Oracle® Fusion Middleware

Quick Installation Guide for Oracle Identity Management

11g Release 1 (11.1.1)

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This guide is designed to help you quickly install the most common Oracle Identity Management deployments.

> **See:** The *Oracle Fusion Middleware Installation Guide for Oracle Identity Management* for complete information.

This guide contains the following topics:

1 Installation Overview

The following is an overview of the steps to install Oracle Identity Management 11g Release 1 (11.1.1):

1. Review the certification information.
2. Review the system requirements.
3. Satisfy all dependencies, such as installing Oracle WebLogic Server and, when required, installing an Oracle Database and creating schema.
4. Install the appropriate component.
5. Verify the installation.

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2 Before Installing Oracle Identity Management

This topic provides information you should review before installing Oracle Identity Management components:

- Oracle Fusion Middleware Certification
- System Requirements
- Installing Oracle WebLogic Server and Creating the Oracle Middleware Home
- Installing Oracle Database
- Creating Database Schema Using the Repository Creation Utility (RCU)

2.1 Oracle Fusion Middleware Certification

The *Oracle Fusion Middleware Supported System Configurations* document provides certification information for Oracle Fusion Middleware, including supported installation types, platforms, operating systems, databases, JDKs, and third-party products related to Oracle Identity Management 11g Release 1 (11.1.1).

You can access the *Oracle Fusion Middleware Supported System Configurations* document by searching the Oracle Technology Network (OTN) web site:

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

2.2 System Requirements

This section describes the system requirements for installing Oracle Identity Management 11g Release 1 (11.1.1):

- Most Recent Information
- Installer Startup Requirements
- Memory Requirements

2.2.1 Most Recent Information

The information in this topic is current at the time of publication. For the most recent information, refer to the *Oracle Fusion Middleware System Requirements, Prerequisites, and Specification* document, which contains information related to hardware, software, disk space, memory, system library, and patch requirements.

You can access the *Oracle Fusion Middleware System Requirements, Prerequisites, and Specification* document by searching the Oracle Technology Network (OTN) web site:

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

2.2.2 Installer Startup Requirements

When you start the Installer, it checks for the requirements listed in Table 1. The Installer will notify you if any requirements are not met.

Table 1 Installer Startup Requirements

Category	Minimum or Accepted Value
Platform	UNIX: ■ Solaris 9, Solaris 10 ■ HP-UX 11i (11.23), HP-UX 11i (11.31) ■ Oracle Enterprise Linux 4, Oracle Enterprise Linux 5, Red Hat Linux 4, Red Hat Linux 5, SUSE 10 ■ IBM AIX 5.3, IBM AIX 6.1 Windows: ■ Windows XP SP2 (Win32 platforms only), Windows 2003, Windows 2008, Windows Vista
Temp Space	At least 150MB
Swap Space	At least 512MB
Monitor	At least 256 colors

2.2.3 Memory Requirements

Table 2 lists the minimum memory requirements to install Oracle Identity Management 11g Release 1 (11.1.1):

Table 2 Minimum Memory Requirements

Operating System	Minimum Physical Memory	Minimum Available Memory
Linux	2 GB	1 GB
UNIX	2 GB	1 GB
Windows	2 GB	1 GB

The specific memory requirements for your Oracle Identity Management 11g Release 1 (11.1.1) deployment depends on which components, or combination of components, you install. The following list identifies memory requirements for various components. Use the list as guidelines for determining the memory requirements specific to your deployment:

- WebLogic Administration Server: 750 MB
- WebLogic Managed Server running Oracle Directory Integration Platform and Oracle Directory Services Manager: 720 MB
- WebLogic Managed Server running Oracle Identity Federation: 650 MB
- Oracle Internet Directory: 75 MB
- Oracle Virtual Directory: 105 MB
- Oracle Enterprise Manager (EM) Agent: 25 MB
- Oracle Process Manager and Notification Server (OPMN): 5 MB

2.3 Installing Oracle WebLogic Server and Creating the Oracle Middleware Home

Before you can install Oracle Identity Management 11g Release 1 (11.1.1) components, you must install Oracle WebLogic Server and create the Oracle Middleware Home directory.

> **Note:** If you are installing Oracle Internet Directory 11g Release 1 (11.1.1) without an Oracle WebLogic administration domain, you do not need to install Oracle WebLogic.

Perform the following steps to install Oracle WebLogic Server and create the Oracle Middleware Home directory. You can refer to the *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* for complete information for about installing Oracle WebLogic Server.

1. Insert the Oracle WebLogic Server CD-ROM or download the Oracle WebLogic Server Installer from the following URL:

   http://www.oracle.com/technology/software/products/ias/htdocs/wls_main.html

2. Locate the appropriate executable file for your system, such as:

   - wls1031_linux32.bin for 32-bit Linux systems
   - wls1031_win32.exe for 32-bit Windows systems
   - wls1031_generic.jar for all 64-bit platforms

   The 32-bit executable files are bundled with the appropriate JDK version. If you use the 64-bit installer, you will need to invoke the installer with a supported JDK for your platform. This JDK must be installed on your system before you install Oracle WebLogic Server. Refer to the Oracle Fusion Middleware certification document for a list of supported JDKs for your platform:

   http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html

3. Run the Oracle WebLogic Server Installer directly from the CD-ROM, or copy the file to your local system and run it locally.

   For example, on 32-bit systems:

   Linux:

   ```
   ./wls1031_linux32.bin
   ```

   Windows:

   ```
   wls1031_win32.exe
   ```

   For example, on 64-bit systems:

   UNIX:

   ```
   JAVA_HOME/bin/java -jar wls1031_generic.jar
   ```

   or

   ```
   JAVA_HOME/bin/java -d64 -jar wls1031_generic.jar
   ```

Windows:

```
JAVA_HOME\bin\java -jar wls1031_generic.jar
```

For 64-bit installations:

- Before running the installer, set the `DISPLAY` environment variable on your system.
- Replace *JAVA_HOME* with the installation location of the supported JDK you installed for your platform.
- Use the `-d64` flag when using 32/64-bit hybrid JDK's (such as the HP JDK for HP-UX and SUN JDK for Solaris SPARC).
- Execute *JAVA_HOME*`/bin/java -version` (or *JAVA_HOME*`/bin/java -d64 -version` on 32/64-bit hybrid JDKs) to ensure that your *JAVA_HOME* refers to a 64-bit JDK.

Note: After you start the Oracle WebLogic Server Installer, the Welcome screen appears.

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4. Click **Next**. The Choose Middleware Home Directory screen appears.
5. Select **Create a new Middleware Home** and identify the desired location for your new Middleware Home directory, which is the top-level directory for all Oracle Fusion Middleware products. The WebLogic Home directory will be created inside the Middleware Home directory.

   Note: If the Middleware Home directory already exists on your system, it must be an empty directory.

   Click **Next**. The Register for Security Updates screen appears.
6. Select whether or not you want to receive the latest product and security updates. If you choose not to receive anything, you will be asked to verify your selection before continuing.

   Click **Next**. The Choose Install Type screen appears.
7. Select **Typical** and click **Next**. The Choose Product Installation Directories screen appears.
8. Specify the desired location for your WebLogic Server Home directory and click **Next**.

   If you are installing Oracle WebLogic Server on a UNIX system, the Installation Summary screen appears. Go to step 9 now.

   If you are installing Oracle WebLogic Server on a Windows system, the Choose Shortcut Location screen appears. Specify a location where you want Windows to create a shortcut to Oracle products and click **Next**. The Installation Summary screen appears.
9. Click **Next** on the Installation Summary screen.

   The Installation Progress screen appears.

10. Click **Next**. The Installation Complete screen appears.
11. De-select **Run Quickstart** and click **Done** to exit the Installer.

Notes:

- The same user that installed Oracle WebLogic Server must install Oracle Identity Management.
- The Oracle WebLogic Server's Node Manager utility must be running when you install Oracle Identity Management.
- Do not log in to the Oracle WebLogic Server Administration Console during Oracle Identity Management installation.

2.4 Installing Oracle Database

You must install an Oracle Database before you can install some Oracle Identity Management components, such as Oracle Internet Directory, and if you want to use an RDBMS data store, Oracle Identity Federation. The database must be up and running to install the relevant Oracle Identity Management component. The database does not have to be on the same system where you are installing the Oracle Identity Management component.

Note: You can locate the most recent information about supported databases by referring to the "Oracle Fusion Middleware Certification" topic.

The database must also be compatible with Oracle Repository Creation Utility (RCU), which is used to create the schemas Oracle Identity Management components require.

Table 3 lists the databases requirements for RCU at the time of publication:

Table 3 RCU Database Requirements

Category	Minimum or Accepted Value
Version	Oracle Database 10*g* (10.2.0.4 or later for non-XE database) using the AL32UTF8 character set. Oracle Database 11*g* (11.1.0.7 or later for non-XE database).
Shared Pool Size	147456 KB
SGA Maximum Size	147456 KB
Block Size	8 KB
Processes	500

2.5 Creating Database Schema Using the Repository Creation Utility (RCU)

You must create and load the appropriate Oracle Fusion Middleware schema in your database before installing the following Oracle Identity Management components and configurations:

- Oracle Internet Directory, if you want to use an existing schema rather than create a new one using the Installer during installation.

Note: When you install Oracle Internet Directory, you have the choice of using an existing schema or creating a new one using the Installer. If you want to use an existing schema, you must create it using the Repository Creation Utility (RCU) before you can install Oracle Internet Directory. If you choose to create a new schema during installation, the Installer creates the appropriate schema for you and you do not need to use the RCU.

- Oracle Identity Federation Advanced configurations that use RDBMS for the Federation Store, Session Store, Message Store, or Configuration Store.

You create and load Oracle Fusion Middleware schema in your database using the RCU, which is available in the Oracle Fusion Middleware 11g Release 1 (11.1.1) release media and on the Oracle Technology Network (OTN) web site. You can access the OTN web site at:

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

Note: RCU is available only on Linux and Windows platforms. Use the Linux RCU to create schemas on supported UNIX databases. Use Windows RCU to create schemas on supported Windows databases.

When you run RCU, create and load only the following schema for your Oracle Identity Management—do not select any other schema available in RCU:

- For Oracle Internet Directory, select only the **Identity Management - Oracle Internet Directory** schema
- For Oracle Identity Federation, select only the **Identity Management - Oracle Identity Federation** schema

Note: When you create schema, be sure to remember the schema owner and password that is shown in RCU. For Oracle Identity Federation, it is of the form *PREFIX*_OIF. You will need to provide this information when configuring Oracle Identity Federation with RDBMS stores.

See: The *Oracle Fusion Middleware Repository Creation Utility User's Guide* for complete information.

3 Performing Common Installation Tasks

This topic describes tasks that are common to most Oracle Identity Management installations and configurations:

- Starting an Installation
- Identifying Installation Directories
- Completing an Installation
- Locating Installation Log Files

3.1 Starting an Installation

This section explains the steps that are common to starting most Oracle Identity Management installations and configurations. It begins with starting the Installer and ends after you complete the steps on the Prerequisites Check screen.

> **Note:** Starting the Installer as the `root` user is not supported.

Perform the following steps to start an Oracle Identity Management installation:

1. Start the Installer by executing one of the following commands:

   UNIX: ./runInstaller

   Windows: D:\ setup.exe

   After the Installer starts, the Welcome screen appears.

2. Click **Next** on the Welcome screen. The Select Installation Type screen appears.

3. Select **Install and Configure** and click **Next**. The Prerequisites Check screen appears.

4. Monitor the prerequisites checking.

   - If there is an issue, an error or warning message will appear. Investigate the issue and resolve it. After resolving the issue, click **Retry** to restart the prerequisite checks.

     > **Note:** You can proceed with the installation without resolving the issue by clicking **Continue**. However, failing to resolve the issue during the prerequisites checking may cause additional issues later in the installation.

   - If all prerequisite checks pass inspection, click **Next**.

   The Select Domain screen appears. Continue by referring to the appropriate procedure in this chapter for the installation you want to perform.

3.2 Identifying Installation Directories

This section describes directories you must identify in most Oracle Identity Management installations and configurations—it does not describe one particular Installer screen. During installation, you will have to identify other component-specific directories not described in this section.

Oracle Middleware Home Location

Identify the location of your Oracle Middleware Home directory. The Installer creates an Oracle Home directory for the component you are installing under the Oracle Middleware Home that you identify in this field. The Oracle Middleware Home directory is commonly referred to as *MW_HOME*.

Oracle Home Directory

Enter a name for the component's Oracle Home directory. The Installer uses the name you enter in this field to create the Oracle Home directory under the location you enter in the Oracle Middleware Home Location field.

The Installer installs the files required to host the component, such as binaries and libraries, in the Oracle Home directory. The Oracle Home directory is commonly referred to as *ORACLE_HOME*.

WebLogic Server Directory

Enter the path to your Oracle WebLogic Server Home directory. This directory contains the files required to host the Oracle WebLogic Server. It is commonly referred to as *WL_HOME*.

Oracle Instance Location

Enter the path to the location where you want to create the Oracle Instance directory. The Installer creates the Oracle Instance directory using the location you enter in this field and using the name you enter in the Oracle Instance Name field.

The Installer installs the component's configuration files and runtime processes in the Oracle Instance directory. Runtime components will write only to this directory. You can identify any location on your system for the Oracle Instance directory—it does not have to reside inside the Oracle Middleware Home directory.

Oracle Instance Name

Enter a name for the Oracle Instance directory. The Installer uses the name you enter in this field to create the Oracle Instance directory at the location you specify in the Oracle Instance Location field. This directory is commonly referred to as *ORACLE_INSTANCE*.

Instance names are important because Oracle Fusion Middleware uses them to uniquely identify instances. If you install multiple Oracle Fusion Middleware instances on the same computer, for example, an Oracle Identity Management instance and an Oracle WebLogic Server instance, you must give them different names.

The name you enter for the Oracle Instance directory must:

- Contain only alphanumeric and underscore (_) characters
- Begin with an alphabetic character (a-z or A-Z)
- Consist of 4-30 characters
- Not contain the hostname or IP address of the computer

> **Note:** You cannot change the Oracle Instance name after installation.

3.3 Completing an Installation

This section explains the steps that are common to completing most Oracle Identity Management installations and configurations. It begins with the steps on the Installation Summary screen and ends after the Installation Complete screen.

When the Installation Summary screen appears, perform the following steps to complete the installation:

1. Verify the installation and configuration information on the Installation Summary screen.
   - Click **Save** to save the installation response file, which contains your responses to the Installer prompts and fields. You can use this response file to perform silent installations.

Note: The installation response file is not saved by default—you must click **Save** to retain it.

- Click **Install**. The Installation Progress screen appears.

2. Monitor the progress of your installation. The location of the installation log file is listed for reference. After the installation progress reaches 100%, click **OK**. The Configuration Progress screen appears.

Note: On Unix systems, after the installation progress reaches 100%, a confirmation dialog box appears with information about the oracleRoot.sh script. Execute the script in different terminal as described in in the dialog box.

3. Monitor the progress of the configuration. The location of the configuration log file is listed for reference. After the configuration progress reaches 100%, the Installation Complete screen appears.
4. Click **Save** to save the installation summary file. This file contains information about the configuration, such as locations of install directories and URLs for management components, that will help you get started with administration.

Note: The installation summary file is not saved by default—you must click **Save** to retain it.

Click **Finish** to close and exit the Installer.

3.4 Locating Installation Log Files

The Installer writes log files to the *ORACLE_INVENTORY_LOCATION*/logs directory on UNIX systems and to the *ORACLE_INVENTORY_LOCATION*\logs directory on Windows systems.

On UNIX systems, if you do not know the location of your Oracle Inventory directory, you can find it in the *ORACLE_HOME*/oraInst.loc file.

On Microsoft Windows systems, the default location for the inventory directory is C:\Program Files\Oracle\Inventory\logs.

The following install log files are written to the log directory:

- install*DATE-TIME_STAMP*.log
- install*DATE-TIME_STAMP*.out
- installActions*DATE-TIME_STAMP*.log
- installProfile*DATE-TIME_STAMP*.log
- oraInstall*DATE-TIME_STAMP*.err
- oraInstall*DATE-TIME_STAMP*.log

4 Installing and Configuring Oracle Internet Directory with Oracle Directory Integration Platform, Oracle Directory Services Manager, and Fusion Middleware Control in a New WebLogic Administration Domain

This topic describes how to install and configure Oracle Internet Directory with Oracle Directory Integration Platform, Oracle Directory Services Manager, and Fusion Middleware Control in a new WebLogic administration domain. It includes the following sections:

4.1 Appropriate Deployment Environment

The installation and configuration described in this topic is appropriate for environments that have *both* of the following conditions:

- You want to install Oracle Internet Directory and Oracle Directory Integration Platform colocated on the same host.
- There is no WebLogic Administration Server managing other 11g Release 1 (11.1.1) Oracle Directory Services components.

4.2 Components Deployed

Performing the installation and configuration in this section deploys the following components:

- WebLogic Administration Server
- Oracle Internet Directory
- WebLogic Managed Server
- Oracle Directory Integration Platform
- Oracle Directory Services Manager
- Fusion Middleware Control

4.3 Dependencies

The installation and configuration in this section depends on the following:

- Oracle WebLogic Server
- Oracle Database
- If you want to use an existing schema, *Identity Management - Oracle Internet Directory* schema existing in the Oracle Database.

4.4 Procedure

Perform the following steps to install and configure Oracle Internet Directory with Oracle Directory Integration Platform, Oracle Directory Services Manager, and Fusion Middleware Control in a new domain:

1. Install the Oracle Database for Oracle Internet Directory. Refer to "Installing Oracle Database" on page 6 for more information.
2. Decide if you want to create a new schema for Oracle Internet Directory using the Installer during installation or if you want to use an existing schema:
   - If you want to create a new schema using the Installer, continue this procedure by going to step 3 now.
   - If you want to use an existing schema, it must be present in the Oracle Internet Directory database before you can install Oracle Internet Directory. Refer to "Creating Database Schema Using the Repository Creation Utility (RCU)" on page 6 for more information.
3. Install Oracle WebLogic Server. Refer to "Installing Oracle WebLogic Server and Creating the Oracle Middleware Home" on page 4 for more information.
4. Start your installation by performing all the steps in "Starting an Installation" on page 8. After you complete those steps, the Select Domain screen appears.
5. On the Select Domain screen, select **Create New Domain** and enter the following information:
   - Enter the user name for the new domain in the User Name field.
   - Enter the user password for the new domain in the User Password field.
   - Enter the user password again in the Confirm Password field.
   - Enter a name for the new domain in the Domain Name field.

   Click **Next**. The Specify Installation Location screen appears.
6. Identify the Homes, Instances, and the WebLogic Server directory by referring to "Identifying Installation Directories" on page 8. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.
7. Choose how you want to be notified about security issues:
   - If you want to be notified about security issues through email, enter your email address in the Email field.
   - If you want to be notified about security issues through My Oracle Support (formerly MetaLink), select the My Oracle Support option and enter your My Oracle Support Password.
   - If you do not want to be notified about security issues, leave all fields empty.

   Click **Next**. The Configure Components screen appears.
8. Select **Oracle Internet Directory** and **Oracle Directory Integration Platform**. The Oracle Directory Services Manager and Fusion Middleware Control management components are automatically selected for this installation.

   Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
9. Choose how you want the Installer to configure ports:

- Select **Auto Port Configuration** if you want the Installer to configure ports from a predetermined range.
- Select **Specify Ports using Configuration File** if you want the Installer to configure ports using the staticports.ini file. You can click **View/Edit File** to update the settings in the staticports.ini file.

Click **Next**. The Specify Schema Database screen appears.

10. Choose whether to use an existing schema or to create a new one using the Installer.

Note: If you want to use an existing schema, it must currently reside in the database to continue with the installation. If it does not currently reside in the database, you must create it using the Repository Creation Utility now.

Refer to "Creating Database Schema Using the Repository Creation Utility (RCU)" on page 6 for more information.

To use an existing schema:

a. Select **Use Existing Schema**.

b. Enter the database connection information in the Connect String field. The connection string must be in the form: *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form: *hostname1*:*port1*:*instance1*^*hostname2*:*port2*:*instance2*@*servicename*.

c. Enter the password for the existing ODS schema in the Password field.

d. Click **Next**.

Note: If your existing ODS and ODSSM schemas have different passwords, the Specify ODSSM Password screen will appear after you click **Next**. Enter the password for your existing ODSSM schema and click **Next**.

The Create Oracle Internet Directory screen appears.

e. Continue the installation by going to step 11 now.

To create a new schema:

a. Select **Create Schema**.

b. Enter the database connection information in the Connect String field. The connection string must be in the form: *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form: *hostname1*:*port1*:*instance1*^*hostname2*:*port2*:*instance2*@*servicename*.

c. Enter the name of the database user in the User Name field. The user you identify must have DBA privileges.

d. Enter the password for the database user in the Password field.

e. Click **Next**. The Enter OID Passwords screen appears.

f. Create a password for the new ODS schema by entering it in the ODS Schema Password field.

   Enter it again in the Confirm ODS Schema Password field.

g. Create a password for the new ODSSM schema by entering it in the ODSSM Schema Password field.

   Enter it again in the Confirm ODSSM Schema Password field.

h. Click **Next**. The Create Oracle Internet Directory screen appears.

11. Enter the following information for Oracle Internet Directory:

    - Realm: Enter the location for your realm.
    - Administrator Password: Enter the password for the Oracle Internet Directory administrator.
    - Confirm Password: Enter the administrator password again.

    Click **Next**. The Installation Summary screen appears.

12. Complete the installation by performing all the steps in "Completing an Installation" on page 9.

5 Installing and Configuring Only Oracle Internet Directory Without a WebLogic Administration Domain

This topic describes how to install and configure only Oracle Internet Directory without a WebLogic administration domain. It includes the following sections:

5.1 Appropriate Deployment Environment

The installation and configuration described in this topic is appropriate for environments that have *both* of the following conditions:

- You do not want to include Oracle Internet Directory in a WebLogic administration domain for management purposes.
- You do not want to manage Oracle Internet Directory using Fusion Middleware Control.

5.2 Components Deployed

Performing the installation and configuration in this section deploys only Oracle Internet Directory.

5.3 Dependencies

The installation and configuration in this section depends on the following:

- Oracle Database

- If you want to use an existing schema, *Identity Management - Oracle Internet Directory* schema existing in the Oracle Database.

5.4 Procedure

Perform the following steps to install and configure only Oracle Internet Directory without a domain:

1. Install the Oracle Database for Oracle Internet Directory. Refer to "Installing Oracle Database" on page 6 for more information.
2. Decide if you want to create a new schema for Oracle Internet Directory using the Installer during installation or if you want to use an existing schema:
   - If you want to create a new schema using the Installer, continue this procedure by going to step 3 now.
   - If you want to use an existing schema, it must be present in the Oracle Internet Directory database before you can install Oracle Internet Directory. Refer to "Creating Database Schema Using the Repository Creation Utility (RCU)" on page 6 for more information.
3. Start your installation by performing all the steps in "Starting an Installation" on page 8. After you complete those steps, the Select Domain screen appears.
4. Select **Configure without a Domain** on the Select Domain screen and click **Next**. The Specify Installation Location screen appears.
5. Identify the Oracle Home and Oracle Instance by referring to "Identifying Installation Directories" on page 8. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.
6. Choose how you want to be notified about security issues:
   - If you want to be notified about security issues through email, enter your email address in the Email field.
   - If you want to be notified about security issues through My Oracle Support (formerly MetaLink), select the My Oracle Support option and enter your My Oracle Support Password.
   - If you do not want to be notified about security issues, leave all fields empty.

   Click **Next**. The Configure Components screen appears.
7. On the Configure Components screen, select only **Oracle Internet Directory**. Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
8. Choose how you want the Installer to configure ports:
   - Select **Auto Port Configuration** if you want the Installer to configure ports from a predetermined range.
   - Select **Specify Ports using Configuration File** if you want the Installer to configure ports using the staticports.ini file. You can click **View/Edit File** to update the settings in the staticports.ini file.

   Click **Next**. The Specify Schema Database screen appears.
9. Choose whether to use an existing schema or to create a new one using the Installer.

Note: If you want to use an existing schema, it must currently reside in the database to continue with the installation. If it does not currently reside in the database, you must create it using the Repository Creation Utility now.

Refer to "Creating Database Schema Using the Repository Creation Utility (RCU)" on page 6 for more information.

To use an existing schema:

a. Select **Use Existing Schema**.

b. Enter the database connection information in the Connect String field. The connection string must be in the form: *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form: *hostname1*:*port1*:*instance1*^*hostname2*:*port2*:*instance2*@*servicename*.

c. Enter the password for the existing ODS schema in the Password field.

d. Click **Next**.

Note: If your existing ODS and ODSSM schemas have different passwords, the Specify ODSSM Password screen will appear after you click **Next**. Enter the password for your existing ODSSM schema and click **Next**.

The Create Oracle Internet Directory screen appears.

e. Continue the installation by going to step 10 now.

To create a new schema:

a. Select **Create Schema**.

b. Enter the database connection information in the Connect String field. The connection string must be in the form: *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form: *hostname1*:*port1*:*instance1*^*hostname2*:*port2*:*instance2*@*servicename*.

c. Enter the name of the database user in the User Name field. The user you identify must have DBA privileges.

d. Enter the password for the database user in the Password field.

e. Click **Next**. The Enter OID Passwords screen appears.

f. Create a password for the new ODS schema by entering it in the ODS Schema Password field.

Enter it again in the Confirm ODS Schema Password field.

g. Create a password for the new ODSSM schema by entering it in the ODSSM Schema Password field.

Enter it again in the Confirm ODSSM Schema Password field.

h. Click **Next**. The Create Oracle Internet Directory screen appears.

10. Enter the following information for Oracle Internet Directory:

- Realm: Enter the location for your realm.

- Administrator Password: Enter the password for the Oracle Internet Directory administrator.
- Confirm Password: Enter the administrator password again.

Click **Next**. The Installation Summary screen appears.

11. Complete the installation by performing all the steps in "Completing an Installation" on page 9.

Note: If you perform this installation and configuration, but later decide you want to manage Oracle Internet Directory using Fusion Middleware Control, you must register Oracle Internet Directory with a WebLogic Administration Server.

Refer to the "Registering an Oracle Instance or Component with the WebLogic Server" section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Internet Directory* for more information.

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6 Installing and Configuring Oracle Virtual Directory with Oracle Directory Services Manager and Fusion Middleware Control in a New WebLogic Administration Domain

This topic describes how to install and configure Oracle Virtual Directory with Oracle Directory Services Manager and Fusion Middleware Control in a new WebLogic administration domain. It includes the following sections:

6.1 Appropriate Deployment Environment

The installation and configuration described in this topic is appropriate for environments that have *all* of the following conditions:

- You want to manage Oracle Virtual Directory using Fusion Middleware Control.
- You want Oracle Virtual Directory to be in a WebLogic administration domain.
- There is no WebLogic Administration Server managing other 11g Release 1 (11.1.1) Oracle Directory Services components.
- You want to install Oracle Virtual Directory and a WebLogic Administration Server colocated on the same host.

6.2 Components Deployed

Performing the installation and configuration in this section deploys the following components.

- WebLogic Administration Server
- Oracle Virtual Directory
- Oracle Directory Services Manager

- Fusion Middleware Control

6.3 Dependencies

The installation and configuration in this section depends on Oracle WebLogic Server.

6.4 Procedure

Perform the following steps to install and configure Oracle Virtual Directory with Oracle Directory Services Manager and Fusion Middleware Control in a new domain:

1. Install Oracle WebLogic Server. Refer to "Installing Oracle WebLogic Server and Creating the Oracle Middleware Home" on page 4 for more information.
2. Start your installation by performing all the steps in "Starting an Installation" on page 8. After you complete those steps, the Select Domain screen appears.
3. On the Select Domain screen, select **Create New Domain** and enter the following information:
   - Enter the user name for the new domain in the User Name field.
   - Enter the user password for the new domain in the User Password field.
   - Enter the user password again in the Confirm Password field.
   - Enter a name for the new domain in the Domain Name field.

   Click **Next**. The Specify Installation Location screen appears.
4. Identify the Homes, Instances, and the WebLogic Server directory by referring to "Identifying Installation Directories" on page 8. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.
5. Choose how you want to be notified about security issues:
   - If you want to be notified about security issues through email, enter your email address in the Email field.
   - If you want to be notified about security issues through My Oracle Support (formerly MetaLink), select the My Oracle Support option and enter your My Oracle Support Password.
   - If you do not want to be notified about security issues, leave all fields empty.

   Click **Next**. The Configure Components screen appears.
6. Select only **Oracle Virtual Directory**. The Oracle Directory Services Manager and Fusion Middleware Control management components are automatically selected for this installation.

   Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
7. Choose how you want the Installer to configure ports:
   - Select **Auto Port Configuration** if you want the Installer to configure ports from a predetermined range.
   - Select **Specify Ports using Configuration File** if you want the Installer to configure ports using the staticports.ini file. You can click **View/Edit File** to update the settings in the staticports.ini file.

   Click **Next**. The Specify Oracle Virtual Directory Information screen appears.

8. Enter the following information:

   - LDAP v3 Name Space: Enter the name space for Oracle Virtual Directory. The default value is dc=us,dc=oracle,dc=com.
   - HTTP Web Gateway: Select this option to enable the Oracle Virtual Directory HTTP Web Gateway.
   - Secure: Select this option if you enabled the HTTP Web Gateway and you want to secure it using SSL.
   - Administrator User Name: Enter the user name for the Oracle Virtual Directory administrator. The default value is cn=orcladmin.
   - Password: Enter the password for the Oracle Virtual Directory administrator.
   - Confirm Password: Enter the password for the Oracle Virtual Directory administrator again.
   - Configure Administrative Server in secure mode: Select this option to secure the Oracle Virtual Directory Administrative Listener using SSL. This option is selected by default. Oracle recommends selecting this option.

   Click **Next**. The Installation Summary screen appears.

9. Complete the installation by performing all the steps in "Completing an Installation" on page 9.

7 Installing and Configuring Oracle Identity Federation with Oracle Internet Directory in a New WebLogic Administration Domain for LDAP Authentication, User Store, and Federation Store

This section describes how to install and configure Oracle Identity Federation with Oracle Internet Directory in a new WebLogic administration domain for LDAP Authentication, User Store, and Federation Store.

> **Note:** When you install Oracle Identity Federation with Oracle Internet Directory, the Installer automatically configures connection, credential, attribute, and container settings using the Oracle Internet Directory configuration.

This section includes the following information about this installation and configuration:

7.1 Appropriate Deployment Environment

Perform the installation and configuration in this topic to quickly deploy Oracle Identity Federation with Oracle Internet Directory as the LDAP repository for Authentication, User Store, and Federation Store.

7.2 Components Deployed

Performing the installation and configuration in this section deploys the following components:

- WebLogic Managed Server
- Oracle Identity Federation
- Oracle HTTP Server
- Oracle Internet Directory
- Oracle Directory Services Manager
- WebLogic Administration Server
- Fusion Middleware Control

7.3 Dependencies

The installation and configuration in this section depends on the following components:

- Oracle WebLogic Server
- Oracle HTTP Server, which is deployed as part of this installation.

> **Note:** Oracle HTTP Server is required when using Oracle Identity Federation for enterprise level single sign-on with Oracle Single Sign-On and Oracle Access Manager. Though Oracle Identity Federation can function without Oracle HTTP Server, there are advantages to configuring it as a proxy for Oracle Identity Federation.

- Oracle Database for Oracle Internet Directory
- *Identity Management - Oracle Internet Directory* schema existing in the database for Oracle Internet Directory.
- Oracle Database for Oracle Identity Federation, if using RDBMS for Session Store, Message Store, or Configuration Store.
- New *Identity Management - Oracle Identity Federation* schema existing in the database for Oracle Identity Federation, if using RDBMS for Session Store, Message Store, or Configuration Store.

7.4 Procedure

Perform the following steps to install and configure Oracle Identity Federation with Oracle Internet Directory in a new domain for LDAP Authentication, User Store, and Federation Store:

1. Decide if you want to use RDBMS for Session Store, Message Store, or Configuration Store. If you do, perform the following steps a and b.
   a. Install the database for Oracle Identity Federation. Refer to "Installing Oracle Database" on page 6 for more information.
   b. Create the *Identity Management - Oracle Identity Federation* schema in the database. Refer to "Creating Database Schema Using the Repository Creation Utility (RCU)" on page 6 for more information.

2. Install the Oracle Database for Oracle Internet Directory. Refer to "Installing Oracle Database" on page 6 for more information.
3. Create the *Identity Management - Oracle Internet Directory* schema in the database for Oracle Internet Directory. Refer to "Creating Database Schema Using the Repository Creation Utility (RCU)" on page 6 for more information.
4. Install Oracle WebLogic Server. Refer to "Installing Oracle WebLogic Server and Creating the Oracle Middleware Home" on page 4 for more information.
5. Start your installation by performing all the steps in "Starting an Installation" on page 8. After you complete those steps, the Select Domain screen appears.
6. On the Select Domain screen, select **Create New Domain** and enter the following information:
   - User Name: Enter the user name for the new domain.
   - User Password: Enter the user password for the new domain.

     Enter the user password again in the Confirm Password field.
   - Domain Name: Enter a name for the new domain.

   Click **Next**. The Specify Installation Location screen appears.
7. Identify the Homes, Instances, and the WebLogic Server directory by referring to "Identifying Installation Directories" on page 8. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.
8. Choose how you want to be notified about security issues:
   - If you want to be notified about security issues through email, enter your email address in the Email field.
   - If you want to be notified about security issues through My Oracle Support (formerly MetaLink), select the My Oracle Support option and enter your My Oracle Support Password.
   - If you do not want to be notified about security issues, leave all fields empty.

   Click **Next**. The Configure Components screen appears.
9. Select **Oracle Internet Directory** and **Oracle Identity Federation**.

   The Oracle Directory Services Manager and Fusion Middleware Control management components are automatically selected for this installation.

   Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
10. Choose how you want the Installer to configure ports:
    - Select **Auto Port Configuration** if you want the Installer to configure ports from a predetermined range.
    - Select **Specify Ports using Configuration File** if you want the Installer to configure ports using the staticports.ini file. You can click **View/Edit File** to update the settings in the staticports.ini file.

    Click **Next**. The Specify Schema Database screen appears.
11. Identify the ODS schema for Oracle Internet Directory that you created in step 3 by selecting **Use Existing Schema** and entering the following information:

- Enter the database connection information in the Connect String field. The connection string must be in the form: *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form: *hostname1*:*port1*:*instance1*^*hostname2*:*port2*:*instance2*@*servicename*.
- Enter the password for the ODS schema in the Password field and click **Next**.

Note: If your existing ODS and ODSSM schemas have different passwords, the Specify ODSSM Password screen will appear after you click **Next**. Enter the password for your existing ODSSM schema and click **Next**.

The Create Oracle Internet Directory screen appears.

12. Enter the following information for Oracle Internet Directory:
    - Realm: Enter the location for your realm.
    - Administrator Password: Enter the password for the Oracle Internet Directory administrator.
    - Confirm Password: Enter the administrator password again.

    Click **Next**. The Specify OIF Details screen appears.
13. Enter the following information:
    - PKCS12 Password: Enter the password Oracle Identity Federation will use for encryption and for signing wallets. The Installer automatically generates these wallets with self-signed certificates. Oracle recommends using the wallets only for testing.
    - Confirm Password: Enter the PKCS12 password again.
    - Server ID: Enter a string that will be used to identify this Oracle Identity Federation instance. A prefix of `oif` will be added to the beginning of the string you enter. Each logical Oracle Identity Federation instance within an Oracle WebLogic Server administration domain must have a unique Server ID. Clustered Oracle Identity Federation instances acting as a single logical instance will have the same Server ID.

    Click **Next**. The Select OIF Advanced Flow Attributes screen appears.

Notes:

- Notice that the options for Authentication Type, User Store and Federation Store are automatically set to LDAP because you are installing Oracle Internet Directory with Oracle Identity Federation.
- The Installer sets the User Federation Record Context to cn=fed,*BASE_REALM*, where *BASE_REALM* is typically dc=us,dc=oracle,dc=com.

---

14. Select the appropriate option for each configuration item and click **Next**:

Note: User Session Store and Message Store appear in the Installer as separate configuration items, however, most deployments use the same type of repository for both stores.

- User Session Store: **Memory** or **RDBMS**
  - Select Memory to store transient runtime session state data in in-memory tables.
  - Select RDBMS to store transient runtime session state data in a relational database.
- Message Store: **Memory** or **RDBMS**
  - Select Memory to store transient protocol messages in in-memory tables
  - Select RDBMS to store transient protocol messages in a relational database.
- Configuration Store: **File** or **RDBMS**
  - Select File to store Oracle Identity Federation configuration data on the local file system.
  - Select RDBMS to store Oracle Identity Federation configuration data in a relational database.

Note: The screens that appear next depend on the options you selected for the configuration items.

- If you selected RDBMS for User Session Store, Message Store, or Configuration Store, go to step 15 now.
- If you did *not* select RDBMS for User Session Store, Message Store, or Configuration Store, go to step 16 now.

15. Enter the following information on the Specify Transient Store Database Details screen:
    - HostName: Enter the connection string to the database host in the form: *hostname:port:servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form: *hostname1*:*port1*:*instance1*^*hostname2*:*port2*:*instance2*@*servicename*.
    - Username: Enter the name of the schema owner created by RCU, which is of the form *PREFIX*_OIF.
    - Password: Enter the password for the database user.
16. Complete the installation by performing all the steps in "Completing an Installation" on page 9.

Note: To configure Oracle Identity Federation so that it is integrated with Oracle HTTP Server, refer to the "Deploying Oracle Identity Federation with Oracle HTTP Server" section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation*.

8 Verifying Installed Components

This topic describes how to verify the components you installed and includes the following sections:

- Oracle Internet Directory or Oracle Virtual Directory
- Oracle Directory Integration Platform
- Oracle Directory Services Manager
- Oracle Identity Federation

8.1 Oracle Internet Directory or Oracle Virtual Directory

Verify an Oracle Internet Directory or an Oracle Virtual Directory installation by:

- Executing the `$ORACLE_INSTANCE/bin/opmnctl status -l` command.
- Executing the `$ORACLE_HOME/bin/ldapbind` command on the non-SSL and SSL ports.

8.2 Oracle Directory Integration Platform

Verify the Oracle Directory Integration Platform installation using the `dipStatus` command located in the $*ORACLE_HOME*/bin/ directory.

> **Note:** You must set the *WL_HOME* and *ORACLE_HOME* environment variables before executing the `dipStatus` command.

The following is the syntax for the `dipStatus` command:

```
$ORACLE_HOME/bin/dipStatus -h HOST -p PORT -D wlsuser [-help]
```

- `-h | -host` identifies the Oracle WebLogic Server where Oracle Directory Integration Platform is deployed.
- `-p | -port` identifies the listening port of the Oracle WebLogic Managed Server where Oracle Directory Integration Platform is deployed.
- `-D | -wlsuser` identifies the Oracle WebLogic Server login ID.

> **Note:** You will be prompted for the Oracle WebLogic Server login password. You cannot provide the password as a command-line argument.
>
> Best security practice is to provide a password only in response to a prompt from the command. If you must execute `dipStatus` from a script, you can redirect input from a file containing the Oracle WebLogic Server password. Use file permissions to protect the file and delete it when it is no longer necessary.

8.3 Oracle Directory Services Manager

To verify the Oracle Directory Services Manager installation, enter the following URL into your browser's address field:

http://*host*:*port*/odsm

- *host* represents the name of the WebLogic Managed Server hosting Oracle Directory Services Manager.
- *port* represents the WebLogic Managed Server listen port. You can determine the exact port number by examining the

  `$MW_HOME/ORACLE_IDENTITY_MANAGEMENT_DOMAIN/servers/MANAGED_SERVER/data/nodemanager/MANAGED_SERVER.url`

Oracle Directory Services Manager is installed and running if the Welcome to Oracle Directory Services Manage screen appears.

> **Note:** While the appearance of the Welcome screen verifies Oracle Directory Services Manager is installed and running, you cannot connect to an Oracle Internet Directory or Oracle Virtual Directory from Oracle Directory Services Manager without the appropriate directory server credentials.

8.4 Oracle Identity Federation

Verify the Oracle Identity Federation installation by:

- Accessing the Oracle Identity Federation metadata at the following URL. Oracle Identity Federation was installed and the Oracle Identity Federation server is running if you can access the metadata.

  http://*host*:*port*/fed/sp/metadata

  > **Note:** *host* represents the name of the WebLogic Managed Server where Oracle Identity Federation was installed. *port* represents the listen port on that WebLogic Managed Server.

- Accessing Fusion Middleware Control to verify that Oracle Identity Federation is available and running. For more information, see "Getting Started Using Oracle Enterprise Manager Fusion Middleware Control" in the Oracle Fusion Middleware Administrator's Guide.

9 Documentation Accessibility

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