAS Infrastructure"](#)).

Click **Next**.

11. Select Oracle Application Server 10g Metadata Repository screen

Repository: Select the OracleAS Metadata Repository that you want to use for this middle-tier instance and click **Next**.

12. Provide Outgoing Mail Server Information

This screen appears only if you selected a Business Intelligence and Forms installation.

Enter the name of the outgoing mail (SMTP) server for use by OracleAS Reports Services. You can leave it blank and configure it later. Click **Next**.

13. Specify Instance Name and ias_admin Password screen

Instance Name: Enter a name for this instance. Instance names can contain alphanumeric and _ (underscore) characters. If you have more than one Oracle Application Server instance on a computer, the instance names must be unique.

Example: PORTAL

ias_admin Password and Confirm Password: Enter and confirm the password for the ias_admin user. This is the administrative user for this instance.

Passwords must consist of at least five characters, and one of the characters must be a number.

Example: welcome99

Click **Next**.

14. Summary screen

Verify your selections and click **Install**. The installer now installs the files.

15. Run root.sh dialog

Note: Do not run this script until you see the dialog.

In a different window, log in as the root user and run the `root.sh` script. The script is located in this instance's Oracle home directory.

After you have run the `root.sh` script, click **OK**.

16. Configuration Assistants screen

This screen displays the progress of configuration assistants, which configure Oracle Application Server components.

17. End of Installation screen

Click **Exit** to quit the installer.

8 Accessing the Welcome Page

After installation, access the Oracle Application Server Welcome page to verify that the installation was successful. The URL for the Welcome page is:

```
http://hostname.domainname:http_port
```

Determine the *http_port* by looking in the `ORACLE_HOME/install/portlist.ini` file. The port is listed on the "Oracle HTTP Server listen port" line.

Note: If you have multiple instances of Oracle Application Server installed on a computer, each instance has its own set of port numbers. Check the `portlist.ini` file in the correct Oracle home directory to be sure you are using the correct port numbers.

The Welcome page provides links to these useful pages:

- New features in Oracle Application Server 10g Release 2 (10.1.2)

- Oracle Enterprise Manager Application Server Control ("Application Server Control"), which is a browser-based administrative tool
- Release Notes
- What's Next
- Demos

9 Installing OracleAS Metadata Repository in an Existing Oracle Database

If you want to install OracleAS Metadata Repository in an existing Oracle database, you run a tool called the Oracle Application Server Metadata Repository Creation Assistant.

You can find Oracle Application Server Metadata Repository Creation Assistant on the "OracleAS Metadata Repository Creation Assistant" CD-ROM.

See the *Oracle Application Server Metadata Repository Creation Assistant User's Guide* for details on how to use this tool.

10 Additional Resources

For more information, see these Oracle resources:

- Oracle Application Server Documentation Library CD-ROM
- Oracle Application Server platform-specific documentation on Oracle Application Server Disk 1 CD-ROM

Printed documentation is available for sale in the Oracle Store at <http://oraclestore.oracle.com>.

You can also contact your Oracle representative to purchase printed documentation.

To download free release notes, installation documentation, white papers, or other collateral, visit Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

<http://www.oracle.com/technology/membership/>.

If you already have a username and password for OTN, then you can go directly to the documentation section of OTN at

<http://www.oracle.com/technology/documentation>.

10.1 Oracle Support Services

If you purchased Oracle Product Support, you can call Oracle Support Services for assistance. Oracle Support Services include phone assistance, version updates and access to our service offerings. You have access to phone support 24 hours a day, 7 days a week. In the U.S.A., you can call Product Support at **1-800-223-1711**.

Make sure you have your CSI (CPU Support Identifier) number ready when you call. Keep the CSI number for your records, because it is your key to Oracle Support Services. The Oracle Store sends the CSI number to you in an e-mail alert when it processes your order. If you do not have your CSI number and you are in the U.S.A., you can look up your CSI number by accessing our online Order Tracker which provides detailed order information. Go to the Oracle Store and click on Order Tracker located above the top navigation bar.

For Oracle Support Services locations outside the U.S.A., call your local support center for information on how to access support. To find the local support center in your country, visit the Support Web Center at <http://www.oracle.com/support>.

At the Support Web Center you will find information on Oracle Support Services, such as:

- contact information
- instructions on how to access electronic services
- helpful Web sites
- Support Resources
- Oracle Support Portfolio
- Oracle Support Services news

With Oracle Product Support, you have round-the-clock access to *OracleMetaLink*, Oracle Support Services premier Web support offering. *OracleMetaLink* offers you access to installation assistance, product documentation, and a technical solution knowledge base.

It has technical forums, where you can post questions about your Oracle products and receive answers from Oracle Technical Support Analysts and other Oracle users. The questions and answers remain posted for the benefit of all users.

OracleMetaLink options include:

- Technical Assistance Request (TAR) access
- patch downloads
- bug database query access

- product life-cycle information

You can access Oracle*MetaLink* at <http://metalink.oracle.com>.

10.2 Version Updates

If you do not have a currently supported license, you can purchase the most recent version of an Oracle product from the Oracle Store at:

<http://oraclestore.oracle.com>

If you do have a currently supported license, you can place non-urgent requests for version update shipments through the iTAR feature on Oracle*MetaLink*. You will need to log the iTAR type as a U.S. Client Relations/Non-Technical Request.

You can also request Version Update shipments in the U.S.A. by calling Client Relations. When requesting a Version Update, provide the following information to the Client Relations Analyst:

- CSI number
- contact information
- platform

- product name
- shipping address
- version number of the product

Outside the U.S.A., call your local Oracle Support Center.

10.3 Premium Services

For information on our Premium Services, including onsite support, OracleGOLD, remote services, and upgrade packages, visit the Support Web Center at

<http://www.oracle.com/support>

or call your Support Sales Representative in the U.S.A at
1-800-833-3536.

10.4 Quick Reference

Resource	Contact Information or Web Site
Purchase additional products, full-use licenses, version updates, and documentation in the U.S.A.	http://oraclestore.oracle.com

Resource	Contact Information or Web Site
Access technical resources for developers	http://www.oracle.com/technology
Access installation documentation	http://www.oracle.com/technology/documentation
Access information about technical support	http://www.oracle.com/support
Locate local Oracle Support Centers outside the U.S.A.	http://www.oracle.com/support
Locate local Oracle offices outside the U.S.A	http://www.oracle.com/global
Call Client Relations in the U.S.A	1-800-223-1711
Speak with your sales representative in the U.S.A.	1-800-ORACLE-1
TTY Access to technical support in the U.S.A.	1-800-446-2398

