Oracle® Fusion Middleware

Upgrade Guide for Oracle Portal, Forms, Reports, and Discoverer

11*g* Release 1 (11.1.1)

E10130-01

May 2009



Oracle Fusion Middleware Upgrade Guide for Oracle Portal, Forms, Reports, and Discoverer, 11g Release 1 (11.1.1)

E10130-01

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Preface

This preface contains the following sections:

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

Audience

This manual is intended for Oracle Fusion Middleware system administrators who are responsible for installing and upgrading Oracle Fusion Middleware. It is assumed that the readers of this manual have knowledge of the following:

- Oracle Application Server 10g system administration and configuration
- The configuration and expected behavior of the system being upgraded

Documentation Accessibility

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http://www.fcc.gov/cgb/consumerfacts/trs.html, and a list of phone numbers is available at http://www.fcc.gov/cgb/dro/trsphonebk.html.

Related Documents

For more information, see the following related documentation available in the Oracle Fusion Middleware 11g documentation library:

- Related Upgrade Documentation
 - Oracle Fusion Middleware Upgrade Planning Guide
 - Oracle Fusion Middleware Upgrade Guide for Java EE
 - Oracle Fusion Middleware Upgrade Guide for Oracle SOA Suite, WebCenter, and ADF
 - Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management
- Oracle Fusion Middleware Installation Planning Guide
- Oracle Fusion Middleware Installation Guide for Oracle Portal, Forms, Reports and Discoverer
- Oracle Fusion Middleware Administrator's Guide

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Summary of the Oracle Portal, Forms, Reports, and Discoverer Upgrade Process

This chapter provides a high-level summary of the steps required to upgrade an Oracle Portal, Forms, Reports, and Discoverer environment from Oracle Application Server 10*g* to Oracle Fusion Middleware 11*g*.

This chapter contains the following sections:

- Flow Chart of the Oracle Portal, Forms, Reports, and Discoverer Upgrade Process
- Table Describing the Steps in the Oracle Application Server Upgrade Process

1.1 Flow Chart of the Oracle Portal, Forms, Reports, and Discoverer **Upgrade Process**

Figure 1-1 provides a flow chart of the Oracle Portal, Forms, Reports, and Discoverer upgrade process. Review this chart to get familiar with the steps you will be required to take, based on your existing Oracle Application Server environment.

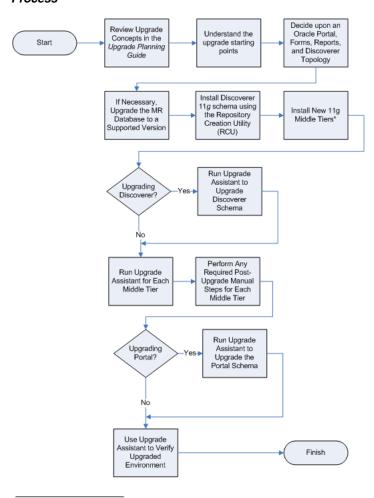


Figure 1-1 Flow Chart of the Oracle Portal, Forms, Reports, and Discoverer Upgrade **Process**

1.2 Table Describing the Steps in the Oracle Application Server Upgrade **Process**

Table 1–1 describes each of the steps in the upgrade process flow chart, which is shown in Figure 1–1. The table also provides information on where to get more information on each step in the process.

^{*} During installation, configure Discoverer middle tiers to use the new 11g Discoverer schema; configure Portal middle tiers to use the existing 10g Portal schema

Table Describing the Steps in the Oracle Application Server Upgrade Process Table 1–1

Step	Description	More Information
Review Upgrade Concepts in the Oracle Fusion Middleware Upgrade Planning Guide	The Oracle Fusion Middleware Upgrade Planning Guide provides a high-level overview of how to upgrade your entire Oracle Application Server environment to Oracle Fusion Middleware, including compatibility information and instructions for upgrading any databases that support your middleware components.	Oracle Fusion Middleware Upgrade Planning Guide
Understand the upgrade starting points	Before planning your upgrade, you should be familiar with the supported starting points for an Oracle Portal, Forms, Reports, and Discoverer upgrade.	Task 1: Understand the Starting Points for Oracle Portal, Forms, Reports, and Discoverer Upgrade
Decide upon an Oracle Portal, Forms, Reports, and Discoverer Topology	With the introduction of Oracle WebLogic Server, the topologies for Oracle Portal, Forms, Reports, and Discoverer have changed somewhat. Before you begin an upgrade, make sure you are familiar with the basic topologies in Oracle Fusion Middleware 11g.	Task 2: Decide Upon an Oracle Portal, Forms, Reports, and Discoverer Topology
If necessary, upgrade the MR database to a supported database version	The Oracle Discoverer and Oracle Portal components require schemas that must be installed in a database. Before you can install or upgrade the schemas, you must make sure the database is a supported version.	Task 3: If Necessary, Upgrade the Database that Contains the Oracle Portal and Oracle BI Discoverer Schemas
Install Discoverer 11g schema using the Repository Creation Utility (RCU)	Use the Oracle Fusion Middleware Metadata Repository Creation Utility to install the Oracle BI Discoverer 11g schema.	Task 4: Use the Repository Creation Utility to Install the Oracle BI Discoverer Schema in the Database
	Note that there is no need to install the Oracle Portal 11 <i>g</i> schema because you will be upgrading your existing 10 <i>g</i> Portal schema.	
Install New 11g Middle Tiers	Use the Oracle Portal, Forms, Reports, and Discoverer installer to install your new Oracle Fusion Middleware middle tiers.	Task 5: Install and Configure Oracle Portal, Forms, Reports, and Discoverer Middle Tiers
	When prompted:	
	Configure Oracle Discoverer to use the new 11g Discoverer 11g schemas	
	■ Configure Oracle Portal to use the existing 10g Portal schema.	
Run Upgrade Assistant to Upgrade Discoverer Schema	After you start the Upgrade Assistant, select the appropriate operation and follow the instructions on the screen.	Task 6b: Upgrade the Oracle BI Discoverer Schema

Table 1–1 (Cont.) Table Describing the Steps in the Oracle Application Server Upgrade Process

Step	Description	More Information
Run Upgrade Assistant for Each Middle Tier	The Oracle Fusion Middleware Upgrade Assistant copies configuration data from your existing Oracle Application Server middle tiers to the newly installed Oracle Fusion Middleware middle tiers.	Task 6c: Upgrade the Oracle Portal, Forms, Reports, and Discoverer Middle Tiers
Perform Any Required Post-Upgrade Manual Steps for Each Middle Tier	The Upgrade Assistant automates many of the upgrade tasks, but there are cases where you must manually modify the configuration settings after running the Upgrade Assistant.	Task 7: Perform Any Required Post-Upgrade Configuration Tasks
Run Upgrade Assistant to Upgrade the Portal Schema	The Upgrade Assistant upgrades the Oracle Portal 10g schema to 11g.	Task 6d: Upgrade the Oracle Portal Schemas
Use Upgrade Assistant to Verify Upgraded Environment	The Upgrade Assistant provides a feature that will verify the upgraded environment to make sure specific components and URLs are functional.	Task 8: Verify the Oracle Portal, Forms, Reports, and Discoverer Upgrade

Oracle Portal, Forms, Reports, and Discoverer for 10g Users

The following sections introduce some key concepts of the Oracle Portal, Forms, Reports, and Discoverer environment for Oracle Application Server 10g Release 2 (10.1.2) users:

- Components of the Oracle Portal, Forms, Reports, and Discoverer Suite
- Basic Architecture of the Oracle Portal, Forms, Reports, and Discoverer Suite
- Considerations When Deciding Upon an Oracle Portal, Forms, Reports, and Discoverer Topology

2.1 Components of the Oracle Portal, Forms, Reports, and Discoverer Suite

Oracle Application Server 10g Release 2 (10.1.2) provided users with updated versions of the following components:

- Oracle Portal
- Oracle Business Intelligence Discoverer
- **Oracle Forms Services**
- Oracle Reports
- Oracle HTTP Server (including mod_plsql)
- Oracle Web Cache
- Oracle Net Services, which includes the tnsnames.ora, sqlnet.ora, and ldap.ora configuration files

Oracle Fusion Middleware 11g provides updates to all these components. In Oracle Fusion Middleware, they are packaged as the Oracle Portal, Forms, Reports, and Discoverer software suite.

In Oracle Application Server 10g Release 2 (10.1.2), the Oracle Identity Management components, such as Oracle Internet Directory, Oracle Directory Integration Platform, Oracle Single Sign-On, and Oracle Delegated Administration Services were packaged with the Oracle Portal, Forms, Reports, and Discoverer components.

In Oracle Fusion Middleware 11g, your Oracle Identity Management components are packaged and installed separately, but they still provide the same resources and services.

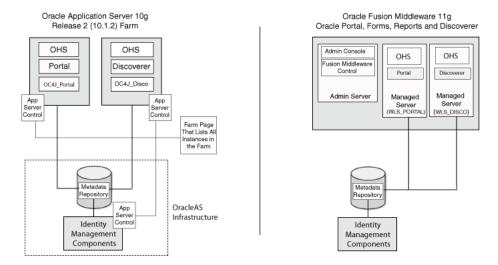
2.2 Basic Architecture of the Oracle Portal, Forms, Reports, and **Discoverer Suite**

The basic architecture of the Oracle Portal, Forms, Reports, and Discoverer components is the same as Oracle Application Server 10g, with one major difference. Instead of being based on Oracle Containers for Java EE (OC4J), the Oracle Fusion Middleware middle-tiers are based on Oracle WebLogic Server.

Figure 2–1 illustrates a basic Oracle Portal, Forms, Reports, and Discoverer topology in Oracle Application Server 10g Release 2 (10.1.2) and Oracle Fusion Middleware 11g. Notice how the system components are deployed to dedicated managed servers in the Oracle WebLogic Server domain.

In a more complex environment, you can also extend the domain to other hosts, so some of the Oracle Portal, Forms, Reports, and Discoverer components can be deployed on managed servers on remote hosts.

Figure 2-1 Comparing the Oracle Portal, Forms, Reports, and Discoverer Topology in 10g Release 2 (10.1.2) and Oracle Fusion Middleware 11g



2.3 Considerations When Deciding Upon an Oracle Portal, Forms, Reports, and Discoverer Topology

The following sections describe the general guidelines for configuring a new Oracle Fusion Middleware 11g topology in preparation for upgrade, as well as considerations for other alternative topologies:

- General Guideline for Configuring Your Oracle Fusion Middleware Topology
- Understanding the Impact on Upgrade When Configuring an Alternative Topology

2.3.1 General Guideline for Configuring Your Oracle Fusion Middleware Topology

In general, Oracle recommends that you upgrade your Oracle Application Server 10g environment to a similarly configured environment.

In other words, if your Oracle Application Server 10g environment consisted of a single Oracle home that contained all the Oracle Portal, Forms, Reports, and Discoverer components, then it is assumed you will be upgrading to an Oracle Fusion Middleware domain that is configured in a similar manner: one Oracle home and one Oracle instance containing all the components.

If you follow this general guideline, you can use the Oracle Fusion Middleware Upgrade Assistant and the procedures documented in this guide to upgrade the components.

2.3.2 Understanding the Impact on Upgrade When Configuring an Alternative Topology

Oracle Fusion Middleware 11g provides a flexible architecture that does not prevent you from installing and configuring the Oracle Portal, Forms, Reports, and Discoverer components in separate Oracle instances.

You can, for example, install Oracle Portal and Oracle Forms Services and later extend the Oracle WebLogic Server domain to support Oracle Reports and Oracle BI Discoverer. The resulting topology will include two Oracle instances: one that contains Oracle Portal and Oracle Forms Services and one that contains Oracle Reports and Oracle BI Discoverer.

If you decide upon such an approach, note the following important restrictions and considerations:

- Extending a Domain Creates Multiple Oracle Instances and Web Tier Components
- Impact of Multiple Web Tier Components in the Same Domain
- Impact of Multiple Oracle Instances on Upgrade

2.3.2.1 Extending a Domain Creates Multiple Oracle Instances and Web Tier Components

Each time you extend a domain to include additional Oracle Portal, Forms, Reports, and Discoverer components, you create a new Oracle instance.

Depending upon the components you choose to configure in each Oracle instance, the configuration tool will create new Web tier components (Oracle HTTP Server and Oracle Web Cache instances) for the components that require them. For example, if you extend a domain to include Oracle Portal, then new Oracle HTTP Server and Oracle Web Cache instances are configured automatically to support Oracle Portal.

2.3.2.2 Impact of Multiple Web Tier Components in the Same Domain

If you configure multiple Web tier components in a single domain, then you must decide whether to maintain:

- Multiple Web tier components (for example, where each Oracle HTTP Server instance uses a different listening port and routes requests to specific components) OR
- A single set of Web tier components (for example, a single Oracle HTTP Server that routes requests to all the configured components in the domain).

Depending upon your decision, you might have to disable one set of Web tier components or reconfigure one Oracle HTTP Server instance to route requests to the other Oracle instance.

For more information about configuring Oracle HTTP Server to route requests to an Oracle WebLogic Server instance, see "Configuring the mod_wl_ohs Module" in the Oracle Fusion Middleware Administrator's Guide for Oracle HTTP Server.

2.3.2.3 Impact of Multiple Oracle Instances on Upgrade

If your Oracle Fusion Middleware domain contains multiple Oracle instances, then you must run the Upgrade Assistant at least twice (once for each 11g Oracle instance), and you must use care when selecting your upgrade options.

In particular, if you select the Use source Oracle home ports in destination option, note that you can run the Upgrade Assistant with this option selected only once for each host. Otherwise, you will likely encounter port conflicts, since no more than one component can listen on a single same listening port on a single host.

For more information, see Section 3.6.3.2, "Important Notes When Using the Source Oracle Home Ports in the Destination Oracle Instance"

Upgrading Your Oracle Portal, Forms, Reports, and Discoverer Environment

This chapter describes how to upgrade your existing Oracle Application Server 10g Release 2 (10.1.2) environment to Oracle Portal, Forms, Reports, and Discoverer 11g.

This chapter contains the following sections:

- Task 1: Understand the Starting Points for Oracle Portal, Forms, Reports, and Discoverer Upgrade
- Task 2: Decide Upon an Oracle Portal, Forms, Reports, and Discoverer Topology
- Task 3: If Necessary, Upgrade the Database that Contains the Oracle Portal and Oracle BI Discoverer Schemas
- Task 4: Use the Repository Creation Utility to Install the Oracle BI Discoverer Schema in the Database
- Task 5: Install and Configure Oracle Portal, Forms, Reports, and Discoverer Middle Tiers
- Task 6: Use the Upgrade Assistant to Upgrade the Required Schemas and Middle
- Task 7: Perform Any Required Post-Upgrade Configuration Tasks
- Task 8: Verify the Oracle Portal, Forms, Reports, and Discoverer Upgrade

3.1 Task 1: Understand the Starting Points for Oracle Portal, Forms, Reports, and Discoverer Upgrade

This document provides information about upgrading from:

- One of the following Oracle Application Server 10g Release 2 (10.1.2) installation types:
 - Portal and Wireless
 - Business Intelligence and Forms
 - Forms and Reports Services
- Oracle Application Server Portal 10g Release 2 (10.1.4)

Note that the procedures in this guide were tested against the latest 10g Release 2 (10.1.2) patch set. As a result, Oracle recommends that you upgrade your 10g Release 2 (10.1.2) environment to the latest patch set before starting this upgrade procedure.

This restriction is most important for Oracle Portal users. Specifically, if you are using Oracle Portal 10g Release 2 (10.1.2.0.1) Standard Edition One, you must upgrade to Oracle Portal 10g Release 2 (10.1.2.3) before you can upgrade the Oracle Portal schema to Oracle Portal 11g.

For the most up-to-date information about available Oracle Application Server 10g patch set, including the database versions required for Oracle Fusion Middleware 11g Release 1 (11.1.1), refer to My Oracle Support (formerly Oracle MetaLink):

http://metalink.oracle.com/

After logging into My Oracle Support, click the Patches and Updates tab. From the resulting Web page, you can view the latest certifications by product, platform, and product availability.

3.2 Task 2: Decide Upon an Oracle Portal, Forms, Reports, and **Discoverer Topology**

Before you begin the upgrade process, consider whether you want to install the Oracle Portal, Forms, Reports, and Discoverer software in a single Oracle instance or in separate Oracle instances.

In Oracle Fusion Middleware 11g, you can create multiple Oracle instances from a single Oracle Portal, Forms, Reports, and Discoverer Oracle home. For example, you can install a single Oracle home and then run the Oracle Portal, Forms, Reports, and Discoverer installation and configuration tool multiple times to configure multiple Oracle instances.

For another example, you can configure Oracle Portal in one Oracle instance and Oracle Reports and Oracle Forms Services in another Oracle instance.

Note, however, that you must ensure that the destination Oracle instance has only a single instance of each component configured. For example, if the Oracle instance has two Oracle HTTP Server instances configured, only one of the Oracle HTTP Server instances will be upgraded.

For more information, see:

- "Understanding Oracle Fusion Middleware Concepts" in the Oracle Fusion Middleware Administrator's Guide
- Section 2.3, "Considerations When Deciding Upon an Oracle Portal, Forms, Reports, and Discoverer Topology"

3.3 Task 3: If Necessary, Upgrade the Database that Contains the Oracle **Portal and Oracle BI Discoverer Schemas**

If you are upgrading Oracle Portal or Oracle BI Discoverer, then you must ensure that the database that contains the Oracle Portal and Oracle BI Discoverer schemas is supported by Oracle Fusion Middleware 11g.

For instructions on verifying that your database meets the requirements of Oracle Fusion Middleware 11g, see "Upgrading and Preparing Your Databases" in the Oracle Fusion Middleware Upgrade Planning Guide.

3.4 Task 4: Use the Repository Creation Utility to Install the Oracle BI Discoverer Schema in the Database

As with Oracle BI Discoverer 10g, Oracle BI Discoverer 11g can be installed as a standalone product or associated with a database schema and Oracle Internet Directory instance.

For more information about the Oracle BI Discoverer 11g standalone configuration, see "About Oracle BI Discoverer installations" in the Oracle Business Intelligence Discoverer Configuration Guide.

When you installed Oracle BI Discoverer 10g, if you associated it with an Oracle Infrastructure 10g (database schema), then you must use the Repository Creation Utility to create the Oracle BI Discoverer 11g schema.

You install the Oracle BI Discoverer schema into the database that you identified and prepared in Task 3: If Necessary, Upgrade the Database that Contains the Oracle Portal and Oracle BI Discoverer Schemas.

Note: There is no need to install the Oracle Portal 11g schema in the database.

For more information, see Section 3.4.3, "Selecting the Oracle BI Discoverer Schema In Preparation for an Oracle Portal, Forms, Reports, and Discoverer Upgrade"

For more information about installing the Oracle BI Discoverer schema, refer to the following sections:

- Verifying that the Database Meets the Minimum Requirements for Oracle BI Discoverer 11g
- Running the Repository Creation Utility in Preparation for Upgrading Oracle BI Discoverer
- Selecting the Oracle BI Discoverer Schema In Preparation for an Oracle Portal, Forms, Reports, and Discoverer Upgrade
- Providing a Password for the Oracle BI Discoverer 11g Schema

3.4.1 Verifying that the Database Meets the Minimum Requirements for Oracle BI Discoverer 11*q*

Before performing any installation you should read the system requirements and certification documentation to ensure that your environment meets the minimum installation requirements for the products you are installing.

Specifically, Oracle BI Discoverer has some specific database requirements that must be met before you install the Oracle BI Discoverer schema.

For more information, refer to "System Requirements and Prerequisites" in the Oracle Fusion Middleware Installation Planning Guide.

3.4.2 Running the Repository Creation Utility in Preparation for Upgrading Oracle BI Discoverer

To run the Repository Creation Utility to install the Oracle BI Discoverer schema in the database:

1. Mount the Oracle Fusion Middleware Metadata Repository Creation Utility

Alternatively, you can download and unpack the Repository Creation Utility installation kit from the Oracle Technology Network (OTN):

http://www.oracle.com/technology/

In either case, the root directory of the CD-ROM or the directory where you unpacked the downloaded kit is referred to as the RCU_HOME directory.

2. Start the Repository Creation Utility:

On UNIX systems:

RCU HOME/bin/rcu

On Windows systems:

RCU_HOME\bin\rcu.bat

3. Follow the instructions on the Repository Creation Utility screens to connect to the database and create the required schemas.

Refer to the following resources for more information:

- For more information about which schemas to select when running the Repository Creation Utility, refer to Section 3.4.3, "Selecting the Oracle BI Discoverer Schema In Preparation for an Oracle Portal, Forms, Reports, and Discoverer Upgrade".
- For more information about providing passwords for the schemas you select, see Section 3.4.4, "Providing a Password for the Oracle BI Discoverer 11g Schema".
- For more detailed information about using the Repository Creation Utility, refer to the Oracle Fusion Middleware Repository Creation Utility User's Guide.

3.4.3 Selecting the Oracle BI Discoverer Schema In Preparation for an Oracle Portal, Forms, Reports, and Discoverer Upgrade

When you are upgrading Oracle Portal, Forms, Reports, and Discoverer, there is no need to install all the Oracle Fusion Middleware schemas. Instead, you can install only the schemas required for the Oracle Portal, Forms, Reports, and Discoverer upgrade.

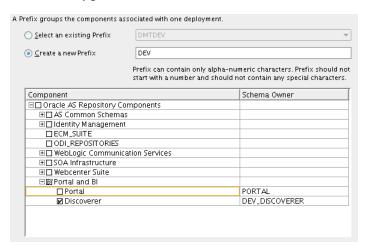
Figure 3–1 shows the options available in the Repository Creation Utility when you are prompted to select the schemas to install. Specifically, note the following when this screen appears:

The only required schema for an Oracle Portal, Forms, Reports, and Discoverer upgrade is the **Discoverer** schema. This schema is required only if you associated Oracle BI Discoverer 10g with an Oracle Infrastructure 10g (database schema).

This schema is required at this point in the upgrade process because, unlike the Oracle Portal schema upgrade, the Discoverer schema is upgraded "out-of-place." This means that the Upgrade Assistant copies data from the Oracle Application Server 10g Discoverer schema to the new 11g Discoverer schema. As a result, you must install the Oracle BI Discoverer 11g schema; otherwise, you will not be able to install Oracle Business Intelligence Discoverer 11g or upgrade your 10g Discoverer schema.

- Do not select the **Portal** schema. When you later run the Upgrade Assistant, your existing Oracle Application Server 10g Portal schema will be upgraded "in-place" to 11g; as a result, there is no need to install a new Oracle Portal 11g schema.
- No schemas are required for Oracle Forms Services or Oracle Reports.

Figure 3–1 Selecting the Required Schemas for an Oracle Portal, Forms, Reports, and Discoverer Upgrade



3.4.4 Providing a Password for the Oracle BI Discoverer 11g Schema

After you select the Oracle BI Discoverer schema, the Repository Creation Utility prompts you to provide a password for the schema. You must provide a password for each schema you are installing in the database; otherwise, you will not be able to install the schemas.

Note that you will need to know the Oracle BI Discoverer schema passwords later, when you are prompted to connect to the database during the Oracle Portal, Forms, Reports, and Discoverer installation procedure.

Figure 3–2 shows the Repository Creation Utility Schema Passwords page, which appears after you have selected component schemas for an Oracle Portal, Forms, Reports, and Discoverer upgrade.

You can enter a different password for each schema, or use the same password for all the schemas.

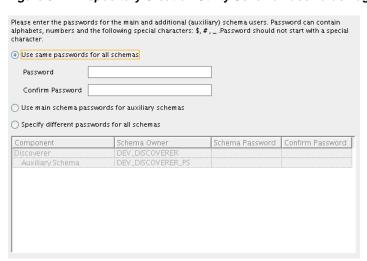


Figure 3–2 Repository Creation Utility Schema Passwords Page

3.5 Task 5: Install and Configure Oracle Portal, Forms, Reports, and **Discoverer Middle Tiers**

The following sections describes how to install and configure new Oracle Fusion Middleware 11g middle tier instances in preparation for an upgrade to Oracle Fusion Middleware 11g:

- Task 5a: Understand the Implications of Installing Oracle Portal Against the Oracle Application Server 10g PORTAL schema
- Task 5b: Consider the Impact of the Oracle Portal Upgrade on Oracle Web Agent (OWA) Packages
- Task 5c: Install Oracle WebLogic Server in Preparation for an Oracle Portal, Forms, Reports, and Discoverer Upgrade
- Task 5d: Install and Configure Oracle Portal, Forms, Reports, and Discoverer in Preparation for Upgrade

3.5.1 Task 5a: Understand the Implications of Installing Oracle Portal Against the Oracle Application Server 10*g* PORTAL schema

To upgrade Oracle Portal, you must install Oracle Portal 11g against the existing Oracle Portal 10g schema and then use the Upgrade Assistant to upgrade the schema to 11g.

However, understand that after you install Oracle Portal 11g against the Oracle Portal 10g schema, Oracle Portal 11g will not be operational until you run the Upgrade Assistant and subsequently upgrade the Oracle Portal 10g schema to 11g.

Because of this limitation, be sure you have planned for the proper amount of down time to not only install Oracle Portal 11g, but also to upgrade the Oracle Portal middle tier to 11g, as described in Section 3.6.3, "Task 6c: Upgrade the Oracle Portal, Forms, Reports, and Discoverer Middle Tiers".

3.5.2 Task 5b: Consider the Impact of the Oracle Portal Upgrade on Oracle Web Agent (OWA) Packages

Oracle Fusion Middleware 11g includes a new version of the Oracle Web Agent (OWA) packages. Existing packages will be updated to the new version the first time either an Oracle Portal 11g repository is installed or when an existing Portal repository is upgraded to 11g.

When the OWA update takes place, packages from existing Portal schemas that reside in the same database will become invalid. The OWA update ends with an attempt to revalidate all invalid packages in all Portal schemas in the existing database instance.

The OWA update may fail if there are any sessions or jobs active in any of the existing Portal schemas. For this reason, a warning will be issued during the install or upgrade if the OWA update is necessary and if it will cause potential problems in existing Portal schemas.

For the seamless completion of the OWA update in cases where there are existing Portal schemas in the target database, make sure you perform the following steps before installing or upgrading the Oracle Portal repository:

- Shut down all middle tiers associated with any of the existing Oracle Portal repositories in the target database.
- Stop all jobs and sessions in those same Oracle Portal repositories.

3.5.3 Task 5c: Install Oracle WebLogic Server in Preparation for an Oracle Portal, Forms, Reports, and Discoverer Upgrade

Before you install the Oracle Portal, Forms, Reports, and Discoverer software, you must install the Oracle WebLogic Server software and create a Middleware home.

For more information about the Middleware home, see "Oracle Portal, Forms, Reports, and Discoverer Directory Structure" in the Oracle Fusion Middleware Installation Guide for Oracle Portal, Forms, Reports and Discoverer.

Note: You must install the Oracle WebLogic Server software on the same host as the Oracle Application Server 10g middle tiers you are upgrading.

To install the Oracle WebLogic Server software on disk, refer to "Install Oracle WebLogic Server and Create the Middleware Home" in the Oracle Fusion Middleware Quick Installation Guide for Oracle Portal, Forms, Reports, and Discoverer.

3.5.4 Task 5d: Install and Configure Oracle Portal, Forms, Reports, and Discoverer in **Preparation for Upgrade**

The following sections provide information about installing and configuring Oracle Portal, Forms, Reports, and Discoverer in preparation for upgrade:

- Before You Install Oracle Portal, Forms, Reports, and Discoverer in Preparation for Upgrade
- About the Oracle Portal, Forms, Reports, and Discoverer Installation and Configuration Tool
- Running the Oracle Portal, Forms, Reports, and Discoverer Installation and Configuration Tool

- Specifying the PORTAL Schema Name and Password
- Specifying the DISCOVERER Schema Name and Password
- Locating the Oracle Portal 10g Schema Password in the Oracle Internet Directory

3.5.4.1 Before You Install Oracle Portal, Forms, Reports, and Discoverer in **Preparation for Upgrade**

Before you begin installing the Oracle Portal, Forms, Reports, and Discoverer software, you must have the complete path to the Middleware home, which is created during Oracle WebLogic Server installation. The Middleware home contains the wlserver directory and the user_projects directory, where the Oracle WebLogic Server domains are configured.

3.5.4.2 About the Oracle Portal, Forms, Reports, and Discoverer Installation and Configuration Tool

The Oracle Portal, Forms, Reports, and Discoverer installer functions as an installation and configuration tool. It allows you optionally to separate the installation and configuration tasks. In other words, you can choose to install the software on disk into an Oracle home and configure the components later.

However, for the purposes of this upgrade procedure, it is assumed that you are installing and configuring the software in one integrated task.

For more information about your installation and configuration options, see the Oracle Fusion Middleware Installation Guide for Oracle Portal, Forms, Reports and Discoverer.

3.5.4.3 Running the Oracle Portal, Forms, Reports, and Discoverer Installation and Configuration Tool

After you install the Oracle WebLogic Server software and create the Middleware home, you can then install and configure the Oracle Portal, Forms, Reports, and Discoverer components.

To install and configure Oracle Portal, Forms, Reports, and Discoverer:

1. Insert the CD-ROM or download the installer from the Oracle Technology Network (OTN):

http://www.oracle.com/technology/software/index.html

2. Start the installer.

On UNIX systems:

> ./runInstaller

On Windows systems:

D:\ setup.exe

3. Follow the instructions on the screen to install and configure one or more of the Oracle Portal, Forms, Reports, and Discoverer components.

As you proceed through the installation screens, note the following:

- If you are upgrading to Oracle Portal 11g, then see Section 3.5.4.4, "Specifying the PORTAL Schema Name and Password".
- If you are upgrading Oracle Business Intelligence Discoverer, then see Section 3.5.4.5, "Specifying the DISCOVERER Schema Name and Password".

For other information about installing and configuring Oracle Portal, Forms, Reports, and Discoverer, refer to the following:

- For help on the options available on each screen, click **Help**.
- For more detailed information about the installation and configuration options, refer to the Oracle Fusion Middleware Installation Guide for Oracle Portal, Forms, Reports and Discoverer.

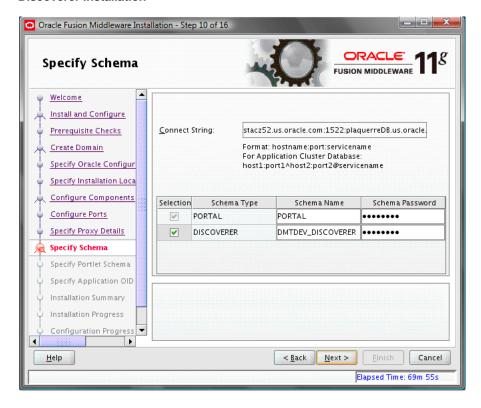
3.5.4.4 Specifying the PORTAL Schema Name and Password

If you are configuring Oracle Portal in preparation for an upgrade from Oracle Portal 10g, then the installer prompts you for the name and password of the Oracle Portal schema (Figure 3–3).

It is important that you enter the name and password of the Oracle Application Server 10g PORTAL schema, as follows:

- In the **Schema Name** column, enter PORTAL.
- In the **Schema Password** column, enter the password for the 10g PORTAL schema. For more information, see Section 3.5.4.6, "Locating the Oracle Portal 10g Schema Password in the Oracle Internet Directory"

Figure 3-3 Specify Schema Screen From an Oracle Portal, Forms, Reports, and Discoverer Installation



3.5.4.5 Specifying the DISCOVERER Schema Name and Password

If you are configuring Oracle BI Discoverer in preparation for an upgrade from Oracle BI Discoverer 10g, then the installer prompts you for the name and password of the Oracle Fusion Middleware 11g DISCOVERER schema (Figure 3–3).

It is important that you enter the name and password of the Oracle Fusion Middleware 11g DISCOVERER schema that you created using the Repository Creation Utility in Section 3.4, "Task 4: Use the Repository Creation Utility to Install the Oracle BI Discoverer Schema in the Database".

Enter the following information about the DISCOVERER schema on the Specify Schema screen:

- In the **Schema Name** column, enter the schema name and prefix that you used when you created the schema with Repository Creation Utility. For example, DEV DISCOVERER.
- In the Schema Password column, enter the password that you provided for the DISCOVERER schema in Repository Creation Utility.

3.5.4.6 Locating the Oracle Portal 10 Schema Password in the Oracle Internet **Directory**

You can locate and view the password for an Oracle Application Server 10g component schema by using the following ldapsearch command on the Oracle Internet Directory.

If your password is in an Oracle Internet Directory instance, use this command syntax:

```
ORACLE_HOME/bin/ldapsearch -p oid_port -h oid_hostname -D "cn=orcladmin"
-w orcladmin_password -b "orclresourcename=schema_name,
orclreferencename=metadata_rep_global_db_name, cn=ias infrastructure databases,
cn=ias, cn=products, cn=oraclecontext" -s base "objectclass=*"
orclpasswordattribute
```

For example, on a Linux system, if your Oracle Internet Directory instance is on host1, the port is 13060, the database name is myDB, and the cn=orcladmin password is myPassword1, then you would use this command:

```
$ORACLE_HOME/bin/ldapsearch -p 13060 -h host1.example.com -D "cn=orcladmin"
-w myPassword1 -b "orclresourcename=PORTAL,
orclreferencename=myDB.example.com, cn=ias infrastructure databases,
cn=ias, cn=products, cn=oraclecontext" -s base "objectclass=*"
orclpasswordattribute
```

Alternatively, you can use Oracle Directory Manager (oidadmin) to locate the password:

Start Oracle Directory Manager by entering the following command in the bin directory of your Oracle Internet Directory Oracle home: oidadmin

- 2. Connect to the Oracle Internet Directory instance using the cn=orcladmin super user account.
- **3.** In Oracle Directory Manager, navigate to the Oracle Portal properties page by expanding the following nodes in the Directory Manager navigation tree and locate the orclpasswordattribute property:

```
> Entry Management > cn=OracleContext > Products > IAS
    > IAS Infrastructure Databases > orclReferenceName=db_service_name
           > orclresourcename=PORTAL
```

3.6 Task 6: Use the Upgrade Assistant to Upgrade the Required Schemas and Middle Tiers

The Oracle Fusion Middleware Upgrade Assistant automates the upgrade of many aspects of your Oracle Application Server 10g environment.

The Upgrade Assistant is installed automatically into the bin directory of your Oracle Fusion Middleware Oracle home.

Note: The following sections describe how to use the Upgrade Assistant in graphical user interface mode. You can also use the Upgrade Assistant command line to perform these tasks.

For more information, see "Using the Upgrade Assistant Command-Line Interface" in the *Oracle Fusion Middleware Upgrade* Planning Guide.

The following sections provide more information:

- Task 6a: Start the Upgrade Assistant for an Oracle Portal, Forms, Reports, and Discoverer Upgrade
- Task 6b: Upgrade the Oracle BI Discoverer Schema
- Task 6c: Upgrade the Oracle Portal, Forms, Reports, and Discoverer Middle Tiers
- Task 6d: Upgrade the Oracle Portal Schemas

3.6.1 Task 6a: Start the Upgrade Assistant for an Oracle Portal, Forms, Reports, and **Discoverer Upgrade**

To start the Upgrade Assistant using the graphical user interface:

- Change directory to the ORACLE_HOME/bin directory of the Oracle Fusion Middleware installation.
- Enter the following command to start the Upgrade Assistant.

On UNIX system:

./ua

On Windows systems:

ua.bat

The Upgrade Assistant displays the Welcome screen as shown in Figure 3–4.

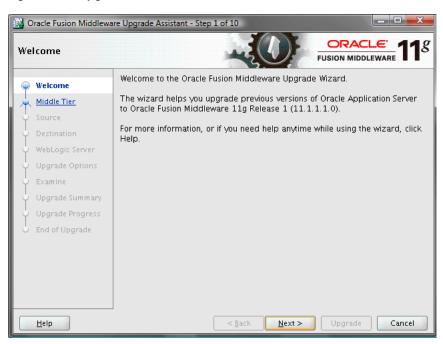
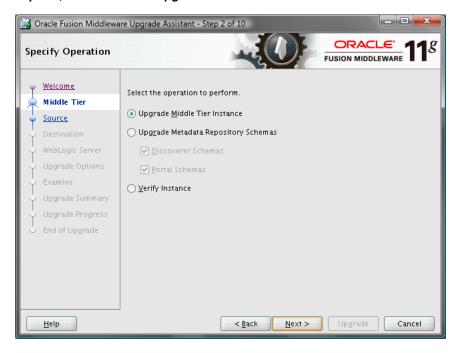


Figure 3–4 Upgrade Assistant Welcome Screen

3. Click **Next** to display the Specify Operation screen (Figure 3–5).

The options available in the Upgrade Assistant are specific to the Oracle home from which it started. For example, when you start Upgrade Assistant from an Oracle Portal, Forms, Reports, and Discoverer Oracle home, the options shown on the Specify Operation screen are the valid options for an Oracle Portal, Forms, Reports, and Discoverer Oracle home.

Figure 3-5 Upgrade Assistant Select Operation Screen for an Oracle Portal, Forms, Reports, and Discoverer Upgrade



3.6.2 Task 6b: Upgrade the Oracle BI Discoverer Schema

If you associated Oracle BI Discoverer 11g with an Oracle Infrastructure (database schema), then use the following procedure to upgrade the DISCOVERER schema to the newly installed 11g schema.

If you installed Oracle BI Discoverer as part of a standalone installation, then you skip this step and proceed to Task 6c: Upgrade the Oracle Portal, Forms, Reports, and Discoverer Middle Tiers. For more information about the Oracle BI Discoverer 11g standalone configuration, see "About Oracle BI Discoverer installations" in the Oracle Business Intelligence Discoverer Configuration Guide.

You must perform this step before upgrading your Oracle Portal, Forms, Reports, and Discoverer middle tiers.

To upgrade the DISCOVERER schema:

- Start the Upgrade Assistant as described in Task 6a: Start the Upgrade Assistant for an Oracle Portal, Forms, Reports, and Discoverer Upgrade.
- Select Upgrade Metadata Repository Schemas and Discoverer Schema from the Specify Operation screen (Figure 3–5).
- Follow the instructions on the screen to upgrade the Oracle BI Discoverer schema. Click **Help** for information about the options available on each screen.

3.6.3 Task 6c: Upgrade the Oracle Portal, Forms, Reports, and Discoverer Middle Tiers

The following sections describe how to use the Upgrade Assistant to upgrade your Oracle Portal, Forms, Reports, and Discoverer middle tiers:

- Using the Upgrade Assistant to Upgrade the Oracle Portal, Forms, Reports, and Discoverer Middle Tier
- Important Notes When Using the Source Oracle Home Ports in the Destination Oracle Instance

3.6.3.1 Using the Upgrade Assistant to Upgrade the Oracle Portal, Forms, Reports, and Discoverer Middle Tier

To upgrade an Oracle Application Server 10g Release 2 (10.1.2) middle tier to Oracle Fusion Middleware 11*g*:

- Start the Upgrade Assistant as described in Task 6a: Start the Upgrade Assistant for an Oracle Portal, Forms, Reports, and Discoverer Upgrade.
- Select **Upgrade Middle Tier Instance** on the Specify Operation screen (Figure 3–5).
- Refer to Table 3–1 for a description of the Upgrade Assistant screens that require input from you during a middle-tier instance upgrade and the options on each screen.

The Upgrade Assistant performs the following tasks and provides the progress on each task:

- Examines the components to be upgraded.
- Provides a summary of the components to be upgraded so you can verify that the Upgrade Assistant is upgrading the components you expect.
- Provides a progress screen so you can see the status of the upgrade as it proceeds.
- Alerts you of any errors or problems that occur during the upgrade.

See Also: Section B.1, "Troubleshooting Upgrade Assistant Problems and Issues" in the *Oracle Fusion Middleware Upgrade Planning Guide* for specific instructions for troubleshooting problems that occur while running the Upgrade Assistant

Displays the End of Upgrade screen, which confirms that the upgrade was complete.

Upgrade Assistant Screens That Require Input During a Middle-Tier Instance Table 3–1 Upgrade

Upgrade Assistant Screen	Description
Specify Source Home	Select the 10g source Oracle home.
	If the Oracle home you want to upgrade does not appear in the drop-down lists, see Section B.1.2.1, "Source Oracle Home Not Listed by the Upgrade Assistant" in the <i>Oracle Fusion Middleware Upgrade Planning Guide</i> .
Specify Destination Instance	Enter the complete path to the 11 <i>g</i> Oracle instance, or click Browse to locate the instance directory.
Specify WebLogic Server	Enter the host and Administration Server port for the Oracle WebLogic Server you configured in Task 5c: Install Oracle WebLogic Server in Preparation for an Oracle Portal, Forms, Reports, and Discoverer Upgrade.
Specify Upgrade Options	Select the upgrade options you want to apply to the Oracle Portal, Forms, Reports, and Discoverer upgrade:
	■ Use source Oracle home ports in destination: If you want to migrate the port assignments used by your Oracle Application Server 10g Oracle home to your new Oracle Fusion Middleware Oracle instance.
	For more information, see Section 3.6.3.2, "Important Notes When Using the Source Oracle Home Ports in the Destination Oracle Instance".
	■ Stop source components before upgrade: By default, this check box is selected and all the components in the Source Oracle home will be stopped before the upgrade process begins. Stopping the source components is necessary to avoid any port conflicts when you select the Use source Oracle home ports in destination option.
	• Start destination components after successful upgrade: If you want the Upgrade Assistant to automatically start the components in the destination Oracle home after a successful upgrade is complete. If you do not select this option, then you will have to manually start the destination instance after the upgrade. Note that this option works only if the upgrade is successful.
	Click Help to display more information about the upgrade options on this screen.

3.6.3.2 Important Notes When Using the Source Oracle Home Ports in the **Destination Oracle Instance**

When you select the Use Source Oracle home ports in destination option in the Oracle Fusion Middleware Upgrade Assistant, note the following.

General Information and Restrictions

- If you select this option, then you will not be able to run both the 10g and 11g middle tiers at the same time; otherwise, port conflicts will occur.
- If you are upgrading to multiple instances of a particular Oracle Fusion Middleware 11g component, you can select this option only once for each component that you upgrade on a host.

For example, suppose you upgrade Oracle HTTP Server in one Oracle instance on MYHOST1.

If you use the option again while upgrading another Oracle HTTP Server instance in another Oracle instance on MYHOST1, then the same listening ports are assigned to the second Oracle HTTP Server instance. Two instances of Oracle HTTP Server on the same host cannot use the same listening ports.

Component-Specific Information and Restrictions

When you use this option to upgrade an Oracle Portal middle tier, the option is enabled and you cannot disable it. As a result, you might end up with extra partner applications displayed on the Oracle Single Sign-On Administration page in Oracle Portal 11g.

For more information, see Section 4.1.4, "Removing Obsolete Partner Applications After Upgrade".

If you are upgrading Oracle Reports and you select this option, then Fusion Middleware Control may not be able to gather performance metrics about the Oracle Reports instance. This is because Oracle Enterprise Manager Fusion Middleware Control is using the new Oracle HTTP Server 11g port and not the Oracle HTTP Server 10g port to communicate with Oracle Reports.

To address this issue, modify the Agent-Monitored Target properties for the Oracle Reports component in Fusion Middleware Control. Change both the HTTP Port property and the port identified in the Servlet URL property to reflect the 10g Oracle HTTP Server port.

For information on changing the Agent-Monitored Target properties, see "Troubleshooting the Display of Performance Metrics and Charts in Fusion Middleware Control" in the Oracle Fusion Middleware Administrator's Guide.

If you do not select this option (meaning that you use a different set of port numbers than those used in Oracle Application Server 10g), and you are using Oracle Single Sign-On, you will likely have to re-register your components (such as Oracle Business Intelligence Discoverer) with Oracle Single Sign-On.

For more information, see "Configuring and Administering Partner Applications" in the *Oracle Application Server Single Sign-On Administrator's Guide*, which is available in the Oracle Application Server 10g (10.1.4.0.1) documentation library on the Oracle Technology Network (OTN):

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

3.6.4 Task 6d: Upgrade the Oracle Portal Schemas

If you are upgrading Oracle Portal, then use the following sections for information on upgrading the Oracle Portal schema. You must perform these steps after upgrading your Oracle Portal, Forms, Reports, and Discoverer middle tiers:

Checking for Invalid Objects in the Database Where the Oracle Portal 10g Schema Resides

- Backing Up the Database Where the Oracle Portal 10g Schema Resides
- Verifying the Required Database Parameters for Oracle Portal 11g
- Using the Upgrade Assistant to Upgrade the Oracle Portal Schema

3.6.4.1 Checking for Invalid Objects in the Database Where the Oracle Portal 10g Schema Resides

Before you upgrade the schemas in your database, it is good practice to make sure that none of the database objects required by Oracle Fusion Middleware are invalid:

1. Connect to the Metadata Repository database.

For example:

```
ORACLE_HOME/bin/sqlplus "connect / as sysdba"
```

- **2.** When prompted, enter the SYS password.
- **3.** Issue the following SQL command:

```
SELECT owner, object_type, object_name
        FROM all_objects
        WHERE status='INVALID';
```

The query should not return any database objects that have an Oracle Application Server component schema (such as PORTAL, WIRELESS, and so on) in the 'owner' column.

If you find any invalid objects, run the utlrp.sql script from the SQL*Plus command line to recompile the invalid objects:

```
@?/rdbms/admin/utlrp.sql
```

For more information about invalid objects, see "About Dependencies Among Schema Objects" in the Oracle Database Administrator's Guide.

3.6.4.2 Backing Up the Database Where the Oracle Portal 10 g Schema Resides

Before you upgrade the Oracle Portal 10g schema to 11g, back up your database, in case you need to restore the database to its pre-upgrade state.

For more information, see "Backup Strategies for Upgrade" in the Oracle Fusion Middleware Upgrade Planning Guide.

3.6.4.3 Verifying the Required Database Parameters for Oracle Portal 11 g

Before you upgrade the Oracle Portal schemas in the metadata repository, be sure to verify that the following database parameters are set correctly.

These settings are required for Oracle Portal 11g. If you do not set these parameters correctly, errors will appear in the Upgrade Assistant during the examination phase:

- Set the aq_tm_processes database parameter to a value of one (1) or higher to allow correct management of database queues.
- If you are upgrading the schema in Oracle Database 11g, then set the compatible database parameter to 11.0.0.0.0 or higher.
- If you are upgrading the schema in Oracle Database 10g, then set the compatible parameter to 10.2.0.0 or higher.
- Set the shared_pool_size database parameter to 20MB or higher.

- Set the java_pool_size database parameter to 20MB or higher.
- Set the optimizer_mode database parameter to CHOOSE.

3.6.4.4 Using the Upgrade Assistant to Upgrade the Oracle Portal Schema

To upgrade the Oracle Portal schema:

1. Stop all the middle tiers associated with the metadata repository where the Oracle Portal schema resides.

This includes the WLS_Portal managed server in the Oracle WebLogic Server domain, as well as any Oracle HTTP Server and Oracle Web Cache instances associated with the middle tiers.

For more information, see "Starting and Stopping Oracle Fusion Middleware" in the Oracle Fusion Middleware Administrator's Guide.

- 2. Start the Upgrade Assistant as described in Task 6a: Start the Upgrade Assistant for an Oracle Portal, Forms, Reports, and Discoverer Upgrade.
- 3. Select **Upgrade Metadata Repository Schemas** and then **Portal Schema** from the Specify Operation screen (Figure 3–5).
- **4.** Follow the instructions on the screens to upgrade the Oracle Portal schema. Click **Help** for information about the options available on each screen.

3.7 Task 7: Perform Any Required Post-Upgrade Configuration Tasks

Refer to Chapter 4, "Oracle Portal, Forms, Reports, and Discoverer Post-Upgrade Tasks" for a description of the post-upgrade tasks you might need to perform for each of the Oracle Portal, Forms, Reports, and Discoverer components.

3.8 Task 8: Verify the Oracle Portal, Forms, Reports, and Discoverer **Upgrade**

To verify that your Oracle Portal, Forms, Reports, and Discoverer upgrade was successful:

1. Start the Oracle Portal middle tiers that are using the Oracle Portal schema you just upgraded.

This includes the WLS_Portal managed server in the Oracle WebLogic Server domain, as well as any Oracle HTTP Server and Oracle Web Cache instances associated with the middle tiers.

For more information, see "Starting and Stopping Oracle Fusion Middleware" in the Oracle Fusion Middleware Administrator's Guide.

2. Run the Upgrade Assistant again and select Verify Instance on the Specify Operation page.

Follow the instructions on the screen for information on how to verify that specific Oracle Fusion Middleware components are up and running.

3. Use the Fusion Middleware Control to verify that the Oracle Portal, Forms, Reports, and Discoverer components are up and running.

For more information, see "Getting Started Using Oracle Enterprise Manager Fusion Middleware Control" in the Oracle Fusion Middleware Administrator's Guide.

Oracle Portal, Forms, Reports, and **Discoverer Post-Upgrade Tasks**

This task involves completing the following component-specific upgrade steps:

- Post-Upgrade Tasks for Oracle Portal
- Post-Upgrade Tasks and Information for Oracle BI Discoverer
- Post-Upgrade Tasks for Oracle Forms Services
- Post-Upgrade Tasks for Oracle Reports
- Post-Upgrade Tasks and Information for Oracle Web Cache

4.1 Post-Upgrade Tasks for Oracle Portal

Refer to the following sections for information about post-upgrade tasks for Oracle Portal:

- Adding the Oracle Portal Development Kit Java (PDK-Java) to an Upgraded Oracle Portal Environment
- Removing the Community News Portlet
- Configuring End-to-End SSL for an Upgraded Oracle Portal Environment
- Removing Obsolete Partner Applications After Upgrade

4.1.1 Adding the Oracle Portal Development Kit - Java (PDK-Java) to an Upgraded **Oracle Portal Environment**

After you upgrade to Oracle Portal 11g, if you then download a new Oracle Portal Developer Kit-Java (PDK-Java) and you install the PDK-Java software in your newly upgraded Oracle Portal environment, you must perform the following additional configuration task.

For more information about the PDK-Java, see "Creating Java Portlets" in the Oracle Fusion Middleware Developer's Guide for Oracle Portal.

By default, PDK-Java requires the jdbc/portletPrefs data source, which is created, but not configured during the Oracle Portal 11g installation. To configure the data source for PDK-Java, do one of the following:

- Configure the jdbc/portletPrefs data source so it points to a valid Oracle Portal preferences store:
 - **a.** If necessary, implement an Oracle Portal preference store, which involves creating a schema for the preference store in an Oracle database.

For more information, see "Implementing a Preference Store" in the Oracle Fusion Middleware Developer's Guide for Oracle Portal.

- **b.** Open the Administration Console for the Oracle WebLogic Server domain and locate the jdbc/portletPrefs data source.
- **c.** Modify the jdbc/portletPrefs data source so it connects to the Oracle Portal preference store schema.
- Use the PDK-Java Preference Store Migration and Upgrade Utility to change Oracle Portal preferences store to a file-based store.

For more information, see "Using the PDK-Java Preference Store Migration and Upgrade Utility" in the *Oracle Portal Administrator's Guide*.

4.1.2 Removing the Community News Portlet

Starting with OracleAS Portal 10g (10.1.4) and later, the Community News portlet is no longer supported.

This portlet is still available on Oracle Portal pages, but when you attempt to edit this portlet, a blank page is displayed. You can manually delete the Community News portlet from portal pages, as follows:

- **1.** Log in to Oracle Portal.
- **2.** Navigate to the page from which you want to delete the portlet.
- **3.** Click **Edit** at the top of the page to switch to Edit mode.
- **4.** Click **Actions** next to the Community News portlet.
- **5.** Click **Delete**.
- On the confirmation page, click **Yes** to delete the portlet and return to the page.

4.1.3 Configuring End-to-End SSL for an Upgraded Oracle Portal Environment

After you upgrade to Oracle Portal 11g, you can configure end-to-end secure socket layer (SSL) security connections for all your Portal connections.

To configure SSL for Oracle Portal 11g:

1. Locate the following Oracle Portal configuration file:

```
ORACLE_INSTANCE/config/OHS/OHScompName/moduleconf/portal.conf
```

2. Add the WLProxySSL ON entry to the Oracle WebLogic Server routing information in the portal conf files, as follows:

```
# WLS routing configuration
<Location /portal>
   SetHandler weblogic-handler
   WebLogicHost stbcw19-4.us.oracle.com
   WebLogicPort 9001
   WLProxySSL ON
</Location>
```

3. Add the Oracle Web Cache certificate to the Oracle WebLogic Server managed server keystore as follows:

```
keytool -import -trustcacerts -alias wc_cert -file wccert.txt -keystore cacerts
-storetype JKS
```

The wccert.txt file contains the Oracle Web Cache certificate.

Note that the keytool command shown in the above example is based on the assumption that the managed server keystore is Java Standard Trust.

You can find the location of the keystore from the Oracle WebLogic Server Administration Console:

- Log in to the Administration Console.
- In the left pane of the Console, expand **Environment** and select **Servers**.
- Select the **WLS_PORTAL** managed server.
- **d.** Select **Keystores** > **Trust** > **Java Standard Trust Keystore**.
- Restart OPMN and the WebLogic servers.

For more information, see "Starting and Stopping Oracle Fusion Middleware" in the Oracle Fusion Middleware Administrator's Guide.

4.1.4 Removing Obsolete Partner Applications After Upgrade

If you select the Use source Oracle home ports in destination option when you upgrade to Oracle Portal 11g, then you will notice that, after the upgrade, some extra partner applications will appear on the SSO Administration page in the Oracle Portal 11g instance.

You can safely remove these extra partner applications after upgrade, since they are replaced by the upgraded partner applications.

For more information about the Use source Oracle home ports in destination option, see Section 3.6.3, "Task 6c: Upgrade the Oracle Portal, Forms, Reports, and Discoverer Middle Tiers".

For more information about viewing the partner applications in Oracle Portal 11g, see "Using the Oracle Portal Administer Tab" in the Oracle Portal Administrator's Guide. You use the Portal Administer tab to access the Oracle Single Sign-On administration features in Oracle Portal.

4.2 Post-Upgrade Tasks and Information for Oracle BI Discoverer

The following sections describe the post-upgrade tasks you should consider performing after you upgrade to Oracle BI Discoverer 11g:

- About Using the Oracle BI Discoverer End User Layer in Oracle Fusion Middleware 11g
- Upgrading Oracle BI Discoverer Plus OLAP 10g User Privileges to 11g

4.2.1 Upgrading Oracle BI Discoverer Plus OLAP 10g User Privileges to 11g

After the upgrade to 11g, make sure that all your existing Oracle BI Discoverer Plus OLAP users have the proper access privileges to the Oracle BI Discoverer 11g Discoverer Catalog.

Oracle BI Discoverer provides command-line utilities to help you authorize new users and to update the privileges of existing users. For more information, see "Using the Discoverer Plus OLAP command line utility to manage the Discoverer Catalog" in the *Oracle Business Intelligence Discoverer Configuration Guide.*

Refer to the following sections for specific post-upgrade tasks to complete using the command-line utilities:

- Authorizing a New User to Access the Discoverer Catalog
- Updating the Privileges of an Existing Discoverer Catalog User

4.2.1.1 Authorizing a New User to Access the Discoverer Catalog

Use the following commands to authorize one or more users so they can access the Discoverer Catalog:

```
java -classpath path_to_d4o_jar_file load .
java -classpath path_to_d4o_jar_file authorize -h hostname -po portname
    -sid database_SID -p d4osyspasswd -u user
```

For example:

```
java -classpath C:\temp\d4o.jar load .
java -classpath C:\temp\d4o.jar authorize -h sys42.example.com -po 1521
     -sid disco_db1 -p nPword432 -u jones
```

In this example, you must run the load command only once before authorizing any number of users. For example, if you want to authorize ten users, run the load command once, and then run the authorize command once for each user.

4.2.1.2 Updating the Privileges of an Existing Discoverer Catalog User

To update the user's privileges to access all private and shared folders, use the following command:

```
java -classpath path_to_d4o_jar_file updatePrivileges -h hostname -po portname
     -sid database_SID -p d4osyspasswd -u user
```

For example:

```
java -classpath C:\temp\d4o.jar updatePrivileges -h sys42.example.com -po 1521
     -sid disco_db1 -p nPword432 -u jones
```

In this example, if you provide the -u option, then the privileges will be upgraded only for that user. If you do not provide the -u option, then the privileges will be upgraded for all users.

4.2.2 About Using the Oracle BI Discoverer End User Layer in Oracle Fusion Middleware 11*q*

Oracle BI Discoverer 11g uses the same End User Layer version (5.1) as Oracle BI Discoverer 10g Release 2 (10.1.2).

For more information, see "Creating and maintaining End User Layers" in the Oracle Business Intelligence Discoverer Administrator User's Guide.

4.3 Post-Upgrade Tasks for Oracle Forms Services

Review the following list of manual tasks that you might have to perform after using the Upgrade Assistant to upgrade Oracle Forms Services 10g Release 2 (10.1.2) to Oracle Fusion Middleware 11g.

Note: For information on upgrading from Oracle Forms Release 6i, refer to "Upgrading to Oracle Forms Services" in the Oracle Fusion Middleware Forms Services Deployment Guide.

Refer to the Oracle Fusion Middleware Forms Services Deployment Guide for detailed information about performing these tasks in Oracle Forms Services 11g:

- Regenerate the Forms application files: fmx's, mmx's, and plx's to run on Oracle Forms Services 11g.
- If you deployed the Oracle Forms Services J2EE applications EAR file (formsapp.ear) on multiple OC4J instances for load balancing and high availability purposes, then you deploy them in a similar manner on Oracle WebLogic Server.

Specifically, you can create additional managed servers and deploy the Oracle Forms Services J2EE application ear file on each server. The ear file is stored in the following location in Oracle Fusion Middleware 11g:

ORACLE_INSTANCE/config/Formscomponent/forms/provision/formsapp.ear

- If you deployed the Oracle Forms Services J2EE custom application ear file (formsapp.ear) file to override the context root or Forms servlet alias, then you should perform similar steps in the 11g Oracle WebLogic Server domain.
- Manually copy any customizations to the shell scripts in the source Oracle home to the equivalent shell scripts that reside Oracle Fusion Middleware 11g Oracle instance directory.
- The Upgrade Assistant copies the FMA utility configuration files (converter.properties and search_replace.properties) to the Oracle Fusion Middleware 11g destination Oracle instance and renames them so they have a .10.1.2 suffix.

You can then manually copy the required entries from the .10.1.2 configuration files into the Oracle Fusion Middleware 11g version of these files as needed.

4.4 Post-Upgrade Tasks for Oracle Reports

After you upgrade to OracleAS Reports Services 11g, review the following sections, which provide information about typical post-upgrade tasks for OracleAS Reports Services users:

- Configuring Security After Upgrade to Oracle Reports 11g
- Additional Oracle Reports Post-Upgrade Tasks

4.4.1 Configuring Security After Upgrade to Oracle Reports 11 g

When you upgrade to Oracle Reports 11g, the security configuration is not upgraded. As a result, the security configuration of Oracle Reports 11g remains the same as it was before the upgrade.

For information about the security features available in Oracle Reports 11g and how to configure them, see "Securing Oracle Reports Services" in the Oracle Fusion Middleware Publishing Reports to the Web with Oracle Reports Services.

4.4.2 Additional Oracle Reports Post-Upgrade Tasks

The following sections describe some other common post-upgrade tasks to complete after upgrading to OracleAS Reports Services 11g:

- Modifying Oracle Reports Shell Scripts After Upgrade
- Modifying Oracle Reports DAT Files After Upgrade
- About the In-process Server Target After Upgrade
- Viewing Cached Reports Output Files After Upgrade

4.4.2.1 Modifying Oracle Reports Shell Scripts After Upgrade

Any shell scripts that are stored in the bin directory of the Oracle Reports 10g Oracle home, such as reports.sh, rwrun.sh, and rwserver.sh are not upgraded automatically during the upgrade process. Instead, you must change these scripts manually, as needed. After the upgrade, you can find these scripts in the following Oracle Fusion Middleware 11g directory:

ORACLE_INSTANCE/config/reports/bin

4.4.2.2 Modifying Oracle Reports DAT Files After Upgrade

OracleAS Reports Services DAT files are upgraded during the upgrade process. However, if job command entries in the DAT files contain references to old Oracle Home path names or invalid path names, then those jobs will fail. Therefore, you must reschedule any such report jobs.

4.4.2.3 About the In-process Server Target After Upgrade

In OracleAS Reports Services 10g, the in-process server target appears in the Oracle Enterprise Manager Application Server Control as Reports Server.

However, after you upgrade to OracleAS Reports Services 11g, the in-process server does not appear as Reports server in Oracle Enterprise Manager Fusion Middleware Control. Instead, it appears as a Reports application, called reports, and you can manage the in-process server target and the Reports servlet on the Reports application page.

4.4.2.4 Viewing Cached Reports Output Files After Upgrade

Cached Reports output files are not upgraded to Oracle Reports 11g.

4.5 Post-Upgrade Tasks and Information for Oracle Web Cache

Oracle Web Cache (together with Oracle HTTP Server) is required for Oracle Portal. For that reason, it is installed and configured automatically when you install and configure Oracle Portal.

Refer to the following sections for information about post-upgrade tasks you must perform after upgrading to Oracle Web Cache 11g:

Reset the Oracle Web Cache Passwords in Oracle Web Cache and Oracle Portal After Upgrade

4.5.1 Reset the Oracle Web Cache Passwords in Oracle Web Cache and Oracle Portal After Upgrade

For Oracle Fusion Middleware 11g, the Oracle Web Cache administration and invalidation passwords are saved in the Oracle Fusion Middleware credential store. In past releases, they were stored in the webcache.xml configuration file.

However, the Oracle Web Cache upgrade process is unable to update the passwords in the credential store. These passwords are used not only for Oracle Web Cache monitoring and invalidation, but they are also used by Oracle Portal for internal communications between the two components.

As a result, you should update the Oracle Web Cache passwords in two places as soon as possible after upgrade of your Oracle Portal and Oracle Web Cache components:

- Set the monitoring and invalidation passwords using the Oracle Web Cache management pages in Oracle Enterprise Manager Fusion Middleware Control.
 - For more information, see "Configuring Password Security" in the Oracle Fusion Middleware Administrator's Guide for Oracle Web Cache.
- Set the Oracle Web Cache invalidation credentials for Oracle Portal so that Oracle Portal uses the same invalidation password as the one you modified in Oracle Web Cache.

For more information, see "Managing Oracle Web Cache" in the Oracle Portal Administrator's Guide.

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