Oracle® Fusion Middleware

Installation Guide for Oracle Identity Management

11*g* Release 1 (11.1.1)

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Oracle Fusion Middleware Installation Guide for Oracle Identity Management, 11*g* Release 1 (11.1.1)

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Preface

This Preface provides supporting information for the *Oracle Fusion Middleware Installation Guide for Oracle Identity Management* and includes the following topics:

Audience

The *Oracle Fusion Middleware Installation Guide for Oracle Identity Management* is intended for administrators that are responsible for installing Oracle Identity Management components.

This document assumes you have experience installing enterprise components. Basic knowledge about the Oracle Identity Management components and Oracle Application Server is recommended.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info` or visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs` if you are hearing impaired.

Related Documents

This section identifies additional documents related to Oracle Identity Management. You can access Oracle documentation online from the Oracle Technology Network (OTN) Web site at the following URL:

`http://www.oracle.com/technetwork/indexes/documentation/index.html`

Note: Printed documentation is available for sale from the Oracle Store Web site at the following URL:

http://oraclestore.oracle.com/

Refer to the following documents for additional information on each subject:

Oracle Fusion Middleware

- *Oracle Fusion Middleware Administrator's Guide*
- *Oracle Fusion Middleware Security Guide*

Oracle Identity Management

- *Oracle Fusion Middleware Getting Started with Oracle Identity Management*
- *Oracle Fusion Middleware User Reference for Oracle Identity Management*

Installing and Upgrading

- *Oracle Fusion Middleware Installation Planning Guide*
- *Oracle Fusion Middleware Quick Installation Guide for Oracle Identity Management*
- *Oracle Fusion Middleware Upgrade Planning Guide*
- *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*
- *Oracle Fusion Middleware Getting Started With Installation for Oracle WebLogic Server*
- *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*

High Availability

- *Oracle Fusion Middleware High Availability Guide*
- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management*

Oracle Internet Directory

- *Oracle Fusion Middleware Administrator's Guide for Oracle Internet Directory*
- *Oracle Fusion Middleware Application Developer's Guide for Oracle Identity Management*

Oracle Directory Integration Platform

- *Oracle Fusion Middleware Integration Guide for Oracle Identity Management*

Oracle Virtual Directory

- *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory.*

Oracle Directory Services Manager

- *Oracle Fusion Middleware Administrator's Guide for Oracle Internet Directory*
- *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory*

Oracle Identity Federation

- *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation.*

Oracle Single Sign-On

- *Oracle Application Server Single Sign-On Administrator's Guide 10g Release 10.1.4.0.1* available at:

  http://www.oracle.com/technology/documentation/oim1014.html

Oracle Delegated Administration Services

- *Oracle Identity Management Guide to Delegated Administration 10g Release 10.1.4.0.1* available at:

  http://www.oracle.com/technology/documentation/oim1014.html

Oracle Fusion Middleware Repository Creation Utility

- *Oracle Fusion Middleware Repository Creation Utility User's Guide*

Oracle Identity Manager

- *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Manager*

Oracle Access Manager

- *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*

Oracle Adaptive Access Manager

- *Oracle Fusion Middleware Administrator's Guide for Oracle Adaptive Access Manager*

Oracle Identity Navigator

- *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*

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.

Part I

Introduction and Preparation

Part I introduces Oracle Identity Management 11*g* Release 1 (11.1.1) installation and describes how to perform preparatory and common installation tasks. It contains the following chapters:

1

Understanding Oracle Identity Management

This chapter provides a brief overview of Oracle Identity Management 11*g* Release 1 (11.1.1) and Oracle Identity and Access Management 11*g* Release 1 (11.1.1). This chapter includes the following topics:

> **See:** The "Related Documents" section in this guide's Preface for a list of documents that provide additional information about the topics described in this chapter.

1.1 What is Oracle Fusion Middleware?

Oracle Identity Management is part of Oracle Fusion Middleware. Oracle Fusion Middleware is a collection of standards-based software products that spans a range of tools and services: From Java EE and developer tools, to integration services, business intelligence, and collaboration. Oracle Fusion Middleware offers complete support for development, deployment, and management.

1.1.1 What is Oracle Enterprise Manager Fusion Middleware Control?

Oracle Enterprise Manager Fusion Middleware Control is a Web browser-based graphical user interface that you can use to monitor and administer Oracle Fusion Middleware components, including Oracle Identity Management components, that are installed in Oracle WebLogic Server domains.

> **Note:** When you install some of the Oracle Identity Management components in a new domain, the Fusion Middleware Control management component is included.

1.2 What is Oracle Identity Management?

Oracle Identity Management enables enterprises to manage the end-to-end lifecycle of user identities across all enterprise resources—both within and beyond the firewall. With Oracle Identity Management, you can deploy applications faster, apply the most

granular protection to enterprise resources, automatically eliminate latent access privileges, and much more.

Oracle Corporation leads the industry with award-winning Identity Management offerings that constitute the most comprehensive solution offered by any vendor, including:

- Web Access Control
- Adaptive Access Control
- Identity Federation
- Identity Administration
- User Access Provisioning
- Role Management
- Authorization Policy Management
- Directory Services

For more information about Oracle Identity Management, refer to the Identity Management home page on Oracle Corporation's Web site at:

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

1.3 Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) Components

Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) includes the following components:

- Oracle Internet Directory (OID)
- Oracle Directory Integration Platform (ODIP)
- Oracle Virtual Directory (OVD)
- Oracle Directory Services Manager (ODSM)
- Oracle Identity Federation (OIF)

Note: For more information on Installing and Configuring OID, OVD, ODSM, ODIP, and OIF (11.1.1.6.0), see Part II.

1.4 Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) Components

Oracle Identity and Access Management 11*g* Release 1 (11.1.1) includes the following components:

- Oracle Identity Manager (OIM)
- Oracle Access Manager (OAM)
- Oracle Adaptive Access Manager (OAAM)
- Oracle Identity Navigator (OIN)
- Oracle Entitlements Server (OES)

Note: For more information on Installing and Configuring OIM, OAM, OAAM, OES, and OIN (11.1.1.5.0), see Part III.

1.5 What Does This Guide Cover?

This topic describes the scope of information in this guide and how to use it. This topic includes the following sections:

- Using This Guide
- Upgrading to Oracle Identity Management (11.1.1.6.0)
- Upgrading to Oracle Identity and Access Management (11.1.1.5.0)
- Installing Oracle Identity Management (11.1.1.6.0) for High Availability
- Installing Oracle Identity and Access Management (11.1.1.5.0) for High Availability

1.5.1 Using This Guide

Each document in the Oracle Fusion Middleware Documentation Library has a specific purpose. The specific purpose of this guide is to explain how to:

1. Install single instances of Oracle Identity Management 11*g* Release 1 (11.1.1) components.
2. Verify the installation was successful.
3. Get started with the component after installation.

This guide covers the most common, certified Oracle Identity Management deployments. The following information is provided for each of these deployments:

- **Appropriate Installation Environment**: Helps you determine which installation is appropriate for your environment.
- **Components Installed**: Identifies the components that are installed in each scenario.
- **Dependencies**: Identifies the components each installation depends on.
- **Procedure**: Explains the steps for the installation.

Part II of this guide explains how to install Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation Management by using the Oracle Identity Management 11.1.1.6.0 Installer and the Oracle Identity Management Configuration Wizard.

Part III of this guide explains how to install Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager,Oracle Entitlements Server, and Oracle Identity Navigator by using the Oracle Identity and Access Management 11.1.1.5.0 Installer and the Oracle Fusion Middleware Configuration Wizard. The Oracle Identity Management 11*g* Configuration Wizard is used for configuring Oracle Identity Manager only.

The following is a list of recommendations on how to use the information in this guide to install Oracle Identity Management 11*g* Release 1 (11.1.1):

1. Review Chapter 2, "Understanding the Oracle Identity Management Installation," for context.

2. Review Chapter 3, "Preparing to Install," for information about what you should consider before you deploy Oracle Identity Management.
3. Review Chapter 4, "Performing Common Installation Tasks," to understand the tasks that you must perform for most deployments. Understanding this information before you start will expedite and simplify the deployment process.
4. Install, verify, and get started with your Oracle Identity Management component by referring to its specific chapter in this guide.
5. Use the appendixes in this guide as needed.

> **See Also:** The "Related Documents" section in this guide's Preface for a list of documents that provide additional information about Oracle Identity Management components.

1.5.2 Upgrading to Oracle Identity Management (11.1.1.6.0)

This guide does not explain how to upgrade legacy versions of Oracle Identity Management components, including any previous database schemas, to Oracle Identity Management (11.1.1.6.0). To upgrade a legacy version of an Oracle Identity Management component, refer to the following documents:

- *Oracle Fusion Middleware Upgrade Planning Guide*
- *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*

> **Note:** This guide provides information for installing and configuring Oracle Identity Management (11.1.1.6.0) for new users. If you are an existing Oracle Identity Management 11*g* user, refer to "Applying the Latest Oracle Fusion Middleware Patch Set" in the *Oracle Fusion Middleware Patching Guide*.
>
> For complete information about patching your Oracle Fusion Middleware 11*g* to the latest release, refer to the *Oracle Fusion Middleware Patching Guide*.

1.5.3 Upgrading to Oracle Identity and Access Management (11.1.1.5.0)

This guide does not explain how to upgrade legacy versions of Oracle Identity and Access Management components, including any previous database schemas, to Oracle Identity and Access Management (11.1.1.5.0). To upgrade a legacy version of an Oracle Identity Management component, refer to the following documents:

- *Oracle Fusion Middleware Upgrade Planning Guide*
- *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*

> **Note:** This guide provides information for Installing Oracle Identity and Access Management (11.1.1.5.0) for new users. If you are an existing Oracle Identity and Access Management 11*g* user, refer to "Applying the Latest Oracle Fusion Middleware Patch Set" in the *Oracle Fusion Middleware Patching Guide*.

1.5.4 Installing Oracle Identity Management (11.1.1.6.0) for High Availability

This guide does not explain how to install Oracle Identity Management (11.1.1.6.0) components in High Availability (HA) configurations. To install an Oracle Identity

Management component in a High Availability configuration, refer to the following documents:

- *Oracle Fusion Middleware High Availability Guide*
- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management*

1.5.5 Installing Oracle Identity and Access Management (11.1.1.5.0) for High Availability

This guide does not explain how to install Oracle Identity and Access Management (11.1.1.5.0) components in High Availability (HA) configurations. To install an Oracle Identity and Access Management component in a High Availability configuration, refer to the following documents:

- *Oracle Fusion Middleware High Availability Guide*
- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management*

2

Understanding the Oracle Identity Management Installation

This chapter provides an overview of the Oracle Identity Management 11*g* Release 1 (11.1.1) installation. This chapter includes the following topics:

- Overview and Structure of Oracle Identity Management 11g Installation
- Overview of Oracle Identity Management (11.1.1.6.0) Installation
- Overview of Oracle Identity and Access Management (11.1.1.5.0) Installation

> **Note:** For information about installing the 11*g* (11.1.1.6.0) version of Oracle Internet Directory (OID), Oracle Virtual Directory (OVD), Oracle Directory Services Manager (ODSM), Oracle Directory Integration Platform (ODIP), and Oracle Identity Federation (OIF), see Overview of Oracle Identity Management (11.1.1.6.0) Installation.
>
> For information about installing the 11*g* (11.1.1.5.0) version of Oracle Identity Manager (OIM), Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), Oracle Entitlements Server (OES), and Oracle Identity Navigator (OIN), see Overview of Oracle Identity and Access Management (11.1.1.5.0) Installation.

2.1 Overview and Structure of Oracle Identity Management 11*g* Installation

This section discusses the following topics:

- Overview
- Structure of the Installation

2.1.1 Overview

Oracle Identity Management 11*g* includes two distinct suites comprising the following Oracle Identity Management products:

- Oracle Identity Management 11g Release 1 (11.1.1.6.0)
- Oracle Identity and Access Management 11g Release 1 (11.1.1.5.0)

Oracle Identity Management 11*g* Release 1 (11.1.1.6.0)

Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) includes the following components:

- Oracle Internet Directory (OID)
- Oracle Virtual Directory (OVD)
- Oracle Directory Services Manager (ODSM)
- Oracle Directory Integration Platform (ODIP)
- Oracle Identity Federation (OIF)

Note: See Part II, "Installing and Configuring Oracle Identity Management (11.1.1.6.0)" in this guide for installing and configuring these products.

Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0)

Oracle Identity and Access Management 11*g* Release 1 (11.1.1) includes the following components:

- Oracle Identity Manager (OIM)
- Oracle Access Manager (OAM)
- Oracle Identity Navigator (OIN)
- Oracle Adaptive Access Manager (OAAM)
- Oracle Entitlements Server (OES)

Obtaining the Software

To obtain Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) software, refer to *Oracle Fusion Middleware Download, Installation, and Configuration ReadMe* available at:

`http://download.oracle.com/docs/cd/E23104_01/download_readme.htm`

Note: See Part III, "Installing and Configuring Oracle Identity and Access Management (11.1.1.5.0)" in this guide for installing and configuring these products.

2.1.2 Structure of the Installation

If you install Oracle Identity Management suite and Oracle Identity and Access Management on the same machine, two Oracle Home (also referred to as *IDM_Home* and *IAM_Home* in this guide) directories are created on the machine. For information about identifying installation directories, see Section 4.1.1, "Identifying Installation Directories" and Section 4.2.4, "Identifying Installation Directories".

Note that two *`IDM_Home`* directories are mentioned in descriptions and procedures throughout this guide. For example, the first one, **IDM_Home** can be the *`IDM_Home`* directory for Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation. The second one, **IAM_Home** can be the *`IDM_Home`* directory for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

However, note that **IDM_Home** and **IAM_Home** are used as examples in this guide. You can specify any name for either of your *`IDM_Home`* directories. In addition, you can install the two distinct Oracle Identity Management suites in any order on your machine.

If you choose to use the default names, the first installation creates an **Oracle_IDM1** directory, and the second installation creates an **Oracle_IDM2** directory.

2.2 Overview of Oracle Identity Management (11.1.1.6.0) Installation

This section discusses the following topics:

- Installation Roadmap
- Installation Types: "Install Software - Do Not Configure" vs. "Install and Configure"
- Understanding Oracle WebLogic Server Administration Domain Options
- Installing Components on Separate Systems
- Executing the oracleRoot.sh Script on UNIX Platforms
- Understanding the State of Oracle Identity Management Components After Installation

2.2.1 Installation Roadmap

Table 2–1 describes the high-level tasks for installing and configuring Oracle Identity Management. The table also provides information on where to get more details about each task.

Table 2–1 Tasks in the Oracle Identity Management Installation Procedure

Task	Description	Documentation	Mandatory or Optional?
Task 1 - Prepare your environment for installation.	Ensure that your system environment meets the general installation requirements for Oracle Fusion Middleware as well as Oracle Identity Management and RCU.	For system requirements information, go to: http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html For certification information, go to: http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html	Mandatory
Task 2 - Run RCU to create the necessary schemas.	Oracle Identity Management components require schemas that must be installed in an Oracle database. You create and load these schemas in your database by using RCU.	Make sure you have a supported Oracle database up and running. See http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html for more information. Instructions for creating the schema are provided in "Running Oracle Fusion Middleware Repository Creation Utility (RCU)" in the *Oracle Fusion Middleware Repository Creation Utility User's Guide*. In addition, refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) in this guide.	Mandatory

Table 2–1 (Cont.) Tasks in the Oracle Identity Management Installation Procedure

Task	Description	Documentation	Mandatory or Optional?
Task 3 - Install Oracle WebLogic Server 11*g* Release 1 (10.3.6) and create a Middleware home.	Oracle Identity Management requires a Middleware home directory. The Middleware home is created during the Oracle WebLogic Server installation. The WebLogic Server installer also creates the WebLogic home directory within the Oracle Middleware home directory.	Installation instructions are provided in *Oracle WebLogic Server Installation Guide*. For more information about the Middleware home and WebLogic home directories, see *Oracle Fusion Middleware Concepts Guide*.	Mandatory
Task 4 - Install Oracle Identity Management	Use the installer to install Oracle Identity Management 11.1.1.6.0	See Installing Oracle Identity Management Using "Install and Configure" Option. For more information about the installation types, see Installation Types: "Install Software - Do Not Configure" vs. "Install and Configure".	Mandatory
Task 5 - Configure Oracle Identity Management	After installing, run the Configuration Tool to configure your Oracle Identity Management components. Note: This step applies if you selected **Install Software - Do Not Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0)	See the following topics in this guide: ■ Only OID in an Existing WebLogic Domain ■ Only OID Without a WebLogic Domain ■ OID with ODSM and Fusion Middleware Control in a New WebLogic Domain ■ OID with ODIP, ODSM, and Fusion Middleware Control in a New WebLogic Domain ■ OVD with ODSM and Fusion Middleware Control in a New WebLogic Domain ■ Only OVD in an Existing WebLogic Domain ■ Only OVD Without a WebLogic Domain ■ Performing Basic Oracle Identity Federation Configurations ■ Performing Advanced Oracle Identity Federation Configurations ■ ODIP with Fusion Middleware Control in a New WebLogic Domain ■ Only ODIP in an Existing WebLogic Domain ■ Configuring ODIP when OID is Running in SSL Mode 2 - Server Only Authentication	Optional

2.2.2 Installation Types: "Install Software - Do Not Configure" vs. "Install and Configure"

The Select Installation Type screen in the Installer presents two options: **Install and Configure** and **Install Software - Do Not Configure**. This section describes both options:

- Understanding the "Install Software - Do Not Configure" Option
- Understanding the "Install and Configure" Option

2.2.2.1 Understanding the "Install Software - Do Not Configure" Option

Choose the **Install Software - Do Not Configure** option to install Oracle Identity Management components without configuring them during installation. If you choose the **Install Software - Do Not Configure** option, the Installer installs the component software and then closes. Oracle Identity Management components will *not* start running after deploying them using the **Install Software - Do Not Configure** option, as additional configuration is needed.

After you install components using the **Install Software - Do Not Configure** option, you can configure them at a later time using the Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) Configure Wizard. To start the Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) Configure Wizard, execute the *ORACLE_HOME*`/bin/config.sh` script (`config.bat` on Windows).

2.2.2.2 Understanding the "Install and Configure" Option

The **Install and Configure** option allows you to install Oracle Identity Management components and simultaneously configure some of their fundamental elements, such as passwords, user names, and so on. Oracle Identity Management components start running and are immediately ready for use after deploying them using the **Install and Configure** option.

2.2.3 Understanding Oracle WebLogic Server Administration Domain Options

During installation, you have several options for choosing how the Oracle Identity Management components are installed in relation to an Oracle WebLogic Server administration domain. A domain includes a special WebLogic Server instance called the Administration Server, which is the central point from which you configure and manage all resources in the domain.

This section describes each domain option for installing Oracle Identity Management components:

- Create New Domain
- Extend Existing Domain
- Expand Cluster
- Configure Without a Domain

> **See:** The "Understanding Oracle WebLogic Server Domains" chapter in the *Oracle Fusion Middleware Understanding Domain Configuration for Oracle WebLogic Server* guide for more information about Oracle WebLogic Server administration domains.

2.2.3.1 Create New Domain

Select the **Create New Domain** option to create a new Oracle WebLogic Server administration domain and install Oracle Identity Management components in it. When you install Oracle Identity Management components in a new domain, the Fusion Middleware Control management component and the Oracle WebLogic Administration Server are automatically deployed with them.

2.2.3.2 Extend Existing Domain

Select the **Extend Existing Domain** option to install Oracle Identity Management components in an existing Oracle WebLogic Server administration domain. When you install Oracle Identity Management components using this option, they are essentially "joining" an existing domain.

> **Note:** To install Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home, Oracle Middleware Home, and Oracle Home directory in the domain must have identical directory paths and names.

If you want to install and configure Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, by using either the Installer or the Oracle Identity Management 11*g* Release 1 Configuration Wizard, the existing domain must have been created using the Oracle Identity Management 11*g* Release 1 Installer. You cannot extend an existing domain for Oracle Identity Management components if the domain was created by another program, such as the Oracle SOA Installer or the Oracle Fusion Middleware Configuration Wizard.

> **Note:** When you install components using the **Extend Existing Domain** option, you must provide some credentials for the existing domain, including the user name for the domain. You must enter the user name in ASCII characters only.

2.2.3.3 Expand Cluster

Select the **Expand Cluster** option to install Oracle Identity Management components in an Oracle WebLogic Server cluster for High Availability (HA). This document does not explain how to install Oracle Identity Management components in HA configurations. Refer to the following documents for more information:

- *Oracle Fusion Middleware High Availability Guide*
- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management*

2.2.3.4 Configure Without a Domain

Select the **Configure without a Domain** option to install Oracle Identity Management components and configure them to be without domain membership.

> **Note:** Only the Oracle Internet Directory and Oracle Virtual Directory components are certified for installation without a domain.

For Oracle Internet Directory, the **Configure without a Domain** option is appropriate for environments that have *both* of the following conditions:

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

For Oracle Virtual Directory, the **Configure without a Domain** option is appropriate if you want to register Oracle Virtual Directory with a remote WebLogic Administration Server for management purposes, but you do not want to install Oracle WebLogic Server locally.

2.2.4 Installing Components on Separate Systems

You can install Oracle Fusion Middleware instances on separate systems. You can also distribute Oracle Fusion Middleware components over multiple systems, which is especially useful for Oracle Identity Management components. You might want to distribute components to improve performance, security, scalability, and availability of Oracle Identity Management services.

The following are two (of many) examples of Oracle Identity Management deployments that benefit from distributing components over multiple systems:

- Oracle Internet Directory on one system, and Oracle Directory Services Manager and Oracle Directory Integration Platform on a separate system.
- Oracle Identity Management components use an Oracle Database to contain the Oracle Metadata Repository. The Oracle Identity Management components and the Oracle Database are installed on separate systems.

Note: If you install Oracle Identity Management components on a separate system from the database containing the Oracle Metadata Repository, the Oracle Identity Management components will need network access to the repository.

See: The following documents if you want to configure more than one Oracle Internet Directory against the same Oracle Metadata Repository:

- *Oracle Fusion Middleware Installation Planning Guide*
- *Oracle Fusion Middleware Administrator's Guide for Oracle Internet Directory*

2.2.5 Executing the oracleRoot.sh Script on UNIX Platforms

During installation on UNIX platforms, the Installer prompts you to log in as the root user and run the `oracleRoot.sh` script. You must log in as the root user because the script creates files, edits files, and changes the permissions of certain Oracle executable files in the `<Oracle_IDM_Home>/bin` directory.

If the `oracleRoot.sh` script finds files of the same name, it prompts you to indicate whether or not to override the existing files. Back up the existing files (you can do this from another window), then overwrite them.

2.2.6 Understanding the State of Oracle Identity Management Components After Installation

This topic provides information about the state of Oracle Identity Management components after installation, including:

- Default SSL Configurations
- Default Passwords
- Ports Assigned Using Auto Port Configuration

2.2.6.1 Default SSL Configurations

By default, Oracle Internet Directory and Oracle Virtual Directory are installed with SSL configured. You must configure SSL for the Oracle WebLogic Administration Server and Oracle WebLogic Managed Server after installation.

> **See:** The *Oracle Fusion Middleware Administrator's Guide* for more information.

2.2.6.2 Default Passwords

By default, the passwords for all Oracle Identity Management components are set to the password for the Oracle Identity Management Instance. For security reasons, after installation, you should change the passwords of the various components so they have different values.

> **See:** The following documents for information about changing passwords for Oracle Identity Management components:
>
> - *Oracle Fusion Middleware Administrator's Guide*
> - Component-specific guides listed in the "Related Documents" section in this guide's Preface.

2.2.6.3 Ports Assigned Using Auto Port Configuration

When you use the Auto Port Configuration option during installation, the Installer follows specific steps to assign ports. The following information describes the default ports and port assignment logic the Installer uses to assign ports for various Oracle Identity Management components when you use the Auto Port Configuration option during installation.

- **Oracle Virtual Directory:**
  - Non-SSL port: 6501
  - SSL port: 7501
  - Admin port: 8899
  - HTTP port: 8080

  First, the Installer attempts to assign the default port. If the default port is unavailable, the Installer tries ports within a range of 50 from the default port. For example, when the Installer assigns the non-SSL port for Oracle Virtual Directory, it first attempts to assign 6501. If 6501 is unavailable, it tries ports from 6501 to 6551. The Installer uses this approach to assign all Oracle Virtual Directory ports.
- **Oracle Internet Directory:**
  - Non-SSL port: 3060

  - SSL port: 3131

  First, the Installer attempts to assign default ports. If the non-SSL port is unavailable, the Installer tries ports from 3061 to 3070, then from 13060 to 13070. Similarly, the Installer first attempts to assign 3131 as the SSL port, then ports from 3132 to 3141, and then from 13131 to 13141.

- **Oracle Identity Federation**: 7499

  First, the Installer attempts to assign the default port. If the default port is unavailable, the Installer tries ports in increments of one, that is: 7500, then 7501, then 7502, and so on. The Installer tries ports up until 9000 to find an available port.

- **Oracle Directory Services Manager**: 7005

  First, the Installer attempts to assign the default port. If the default port is unavailable, the Installer tries ports in increments of one, that is: 7006, then 7007, then 7008, and so on. The Installer tries ports up until 9000 to find an available port.

- **Oracle WebLogic Administration Server**: 7001

2.3 Overview of Oracle Identity and Access Management (11.1.1.5.0) Installation

This section discusses the following topics:

- Installation Roadmap
- Prerequisite Checks Performed by the Oracle Identity and Access Management Installer
- Understanding Oracle WebLogic Server Administration Domain Options
- Additional Configuration Using the Oracle Identity Manager 11g Configuration Wizard
- Additional 11g Release 1 (11.1.1) Deployment Information
- Silent Installation
- Installing Components on Separate Systems
- Screens in Oracle Fusion Middleware Configuration Wizard
- Understanding the State of Oracle Identity and Access Management Components After Installation

2.3.1 Installation Roadmap

Table 2–2 lists the tasks required to install and configure Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

Table 2–2 Installation Flow for Oracle Identity and Access Management

No.	Task	Description
1	Review installation concepts in the Installation Planning Guide.	Read the *Oracle Fusion Middleware Installation Planning Guide*, which describes the process for various users to install or upgrade to Oracle Fusion Middleware 11g (11.1.1.5) depending on the user's existing environment.

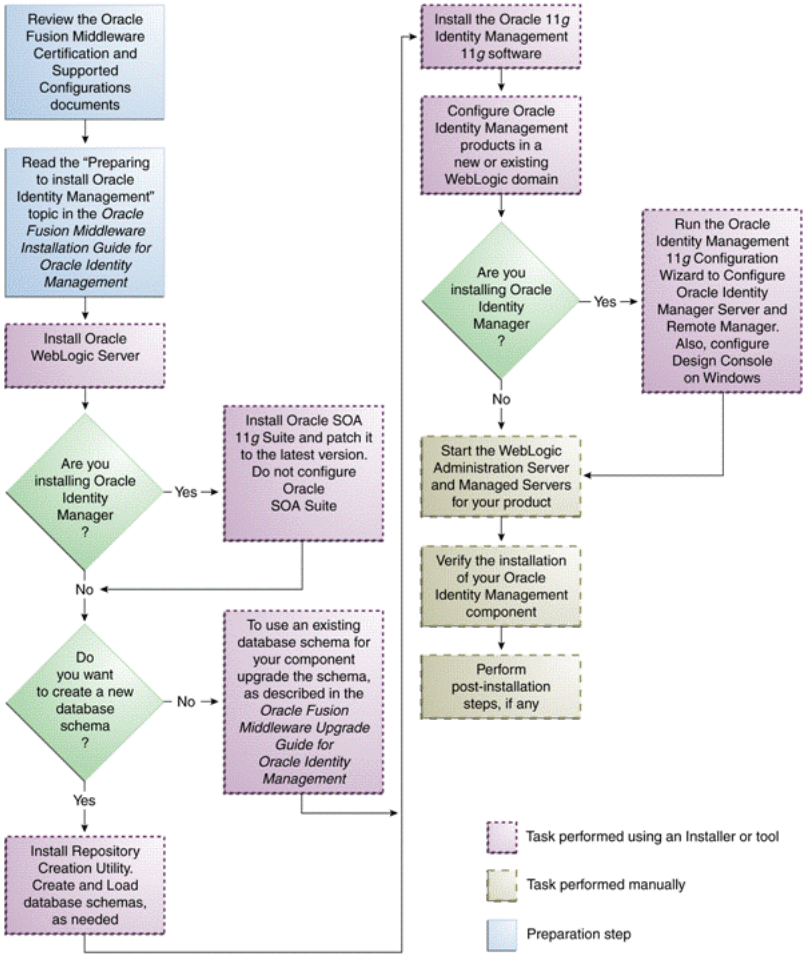
2	Review the system requirements and certification documents to ensure that your environment meets the minimum installation requirements for the components you are installing.	Read the *System Requirements and Specifications* document that covers information such as hardware and software requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches:
		`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`
		Read the Certification document that covers supported installation types, platforms, operating systems, databases, JDKs, and third-party products:
		`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html`

3	Install the Oracle 11.1.1 database and any required patches.	For more information, see Installing Oracle Database.
4	Install Oracle WebLogic Server 11*g* Release 1 (10.3.5), and create a Middleware Home.	For more information, see Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
5	Run Oracle Fusion Middleware Repository Creation Utility (RCU) to create and load the appropriate schemas for Oracle Identity and Access Management products.	For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
6	Install the Oracle Identity and Access Management 11g software.	For more information, see Installing Oracle Identity and Access Management (11.1.1.5.0).
7	For Oracle Identity Manager users only: Install the latest version of Oracle SOA Suite 11*g* (11.1.1.5.0).	Install the 11.1.1.5.0 version of Oracle SOA Suite. For more information, see Installing the Latest Version of Oracle SOA Suite (Oracle Identity Manager Users Only).
8	Run the Oracle Fusion Middleware Configuration Wizard to configure your Oracle Identity and Access Management products in a new or existing WebLogic domain.	For more information, see the following chapters: ■ Configuring Oracle Identity Navigator ■ Configuring Oracle Identity Manager ■ Configuring Oracle Access Manager ■ Configuring Oracle Adaptive Access Manager ■ Configuring Oracle Entitlements Server Administration Server
9	Start the servers.	For more information, see Starting the Stack.
10	For Oracle Identity Manager users only: Run the Oracle Identity Manager Configuration Wizard to configure Oracle Identity Manager Server, Design Console, or Remote Manager. Note that you should run the Oracle Identity Manager Server after completing this configuration.	For more information, see the following topics: ■ Configuring OIM Server ■ Configuring OIM Design Console ■ Configuring OIM Remote Manager

Oracle Identity and Access Management components will not start running after installing them using the Oracle Identity and Access Management 11*g* Installer. For information about starting the components after installation, see the Getting Started topics in specific chapters in this guide.

The following figure illustrates the process of installing the Oracle Identity and Access Management 11*g* software components (the suite containing OIM, OAM, OAAM, OES, and OIN).

Figure 2–1 Oracle Identity and Access Management Installation and Configuration Workflow



OES

****

Table 2–3 lists the Installers and tools used to install and configure Oracle Identity and Access Management 11*g* components at different stages of the installation process.

Table 2–3 Installation and Configuration Tools

Task	Tool
Install Oracle WebLogic Server	Oracle WebLogic Server Installer For more information, see Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
Install Oracle SOA 11*g* Suite	Oracle SOA 11*g* Suite Installer For more information, see Installing the Latest Version of Oracle SOA Suite (Oracle Identity Manager Users Only).
Create and load database schema	Oracle Fusion Middleware Repository Creation Utility (RCU) For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
Upgrade your existing database schema	Oracle Fusion Middleware 11*g* Upgrade Assistant For more information, see the guide *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*.
Install the Oracle Identity and Access Management 11*g* software	Oracle Identity and Access Management 11*g* Installer For more information, see Installing Oracle Identity and Access Management (11.1.1.5.0).
Create or extend a WebLogic administration domain	Oracle Fusion Middleware Configuration Wizard For more information, see Screens in Oracle Fusion Middleware Configuration Wizard.
Install and configure Oracle Identity Manager Server, Design Console, and Remote Manager	Oracle Identity Manager 11*g* Configuration Wizard For more information, see Configuring OIM Server, Design Console, and Remote Manager.

2.3.2 Prerequisite Checks Performed by the Oracle Identity and Access Management Installer

The Oracle Identity and Access Management 11*g* Release 1 (11.1.1) Installer ensures that your machine has a certified version of the operating system, the correct software packages (service packs), and sufficient physical memory to install the Oracle Identity and Access Management applications on your machine.

On Windows operating systems, the Installer verifies the operating system version, service pack, and physical memory (at least 1024 MB).

On UNIX operating systems, the Installer verifies the operating system version, operating system packages, kernel parameters, glibc version, and physical memory (at least 1024 MB).

> **See:** *Oracle Fusion Middleware System Requirements and Specifications* available at:
>
> `http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`

2.3.3 Understanding Oracle WebLogic Server Administration Domain Options

After Oracle Identity and Access Management 11*g* is installed, you are ready to configure the WebLogic Server Administration Domain for Oracle Identity and Access Management components. A domain includes a special WebLogic Server instance called the Administration Server, which is the central point from which you configure and manage all resources in the domain.

This section describes each domain option for installing Oracle Identity and Access Management components:

- Create a New Domain
- Extend an Existing Domain

> **See:** The "Understanding Oracle WebLogic Server Domains" chapter in the *Oracle Fusion Middleware Understanding Domain Configuration for Oracle WebLogic Server* guide for more information about Oracle WebLogic Server administration domains.

2.3.3.1 Create a New Domain

Select the **Create a new WebLogic domain** option on the Welcome screen in the Oracle Fusion Middleware Configuration Wizard to create a new WebLogic Server domain.

2.3.3.2 Extend an Existing Domain

Select the **Extend an existing WebLogic domain** option on the Welcome screen in the Oracle Fusion Middleware Configuration Wizard to add Oracle Identity and Access Management components in an existing Oracle WebLogic Server administration domain. When you add Oracle Identity and Access Management components using this option, they are essentially "joining" an existing domain.

For more information, see Understanding Domain Extension Scenarios.

2.3.4 Additional Configuration Using the Oracle Identity Manager 11*g* Configuration Wizard

Read this section only if you are installing Oracle Identity Manager. After you install Oracle Identity Manager by using the Oracle Identity and Access Management 11*g* Installer software, you can encrypt secure data in Oracle Identity Manager schema, create keystores, and so on. You can configure such elements by using the Oracle Identity Manager 11*g* Release 1 (11.1.1) Configuration Wizard, which is included with the release media.

On UNIX operating systems, to start the Oracle Identity Manager 11*g* Release 1 (11.1.1) Configuration Wizard, run the `<IAM_Home>/bin/config.sh` script. On Windows operating systems, run the `<IAM_Home>\bin\config.bat` script. Note that `IAM_Home` refers to your *`IDM_Home`* directory that contains Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

2.3.5 Additional 11*g* Release 1 (11.1.1) Deployment Information

This topic describes additional sources for 11*g* Release 1 (11.1.1) deployment information, including documentation on the following subjects:

- Upgrading to 11g Release 1 (11.1.1)
- Installing 11g Release 1 (11.1.1) for High Availability

See Also: The "Related Documents" section in this guide's Preface for a list of documents that provide additional information about Oracle Identity and Access Management components.

2.3.5.1 Upgrading to 11*g* Release 1 (11.1.1)

This guide does not explain how to upgrade previous versions of Oracle Identity and Access Management components to 11*g* Release 1 (11.1.1). To upgrade an Oracle Identity and Access Management component:

From Release 10*g* to 11*g* Release 1 (11.1.1), refer to:

- *Oracle Fusion Middleware Upgrade Planning Guide*
- *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*

2.3.5.2 Installing 11*g* Release 1 (11.1.1) for High Availability

This guide does not explain how to install Oracle Identity and Access Management components in High Availability (HA) configurations. To install an Oracle Identity and Access Management component in a High Availability configuration, refer to the following documents:

- *Oracle Fusion Middleware High Availability Guide*
- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management*

Specifically, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.

2.3.6 Silent Installation

In addition to the standard graphical installation option, you can perform silent installation of the Oracle Identity and Access Management 11*g* software. A silent installation runs on its own without any intervention, and you do not have to monitor the installation and provide input to dialog boxes.

For more information, see Performing a Silent Installation.

2.3.7 Installing Components on Separate Systems

You can install Oracle Fusion Middleware instances on separate systems. You can also distribute Oracle Fusion Middleware components over multiple systems, which is especially useful for Oracle Identity and Access Management components. You might want to distribute components to improve performance, security, scalability, and availability of Oracle Identity and Access Management services.

The following are two (of many) examples of Oracle Identity and Access Management deployments that benefit from distributing components over multiple systems:

- Oracle Identity Manager Server on one system, and Oracle Identity Manager Design Console on a different system.
- Oracle Identity and Access Management components use an Oracle Database to contain the Oracle Metadata Repository. The Oracle Identity and Access Management components and the Oracle Database are installed on separate systems.

Note: If you install Oracle Identity and Access Management components on a separate system from the database containing the Oracle Metadata Repository, the Oracle Identity and Access Management components will need network access to the repository.

2.3.8 Screens in Oracle Fusion Middleware Configuration Wizard

The Oracle Fusion Middleware Configuration Wizard displays screens based on your domain configuration options. You can use the Oracle Fusion Middleware Configuration Wizard in the following scenarios:

- Creation of a new WebLogic administration domain, which involves the configuration of Administration Server parameters, server start mode, and so on.
- Configuration of an existing domain to support Oracle Identity and Access Management components by extending the domain.

See: The "Customizing the Domain Environment" chapter in the *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard* guide for more information about configuring your domain.

2.3.9 Understanding the State of Oracle Identity and Access Management Components After Installation

This topic provides information about the state of Oracle Identity and Access Management components after installation, including:

- Default SSL Configurations
- Default Passwords

2.3.9.1 Default SSL Configurations

By default, most of the Oracle Identity and Access Management 11*g* components are not installed with SSL configured. Only Oracle Adaptive Access Manager is configured with SSL. For other components, you must configure SSL for the Oracle WebLogic Administration Server and Oracle WebLogic Managed Server after installation.

See: The "SSL Configuration in Oracle Fusion Middleware" topic in the *Oracle Fusion Middleware Administrator's Guide* for more information.

2.3.9.2 Default Passwords

By default, the passwords for all Oracle Identity and Access Management components are set to the password for the Oracle Identity and Access Management Instance. For security reasons, after installation, you should change the passwords of the various components so they have different values.

See: The following documents for information about changing passwords for Oracle Identity and Access Management components:

- The "Getting Started Managing Oracle Fusion Middleware" topic in the guide *Oracle Fusion Middleware Administrator's Guide*.
- Component-specific guides listed in the "Related Documents" section in this guide's Preface.

3

Preparing to Install

This chapter provides information you should review before installing Oracle Identity Management 11*g* Release 1 (11.1.1) components and Oracle Identity and Access Management 11*g* Release 1 (11.1.1). It includes the following topics:

- Before Installing Oracle Identity Management (11.1.1.6.0)
- Before Installing Oracle Identity and Access Management (11.1.1.5.0)

> **Note:** For information about prerequisites for installing the 11*g* (11.1.1.6.0) version of Oracle Internet Directory (OID), Oracle Virtual Directory (OVD), Oracle Directory Services Manager (ODSM), Oracle Directory Integration Platform (ODIP), and Oracle Identity Federation (OIF), see Before Installing Oracle Identity Management (11.1.1.6.0).
>
> For information about prerequisites for installing the 11*g* (11.1.1.5.0) version of Oracle Identity Manager (OIM), Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), Oracle Entitlements Server (OES), and Oracle Identity Navigator (OIN), see Before Installing Oracle Identity and Access Management (11.1.1.5.0).

3.1 Before Installing Oracle Identity Management (11.1.1.6.0)

This section discusses the following topics:

- Reviewing System Requirements and Certification
- Understanding Oracle Fusion Middleware Support of 64-bit JDK
- Installing and Configuring Java Access Bridge (Windows Only)
- Managing the Oracle WebLogic Server Node Manager Utility for Oracle Identity Management Installations
- Optional Environment-Specific Preparation

3.1.1 Reviewing System Requirements and Certification

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

- *Oracle Fusion Middleware System Requirements and Specifications* at

  `http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`

This document contains information related to hardware and software requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches.

- *Oracle Fusion Middleware Supported System Configurations* at

  http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html

  This document contains information related to supported installation types, platforms, operating systems, databases, JDKs, and third-party products.

- For interoperability and compatibility issues that may arise when installing, refer to *Oracle Fusion Middleware Interoperability and Compatibility Guide*.

  This document contains important information regarding the ability of Oracle Fusion Middleware products to function with previous versions of other Oracle Fusion Middleware, Oracle, or third-party products. This information is applicable to both new Oracle Fusion Middleware users and existing users who are upgrading their existing environment.

3.1.2 Understanding Oracle Fusion Middleware Support of 64-bit JDK

If you are using a 64-bit JVM in your environment, ensure that all your Oracle Fusion Middleware components are using the 64-bit JVM. You cannot mix components using a 32-bit JVM with those using a 64-bit JVM.

For more information, refer to the "System Requirements and Supported Platforms for Oracle Fusion Middleware 11*g*R1" document, available at the following page:

http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html

If your Oracle Fusion Middleware components are running in a 64-bit JVM environment, ensure that WebLogic Server is installed with the 64-bit JDK. For 32-bit JVM support, refer to the Oracle Fusion Middleware Release Notes for information on how to configure your environment for 32-bit JVM support for your platform.

3.1.3 Installing and Configuring Java Access Bridge (Windows Only)

If you are installing Oracle Identity Management on a Windows system, you have the option of installing and configuring Java Access Bridge for Section 508 Accessibility. This is only necessary if you require Section 508 Accessibility features:

1. Download Java Access Bridge from the following Web site:

   http://java.sun.com/javase/technologies/accessibility/accessbridge/

2. Install Java Access Bridge.
3. Copy `access-bridge.jar` and `access-1_4.jar` from your installation location to the `jre\lib\ext` directory.
4. Copy the `WindowsAccessBridge.dll`, `JavaAccessBridge.dll`, and `JAWTAccessBridge.dll` files from your installation location to the `jre\bin` directory.
5. Copy the `accessibility.properties` file to the `jre\lib` directory.

3.1.4 Managing the Oracle WebLogic Server Node Manager Utility for Oracle Identity Management Installations

Oracle Directory Integration Platform (ODIP) and Oracle Identity Federation (OIF) are configured with a WebLogic domain. Oracle Internet Directory (OID) and Oracle Virtual Directory (OVD) can be configured with or without a WebLogic domain. For Oracle Identity Management products that require a WebLogic domain, you must configure Node Manager.

You must perform the following steps after installing Oracle WebLogic Server and before installing Oracle Identity Management:

1. Verify the Oracle WebLogic Server Node Manager utility is stopped. If it is running, kill the process. Use the following commands to identify running process and kill the same:

   For example, on UNIX:

   1) `ps-ef | grep -i nodemanager`

   This will return the Process Id of the Node Manager Process.

   2) `kill -9` <Process Id of the Node Manager Process>

   On Windows:

   Use the Windows Task Manager to identify running Node Manager processes and kill the same.

2. Determine if the `nodemanager.properties` file is present in the *`WL_HOME`*`/common/nodemanager/` directory.

   - If the `nodemanager.properties` file is *not* present, then follow the instructions below:

     On **UNIX**:

     Run `startNodeManager.sh` (Located at `<WL_HOME>/server/bin` directory) to start Node Manager.

     On **Windows**:

     Run `startNodeManager.cmd` (Located at `<WL_HOME>\server\bin` directory) to start Node Manager.

   - If the nodemanager.properties file *does* exist, open it and verify that the `ListenPort` parameter is included and that it is set. If the `ListenPort` parameter is not included or set, edit the `nodemanager.properties` file so that it is similar to the following, where *NODE_MANAGER_LISTEN_PORT* represents the port the Node Manager listens on, such as 5556:

     `ListenPort=`*`NODE_MANAGER_LISTEN_PORT`*

3.1.5 Optional Environment-Specific Preparation

This topic describes optional environment-specific tasks you may want to perform before installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0). This topic includes the following sections:

- Using Symbolic Links
- Installing Oracle Identity Management on DHCP Hosts
- Installing Oracle Identity Management on a Multihomed System

Note: If the environment variable `LD_ASSUME_KERNEL` is set, it needs to be unset.

3.1.5.1 Using Symbolic Links

If you want to install Oracle Identity Management using symbolic links, you must create them before installation. For example, you could create symbolic links for the installation by executing the following commands:

```
prompt> mkdir /home/basedir
prompt> ln -s /home/basedir /home/linkdir
```

Then, when you run the Installer to install Oracle Identity Management, you can specify `/home/linkdir` as the Oracle Home.

After installation, you cannot create symbolic links to the Oracle Home. Also, you cannot move the Oracle Home to a different location and create a symbolic link to the original Oracle Home.

3.1.5.2 Installing Oracle Identity Management on DHCP Hosts

If you plan to install Oracle Identity Management components on a DHCP server, you must ensure the Installer can resolve host names. This may require editing the /etc/hosts file on UNIX systems, and installing a loopback adapter on Windows systems. The following information provides general examples, you should alter these examples to make them specific to your environment.

On UNIX systems:

Configure the host to resolve host names to the loopback IP address by modifying the /etc/hosts file to contain the following entries. Replace the *variables* with the appropriate host and domain names:

```
127.0.0.1 hostname.domainname hostname
127.0.0.1 localhost.localdomain localhost
```

Confirm the host name resolves to the loopback IP address by executing the following command:

```
ping hostname.domainname
```

On Windows systems:

Install a loopback adapter on the DHCP host and assign it a non routable IP address.

After installing the adapter, add a line to the %SYSTEMROOT%\system32\drivers\etc\hosts file immediately after the localhost line and using the following format, where *IP_address* represents the local IP address of the loopback adapter:

```
IP_address   hostname.domainname   hostname
```

3.1.5.3 Installing Oracle Identity Management on a Multihomed System

You can install Oracle Identity Management components on a multihomed system. A multihomed system is associated with multiple IP addresses, typically achieved by having multiple network cards on the system. Each IP address is associated with a host name and you can create aliases for each host name.

The Installer retrieves the fully qualified domain name from the first entry in /etc/hosts file on UNIX, or the %SYSTEMROOT%\system32\drivers\etc\hosts file on Windows. For example, if your file looks like the following, the Installer retrieves myhost1.mycompany.com for configuration:

```
127.0.0.1 localhost.localdomain localhost
10.222.333.444 myhost1.mycompany.com myhost1
20.222.333.444 devhost2.mycompany.com devhost2
```

For specific network configuration of a system component, refer to the individual component's documentation listed in "Related Documents"for more information.

3.2 Before Installing Oracle Identity and Access Management (11.1.1.5.0)

This section discusses the following topics:

- Reviewing System Requirements and Certification
- Installing and Configuring Java Access Bridge (Windows Only)
- Obtaining the Latest Oracle WebLogic Server and Oracle Fusion Middleware 11g Software
- Installing Oracle WebLogic Server and Creating the Oracle Middleware Home
- Installing Oracle Database
- Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU)
- Upgrading an Existing Database Schema
- Installing the Latest Version of Oracle SOA Suite (Oracle Identity Manager Users Only)

3.2.1 Reviewing System Requirements and Certification

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

- *Oracle Fusion Middleware System Requirements and Specifications* at

  http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html

  This document contains information related to hardware and software requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches.

- *Oracle Fusion Middleware Supported System Configurations* at

  http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html

  This document contains information related to supported installation types, platforms, operating systems, databases, JDKs, and third-party products.

- For interoperability and compatibility issues that may arise when installing, refer to *Oracle Fusion Middleware Interoperability and Compatibility Guide*.

  This document contains important information regarding the ability of Oracle Fusion Middleware products to function with previous versions of other Oracle Fusion Middleware, Oracle, or third-party products. This information is applicable

to both new Oracle Fusion Middleware users and existing users who are upgrading their existing environment.

3.2.2 Installing and Configuring Java Access Bridge (Windows Only)

If you are installing Oracle Identity and Access Management on a Windows operating system, you have the option of installing and configuring Java Access Bridge for Section 508 Accessibility. This is only necessary if you require Section 508 Accessibility features:

1. Download Java Access Bridge from the following URL:

   `http://java.sun.com/javase/technologies/accessibility/accessbridge/`

2. Install Java Access Bridge.
3. Copy `access-bridge.jar` and `jaccess-1_4.jar` from your installation location to the `jre\lib\ext` directory.
4. Copy the `WindowsAccessBridge.dll`, `JavaAccessBridge.dll`, and `JAWTAccessBridge.dll` files from your installation location to the `jre\bin` directory.
5. Copy the `accessibility.properties` file to the `jre\lib` directory.

3.2.3 Obtaining the Latest Oracle WebLogic Server and Oracle Fusion Middleware 11*g* Software

Refer to the following for more information about the latest Oracle WebLogic Server and Oracle Fusion Middleware 11*g* software:

- For more information on obtaining Oracle Fusion Middleware 11*g* softwares, see "Obtain the Oracle Fusion Middleware Software" and "Install Oracle WebLogic Server" in the *Oracle Fusion Middleware Installation Planning Guide*.
- For information about downloading Oracle WebLogic Server, see "Product Distribution" in the *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.
- For complete information about patching your Oracle Fusion Middleware 11*g* to the latest release, refer to the *Oracle Fusion Middleware Patching Guide*.

3.2.4 Installing Oracle WebLogic Server and Creating the Oracle Middleware Home

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

For more information, see "Install Oracle WebLogic Server" in *Oracle Fusion Middleware Installation Planning Guide*.

In addition, see *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* for complete information about installing Oracle WebLogic Server.

Oracle WebLogic Server Directory Structure

After you install Oracle WebLogic Server and create a Middleware Home, a home directory, such as `wlserver_10.3`, is created for Oracle WebLogic Server under your Middleware Home. This home directory is referred to as WL_HOME.

At the same level as WL_HOME, separate directories are created for the following components associated with Oracle WebLogic Server:

- Sun JDK - `jdk160_24`
- Oracle JRockit - `jrockit_1.6.0_24`
- Oracle Coherence 3.6

> **Note:** Ensure that the JDK version you select is Java SE 6 Update 24 or higher.

Note that WebLogic domains are created in a directory named `domains` located in the `user_projects` directory under your Middleware Home. After you configure any of the Oracle Identity and Access Management products in a WebLogic administration domain, a new directory for the domain is created in the `domains` directory. In addition, a directory named `applications` is created in the `user_projects` directory. This `applications` directory contains the applications deployed in the domain.

3.2.5 Installing Oracle Database

You must install an Oracle Database before you can install some Oracle Identity and Access Management components. The database must be up and running to install the relevant Oracle Identity and Access Management component. The database does not have to be on the same system where you are installing the Oracle Identity and Access Management component.

The following database versions are supported:

- 10.2.0.4 and higher
- 11.1.0.7 and higher
- 11.2.0.1 and higher

> **Note:** You can locate the most recent information about supported databases by referring to the "Reviewing System Requirements and Certification" topic in this chapter.

Table 3–1 lists the databases requirements for RCU at the time of publication:

Table 3–1 RCU Database Requirements

Category	Minimum or Accepted Value
Version	Oracle Database 10.2.0.4, 11.1.0.7, or 11.2 (11.1.0.7 or later for non-XE database). **Note**: When installing the database, you must choose the AL32UTF8 character set.
Shared Pool Size	147456 KB
SGA Maximum Size	147456 KB
Block Size	8 KB
Processes	500
`'open_cursors'`	`>= '500'`

Note: After installing the Oracle 11*g* database, you must complete the following steps:

1. Log in to the database as the `sys` (default) user.
2. Run the following commands:

```
alter system set session_cached_cursors=100
scope=spfile;

alter system set processes=500 scope=spfile;
```

3. Bounce the database and continue with the installation of Oracle Fusion Middleware Repository Creation Utility (RCU) and loading of schemas.

3.2.5.1 Oracle Database 11.1.0.7 Patch Requirements for Oracle Identity Manager

To identify the patches required for Oracle Identity Manager 11.1.1.5.0 configurations that use Oracle Database 11.1.0.7, refer to the Oracle Identity Manager section of the 11*g* Release 1 Oracle Fusion Middleware Release Notes.

3.2.6 Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU)

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

- Oracle Identity Manager
- Oracle Access Manager
- Oracle Adaptive Access Manager
- Oracle Entitlements Server

You create and load Oracle Fusion Middleware schema in your database using the Oracle Fusion Middleware Repository Creation Utility (RCU), which is available on the Oracle Technology Network (OTN) web site. You can access the OTN web site at:

`http://www.oracle.com/technetwork/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. After you extract the contents of the `rcuHome.zip` file to a directory, you can see the executable file `rcu` in the `BIN` directory.

For information about launching and running RCU, see the "Launching RCU with a Variety of Methods" and "Running Oracle Fusion Middleware Repository Creation Utility (RCU)" topics in the guide *Oracle Fusion Middleware Repository Creation Utility User's Guide*. For information about troubleshooting RCU, see the "Troubleshooting Repository Creation Utility" topic in the guide *Oracle Fusion Middleware Repository Creation Utility User's Guide*.

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

- For Oracle Identity Manager, select the **Identity Management - Oracle Identity Manager** schema. The **SOA Infrastructure** schema, the **User Messaging Service** schema, and the **Metadata Services** schema are also selected, by default.
- For Oracle Adaptive Access Manager, select the **Identity Management - Oracle Adaptive Access Manager** schema. By default, the **AS Common Schemas - Metadata Services** schema is also selected.

  For Oracle Adaptive Access Manager with partition schema support, select the **Identity Management - Oracle Adaptive Access Manager (Partition Supp...)** schema. By default, the **AS Common Schemas - Metadata Services** schema is also selected.

  Note: For information about Oracle Adaptive Access Manager schema partitions, see OAAM Partition Schema Reference.

- For Oracle Access Manager, select the **Identity Manager - Oracle Access Manager** schema. By default, the **AS Common Schema - Audit Services** schema is also selected.
- For Oracle Entitlements Server, select the **Identity Management - Oracle Entitlements Server** schema. By default, the **AS Common Schemas - Metadata Services** schema is also selected.

  Note: When you create a schema, be sure to remember the schema owner and password that is shown in RCU.

  If you are creating schemas on databases with Oracle Database Vault installed, note that statements such as `CREATE USER`, `ALTER USER`, `DROP USER`, `CREATE PROFILE`, `ALTER PROFILE`, and `DROP PROFILE` can only be issued by a user with the `DV_ACCTMGR` role. SYSDBA can issue these statements by modifying the Can Maintain Accounts/Profiles rule set only if it is allowed.

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

3.2.7 Upgrading an Existing Database Schema

If you want to reuse an existing database schema, you must upgrade your old database schema to work with Oracle Fusion Middleware 11g products and components.

For information about upgrading your existing database schema, see *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*.

3.2.8 Installing the Latest Version of Oracle SOA Suite (Oracle Identity Manager Users Only)

If you are installing Oracle Identity Manager, you must install the latest version of Oracle SOA Suite (11.1.1.5.0).

Follow the instructions in this section to install the latest Oracle SOA Suite software. The installation of Oracle SOA Suite is a prerequisite for configuring Oracle Identity Manager.

Installing the latest version of Oracle SOA Suite 11*g* involves the following steps:

1. Obtaining the Latest Oracle WebLogic Server and Oracle SOA Suite Software
2. Installing Oracle WebLogic Server and Creating the Middleware Home
3. Installing the Latest Version of Oracle SOA Suite

3.2.8.1 Obtaining the Latest Oracle WebLogic Server and Oracle SOA Suite Software

Refer to the following for more information about the latest Oracle WebLogic Server and Oracle Fusion Middleware 11*g* software:

- You can download the latest Oracle Fusion Middleware 11*g* software from the Oracle Technology Network (OTN):

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

- At the time this document was published, the latest release of Oracle Fusion Middleware 11*g* was 11*g* Release 1 (11.1.1.5.0), which provides new features and capabilities that supersede those available in Oracle Fusion Middleware 11*g* Release 1 (11.1.1.1.0) through 11*g* Release 1 (11.1.1.4.0).
- For complete information about patching your Oracle Fusion Middleware 11*g* to the latest release, refer to the *Oracle Fusion Middleware Patching Guide*.

3.2.8.2 Installing Oracle WebLogic Server and Creating the Middleware Home

Oracle SOA Suite requires Oracle WebLogic Server and a Middleware Home directory. For more information, see "Install Oracle WebLogic Server" in *Oracle Fusion Middleware Installation Planning Guide*. In addition, see "Running the Installation Program in Graphical Mode" in *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

> **Note:** If you have already created a Middleware Home before installing Oracle Identity and Access Management components, do not create a new Middleware Home again. You must use the same Middleware Home for installing Oracle SOA Suite.

3.2.8.3 Installing the Latest Version of Oracle SOA Suite

Note that only Oracle Identity Manager requires Oracle SOA Suite 11*g* (11.1.1.5.0). This step is required because Oracle Identity Manager uses process workflows in Oracle SOA Suite to manage request approvals.

Follow the instructions in Table 3–2 to install Oracle SOA Suite. If you need additional help with any of the installation screens, click **Help** to access the online help.

To start the Oracle SOA Suite installation wizard, you must complete the following steps:

1. Extract the contents of the `soa.zip` (11.1.1.5.0) to a directory, such as `soa`.
2. From your present working directory, move to the `Disk1` directory under `soa`.
3. From the `Disk1` directory, run `runInstaller` (on UNIX) or `setup.exe` (on Windows) executable files to launch the Oracle SOA Suite 11.1.1.5.0 installation wizard.

Table 3–2 Installation Flow for Install Only Option

No.	Screen	Description and Action Required
1	Welcome Screen	Click **Next** to continue.
2	Prerequisite Checks Screen	Click **Next** to continue.
3	Specify Installation Location Screen	Specify the Middleware Home and Oracle Home locations. You must specify the location of the same Middleware Home that contains Oracle Identity and Access Management components. For more information about these directories, see "Understanding Oracle Fusion Middleware Concepts and Directory Structure" in the *Oracle Fusion Middleware Installation Planning Guide*. Click **Next** to continue.
4	Specify Security Updates Screen	Provide your E-mail address to be informed of the latest product issues. Click **Next** to continue.
5	Installation Summary Screen	Verify the information on this screen. Click **Install** to begin the installation.
6	Installation Progress Screen	If you are installing on a UNIX system, you may be asked to run the *ORACLE_HOME*`/oracleRoot.sh` script to set up the proper file and directory permissions. Click **Next** to continue.
7	Installation Complete Screen	Click **Finish** to dismiss the installer.

4

Performing Common Installation Tasks

This chapter describes tasks that are common to most Oracle Identity Management installations and configurations. It includes the following topics:

- Common Installation Tasks for Oracle Identity Management (11.1.1.6.0)
- Common Installation Tasks for Oracle Identity and Access Management (11.1.1.5.0)

Note: By completing the common installation tasks in this chapter, you are not installing or configuring Oracle Identity Management software.

For complete information about installing Oracle Identity Management software, see the following:

- Installing and Configuring Oracle Identity Management (11.1.1.6.0)
- Installing Oracle Identity and Access Management (11.1.1.5.0)

For complete information about configuring Oracle Identity Management software, see the individual component specific chapters in the following links:

- Installing and Configuring Oracle Identity Management (11.1.1.6.0)
- Installing and Configuring Oracle Identity and Access Management (11.1.1.5.0)

4.1 Common Installation Tasks for Oracle Identity Management (11.1.1.6.0)

This section discusses the following topics:

- Identifying Installation Directories
- Determining Port Numbers
- Optional: Configuring the Minimum Amount for Oracle WebLogic Server's Maximum Heap Size
- Locating Installation Log Files

4.1.1 Identifying Installation Directories

This topic 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 topic.

The common directories described in this section include the following:

- Oracle Middleware Home Location
- Oracle Home Directory
- WebLogic Server Directory
- Oracle Instance Location
- Oracle Instance Name

4.1.1.1 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 Installer also creates an Oracle Common Home directory under the Oracle Middleware Home. The Oracle Common Home contains the binary and library files required for Oracle Enterprise Manager Fusion Middleware Control and Oracle Java Required Files (JRF). There can be only one Oracle Common Home within each Oracle Middleware Home.

The Oracle Middleware Home directory is commonly referred to as *MW_HOME*.

Note: To install Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle Middleware Home directory in the domain must have identical directory paths and names.

4.1.1.2 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 (such as binaries and libraries) required to host the component in the Oracle Home directory.

The Oracle Home directory is commonly referred to as *ORACLE_HOME*.

Note: To install Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle Home directory in the domain must have identical directory paths and names.

4.1.1.3 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*.

Note: To install Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home directory in the domain must have identical directory paths and names.

4.1.1.4 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. Do not enter a path to an existing directory that contains files—if you enter a path to an existing directory, that directory must be empty.

The Installer installs the component's configuration files and runtime components 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.

4.1.1.5 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.

4.1.2 Determining Port Numbers

If you want to install an Oracle Identity Management 11*g* Release 1 (11.1.1) component against an existing Oracle Identity Management 11*g* Release 1 (11.1.1) component, you may need to identify the ports for the existing component. For example, if you want to install Oracle Directory Integration Platform 11*g* Release 1 (11.1.1) against an existing Oracle Internet Directory 11*g* Release 1 (11.1.1) component, you must identify its port when you install Oracle Directory Integration Platform.

You can get information about ports using the following:

- WebLogic Server Administration Console.

  Log in to the Administration Console. Click on **Servers** under **Environment** to see what ports are in use for the Administration Server and Managed Servers.

- `$ORACLE_INSTANCE/config/OPMN/opmn/ports.prop`

> **Note:** If you change a component's port number after installation, the ports.prop file is *not* updated.

- The $*ORACLE_INSTANCE*/bin/opmnctl status -l command to see port numbers of components managed by OPMN.

4.1.3 Optional: Configuring the Minimum Amount for Oracle WebLogic Server's Maximum Heap Size

After installing Oracle Identity Management 11*g* Release 1 (11.1.1), if you want to configure the minimum (lowest) level of maximum heap size (-Xmx) required for Oracle WebLogic Server to host Oracle Identity Management components, perform the steps in this section.

> **Note:** This is an *optional* step, typically performed only for test, development, or demonstration environments.

The minimum (lowest) levels for maximum heap size are:

- Oracle WebLogic Administration Server: 512 MB
- Oracle WebLogic Managed Server: 256 MB

Perform the following steps to configure the heap size for Oracle WebLogic Administration Servers and Oracle WebLogic Managed Servers:

1. Open the setDomainEnv script (.sh or .bat) in the *MW_HOME*/user_projects/domains/*DOMAIN_NAME*/bin/ directory.
2. Locate the *last* occurrence of the EXTRA_JAVA_PROPERTIES entry.
3. In the last occurrence of the EXTRA_JAVA_PROPERTIES entry, locate the *last* occurrence of heap size parameters: -Xmx, -Xms, and so on.

> **Note:** These are the heap size parameters for the Oracle WebLogic Administration Server.

4. Set the heap size parameters (-Xms and -Xmx) for the Oracle WebLogic Administration Server as desired, for example: -Xms256m and -Xmx512m
5. To set the heap size parameters for the Oracle WebLogic Managed Server, enter the text in Example 4–1 immediately below the *last* occurrence of the EXTRA_JAVA_PROPERTIES entry and:
   - Set the heap size parameters (-Xms and -Xmx) as desired, for example: -Xms256m -Xmx256m
   - Replace wls_ods1 with the name of the Oracle WebLogic Managed Server hosting Oracle Directory Services Manager.
   - Replace wls_oif1 with the name the Oracle WebLogic Managed Server hosting Oracle Identity Federation.

Example 4–1 Heap Size Parameters for Oracle WebLogic Managed Server

```
if [ "${SERVER_NAME}" = "wls_ods1" -o  "${SERVER_NAME}" = "wls_oif1" ] ; then
```

```
        EXTRA_JAVA_PROPERTIES=" ${EXTRA_JAVA_PROPERTIES} -Xms256m -Xmx256m "
        export EXTRA_JAVA_PROPERTIES
fi
```

6. Save and close the setDomainEnv script.
7. Restart the Oracle WebLogic Administration Server and the Oracle WebLogic Managed Server by referring to Appendix D, "Starting or Stopping the Oracle Stack."

Note: On UNIX systems, if you execute the `ps -ef` command and `grep` for `AdminServer` or the name of the Oracle WebLogic Managed Server (for example, `ps -ef | grep AdminServer` or `ps -ef | grep wls_oif1`), the output contains multiple occurrences of heap size parameters (-Xmx and -Xms).

Be aware that the last occurrence of the heap size parameters in the output are effective and have precedence over the preceding occurrences.

4.1.4 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
- opatch*DATE-TIME_STAMP*.log

4.2 Common Installation Tasks for Oracle Identity and Access Management (11.1.1.5.0)

This section discusses the following topics:

- Starting an Installation
- Starting Oracle Fusion Middleware Configuration Wizard
- List of Executable Files
- Identifying Installation Directories
- Determining Port Numbers

- Completing an Installation
- Locating Installation Log Files
- Optional: Updating the WebLogic Administrator Server User Name in Oracle Enterprise Manager Fusion Middleware Control (OIM Only)

4.2.1 Starting an Installation

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

Notes:

- If you are installing on an IBM AIX operating system, you must run the `rootpre.sh` script from the `Disk1` directory before you start the installer.
- Starting the Installer as the `root` user is not supported.

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

1. Extract the contents of the `ofm_iam_generic_11.1.1.5.0_disk1_1of1.zip` file to a directory.
2. Move to the `Disk1` directory.
3. Start the Installer by executing one of the following commands:

   UNIX:
   ```
   <full path to the runInstaller directory>/runInstaller
   -jreLoc <Middleware Home>/jrockit_1.6.0_24/jre
   ```

   Windows:
   ```
   <full path to the setup.exe directory>\ setup.exe
   -jreLoc <Middleware Home>\jrockit_1.6.0_24\jre
   ```

Note: The installer prompts you to enter the absolute path of the JDK that is installed on your system. When you install Oracle WebLogic Server, the `jrockit_1.6.0_24` directory is created under your Middleware Home. You must enter the absolute path of the JRE folder located in this JDK when launching the installer. For example, on Windows, if the JRE is located in `D:\oracle\Middleware\jrockit_1.6.0_24`, then launch the installer from the command prompt as follows:

```
D:\setup.exe -jreLoc D:\oracle\Middleware\jrockit_
1.6.0_24\jre
```

If you do not specify the `-jreLoc` option on the command line when using the Oracle JRockit JDK, the following warning message is displayed:

```
-XX:MaxPermSize=512m is not a valid VM option.
Ignoring
```

This warning message does not affect the installation. You can continue with the installation.

On 64 bit platforms, when you install Oracle WebLogic Server using the generic jar file, the `jrockit_1.6.0_24` directory will not be created under your Middleware Home. You must enter the absolute path of the JRE folder from where your JDK is located.

After the Installer starts, continue by referring to Installing and Configuring Oracle Identity and Access Management (11.1.1.5.0).

4.2.2 Starting Oracle Fusion Middleware Configuration Wizard

To start the Oracle Fusion Middleware Configuration Wizard, which is used to configure Oracle Identity and Access Management products in a new or existing WebLogic administration domain, run the `<MW_HOME>/oracle_common/bin/config.sh` script (on UNIX). On Windows, run the `<MW_HOME>\oracle_common\bin\config.cmd` script. The Oracle Fusion Middleware Configuration Wizard is displayed.

Note: When you run the `config.cmd` or `config.sh` command, the following error message might be displayed:

```
*sys-package-mgr*: can't create package cache dir
```

The error message indicates that the default cache directory is not valid. You can change the cache directory by including the `-Dpython.cachedir=<valid_directory>` option in the command line.

After starting the Oracle Fusion Middleware Configuration Wizard, configure Oracle Identity and Access Management products, as described in the following links:

- Configuring Oracle Identity Navigator
- Configuring Oracle Identity Manager
- Configuring Oracle Access Manager
- Configuring Oracle Adaptive Access Manager
- OAM and OAAM Joint Domain Configuration Scenarios
- Installing and Configuring Oracle Entitlements Server
- Installing and Configuring Oracle Entitlements Server

4.2.3 List of Executable Files

Table 4–1 lists the executable files that are included in the Oracle WebLogic Server, Oracle Identity and Access Management, Oracle SOA Suite, Oracle Web Tier, and Oracle HTTP Server 11*g* Webgate for Oracle Access Manager Installers.

Table 4–1 Executable Files

File	Description
`ofm_iam_generic_11.1.1.5.0_disk1_1of1.zip` After you extract the contents of the `ofm_iam_generic_11.1.1.5.0_disk1_1of1.zip` file to a directory, you can see the executable file `runInstaller` (for UNIX) or `setup.exe` (for Windows) in the `Disk1` directory.	Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) Installer for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator
`wls_linux32.bin` for 32-bit Linux systems, `wls_win32.exe` for 32-bit Windows systems, and `wls_generic.jar` for all 64-bit platforms	Oracle WebLogic Server Installer
`soa.zip` After you extract the contents of the `soa.zip` file to a directory, you can see the executable file `runInstaller` (for UNIX) or `setup.exe` (for Windows) in the `Disk1` directory.	Oracle SOA Suite 11*g* Release 1 Installer
`soa_patchset.zip` After you extract the contents of the `soa_patchset.zip` file to a directory, you can see the executable file `runInstaller` (for UNIX) or `setup.exe` (for Windows) in the `Disk1` directory.	Oracle SOA Suite 11*g* Release 1 Patch Set Installer

Table 4–1 (Cont.) Executable Files

File	Description
`webtier.zip` After you extract the contents of the `webtier.zip` file to a directory, you can see the executable file `runInstaller` (for UNIX) or `setup.exe` (for Windows) in the `Disk1` directory.	Oracle Web Tier 11*g* Release 1 (11.1.1) Installer
`webgate.zip` After you extract the contents of the `webgate.zip` file to a directory, you can see the executable file `runInstaller` (for UNIX) or `setup.exe` (for Windows) in the `Disk1` directory.	Oracle HTTP Server 11*g* Webgate for Oracle Access Manager Installer
`rcuHome.zip` After you extract the contents of the `rcuHome.zip` file to a directory, you can see the executable file `rcu` in the `BIN` directory.	Oracle Fusion Middleware Repository Creation Utility (RCU)

4.2.4 Identifying Installation Directories

This topic describes directories you must identify in most Oracle Identity and Access 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 topic.

The common directories described in this section include the following:

- Oracle Middleware Home Location
- Oracle Home Directory
- Oracle Common Directory
- Oracle WebLogic Domain Directory
- WebLogic Server Directory

4.2.4.1 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*.

4.2.4.2 Oracle Home Directory

Enter a name for the Oracle Home directory of the component. 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*.

Note: Avoid using spaces in the directory names, including Oracle Home. Spaces in such directory names are not supported.

4.2.4.3 Oracle Common Directory

The Installer creates this directory under the location you enter in the Oracle Middleware Home Location field.

The Installer installs the Oracle Java Required Files (JRF) required to host the components, in the Oracle Common directory. There can be only one Oracle Common Home within each Oracle Middleware Home. The Oracle Common directory is commonly referred to as *oracle_common*.

4.2.4.4 Oracle WebLogic Domain Directory

A WebLogic domain includes a special WebLogic Server instance called the Administration Server, which is the central point from which you configure and manage all resources in the domain. Usually, you configure a domain to include additional WebLogic Server instances called Managed Servers. You deploy Java components, such as Web applications, EJBs, and Web services, and other resources to the Managed Servers and use the Administration Server for configuration and management purposes only.

Managed Servers in a domain can be grouped together into a cluster.

The directory structure of a domain is separate from the directory structure of the WebLogic Server home. It can reside anywhere; it need not be within the Middleware home directory. A domain is a peer of an Oracle instance.

The Oracle Fusion Middleware Configuration Wizard creates a domain in a directory named *user_projects* under your Middleware Home (*MW_HOME)*.

4.2.4.5 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*.

4.2.5 Determining Port Numbers

If you want to install an Oracle Identity and Access Management 11*g* Release 1 (11.1.1) component against an existing Oracle Identity and Access Management 11*g* Release 1 (11.1.1) component, you may need to identify the ports for the existing component. For example, if you want to install Oracle Identity Manager 11*g* Release 1 (11.1.1) against an existing Oracle Internet Directory 11*g* Release 1 (11.1.1) component, you must identify its port when you install Oracle Identity Manager.

4.2.6 Completing an Installation

This topic explains the steps that are common to completing most Oracle Identity and Access 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. Refer to Performing a Silent Installation for more information.

     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 Installation Complete screen appears.
3. Click **Save** to save the installation summary file. This file contains information about the configuration, such as locations of install directories, that will help you get started with configuration and 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.

4.2.7 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

4.2.8 Optional: Updating the WebLogic Administrator Server User Name in Oracle Enterprise Manager Fusion Middleware Control (OIM Only)

Read this section only if the user name for the WebLogic Administrator for the domain is not **weblogic**. This task is required only if you are using Oracle Identity Manager.

If your WebLogic administrator user name is not **weblogic**, complete the following steps:

1. Ensure that the Oracle Identity Manager Managed server is up and running.
2. Log in to Oracle Enterprise Manager Fusion Middleware Control using your WebLogic Server administrator credentials.
3. Click **Identity and Access** > **oim** > **oim(11.1.1.2.0)**. Right-click and select **System MBean Browser**. The System MBean Browser page is displayed.
4. Under Application Defined MBeans, select `oracle.iam` > `Server:oim_server1` > `Application: oim` > `XMLConfig` > `config` > `>XMLConfig.SOAConfig` > `SOAConfig`.
5. View the attribute username. By default, the value of the attribute is weblogic. Change this value to your WebLogic administrator user name.
6. Click **Apply**. Exit Oracle Enterprise Manager Fusion Middleware Control.
7. On the command line, use the `cd` command to move from your present working directory to the `<IAM_Home>/common/bin` directory. `IAM_Home` is the example *`IDM_Home`* directory for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.
8. Launch the WebLogic Scripting Tool (WLST) interface as follows:

   On UNIX: Run `./wlst.sh` on the command line.

   On Windows: Run `wlst.cmd`.

   At the WLST command prompt (`wls:/offline>`), type the following:

   ```
   connect()
   ```

   You are prompted to enter the WebLogic Administration Server user name, password, and URL. For more information about using the WLST interface, see the topic "Using the WebLogic Scripting Tool" in the guide *Oracle Fusion Middleware Oracle WebLogic Scripting Tool*.

   a. Run the `deleteCred` WLST command:

      ```
      deleteCred(map="oim", key="SOAAdminPassword");
      ```

   b. Run the `createCred` WLST command, and replace the `ADMIN_PASSWORD` with your WebLogic administrator password:

      ```
      createCred(map="oim", key="SOAAdminPassword",
      user="xelsysadm",password="<ADMIN_PASSWORD>");
      ```

   c. Run the following WLST command to verify the values:

      ```
      listCred(map="oim", key="SOAAdminPassword");
      ```

   d. Type `exit()` to exit the WLST command shell.
9. Open the Oracle Identity Manager Administration Console, and log in as user `xelsysadm`.
10. Create a new user for the user name of your WebLogic administrator.

11. Search for the **Administrators** role. Open the role details, and click the **Members** tab.
12. Remove all the existing members of the **Administrators** role.
13. Add the newly created user (the one with your WebLogic administrator user name) as a member of the **Administrators** role.
14. Restart Oracle Identity Manager Managed Server, as described in Starting the Stack.

5

Evaluating Single Sign-On Installations

This chapter includes the following topics:

- Important Notes for Oracle Portal 11g Installations
- Before You Begin
- Single Sign-On Options
- Single Sign-On Preparation Considerations
- Oracle Single Sign-On Known Limitations
- Recommendations

> **Note:** Existing Oracle Single Sign-On 10*g* users are encouraged to upgrade to Oracle Access Manager 11*g* for a more advanced single sign-on solution.

5.1 Important Notes for Oracle Portal 11*g* Installations

New installations of Oracle Portal 11*g* require Oracle Single Sign-On 10*g* during the installation process. Such Oracle Portal 11*g* users should use their existing Oracle Single Sign-On 10*g* installation. If you must perform a new installation of Single Sign-On 10*g*, consider hardware issues, system corruption, and any unforeseen issues. Oracle recommends that you follow the system framework supported by 10*g* for a new Single Sign-On 10*g* installation.

After installing Oracle Portal 11*g*, you may upgrade Oracle Single Sign-On 10*g* to Oracle Access Manager 11*g*. For more information, see *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*.

5.2 Before You Begin

Before performing any upgrade or installation, you should read the following documents to ensure that your Oracle Fusion Middleware environment meets the minimum installation requirements for the products you are installing.

- Review System Requirements and Specifications
- Review Certification Information
- Review Interoperability and Compatibility Information

5.2.1 Review System Requirements and Specifications

Oracle Fusion Middleware System Requirements and Specifications document is available at:

http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html

This document covers information such as hardware and software requirements, database schema requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches.

5.2.2 Review Certification Information

Oracle Fusion Middleware Supported System Configurations document is available at:

http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html

This document contains certification information related to supported 32-bit and 64-bit operating systems, databases, web servers, LDAP servers, adapters, IPv6, JDKs, and third-party products.

5.2.3 Review Interoperability and Compatibility Information

For interoperability and compatibility issues that may arise when installing, refer to *Oracle Fusion Middleware Interoperability and Compatibility Guide*.

This document contains important information regarding the ability of Oracle Fusion Middleware products to function with previous versions of other Oracle Fusion Middleware, Oracle, or third-party products. This information is applicable to both new Oracle Fusion Middleware users and existing users who are upgrading their existing environment.

5.3 Single Sign-On Options

Following are the options available for a single sign-on solution:

- Use an existing Oracle Single Sign-On 10*g* 10.1.2.3.
- Use an existing Oracle Single Sign-On 10*g* 10.1.4.3.
- Install a new Oracle Single Sign-On 10*g* 10.1.2.3 as part of Oracle Identity Management 10*g* 10.1.2.3. For more information, refer to the following link:

  http://download.oracle.com/docs/cd/B14099_19/idmanage.htm
- Install a new Oracle Single Sign-On 10*g* 10.1.4.3 as part of Oracle Identity Management 10*g* 10.1.4.3. For more information, refer to the following link:

  http://download.oracle.com/docs/cd/B28196_01/idmanage.htm
- Use Oracle Access Manager 11*g*. For more information on installing and configuring Oracle Access Manager 11*g* Release 1 (11.1.1), see Installing Oracle Identity and Access Management (11.1.1.5.0) and Configuring Oracle Access Manager.

5.4 Single Sign-On Preparation Considerations

Consider the following when preparing for a single sign-on solution:

- What Oracle Fusion Middleware products will be installed or configured to use a single sign-on solution?
- Will the single sign-on solution be configured during installation or as a post-installation step?
- If you have an existing Oracle Single Sign-On 10*g*, when will this installation be upgraded to Oracle Access Manager 11*g*?
- Oracle Access Manager 11*g* is an additional installation after installing Oracle Internet Directory 11*g*.

5.5 Oracle Single Sign-On Known Limitations

Following are the Oracle Single Sign-On known limitations:

- New installations of Oracle Portal 11*g* require Oracle Single Sign-On 10*g* (10.1.2.3 or 10.1.4.3) during the configuration phase.
- Premier support ends for Oracle Single Sign-On 10*g* (10.1.2.3) and Oracle Single Sign-On 10*g* (10.1.4.3) soon. For complete information, refer to the Oracle Lifetime Support Policy document available at:

  http://www.oracle.com/us/support/library/lifetime-support-middleware-069163.pdf
- Premier support has been extended until December 2012 for the use of Oracle Single Sign-On 10*g* (10.1.4.3) with existing Oracle Portal, Forms, Reports, and Discoverer 11*g* environments, thereby enabling you to prepare for Oracle Access Manager 11*g* upgrade.
- New installations of Oracle Single Sign-On 10*g* (10.1.2.3) are not supported against the 11*g* environment.
- New installations of Oracle Single Sign-On 10*g* (10.1.4.3) have been supported with the 11*g* environment through version 11.1.1.4.

5.6 Recommendations

Oracle recommends that you carefully consider the following requirements and options when choosing a single sign-on solution:

- If an Oracle Single Sign-On 10*g* with Delegated Administration Services environment is necessary, use an existing Oracle Single Sign-On 10*g* with Delegated Administration Services environment.
- If a new Oracle Single Sign-On 10*g* environment must be installed, install under previously supported framework. For example, a full Oracle Identity Management 10*g* infrastructure, with the intention of upgrading to Oracle Access Manager 11*g* in near future and decommission rest of 10*g*.
- If you are not using Oracle Portal, install and configure Oracle Fusion Middleware products with Oracle Access Manager 11*g*.
- If you are installing Oracle Portal 11*g* for upgrade purposes, use an existing Oracle Single Sign-On 10*g* connection during the installation, and upgrade to Oracle Access Manager 11*g* at a later time. For more information on upgrading to Oracle Access Manager 11*g*, see *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*.

If you are using Delegated Administration Services, ensure that you run it on Oracle Application Server Containers for J2EE. Move from Oracle Single Sign-On 10*g* to Oracle Access Manager 11*g* on Oracle WebLogic Server.

- New Oracle Forms and Oracle Reports installations should use Oracle Forms and Oracle Reports Release 2 (11.1.2). This installation has an option to install with Oracle Single Sign-On 10*g* or Oracle Access Manager 11*g*. You may upgrade Oracle Single Sign-On 10*g* to Oracle Access Manager 11*g* before or after this installation. For more information, see *Oracle Fusion Middleware Installation Guide for Oracle Forms and Reports*.
- If you are installing only Oracle Discoverer, do not install the Oracle Single Sign-On solution during Oracle Discoverer installation. Configure Oracle Access Manager 11*g* after the installation.

Part II

Installing and Configuring Oracle Identity Management (11.1.1.6.0)

Part II provides information about installing and configuring the following Oracle Identity Management products:

- Oracle Internet Directory (OID)
- Oracle Virtual Directory (OVD)
- Oracle Directory Services Manager (ODSM)
- Oracle Directory Integration Platform (ODIP)
- Oracle Identity Federation (OIF)

Part II contains the following chapters:

6

Installing and Configuring Oracle Identity Management (11.1.1.6.0)

This chapter includes the following topics:

- Important Notes Before You Begin
- Installing Oracle Identity Management Using "Install and Configure" Option
- Configuring Oracle Identity Management for "Install Software - Do Not Configure" Option

6.1 Important Notes Before You Begin

Before you start installing and configuring Oracle Identity Management products, keep the following points in mind:

- This chapter provides information for installing and configuring Oracle Identity Management (11.1.1.6.0) for new users. If you are an existing Oracle Identity Management 11*g* user, refer to "Applying the Latest Oracle Fusion Middleware Patch Set" in the *Oracle Fusion Middleware Patching Guide*.

  For complete information about patching your Oracle Fusion Middleware 11*g* to the latest release, refer to the *Oracle Fusion Middleware Patching Guide*.

- The Select Installation Type screen in the Installer presents two options: **Install and Configure** and **Install Software - Do Not Configure**. For more information about these options, see Installation Types: "Install Software - Do Not Configure" vs. "Install and Configure".

6.2 Installing Oracle Identity Management Using "Install and Configure" Option

Follow the instructions in this section to install and configure the latest Oracle Identity Management software.

Installing and configuring the latest version of Oracle Identity Management 11*g* components involves the following steps:

1. Obtaining the Oracle Fusion Middleware Software
2. Installing Oracle Database
3. Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU)

4. Required Installation Privileges for Oracle WebLogic Server and Oracle Identity Management on Windows Operating Systems
5. Installing Oracle WebLogic Server 11g Release 1 (10.3.6) and Creating the Middleware Home
6. Creating the Inventory Directory (UNIX Only)
7. Starting an Installation
8. Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software

6.2.1 Obtaining the Oracle Fusion Middleware Software

For installing Oracle Identity Management, you must obtain the following software:

- Oracle WebLogic Server 11*g* Release 1 (10.3.6)
- Oracle Database
- Oracle Repository Creation Utility
- Oracle Identity Management Suite

For more information on obtaining Oracle Fusion Middleware 11*g* software, see *Oracle Fusion Middleware Download, Installation, and Configuration ReadMe* available at:

`http://download.oracle.com/docs/cd/E23104_01/download_readme.htm`

Note: Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) installer is platform specific.

To install Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) on a 32-bit operating system, you must use the 32-bit installer and to install Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) on a 64-bit operating system, you must use the 64-bit installer.

6.2.2 Installing Oracle Database

You must install an Oracle Database before you can install some Oracle Identity Management components, such as:

- Oracle Internet Directory
- Oracle Identity Federation, if you want to use an RDBMS data store

For the latest information about supported databases, visit the following Web site:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html`

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.

The database must also be compatible with Oracle Fusion Middleware Repository Creation Utility (RCU), which is used to create the schemas that Oracle Identity Management components require. For information about RCU requirements, refer to the system requirements document at the following Web site:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`

Note: Ensure that the following database parameters are set:

- `'aq_tm_processes' >= 1`
- `'db_cache_size' >= '150994944'`
- `'java_pool_size'>= '125829120'`
- `'shared_pool_size' >= '183500800'`
- `'open_cursors' >= '500'`

If you are installing a new database, be sure to configure your database to use AL32UTF8 character set encoding. If your database does not use the AL32UTF8 character set, you will see the following warning when running RCU: "The database you are connecting is with non-AL32UTF8 character set. Oracle strongly recommends using AL32UTF8 as the database character set." You can ignore this warning and continue using RCU.

6.2.3 Creating Database Schema Using the Oracle Fusion Middleware 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 Oracle Fusion Middleware 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.

  If you are installing Oracle Internet Directory and your database is not configured as per the requirements in the fusion middleware requirements and prerequisites doc, you would see the following warnings: "Recommended value for Database initialization parameter processes is 500. Choose YES to continue or NO to go back to the same screen and specify different database details." To fix this one can click No and apply the requisite configuration mentioned in the fusion middleware requirements and prerequisites doc - section 8 Repository Creation Utility (RCU) Requirements which can be accessed from the following link:

  http://download.oracle.com/docs/html/E18558_01/fusion_requirements.htm#CHDJGECA

- 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 11*g* 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/technetwork/index.html

> **Note:** RCU is available only on Linux x86 and Windows x86 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 the Oracle Identity Management component you are installing—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.

6.2.4 Required Installation Privileges for Oracle WebLogic Server and Oracle Identity Management on Windows Operating Systems

In order to install Oracle WebLogic Server and Oracle Identity Management on a Microsoft Windows Vista or newer operating system, the operating system user must have Windows "Administrator" privileges.

Even when a user with "Administrator" privileges logs in to the machine, the administrative role is not granted for default tasks. In order to access the Oracle home files and folders, the user must launch the command prompt or Windows Explorer as "Administrator" explicitly, even if the user is logged in as the administrator.

To do so, you can do either one of the following:

- Find the Command Prompt icon (for example, from the Start menu or from the Desktop), right-click on the icon, and select **Run as Administrator**. Then you can run the executables (for example, the WebLogic Server installer) from the command line.
- Start Windows Explorer, find the executable you want to run (for example, `rcu.bat` for RCU, `config.bat` for the Configuration Wizard, or `setup.exe` for the installer), right-click on the executable, and select **Run as Administrator**.

6.2.5 Installing Oracle WebLogic Server 11*g* Release 1 (10.3.6) and Creating the Middleware Home

Oracle Identity Management requires Oracle WebLogic Server and a Middleware home directory.

For more information, see "Install Oracle WebLogic Server" in *Oracle Fusion Middleware Installation Planning Guide*. In addition, see *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* for complete information about installing Oracle WebLogic Server.

For information on installing the Oracle WebLogic Server, see "Preparing for Installation" and "Running the Installation Program in Graphical Mode" in the *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

Notes:

- If you are installing Oracle Internet Directory without an Oracle WebLogic administration domain, you do not need to install Oracle WebLogic.
- The same user who installed Oracle WebLogic Server must install Oracle Identity Management.
- Do not log in to the Oracle WebLogic Server Administration Console during Oracle Identity Management installation.
- If you want to configure the minimum amount for Oracle WebLogic Server's maximum heap size, see Optional: Configuring the Minimum Amount for Oracle WebLogic Server's Maximum Heap Size.

6.2.6 Creating the Inventory Directory (UNIX Only)

If you are installing on a UNIX system, and if this is the first time any Oracle product is being installed on your system with the Oracle Universal Installer, you will be asked to provide the location of an inventory directory. This is where the installer will set up subdirectories and maintain inventory data for each Oracle product that is installed on this system.

Follow the instructions in Table 6–1 to configure the inventory directory information:

Table 6–1 Inventory Directory and Group Screens

Screen	Description
Specify Inventory Directory	Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory. Click **OK** to continue.
Inventory Location Confirmation	Run the createCentralInventory.sh script as root. Click **OK** to continue.

Note: If you do not want to use the central inventory, you can create the `oraInst.loc` file, add the custom location of the inventory, and run the runInstaller by using the following command:

```
runInstaller -invPtrLoc <full location to
oraInst.loc>
```

6.2.7 Starting an Installation

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

Note: You must be logged in to the UNIX operating system as a non-root user to start the Installer.

If you are using Sun JDK, start the Installer by executing one of the following commands:

UNIX: `<full path to the runInstaller directory>/runInstaller`

Windows: `<full path to the setup.exe directory>\ setup.exe`

If you are using Oracle JRockit JDK, start the Installer by executing one of the following commands:

UNIX: `<full path to the runInstaller directory>/runInstaller -jreLoc <Middleware Home>/jrockit_1.6.0_24/jre`

Windows: `<full path to the setup.exe directory>\ setup.exe -jreLoc <Middleware Home>\jrockit_1.6.0_24\jre`

Notes:

- If you are using Oracle JRockit JDK, the installer prompts you to enter the absolute path of the JDK that is installed on your system. When you install Oracle WebLogic Server, the `jrockit_1.6.0_24` directory is created under your Middleware Home. You must enter the absolute path of the JRE folder located in this JDK when launching the installer. For example, on Windows, if the JRE is located in `D:\oracle\Middleware\jrockit_1.6.0_24`, then launch the installer from the command prompt as follows:

  ```
  D:\setup.exe -jreLoc D:\oracle\Middleware\jrockit_
  1.6.0_24\jre
  ```

- If you do not specify the `-jreLoc` option on the command line when using the Oracle JRockit JDK, the following warning message is displayed:

  ```
  -XX:MaxPermSize=512m is not a valid VM option.
  Ignoring
  ```

  This warning message does not affect the installation. You can continue with the installation.

- On 64 bit platforms, when you install Oracle WebLogic Server using the generic jar file, the `jrockit_1.6.0_24` directory will not be created under your Middleware Home. You must enter the absolute path of the JRE folder from where your JDK is located.

- On 64 bit platforms, the `MaxPermSize` should be set to `512M`. Before launching the Installer, you can set the MaxPermSize in the environment as follows:

  ```
  export _JAVA_OPTIONS=-XX:MaxPermSize=512m
  ```

  If the MaxPermSize is not set to 512M, you will see the following error message:

  ```
  java.lang.OutOfMemoryError: PermGen space
  ```

- If you are using Sun JDK on 64 bit platforms, note that JDK1.7 is not supported.

6.2.8 Installing and Configuring Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) Software

Follow the instructions in Table 6–2 to install and configure Oracle Identity Management 11.1.1.6.0.

If you need additional help with any of the installation screens, click **Help** to access the online help.

Table 6–2 Installation and Configuration Flow for Install and Configure Option

No.	Screen	When Does This Screen Appear?	Description and Action Required
1	Welcome	Always	Click **Next** to continue.
2	Install Software Updates	Always	Specify any software updates to install before you install Oracle Identity Management. To get updates from My Oracle Support, you can select **Search My Oracle Support for Updates**, specify a user name and password, and then click **Search for Updates**. Before you search, you can click **Proxy Settings** to change the settings for the proxy server and **Test Connection** to test the credentials. To get updates that you have saved to your computer, you can select **Search Local Directory for Updates**, specify a directory, and then click **Search for Updates**. If you do not want to update any software, select **Skip Software Updates**, and then click **Next** to continue the installation.
3	Select Installation Type	Always	Select **Install and Configure** option. **Notes:** ■ If you choose **Install Software - Do Not Configure** option, you can configure them at a later time using the Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) Configuration Wizard. To start the Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) Configuration Wizard, execute the *ORACLE_HOME*/bin/config.sh script (config.bat on Windows). For more information, see Configuring Oracle Identity Management for "Install Software - Do Not Configure" Option. ■ If you want to configure Oracle Directory Integration Platform with Oracle Unified Directory (OUD), or Oracle Directory Integration Platform with Oracle Directory Server Enterprise Edition (ODSEE), you must select **Install Software - Do Not Configure** option while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0). After Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) installation is complete, depending on the component you choose to configure with Oracle Directory Integration Platform, refer to the following sections: ■ Configuring ODIP with Oracle Unified Directory (OUD) ■ Configuring ODIP with Oracle Directory Server Enterprise Edition (ODSEE) Click **Next** to continue.
4	Prerequisite Checks	Always	Ensure that all the prerequisites are met. Click **Next** to continue.

Table 6–2 (Cont.) Installation and Configuration Flow for Install and Configure Option

No.	Screen	When Does This Screen Appear?	Description and Action Required
5	Select Domain	This screen is displayed if you select **Install and Configure** option.	Select one of the following options: ■ **Create New Domain**: Enter the User Name, User Password, and Domain Name for the domain you want to create. Depending on the component you choose, refer to the following sections: ■ OID with ODSM and Fusion Middleware Control in a New WebLogic Domain ■ OID with ODIP, ODSM, and Fusion Middleware Control in a New WebLogic Domain ■ OID and OVD with ODSM in a New WebLogic Domain ■ OVD with ODSM and Fusion Middleware Control in a New WebLogic Domain ■ Only ODSM in a New WebLogic Domain ■ ODIP with Fusion Middleware Control in a New WebLogic Domain ■ Advanced Example: Configuring OIF with OID in a New WebLogic Domain for LDAP Authentication, User Store, and Federation Store ■ **Extend Existing Domain**: Enter the Host Name, Port, User Name, and User Password for the existing domain you want to extend into. Depending on the component you choose, refer to the following sections: ■ Only OID in an Existing WebLogic Domain ■ Only OVD in an Existing WebLogic Domain ■ Only ODSM in an Existing WebLogic Domain ■ Only ODIP in an Existing WebLogic Domain

Table 6–2 (Cont.) Installation and Configuration Flow for Install and Configure Option

No.	Screen	When Does This Screen Appear?	Description and Action Required
6	Specify Installation Location	Always	Specify the Oracle Middleware Home location, Oracle Home Directory, WebLogic Server Directory, Oracle Instance Location, and Oracle Instance Name. For more information about these directories, see "Understanding Oracle Fusion Middleware Concepts and Directory Structure" in *Oracle Fusion Middleware Installation Planning Guide*. Click **Next** to continue.
7	Specify Security Updates	Always	This screen allows you to decide how you want to be notified about security issues: ■ If you want to be notified about security issues through E-mail, enter your E-mail address in the E-mail 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. You will see the following message: You have not provided an E-mail address. Do you wish to remain uninformed of critical security issues in your configuration? Click **Yes** to continue. Click **Next** to continue.

Table 6–2 (Cont.) Installation and Configuration Flow for Install and Configure Option

No.	Screen	When Does This Screen Appear?	Description and Action Required
8	Configure Components	This screen is displayed if you select **Install and Configure** option.	■ Select the Oracle Identity Management components that you wish to install and configure. ■ For Create Domain installations, the Enterprise Manager checkbox under Management Components is automatically selected. Oracle Enterprise Manager Fusion Middleware Control Console (Fusion Middleware Control Console) will be installed and configured; you cannot deselect it. It is implicitly selected for configuration. ■ If you select No Domain Flow, only Oracle Internet Directory and Oracle Virtual Directory will be available for configuration. ■ In installations in which you select to extend the Domain, Enterprise Manager (Fusion Middleware Control Console) is not available as a selectable component. In the extend the domain installation only Oracle Directory Services Manager is available as a selection under the Management Components area. ■ Oracle Directory Services Manager can be installed and configured as a stand-alone component. ■ If you select to install Oracle Internet Directory or Oracle Virtual Directory in the create domain installation flow, Oracle Directory Services Manager is automatically selected and cannot be deselected. For extend domain or expand cluster, the Oracle Directory Services Manager can be deselected by you if you select to install Oracle Internet Directory or Oracle Virtual Directory. ■ The Clustered selection field appears and is available if you at least one Java component selected for installation and configuration. Only managed servers and the applications that are deployed to them can be clustered. Enterprise Manager (Fusion Middleware Control Console) is not clustered during the installation because it is deployed to the administrative server. ■ If you select to expand a cluster installation, at least one cluster should be present when you select this option. ■ If you select to expand a cluster the Java EE components which are configured as part of the cluster will be listed. Click **Next** to continue.
9	Configure Ports	This screen is displayed if you select **Install and Configure** option.	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** to continue.

Table 6–2 (Cont.) Installation and Configuration Flow for Install and Configure Option

No.	Screen	When Does This Screen Appear?	Description and Action Required
10	Specify Schema Database	This screen is displayed if you select **Install and Configure** option and choose to configure Oracle Internet Directory.	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 now using the Oracle Fusion Middleware Repository Creation Utility. **To use an existing schema:** 1. Select **Use Existing Schema**. 2. Enter the database connection information in the Connect String field. The connection string must be in the form of `hostname:port:servicename`. For Oracle Real Application Clusters (RAC), the connection string must be in the form of `hostname1:port1:instance1^hostname2:port2:instance2@servicename`. 3. Enter the password for the existing ODS schema in the Password field. 4. Click **Next** to continue. **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**. **To create a new schema:** 1. Select **Create Schema**. 2. Enter the database connection information in the Connect String field. The connection string must be in the form of `hostname:port:servicename`. For Oracle Real Application Clusters (RAC), the connection string must be in the form of `hostname1:port1:instance1^hostname2:port2:instance2@servicename`. 3. Enter the name of the database user in the User Name field. The user you identify must have DBA privileges. **Note:** If you are using Oracle Database 11*g* Release 2 (11.2) or higher version, the database user should be only 'SYS'. 4. Enter the password for the database user in the Password field. 5. Click **Next**. The Enter OID Passwords screen appears. 6. 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. 7. 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. 8. Click **Next** to continue.

Table 6–2 (Cont.) Installation and Configuration Flow for Install and Configure Option

No.	Screen	When Does This Screen Appear?	Description and Action Required
11	Specify Oracle Virtual Directory Information	This screen is displayed if you select **Install and Configure** option and choose to configure Oracle Virtual Directory.	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** to continue.
12	Specify OID Administrator Password	This screen is displayed if you select **Install and Configure** option and choose to configure Oracle Internet Directory.	Enter the password for the Oracle Internet Directory administrator. Click **Next** to continue.

Table 6–2 (Cont.) Installation and Configuration Flow for Install and Configure Option

No.	Screen	When Does This Screen Appear?	Description and Action Required
13	Select Oracle Identity Federation Configuration Type	This screen is displayed if you select **Install and Configure** option and choose to configure Oracle Identity Federation.	Select one of the following configuration types: ■ **Basic**: You do not need to choose the datastore and authentication engine types or specify the connection details for Oracle Identity Federation. For more information, see Performing Basic Oracle Identity Federation Configurations ■ **Advanced**: This option will enable you to choose the configuration types for the datastores, the authentication engine, and specify the connection details datastores and authentication engine. For more information, see Performing Advanced Oracle Identity Federation Configurations **Note**: The procedure in this table shows the screens that appears when the **Basic** option is selected. If you want to select **Advanced** option, refer to the following for complete details: ■ Performing Advanced Oracle Identity Federation Configurations ■ Advanced Example: Configuring OIF with OID in a New WebLogic Domain for LDAP Authentication, User Store, and Federation Store ■ Advanced Example: Configuring OIF in a New or Existing WebLogic Domain with RDBMS Data Stores Click **Next** to continue.

Table 6–2 (Cont.) Installation and Configuration Flow for Install and Configure Option

No.	Screen	When Does This Screen Appear?	Description and Action Required
14	Specify Oracle Identity Federation Details	This screen is displayed if you select **Install and Configure** option and choose to configure Oracle Identity Federation.	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 `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** to continue.
15	Installation Summary	Always	Verify the information on this screen. If you want to change any options, you can return to a previous screen by clicking a link in the navigation tree on the left or by clicking **Back** until you get to the screen. After you edit the required options, you can continue the installation from the previous screen. Click **Save** if you want to save a response file. You will be prompted for a name and location for the response file, which will contain information specific to your installation. After the installer creates the response file, you can use it exactly as is to replicate the installation on other systems, or you can modify the response file in a text editor. Click **Install** to begin the installation.
16	Installation Progress	Always	If you are installing on a UNIX system, you may be asked to run the *ORACLE_HOME*`/oracleRoot.sh` script to set up the proper file and directory permissions. For more information, see Executing the oracleRoot.sh Script on UNIX Platforms. Click **Next** to continue.
17	Configuration Progress	This screen is displayed if you select **Install and Configure** option.	Click **Next** to continue.
18	Installation Complete	Always	Click **Save** to save the installation configuration, and then click **Finish** to exit the installer.

Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) is installed and configured if you selected **Install and Configure** option in the Select Installation Type screen. By default `Oracle_IDM1` is created as the Oracle Identity Management Oracle home directory. This home directory is also referred to as `IDM_Home` in this guide.

To locate the installation log files, see Locating Installation Log Files.

6.3 Configuring Oracle Identity Management for "Install Software - Do Not Configure" Option

If you selected **Install Software - Do Not Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard to configure the following components:

- Oracle Internet Directory (OID)
- Oracle Virtual Directory (OVD)
- Oracle Directory Services Manager (ODSM)
- Oracle Directory Integration Platform (ODIP)
- Oracle Identity Federation (OIF)

Run the Oracle Identity Management 11*g* Configuration Wizard as follows:

On UNIX systems:

```
ORACLE_IDM1/bin/config.sh
```

On Windows systems:

```
ORACLE_IDM1\bin\config.bat
```

The Oracle Identity Management 11*g* Configuration Wizard is displayed. You can use this wizard to configure your component in a new domain, in an existing domain, or without a domain. Note that you can install and configure only Oracle Internet Directory and Oracle Virtual Directory without a domain. For more information, see the following topics:

- Only OID in an Existing WebLogic Domain
- Only OID Without a WebLogic Domain
- OID with ODSM and Fusion Middleware Control in a New WebLogic Domain
- OID with ODIP, ODSM, and Fusion Middleware Control in a New WebLogic Domain
- OVD with ODSM and Fusion Middleware Control in a New WebLogic Domain
- Only OVD in an Existing WebLogic Domain
- Only OVD Without a WebLogic Domain
- Performing Basic Oracle Identity Federation Configurations
- Performing Advanced Oracle Identity Federation Configurations
- ODIP with Fusion Middleware Control in a New WebLogic Domain
- Only ODIP in an Existing WebLogic Domain
- Configuring ODIP when OID is Running in SSL Mode 2 - Server Only Authentication

7

Configuring Oracle Internet Directory

This chapter explains how to configure Oracle Internet Directory (OID).

This chapter discusses the following topics:

- OID with ODSM and Fusion Middleware Control in a New WebLogic Domain
- OID with ODIP, ODSM, and Fusion Middleware Control in a New WebLogic Domain
- OID and OVD with ODSM in a New WebLogic Domain
- Only OID in an Existing WebLogic Domain
- Only OID Without a WebLogic Domain
- Verifying OID Installation
- Getting Started with OID After Installation

Table 7–1 Oracle Internet Directory Configuration Scenarios

Scenario	Description
OID with ODSM and Fusion Middleware Control in a New WebLogic Domain	The configuration described in this topic is appropriate for environments that have *all* of the following conditions: ■ You want to manage Oracle Internet Directory using Fusion Middleware Control. ■ You want Oracle Internet Directory to be in a WebLogic administration domain. ■ There is no WebLogic Administration Server managing other 11*g* Release 1 (11.1.1) Oracle Directory Services components. ■ You want to install Oracle Internet Directory and a WebLogic Administration Server colocated on the same host.
OID with ODIP, ODSM, and Fusion Middleware Control in a New WebLogic Domain	The 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 11*g* Release 1 (11.1.1) Oracle Directory Services components.

Table 7–1 (Cont.) Oracle Internet Directory Configuration Scenarios

Scenario	Description
OID and OVD with ODSM in a New WebLogic Domain	The configuration described in this topic is appropriate for environments that have the following conditions: ■ A new WebLogic Administration Server is necessary to manage Oracle Internet Directory and Oracle Virtual Directory components. ■ You want to install Oracle Internet Directory and Oracle Virtual Directory together in the same WebLogic domain, which can be extended at a later time to add new Oracle Identity Management components.
Only OID in an Existing WebLogic Domain	The configuration described in this topic is appropriate for environments that have *both* of the following conditions: ■ A WebLogic Administration Server is available to manage 11*g* Release 1 (11.1.1) Oracle Directory Services components and you want Oracle Internet Directory to join that domain. ■ You want to install Oracle Internet Directory separately from the WebLogic Administration Server.
Only OID Without a WebLogic Domain	The 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.

7.1 OID with ODSM and Fusion Middleware Control in a New WebLogic Domain

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

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

7.1.1 Appropriate Deployment Environment

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

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

7.1.2 Components Deployed

Performing the configuration in this section deploys the following components:

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

7.1.3 Dependencies

The 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.

7.1.4 Procedure

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

Note: If you selected **Install and Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

If you selected **Install Software - Do Not Configure** option in the **Select Installation Type** screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The **Select Domain** screen is displayed.

---

1. 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.
2. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.
3. 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.

4. Select **Oracle Internet 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.

5. 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.

6. 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 now using the Oracle Fusion Middleware Repository Creation Utility or follow the To create a new schema section mentioned below.

Refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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 7 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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.

Note: If you are using Oracle Database 11*g* Release 2 (11.2) or higher version, the database user should be only 'SYS'.

---

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.

7. Enter the following information for Oracle Internet Directory:

- Realm: Enter the location for your realm. For example: `dc=mycompany,dc=com`
- Administrator Password: Enter the password for the Oracle Internet Directory administrator.
- Confirm Password: Enter the administrator password again.

Click **Next**.

8. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.

9. The Configuration Progress screen appears. Click **Next** to continue.

10. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

Note: You may see the following error message in `$Instance_home/diagnostics/logs/OID/oid1/**` log files after configuring Oracle Internet Directory:

```
"2010-02-01T07:27:42+00:00] [OID] [NOTIFICATION:16]
[] [OIDLDAPD] [host:stadp47] [pid: 26444] [tid: 0]
Main:: FATAL * gslsmaiaInitAudCtx * Audit struct
initialization failed. Audit error code: 62005"
```

You can ignore this error message.

7.2 OID with ODIP, ODSM, and Fusion Middleware Control in a New WebLogic Domain

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

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

7.2.1 Appropriate Deployment Environment

The 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 11*g* Release 1 (11.1.1) Oracle Directory Services components.

7.2.2 Components Deployed

Performing the 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

7.2.3 Dependencies

The 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.

7.2.4 Procedure

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

1. Ensure that Oracle Internet Directory, Oracle Directory Integration Platform, and Oracle Directory Services Manager are installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

   Note: If you selected **Install and Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

   If you selected **Install Software - Do Not Configure** option in the **Select Installation Type** screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The **Select Domain** screen is displayed.

2. 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.

3. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.

4. 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.

5. 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.

6. 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.

7. 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 now using the Oracle Fusion Middleware Repository Creation Utility or follow the To create a new schema section mentioned below.

   Refer to "Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU)" 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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 8 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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.

Note: If you are using Oracle Database 11*g* Release 2 (11.2) or higher version, the database user should be only 'SYS'.

---

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.

8. Enter the following information for Oracle Internet Directory:

- Realm: Enter the location for your realm. For example: `dc=mycompany,dc=com`
- Administrator Password: Enter the password for the Oracle Internet Directory administrator.
- Confirm Password: Enter the administrator password again.

Click **Next**.

9. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.

10. The Configuration Progress screen appears. Click **Next** to continue.

11. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

Note: You may see the following error message in `$Instance_home/diagnostics/logs/OID/oid1/**` log files after configuring Oracle Internet Directory:

```
"2010-02-01T07:27:42+00:00] [OID] [NOTIFICATION:16]
[] [OIDLDAPD] [host:stadp47] [pid: 26444] [tid: 0]
Main:: FATAL * gslsmaiaInitAudCtx * Audit struct
initialization failed. Audit error code: 62005"
```

You can ignore this error message.

7.3 OID and OVD with ODSM in a New WebLogic Domain

This topic describes how to configure Oracle Internet Directory (OID) and Oracle Virtual Directory (OVD) with Oracle Directory Services Manager (ODSM) in a new WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment

- Components Deployed
- Dependencies
- Procedure

7.3.1 Appropriate Deployment Environment

The configuration described in this topic is appropriate for environments that have the following conditions:

- A new WebLogic Administration Server is necessary to manage Oracle Internet Directory and Oracle Virtual Directory components.
- You want to install Oracle Internet Directory and Oracle Virtual Directory together in the same WebLogic domain, which can be extended at a later time to add new Oracle Identity Management components.

7.3.2 Components Deployed

Performing the configuration in this section deploys the following:

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

7.3.3 Dependencies

The 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.

7.3.4 Procedure

Perform the following steps to configure Oracle Internet Directory and Oracle Virtual Directory in a new domain:

1. Ensure that Oracle Internet Directory and Oracle Virtual Directory are installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

Note: If you selected **Install and Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

If you selected **Install Software - Do Not Configure** option in the **Select Installation Type** screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The **Select Domain** screen is displayed.

2. 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.
3. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories.

   After you enter information for each field, click **Next.** The Specify Security Updates screen appears.
4. 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.
5. Select **Oracle Internet Directory** and **Oracle Virtual Directory**. The **Oracle Directory Services Manager** and **Oracle Fusion Middleware Control** will be automatically selected.

   Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
6. 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.

7. 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 Specify Schema Database screen is displayed.

8. 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 now using the Oracle Fusion Middleware Repository Creation Utility or follow the To create a new schema section mentioned below.

Refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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 8 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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.

Note: If you are using Oracle Database 11*g* Release 2 (11.2) or higher version, the database user should be only 'SYS'.

---

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.

9. Enter the following information for Oracle Internet Directory:

- Realm: Enter the location for your realm. For example: `dc=mycompany,dc=com`
- Administrator Password: Enter the password for the Oracle Internet Directory administrator.
- Confirm Password: Enter the administrator password again.

Click **Next**.

10. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.

11. The Configuration Progress screen appears. Click **Next** to continue.

12. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

7.4 Only OID in an Existing WebLogic Domain

This topic describes how to configure only Oracle Internet Directory (OID) in an existing WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

7.4.1 Appropriate Deployment Environment

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

- A WebLogic Administration Server is available to manage 11*g* Release 1 (11.1.1) Oracle Directory Services components and you want Oracle Internet Directory to join that domain.
- You want to install Oracle Internet Directory separately from the WebLogic Administration Server.

7.4.2 Components Deployed

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

7.4.3 Dependencies

The 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.

7.4.4 Procedure

Perform the following steps to configure only Oracle Internet Directory in an existing domain:

1. Ensure that Oracle Internet Directory is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

   Note: If you selected **Install and Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

   If you selected **Install Software - Do Not Configure** option in the **Select Installation Type** screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The **Select Domain** screen is displayed.

   ---

2. On the Select Domain screen, select **Extend Existing Domain** and enter the following information:
   - Enter the name of the host that contains the domain in the Host Name field.
   - Enter the Oracle WebLogic Server listen port in the Port field.

- Enter the user name for the domain in the User Name field.
- Enter the password for the domain user in the User Password field.

Click **Next**. The Specify Installation Location screen appears.

3. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories.

> **Note:** To install Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home, Oracle Middleware Home, and Oracle Home directory in the domain must have identical directory paths and names.

After you enter information for each field, click **Next.** The Specify Security Updates screen appears.

4. 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.
5. Select only **Oracle Internet Directory**. Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
6. 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.
7. 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 now using the Oracle Fusion Middleware Repository Creation Utility or follow the To create a new schema section mentioned below.
>
> Refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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 8 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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.

Note: If you are using Oracle Database 11*g* Release 2 (11.2) or higher version, the database user should be only 'SYS'.

---

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.

8. Enter the following information for Oracle Internet Directory:

- Realm: Enter the location for your realm. For example: `dc=mycompany,dc=com`
- Administrator Password: Enter the password for the Oracle Internet Directory administrator.
- Confirm Password: Enter the administrator password again.

Click **Next**.

9. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
10. The Configuration Progress screen appears. Click **Next** to continue.
11. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

Note: You may see the following error message in `$Instance_home/diagnostics/logs/OID/oid1/**` log files after configuring Oracle Internet Directory:

```
"2010-02-01T07:27:42+00:00] [OID] [NOTIFICATION:16]
[] [OIDLDAPD] [host:stadp47] [pid: 26444] [tid: 0]
Main:: FATAL * gslsmaiaInitAudCtx * Audit struct
initialization failed. Audit error code: 62005"
```

You can ignore this error message.

7.5 Only OID Without a WebLogic Domain

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

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

7.5.1 Appropriate Deployment Environment

The 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 and Oracle Directory Services Manager using Fusion Middleware Control.

7.5.2 Components Deployed

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

7.5.3 Dependencies

The 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.

7.5.4 Procedure

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

1. Ensure that Oracle Internet Directory is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

   Notes:

   - Installing Oracle WebLogic Server is optional in this particular scenario. Instead, you can create the Middleware Home by following the procedure as described later in Step 3.
   - If you selected **Install and Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.
   - If you selected **Install Software - Do Not Configure** option in the **Select Installation Type** screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The **Select Domain** screen is displayed.

2. On the Select Domain screen, select **Configure without a Domain** and click **Next**. The Specify Installation Location screen appears.
3. Enter the following information in each field:

   - **Oracle Middleware Home Location**: If an Oracle Middleware Home directory already exists, enter the path to it in this field. If an Oracle Middleware Home directory *does not* exist, enter a path to the location where you want the Installer to create the directory that will contain the Oracle Common Home and Oracle Home directories. The Installer creates an Oracle Common Home directory and an Oracle Home directory inside the directory you identify in this field.

     The Oracle Middleware Home directory is commonly referred to as *MW_HOME*.

     Note: The Oracle Middleware Home directory is *not* required to contain an Oracle WebLogic Server installation.

   - **Oracle Home Directory**: Enter a name for the 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 Oracle Home directory is commonly referred to as *ORACLE_HOME*.
   - **Oracle Instance Location**: Enter the directory 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. 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*.

After you enter information for each field, click **Next.** The Specify Security Updates screen appears.

4. 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.
5. On the Configure Components screen, select only **Oracle Internet Directory**. Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
6. 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.
7. 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 now using the Oracle Fusion Middleware Repository Creation Utility or follow the To create a new schema section mentioned below.

Refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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 8 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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.

Note: If you are using Oracle Database 11*g* Release 2 (11.2) or higher version, the database user should be only 'SYS'.

---

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.

8. Enter the following information for Oracle Internet Directory:

- Realm: Enter the location for your realm. For example: `dc=mycompany,dc=com`
- Administrator Password: Enter the password for the Oracle Internet Directory administrator.
- Confirm Password: Enter the administrator password again.

Click **Next**.

9. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.

10. The Configuration Progress screen appears. Click **Next** to continue.

11. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

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.

- You may see the following error message in `$Instance_home/diagnostics/logs/OID/oid1/**` log files after configuring Oracle Internet Directory:

  ```
  "2010-02-01T07:27:42+00:00] [OID]
  [NOTIFICATION:16] [] [OIDLDAPD] [host:stadp47]
  [pid: 26444] [tid: 0] Main:: FATAL *
  gslsmaiaInitAudCtx * Audit struct initialization
  failed. Audit error code: 62005"
  ```

  You can ignore this error message.

7.6 Verifying OID Installation

Verify the Oracle Internet Directory (OID) installation by:

- Executing the `$ORACLE_INSTANCE/bin/opmnctl status -l` command. For example, if Oracle Internet Directory is configured then the following result can be seen:

```
Processes in Instance: asinst_1
---------------------------------+--------------------+---------+----------+---
---------+----------+-----------+------
ias-component                    | process-type       |     pid | status   |
uid |  memused |    uptime | ports
---------------------------------+--------------------+---------+----------+---
---------+----------+-----------+------
oid1                             | oidldapd           |   24032 | Alive    |
582907955 |   113004 |   0:00:41 | N/A
oid1                             | oidldapd           |   24024 | Alive    |
582907954 |    56288 |   0:00:42 | N/A
oid1                             | oidmon             |   24001 | Alive    |
582907953 |    50232 |   0:00:43 | LDAPS:3131,LDAP:3060
EMAGENT                          | EMAGENT            |   24000 | Alive    |
582907952 |     5852 |   0:00:43 | N/A
```

- Executing the `$ORACLE_HOME/bin/ldapbind` command on the Oracle Internet Directory non-SSL and SSL ports. For example:

  On Non-SSL ports:

  ```
  $ORACLE_HOME/bin/ldapbind -h <hostname> -p <port> -D
  cn=orcladmin -w <password>
  ```

  On SSL ports:

  ```
  $ORACLE_HOME/bin/ldapbind -h <hostname> -p <port> -D
  cn=orcladmin -w <password> -U 1
  ```

7.7 Getting Started with OID After Installation

After installing Oracle Internet Directory (OID), refer to the "Getting Started with Oracle Internet Directory" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Internet Directory*.

8

Configuring Oracle Virtual Directory

This chapter explains how to configure Oracle Virtual Directory (OVD).

This chapter discusses the following topics:

- OVD with ODSM and Fusion Middleware Control in a New WebLogic Domain
- Only OVD in an Existing WebLogic Domain
- Only OVD Without a WebLogic Domain
- Verifying OVD
- Getting Started with OVD After Installation

8.1 OVD with ODSM and Fusion Middleware Control in a New WebLogic Domain

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

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

8.1.1 Appropriate Deployment Environment

The 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 11*g* 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.

8.1.2 Components Deployed

Performing the configuration in this section deploys the following components.

- WebLogic Administration Server
- Oracle Virtual Directory
- Oracle Directory Services Manager
- Fusion Middleware Control

8.1.3 Dependencies

The configuration in this section depends on Oracle WebLogic Server.

8.1.4 Procedure

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

1. Ensure that Oracle Virtual Directory is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

   Note: If you selected Install and Configure option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

   If you selected **Install Software - Do Not Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The Select Domain screen is displayed.

2. 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.

3. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.

4. 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.

5. 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.

6. 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.

7. 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**.

8. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
9. The Configuration Progress screen appears. Click **Next** to continue.
10. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

8.2 Only OVD in an Existing WebLogic Domain

This topic describes how to configure only Oracle Virtual Directory (OVD) in an existing WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment

- Components Deployed
- Dependencies
- Procedure

8.2.1 Appropriate Deployment Environment

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

- A WebLogic Administration Server is available to manage 11*g* Release 1 (11.1.1) Oracle Directory Services components and you want Oracle Virtual Directory to join that domain.
- You want to install Oracle Virtual Directory separately from the WebLogic Administration Server.

8.2.2 Components Deployed

Performing the configuration in this section deploys only Oracle Virtual Directory.

8.2.3 Dependencies

The configuration in this section depends on Oracle WebLogic Server.

8.2.4 Procedure

Perform the following steps to configure only Oracle Virtual Directory in an existing domain:

1. Ensure that Oracle Virtual Directory is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

   Note: If you selected Install and Configure option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

   If you selected **Install Software - Do Not Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The Select Domain screen is displayed.

   ---

2. On the Select Domain screen, select **Extend Existing Domain** and enter the following information:
   a. Enter the name of the host that contains the domain in the Host Name field.
   b. Enter the Oracle WebLogic Server listen port in the Port field.
   c. Enter the user name for the domain in the User Name field.

d. Enter the password for the domain user in the User Password field.

Click **Next**. The Specify Installation Location screen appears.

3. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories.

> **Note:** To configure Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home, Oracle Middleware Home, and Oracle Home directory in the domain must have identical directory paths and names.

After you enter information for each field, click **Next.** The Specify Security Updates screen appears.

4. 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.
5. Select only **Oracle Virtual Directory**. Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
6. 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.
7. 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**.

8. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
9. The Configuration Progress screen appears. Click **Next** to continue.
10. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

8.3 Only OVD Without a WebLogic Domain

This topic describes how to configure only Oracle Virtual Directory (OVD) without a WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

8.3.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to register Oracle Virtual Directory with a remote WebLogic Administration Server for management purposes, but you do not want to install Oracle WebLogic Server locally.

Note: To manage Oracle Virtual Directory using Fusion Middleware Control in this environment, you must register Oracle Virtual Directory with the remote WebLogic Administration Server after installation.

8.3.2 Components Deployed

Performing the configuration in this section deploys only Oracle Virtual Directory.

8.3.3 Dependencies

The configuration in this section depends on Oracle WebLogic Server.

8.3.4 Procedure

Perform the following steps to configure only Oracle Virtual Directory without a domain:

1. Ensure that Oracle Virtual Directory is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

Notes:

- Installing Oracle WebLogic Server is optional in this particular scenario. Instead, you can create the Middleware Home by following the procedure as described later in Step 3.
- If you selected Install and Configure option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.
- If you selected **Install Software - Do Not Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The Select Domain screen is displayed.

2. Select **Configure without a Domain** on the Select Domain screen and click **Next**. The Specify Installation Location screen appears.
3. Enter the following information in each field:
   - **Oracle Middleware Home Location**: If an Oracle Middleware Home directory already exists, enter the path to it in this field. If an Oracle Middleware Home directory *does not* exist, enter a path to the location where you want the Installer to create the directory that will contain the Oracle Common Home and Oracle Home directories. The Installer creates an Oracle Common Home directory and an Oracle Home directory inside the directory you identify in this field.

     The Oracle Middleware Home directory is commonly referred to as *MW_HOME*.

     Note: The Oracle Middleware Home directory is *not* required to contain an Oracle WebLogic Server installation.

   - **Oracle Home Directory**: Enter a name for the 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 Oracle Home directory is commonly referred to as *ORACLE_HOME*.
   - **Oracle Instance Location**: Enter the directory 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. 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*.

After you enter information for each field, click **Next.** The Specify Security Updates screen appears.

4. 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.
5. Select only **Oracle Virtual Directory**. Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
6. 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.
7. 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**.
8. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
9. The Configuration Progress screen appears. Click **Next** to continue.
10. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

11. Execute the following command to register Oracle Virtual Directory with the WebLogic Administration Server. Registering with the WebLogic Administration Server allows you to manage Oracle Virtual Directory using Fusion Middleware Control.

```
$ORACLE_INSTANCE/bin/opmnctl registerinstance
 -adminHost HOSTNAME
 -adminPort WEBLOGIC_PORT
 -adminUsername WEBLOGIC_ADMIN_USERNAME
```

> **Note:** You will be prompted for the WebLogic administrator's user name and password.

For example:

```
$ORACLE_INSTANCE/bin/opmnctl registerinstance \
 -adminHost myhost \
 -adminPort 7001 \
 -adminUsername weblogic \
```

> **Note:** The default administrative port on the WebLogic Administration Server is 7001.

8.4 Verifying OVD

Verify the Oracle Virtual Directory (OVD) installation by:

- Starting the Oracle Virtual Directory instance, by executing the following command:

  `$ORACLE_INSTANCE/bin/opmnctl startall`

- Verifying that Oracle Virtual Directory has started by executing the following command:

  `$ORACLE_INSTANCE/bin/opmnctl status -l`

- Executing the `$ORACLE_HOME/bin/ldapbind` command on the Oracle Virtual Directory non-SSL and SSL ports.

  For example:

```
ldapbind -p <port number>
ldapbind -p <SSL port> -U 1
```

> **Note:** For more information on OPMN commands, see *Oracle Fusion Middleware Oracle Process Manager and Notification Server Administrator's Guide*.

8.5 Getting Started with OVD After Installation

After installing Oracle Virtual Directory (OVD), refer to the "Getting Started with Administering Oracle Virtual Directory" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory*.

9

Configuring Oracle Directory Integration Platform

This chapter explains how to configure Oracle Directory Integration Platform (ODIP).

This chapter discusses the following topics:

- Prerequisites
- Configuring ODIP with Oracle Internet Directory (OID)
- Configuring ODIP with Oracle Unified Directory (OUD)
- Configuring ODIP with Oracle Directory Server Enterprise Edition (ODSEE)
- Verifying ODIP
- Getting Started with ODIP After Installation

9.1 Prerequisites

Ensure the prerequisites are met depending on the component you wish to configure. This section discusses the following topics:

- Option 1: ODIP with Oracle Internet Directory
- Option 2: ODIP with Oracle Directory Server Enterprise Edition (ODSEE)

9.1.1 Option 1: ODIP with Oracle Internet Directory

If you want to configure Oracle Directory Integration Platform (ODIP) with Oracle Internet Directory, ensure that Oracle Internet Directory is installed and configured as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software.

9.1.2 Option 2: ODIP with Oracle Directory Server Enterprise Edition (ODSEE)

If you want to configure Oracle Directory Integration Platform (ODIP) with Oracle Directory Server Enterprise Edition (ODSEE) ensure that the following prerequisites are met.

- Installing Oracle Directory Server Enterprise Edition (ODSEE)
- Setting Up Oracle Directory Server Enterprise Edition (ODSEE)

9.1.2.1 Installing Oracle Directory Server Enterprise Edition (ODSEE)

Ensure that Oracle Directory Server Enterprise Edition (ODSEE) is installed, as described in the *Oracle Directory Server Enterprise Edition Installation Guide 11g Release 1 (11.1.1.5.0)*, available at the following link:

http://download.oracle.com/docs/cd/E20295_01/html/821-1218/index.html

9.1.2.2 Setting Up Oracle Directory Server Enterprise Edition (ODSEE)

Follow the steps below for setting Up Oracle Directory Server Enterprise Edition (ODSEE):

Go to `<DSEE_HOME>/bin` directory and execute the following commands:

- Create a new ODSEE server instance.

  ```
  ./dsadm create <ODSEE instance>
  ```

  For Example:

  ```
  ./dsadm create /scratch/<userid>/dsee/dseeinstance1/
  ```

- Start the ODSEE server instance.

  ```
  ./dsadm start <ODSEE instance>
  ```

  For Example:

  ```
  ./dsadm start /scratch/<userid>/dsee/dseeinstance1/
  ```

- Create the root suffix.

  ```
  ./dsconf create-suffix -h <ODSEE Server> -p <ODSEE port>
  <SUFFIX_DN>
  ```

  where the `SUFFIX_DN` is the full DN of the new suffix. For a root suffix, the convention is to use the domain-component (dc) naming attribute.

  For Example, to create a suffix for the DN `dc=example,dc=com`, use this command:

  ```
  ./dsconf create-suffix -h localhost -p 1389 dc=example,dc=com
  ```

- Enable changelog.

  ```
  ./dsconf set-server-prop -h <ODSEE Server> -p <ODSEE port>
  retro-cl-enabled:on
  ```

  For Example:

  ```
  ./dsconf set-server-prop -h localhost -p 1389
  retro-cl-enabled:on
  ```

- Restart the ODSEE server instance.

  ```
  ./dsadm restart <ODSEE instance>
  ```

  For Example:

  ```
  ./dsadm restart /scratch/<userid>/dsee/dseeinstance1/
  ```

9.2 Configuring ODIP with Oracle Internet Directory (OID)

This section describes how to configure Oracle Directory Integration Platform (ODIP) with Oracle Internet Directory (OID). It includes the following topics:

9.2.1 ODIP with Fusion Middleware Control in a New WebLogic Domain

This topic describes how to configure Oracle Directory Integration Platform (ODIP) with Fusion Middleware Control in a new WebLogic administration domain. It includes the following sections:

9.2.1.1 Appropriate Deployment Environment

The configuration described in this topic is appropriate if there is no WebLogic Administration Server managing other 11*g* Release 1 (11.1.1) Oracle Directory Services components and Oracle Internet Directory is installed without a domain.

9.2.1.2 Components Deployed

Performing the configuration in this section deploys the following components:

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

9.2.1.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Oracle Internet Directory
- Oracle Database for Oracle Internet Directory
- *Identity Management - Oracle Internet Directory* schema existing in the Oracle Internet Directory database.

9.2.1.4 Procedure

Perform the following steps to configure Oracle Directory Integration Platform with Fusion Middleware Control in a new domain:

1. Ensure that Oracle Directory Integration Platform is installed, as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software.

Note: If you selected Install and Configure option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

If you selected **Install Software - Do Not Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The Select Domain screen is displayed.

---

2. 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.
3. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.
4. 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.
5. Select only **Oracle Directory Integration Platform**. The Fusion Middleware Control management component is automatically selected for this installation.

   Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
6. 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 OID Details screen appears.

7. Identify the Oracle Internet Directory for Oracle Directory Integration Platform by entering the following information:
   - Hostname: Enter the hostname or IP address of the Oracle Internet Directory host.
   - Port: Enter the Oracle Internet Directory LDAP SSL port.
   - User Name: Enter the user name of the Oracle Internet Directory Administrator.
   - Password: Enter the password for the user name Oracle Directory Integration Platform will use to connect to Oracle Internet Directory.

   Click **Next**. The Specify Schema Database screen appears.
8. Enter the following information about the Oracle Internet Directory schema:
   - Connect String: Enter the database connection information. The connection string must be in the form of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *hostname1*:*port1*:*instance1*^*hostname2*:*port2*:*instance2*@*servicename*.
   - Password: Enter the password for the ODSSM schema in the Password field.

   Click **Next**.
9. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
10. The Configuration Progress screen appears. Click **Next** to continue.
11. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

9.2.2 Only ODIP in an Existing WebLogic Domain

This topic describes how to configure only Oracle Directory Integration Platform (ODIP) in an existing WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

9.2.2.1 Appropriate Deployment Environment

The configuration described in this topic is appropriate for the following environments:

An environment that has the following condition:

- A WebLogic Administration Server is managing an 11*g* Release 1 (11.1.1) Oracle Internet Directory component and you want Oracle Directory Integration Platform to join that domain.

An environment that has the following condition:

- A WebLogic Administration Server is managing other 11*g* Release 1 (11.1.1) Oracle Directory Services—but not Oracle Internet Directory, which is installed without a domain.

9.2.2.2 Components Deployed

Performing the configuration in this section deploys the following components:

- WebLogic Managed Server
- Oracle Directory Integration Platform

9.2.2.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Oracle Internet Directory
- Oracle Database for Oracle Internet Directory
- *Identity Management - Oracle Internet Directory* schema existing in the Oracle Internet Directory database.

9.2.2.4 Procedure

Perform the following steps to configure only Oracle Directory Integration Platform in an existing domain:

1. Ensure that Oracle Directory Integration Platform is installed, as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software.

   Note: If you selected Install and Configure option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

   If you selected **Install Software - Do Not Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The Select Domain screen is displayed.

2. On the Select Domain screen, select **Extend Existing Domain** and enter the following information:
   - Enter the name of the host that contains the domain in the Host Name field.
   - Enter the Oracle WebLogic Server listen port in the Port field.
   - Enter the user name for the domain in the User Name field.
   - Enter the password for the domain user in the User Password field.

   Click **Next**. The Specify Installation Location screen appears.

3. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories.

> **Note:** To configure Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home, Oracle Middleware Home, and Oracle Home directory in the domain must have identical directory paths and names.

After you enter information for each field, click **Next.** The Specify Security Updates screen appears.

4. 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.
5. Select only **Oracle Directory Integration Platform**. Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
6. 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 OID Details screen appears.
7. Identify the Oracle Internet Directory for Oracle Directory Integration Platform by entering the following information:
   - Hostname: Enter the hostname or IP address of the Oracle Internet Directory host.
   - Port: Enter the Oracle Internet Directory LDAP SSL port.
   - User Name: Enter the user name of the Oracle Internet Directory Administrator.
   - Password: Enter the password for the user name Oracle Directory Integration Platform will use to connect to Oracle Internet Directory.

   Click **Next**. The Specify Schema Database screen appears.
8. Enter the following information about the Oracle Internet Directory schema:
   - Connect String: Enter the database connection information. The connection string must be in the form of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *hostname1*:*port1*:*instance1*^*hostname2*:*port2*:*instance2*@*servicename*.
   - Password: Enter the password for the ODSSM schema in the Password field.

   Click **Next**.

9. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
10. The Configuration Progress screen appears. Click **Next** to continue.
11. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

9.2.3 Configuring ODIP when OID is Running in SSL Mode 2 - Server Only Authentication

You cannot install and configure Oracle Directory Integration Platform (ODIP) 11*g* Release 1 (11.1.1) when Oracle Internet Directory (OID) is already installed and running in SSL Mode 2 - Server Only Authentication.

If Oracle Internet Directory is already installed and running in SSL Mode 2 - Server Only Authentication, you must perform the following steps to configure Oracle Directory Integration Platform 11*g* Release 1 (11.1.1):

1. Configure Oracle Internet Directory to temporarily run in SSL Mode 1 - No Authentication.

   Refer to the "Configuring Secure Sockets Layer (SSL)" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Internet Directory* for complete information.
2. Install Oracle Directory Integration Platform, as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software.
3. Configure Oracle Internet Directory to run in SSL Mode 2 - Server Only Authentication again. Refer to the "Configuring Secure Sockets Layer (SSL)" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Internet Directory*.
4. Configure Oracle Directory Integration Platform to run in SSL Mode 2 by referring to the following sections in the *Oracle Fusion Middleware Integration Guide for Oracle Identity Management*:
   - Configuring Oracle Directory Integration Platform for SSL Mode 2 - Server Only Authentication
   - Managing the SSL Certificates of Oracle Internet Directory and Connected Directories

9.3 Configuring ODIP with Oracle Unified Directory (OUD)

To configure Oracle Directory Integration Platform (ODIP) with Oracle Unified Directory (OUD), see Part II: Configuring OUD/ODSM/ODIP and Fusion Middleware Control in a New WebLogic Administration Domain.

9.4 Configuring ODIP with Oracle Directory Server Enterprise Edition (ODSEE)

This section describes how to configure Oracle Directory Integration Platform (ODIP) with Oracle Directory Server Enterprise Edition (ODSEE). It includes the following topics:

- ODIP with ODSEE in an Existing WebLogic Domain
- ODIP and ODSEE in a New WebLogic Domain

- Post-Configuration Steps

9.4.1 ODIP with ODSEE in an Existing WebLogic Domain

This topic describes how to configure Oracle Directory Integration Platform (ODIP) with Oracle Directory Server Enterprise Edition (ODSEE) in an existing WebLogic administration domain. It includes the following sections:

- Components Deployed
- Dependencies
- Procedure

9.4.1.1 Components Deployed

Performing the configuration in this section deploys only Oracle Directory Integration Platform.

9.4.1.2 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Oracle Directory Server Enterprise Edition (ODSEE)

9.4.1.3 Procedure

Perform the following steps to configure Oracle Directory Integration Platform with Oracle Directory Server Enterprise Edition (ODSEE) in an existing WebLogic administration domain.

1. Ensure that all the prerequisites are met as described in Option 2: ODIP with Oracle Directory Server Enterprise Edition (ODSEE).
2. Ensure that Oracle Directory Integration Platform is installed using **Install Software - Do Not Configure** option, as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software.
3. Run the `<MW_HOME>/oracle_common/bin/config.sh` script (on UNIX) or `<MW_HOME>\oracle_common\bin\config.cmd` (on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
4. On the Welcome screen, select the **Extend an existing WebLogic domain** option. Click **Next**.
5. On the Select a WebLogic Domain Directory screen, browse to the directory that contains the WebLogic domain in which you want to configure Oracle Directory Integration Platform (ODIP) with Oracle Directory Server Enterprise Edition (ODSEE). Click **Next**. The Select Extension Source screen appears.
6. On the Select Extension Source screen, select the **Oracle Enterprise Manager - 11.1.1.0 [oracle_common]** and **Oracle Directory Integration Platform - 11.1.1.2.0 [Oracle_IDM1]** domain configuration option.

   Note: When you select **Oracle Directory Integration Platform - 11.1.1.2.0 [Oracle_IDM1]** option, **Oracle Identity Management - 11.1.1.2.0 [Oracle_IDM1]** is also selected by default.

   Click **Next**. The Specify Domain Name and Location screen appears.

7. The Specify Domain Name and Location screen automatically selects the application location. Click **Next**. The Select Optional Configuration screen appears.
8. On the Select Optional Configuration screen, select **Managed Servers, Clusters, and Machines** option. Click **Next**. The Configure Managed Servers screen appears.
9. On the Configure Managed Servers screen, specify the Managed Server name. Click **Next**.
10. On the Configure Clusters screen, configure Clusters as required. Click **Next**.
11. On the Configure Machines screen, select the **Machine** or **Unix Machine** tab. Click on **Add** and specify the machine name. Click **Next**.
12. If you added a machine on the Configure Machines screen, then the Assign Servers to Machines screen appears. On the Assign Servers to Machines screen, assign the Administration Server and the Managed server to the specified machine. Click **Next**.
13. On the Configuration Summary screen, review the domain configuration, and click **Extend** to start extending the domain.
14. Click **Done**, once the domain is extended.

    Your existing domain is extended to support Oracle Directory Integration Platform.

9.4.2 ODIP and ODSEE in a New WebLogic Domain

This topic describes how to configure Oracle Directory Integration Platform (ODIP) and Oracle Directory Server Enterprise Edition (ODSEE) in a new WebLogic administration domain. It includes the following sections:

- Components Deployed
- Dependencies
- Procedure

9.4.2.1 Components Deployed

Performing the configuration in this section deploys only Oracle Directory Integration Platform.

9.4.2.2 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Oracle Directory Server Enterprise Edition (ODSEE)

9.4.2.3 Procedure

Perform the following steps to configure Oracle Directory Integration Platform and Oracle Directory Server Enterprise Edition (ODSEE) in a new WebLogic administration domain.

1. Ensure that all the prerequisites are met as described in Option 2: ODIP with Oracle Directory Server Enterprise Edition (ODSEE).

2. Ensure that Oracle Directory Integration Platform is installed, as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software.
3. Run the `<MW_HOME>/oracle_common/bin/config.sh` script (on UNIX) or `<MW_HOME>\oracle_common\bin\config.cmd` (on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
4. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**.
5. On the Select Domain Source screen, select **Generate a domain configured automatically to support the following products:** option. Select the following domain configuration options:
   - Oracle Enterprise Manager - 11.1.1.0 [oracle_common]
   - Oracle Directory Integration Platform - 11.1.1.2.0 [Oracle_IDM1]

   Note: When you select **Oracle Enterprise Manager - 11.1.1.0 [oracle_common]** and **Oracle Directory Integration Platform - 11.1.1.2.0 [Oracle_IDM1]**, **Oracle Identity Management - 11.1.1.2.0 [Oracle_IDM1]** and **Oracle JRF 11.1.1.0 [oracle_common]** is also selected by default.

   Click **Next**. The Specify Domain Name and Location screen appears.
6. On the Specify Domain Name and Location screen, enter a name and location for the domain to be created. In addition, enter a location to store applications for the domain. Click **Next**. The Configure Administrator User Name and Password screen is displayed.
7. Configure a user name and a password for the administrator. The default user name is weblogic. Click **Next**. The Configure Server Start Mode and JDK screen is displayed.
8. Choose `JRockit SDK 1.6.0_24` and **Production Mode** in the Configure Server Start Mode and JDK screen. Click **Next**. The Select Optional Configuration Screen is displayed.
9. On the Select Optional Configuration screen, select **Managed Servers, Clusters, and Machines** option. Click **Next**. The Configure Managed Servers screen appears.
10. On the Configure Managed Servers screen, specify the Managed Server name. Click **Next**.
11. On the Configure Clusters screen, configure Clusters as required. Click **Next**.
12. On the Configure Machines screen, select the **Machine** or **Unix Machine** tab. Click on **Add** and specify the machine name. Click **Next**.
13. If you added a machine on the Configure Machines screen, then the Assign Servers to Machines screen appears. On the Assign Servers to Machines screen, assign the Administration Server and the Managed server to the specified machine. Click **Next**.
14. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.
15. Click **Done**, once the domain is created successfully.

A new WebLogic domain to support Oracle Directory Integration Platform is created in the <MW_HOME>\user_projects\domains directory (on Windows). On UNIX, the domain is created in the <MW_HOME>/user_projects/domains directory.

9.4.3 Post-Configuration Steps

After configuring Oracle Directory Integration Platform, perform the following tasks:

1. Run the <MW_HOME>/oracle_common/common/bin/setNMProps.sh script (on UNIX) or <MW_HOME>\oracle_common\common\bin\setNMProps.cmd (on Windows).
2. Start the Administration Server, Node Manager and Managed Server as described in Starting the Stack.
3. Set the *WL_HOME* and *ORACLE_HOME* environment variables and execute <ORACLE_HOME>/bin/dipConfigurator. Provide the following information when prompted for input.
   - WebLogic host, port, username and password details.
   - Oracle Directory Server Enterprise Edition (ODSEE) host, port, username and password details.
   - Specify the suffix under which DIP metadata is to be stored.
4. Verify the Oracle Directory Integration Platform(ODIP) installation and configuration. For more information, see Verifying ODIP.
5. The dipConfigurator will set the below ACIs for the specified metadata suffix. But for the other suffixes, set the below ACIs for the containers in OUD, in order to write the changes imported from the other sources:

```
dn: <Container DN>
changetype:modify
add: aci
aci: (target="ldap:///<Container DN>")(version 3.0; acl "Anonymous read-search
access"; allow (read,add,delete,search,write,compare,proxy)
groupdn="ldap:///cn=dipadmingrp,cn=DIPadmins,cn=Directory Integration
Platform,<metadata suffix>"; allow
(read,add,delete,search,write,compare,proxy)
groupdn="ldap:///cn=odipigroup,cn=DIPadmins,cn=Directory Integration
Platform,<metadata suffix>"; )
-
add: aci
aci: (targetattr="*")(version 3.0; acl "Anonymous read-search access"; allow
(search,read,write,compare,add)
groupdn="ldap:///cn=dipadmingrp,cn=DIPadmins,cn=Directory Integration
Platform,<metadata suffix>"; allow (search,read,write,compare,add)
groupdn="ldap:///cn=odipigroup,cn=DIPadmins,cn=Directory Integration
Platform,<metadata suffix>";)
```

Note: ODIP configuration can be recreated any number of times if ODIP configuration is deleted or corrupted. However, if there are any sync profiles that already exists, the connected directory password of the existing profiles needs to be reset after executing dipConfigurator.

For recreating the ODIP configuration, re-run step 3 and step 4.

9.5 Verifying ODIP

Verify the Oracle Directory Integration Platform (ODIP) installation using the `dipStatus` command, which is 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.

9.6 Getting Started with ODIP After Installation

After you install Oracle Directory Integration Platform (ODIP), no additional configuration is needed. The next step is to create synchronization profiles.

The *Oracle Fusion Middleware Integration Guide for Oracle Identity Management* explains how to manage Oracle Directory Integration Platform. For information about creating synchronization profiles using Oracle Enterprise Manager Fusion Middleware Control Console, refer to the "Managing Synchronization Profiles Using Fusion Middleware Control" section in that guide.

10

Configuring Oracle Directory Services Manager

This chapter explains how to configure Oracle Directory Services Manager (ODSM).

This chapter discusses the following topics:

- Only ODSM in a New WebLogic Domain
- Only ODSM in an Existing WebLogic Domain
- Verifying ODSM
- Getting Started with ODSM After Installation

10.1 Only ODSM in a New WebLogic Domain

This topic describes how to configure only Oracle Directory Services Manager (ODSM) in a new WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

10.1.1 Appropriate Deployment Environment

The configuration described in this topic is appropriate if Oracle Internet Directory was installed without a domain and you want to manage it using Oracle Directory Services Manager.

10.1.2 Components Deployed

Performing the configuration in this section deploys the following components:

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

10.1.3 Dependencies

The configuration in this section depends on Oracle WebLogic Server.

10.1.4 Procedure

Perform the following steps to configure only Oracle Directory Services Manager in a new domain:

1. Ensure that Oracle Directory Services Manager is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

   Note: If you selected **Install and Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

   If you selected **Install Software - Do Not Configure** option in the **Select Installation Type** screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The **Select Domain** screen is displayed.

   ---

2. 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.

3. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories. After you enter information for each field, click **Next.** The Specify Security Updates screen appears.

4. 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.

5. Select only **Oracle Directory Services Manager**. The Fusion Middleware Control management component is automatically selected for this installation.

   Ensure no other components are selected and click **Next**. The Configure Ports screen appears.

6. 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**.

7. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
8. The Configuration Progress screen appears. Click **Next** to continue.
9. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

10.2 Only ODSM in an Existing WebLogic Domain

This topic describes how to configure only Oracle Directory Services Manager (ODSM) in an existing WebLogic administration domain. It includes the following sections:

10.2.1 Appropriate Deployment Environment

The configuration described in this topic is appropriate if you want to deploy an additional Oracle Directory Services Manager component in an existing domain.

10.2.2 Components Deployed

Performing the configuration in this section deploys the following components:

- WebLogic Managed Server
- Oracle Directory Services Manager

10.2.3 Dependencies

The configuration in this section depends on Oracle WebLogic Server.

10.2.4 Procedure

Perform the following steps to configure only Oracle Directory Services Manager in an existing domain:

1. Ensure that Oracle Directory Services Manager is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.

> **Note:** If you selected **Install and Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.
>
> If you selected **Install Software - Do Not Configure** option in the **Select Installation Type** screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The **Select Domain** screen is displayed.

2. On the Select Domain screen, select **Extend Existing Domain** and enter the following information:
   a. Enter the name of the host that contains the domain in the Host Name field.
   b. Enter the Oracle WebLogic Server listen port in the Port field.
   c. Enter the user name for the domain in the User Name field.
   d. Enter the password for the domain user in the User Password field.

   Click **Next**. The Specify Installation Location screen appears.
3. Identify the Homes, Instances, and the WebLogic Server directory by referring to "Identifying Installation Directories".

   > **Note:** To configure Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home, Oracle Middleware Home, and Oracle Home directory in the domain must have identical directory paths and names.

   After you enter information for each field, click **Next.** The Specify Security Updates screen appears.
4. 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.
5. Select only **Oracle Directory Services Manager**. Ensure no other components are selected and click **Next**. The Configure Ports screen appears.
6. 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**.

7. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
8. The Configuration Progress screen appears. Click **Next** to continue.
9. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

10.3 Verifying ODSM

To verify the Oracle Directory Services Manager (ODSM) 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 of the Managed Server through the Oracle WebLogic Administration Console. After logging in to the console, expand Environment on the left navigation pane. Click Servers. The Summary of Servers page is displayed. The port for the Oracle Directory Services Manager (ODSM) Managed Server is displayed on this page.

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 Oracle Internet Directory or Oracle Virtual Directory from Oracle Directory Services Manager without the appropriate credentials.

10.4 Getting Started with ODSM After Installation

After you install Oracle Directory Services Manager (ODSM), no additional configuration is needed. The next step is to log in to Oracle Internet Directory or Oracle Virtual Directory. The process for logging in to both directory servers is the same. Information about logging in to both Oracle Internet Directory and Oracle Virtual Directory provided below so you can learn more about Oracle Directory Services Manager in the context of each directory server.

- For information about logging in to Oracle Internet Directory from Oracle Directory Services Manager, refer to the "Logging in to the Directory Server from Oracle Directory Services Manager" section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Internet Directory*.
- For information about logging in to Oracle Virtual Directory from Oracle Directory Services Manager, refer to the "Logging in to the Directory Server from

Oracle Directory Services Manager" section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory*.

11

Configuring Oracle Identity Federation

This chapter explains how to configure Oracle Identity Federation (OIF).

This chapter discusses the following topics:

11.1 Using the Information in This Chapter

Oracle Identity Federation deployments vary greatly. As described in the following topics, there are several components, and several options for those components, that comprise an Oracle Identity Federation deployment.

Use this chapter as a starting point for your Oracle Identity Federation deployment, as it does not describe every possible installation and configuration. You should also use the Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation, which provides additional and detailed deployment information, to supplement the information in this chapter.

11.2 Understanding OIF Deployments

When you configure Oracle Identity Federation (OIF) 11*g* Release 1 (11.1.1), a WebLogic Managed Server is created and the Oracle Identity Federation J2EE application is installed on it. If you configure Oracle Identity Federation in a new Oracle WebLogic Server administration domain by selecting the Create Domain option, the Fusion Middleware Control management component is also deployed.

Oracle Identity Federation functionality depends on several components and modules. You can integrate and configure these components and modules during or after the Oracle Identity Federation installation.

The following is a list and brief description of some of the components and modules that determine Oracle Identity Federation functionality. Refer to the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation* for complete information.

- **Authentication Engine**: The module that challenges users when they log in.
- **User Data Store**: The repository containing the identity information of the users the Oracle Identity Federation system authenticates.
- **Federation Data Store**: The repository containing federated user account linking data.
- **Service Provider (SP) Integration Engine**: The module that creates a local authenticated session for the user based on a received federated Single Sign-On (SSO) token.
- **User Session Store and Message Store**: The repository containing transient runtime session state data and protocol messages.
- **Configuration Data Store**: The repository containing Oracle Identity Federation configuration data.

11.3 Understanding OIF Basic and Advanced Deployments

There are two types of Oracle Identity Federation (OIF) 11*g* Release 1 (11.1.1) deployments: Basic and Advanced. This topic describes both types of deployments and includes the following sections:

- Basic Deployment
- Advanced Deployments

11.3.1 Basic Deployment

The Basic deployment includes Oracle Identity Federation with minimum functionality enabled and the following configuration:

- No User Data Store
- No Federation Store
- JAAS Authentication Engine
- Test Service Provider (SP) Engine
- Memory Session Data Store
- Memory Message Data Store
- XML file system Configuration Store

11.3.2 Advanced Deployments

The Advanced deployments allows you to choose between different types of data stores and authentication engines. The following is a list and description of the types of data stores and authentication engines you can choose during an Advanced installation:

Authentication Engine

- JAAS: Delegates authentication to the application server.
- LDAP: Uses form login and LDAP bind with credentials supplied by user to authenticate against LDAP repository.

User Data Store

- None: No User Data Store. Typically used with Custom or JAAS Authentication Engines, environments without user attributes, or Windows CardSpace.
- LDAP: Typical configuration that stores user data in an LDAP repository.
- RDBMS: Uses database tables with user names (and optionally user attributes) in columns.

Federation Data Store

- None: No Federation Data Store. Typically used when there are no persistent account linking records. No Federation Data Store is also an alternative to using name identifiers, such as e-mail address, X.509 DN, Kerberos, or Windows Name Identifier.
- LDAP: Stores federation in an LDAP repository. Commonly deployed when the User Data Store is also LDAP.
- RDBMS: Stores federation in a relational database repository. Commonly deployed when the User Data Store is also RDBMS.
- XML: Stores federation data in an XML file system. Commonly used for testing purposes.

User Session Store and Message Store

- Memory: Stores transient runtime session state data and protocol messages in in-memory tables. Commonly used for single instance deployments. Memory provides better performance than the RDBMS User Session Store, but increases runtime memory requirements.
- RDBMS: Stores transient runtime session state data and protocol messages in a relational database. Recommended for High Availability cluster environments.

> **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.

Configuration Data Store

- File System: Stores Oracle Identity Federation configuration data on the local file system. Commonly used in single-instance and testing environments.
- RDBMS: Stores Oracle Identity Federation configuration data in a relational database. Commonly used in High Availability environments or single-instances with failover redundancy.

11.4 Configuring Oracle HTTP Server for OIF

When you install Oracle Identity Federation (OIF), Oracle HTTP Server also gets installed. 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. Although Oracle Identity Federation can function without Oracle HTTP Server, there are advantages to configuring it as a proxy for Oracle Identity Federation.

To configure the Oracle HTTP Server so that the Oracle Identity Federation application can be accessed through Oracle HTTP Server ports, you can:

- Ensure that Oracle Identity Federation is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.
- Run `<ORACLE_HOME>/bin/config.sh` (On UNIX) or `<ORACLE_HOME>\bin\config.bat` to start the Oracle Identity Management Configuration Wizard. Click **Next** to continue.
- On the Configure Components screen, select Oracle HTTP Server and Oracle Identity Federation.

  See: The "Deploying Oracle Identity Federation with Oracle HTTP Server" section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation* for more information about integrating Oracle Identity Federation and Oracle HTTP Server.

11.5 Performing Basic Oracle Identity Federation Configurations

This topic describes how to perform a Basic Oracle Identity Federation (OIF) configuration. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

11.5.1 Appropriate Deployment Environment

The Basic Oracle Identity Federation configuration is appropriate for:

- Creating a base to gradually build complex implementations upon after installation
- Deploying test environments
- Deploying small, self-contained configurations

11.5.2 Components Deployed

Performing the Basic Oracle Identity Federation configuration deploys the following components:

If you install Oracle Identity Federation in a new domain:

- WebLogic Managed Server
- Oracle Identity Federation
- WebLogic Administration Server
- Fusion Middleware Control
- *Optionally*, Oracle HTTP Server

If you install Oracle Identity Federation in an existing domain:

- WebLogic Managed Server
- Oracle Identity Federation

- *Optionally*, Oracle HTTP Server

11.5.3 Dependencies

The Basic Oracle Identity Federation configuration depends on Oracle WebLogic Server.

11.5.4 Procedure

Perform the following steps to deploy a Basic Oracle Identity Federation configuration:

1. Ensure that Oracle Identity Federation is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.
2. Run `<ORACLE_HOME>/bin/config.sh` (On UNIX) or `<ORACLE_HOME>\bin\config.bat` to start the Oracle Identity Management Configuration Wizard. Click **Next** to continue.
3. On the Select Domain screen, choose whether to configure Oracle Identity Federation in a new or existing domain:

To configure Oracle Identity Federation in a new domain:

a. Select **Create New Domain**.

b. Enter the user name for the new domain in the User Name field.

c. Enter the user password for the new domain in the User Password field.

Enter the user password again in the Confirm Password field.

d. Enter a name for the new domain in the Domain Name field.

e. Click **Next**. The Specify Installation Location screen appears.

Continue the installation by going to step 4 now.

To configure Oracle Identity Federation in an existing domain:

a. Select **Extend Existing Domain**.

b. Enter the name of the host that contains the domain in the Host Name field.

c. Enter the listen port for the WebLogic Administration Server in the Port field.

d. Enter the user name for the domain in the User Name field.

e. Enter the password for the domain user in the User Password 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".

Note: To configure Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home, Oracle Middleware Home, and Oracle Home directory in the domain must have identical directory paths and names.

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 **Oracle Identity Federation**—and *optionally*, **Oracle HTTP Server**. Refer to "Configuring Oracle HTTP Server for OIF" on page 11-3 for information about configuring these two components simultaneously.

   If you are installing Oracle Identity Federation in a new domain, the Fusion Middleware Control management component is automatically selected for 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 Select Oracle Identity Federation Configuration Type screen appears.
8. Select **Basic** and click **Next**. The Specify OIF Details screen appears.
9. 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**.
10. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
11. The Configuration Progress screen appears. Click **Next** to continue.
12. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

11.6 Performing Advanced Oracle Identity Federation Configurations

This topic generally describes how to perform an Advanced Oracle Identity Federation (OIF) configuration. Refer to the next two topics in this chapter for information on performing specific Advanced Oracle Identity Federation configurations.

This topic includes the following sections:

11.6.1 Appropriate Deployment Environment

The Advanced Oracle Identity Federation configuration provides a fast and simplified method for deploying Oracle Identity Federation with its vital components integrated and configured.

11.6.2 Components Deployed

Performing the Advanced Oracle Identity Federation configuration deploys the following components:

If you configure Oracle Identity Federation in a new domain:

- WebLogic Managed Server
- Oracle Identity Federation
- WebLogic Administration Server
- Fusion Middleware Control
- *Optionally*, Oracle HTTP Server

If you configure Oracle Identity Federation in an existing domain:

- WebLogic Managed Server
- Oracle Identity Federation
- *Optionally*, Oracle HTTP Server

11.6.3 Dependencies

The Advanced Oracle Identity Federation configuration depends on the following components:

- Oracle WebLogic Server
- Oracle Database, if using RDBMS for User Store, Federation Store, Session Store, Message Store, or Configuration Store.
- New *Identity Management - Oracle Identity Federation* schema existing in the database, if using RDBMS for Federation Store, Session Store, Message Store, or Configuration Store.
- Database table for storing user dative using RDBMS for User Store
- LDAP repository, if using LDAP for Authentication, User Store, or Federation Store.

11.6.4 Procedure

Perform the following steps to deploy an Advanced Oracle Identity Federation configuration:

1. Decide if you want to use RDBMS for User Store, Federation Store, 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 for more information.
   b. Create the *Identity Management - Oracle Identity Federation* schema in the database. Refer to "Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU)" for more information.

   Note: The schema is not required for RDBMS User Stores.

2. Decide if you want to use an LDAP repository for Authentication, User Store, or Federation Store. If you do, you must install the LDAP repository before you can install Oracle Identity Federation.
3. Ensure that Oracle Identity Federation is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.
4. Run `<ORACLE_HOME>/bin/config.sh` (On UNIX) or `<ORACLE_HOME>\bin\config.bat` to start the Oracle Identity Management Configuration Wizard. Click **Next** to continue.
5. On the Select Domain screen, choose whether to install Oracle Identity Federation in a new or existing domain:

To configure Oracle Identity Federation in a new domain:

   a. Select **Create New Domain**.
   b. Enter the user name for the new domain in the User Name field.
   c. Enter the user password for the new domain in the User Password field.
   d. Enter the user password again in the Confirm Password field.
   e. Enter a name for the new domain in the Domain Name field.
   f. Click **Next**. The Specify Installation Location screen appears.

   Continue the installation by going to step 6 now.

To configure Oracle Identity Federation in an existing domain:

   a. Select **Extend Existing Domain**.
   b. Enter the name of the host that contains the domain in the Host Name field.
   c. Enter the listen port for the WebLogic Administration Server in the Port field.
   d. Enter the user name for the domain in the User Name field.
   e. Enter the password for the domain user in the User Password field.
   f. Click **Next**. The Specify Installation Location screen appears.

6. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories.

> **Note:** To install Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home, Oracle Middleware Home, and Oracle Home directory in the domain must have identical directory paths and names.

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 Identity Federation**—and *optionally*, **Oracle HTTP Server**. Refer to "Configuring Oracle HTTP Server for OIF" on page 11-3 for information about configuring these two components simultaneously.

   If you are installing Oracle Identity Federation in a new domain, the Fusion Middleware Control management component is automatically selected for 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 Select Oracle Identity Federation Configuration Type screen appears.
10. Select **Advanced** and click **Next**. The Specify OIF Details screen appears.
11. 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.

12. 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.

The screens that appear next depend on the options you selected for the configuration items on the Select OIF Advanced Flow Attributes screen. The following information describes all possible screens that may appear. This information about all possible screens that may appear is not presented in a linear sequence and your installation may not encounter all of the screens. Enter information for the appropriate screens and proceed to step 13.

If you selected LDAP for Authentication Type, the Specify Authentication LDAP Details screen will appear. Enter the following information:

- LDAP Type: Select the appropriate LDAP repository.
- LDAP URL: Enter the URL connection string for the LDAP repository in the form: *protocol://hostname:port*

> **Note:** If you selected Microsoft Active Directory for the LDAP Type, you must specify an SSL LDAP URL, that is, ldaps://*hostname*:*port*.

- LDAP Bind DN: Enter the bind DN for the LDAP repository.
- LDAP Password: Enter the password for the bind DN.
- User Credential ID Attribute: Enter the LDAP attribute Oracle Identity Federation will use to authenticate users. For example, if you enter **mail** and the value of the mail attribute for a user is jane.doe@domain.com, then Jane Doe must enter **jane.doe.@domain.com** when challenged. Values for the LDAP attribute you identify for User Credential ID Attribute must be unique for all users.
- User Unique ID Attribute: Enter the LDAP attribute that will uniquely identify users to Oracle Identity Federation. The value you enter must be identical to the value you enter for the User Data Store's User ID Attribute parameter. For example, if you enter mail for User Unique ID Attribute and you configure the User Data Store's User ID Attribute parameter with a value of EmailAddress, then the value of mail in the authentication engine repository must equal the value of EmailAddress in the User Data Store. Values for the LDAP attribute you identify for User Unique ID Attribute must be unique for all users.
- Person Object Class: Enter the LDAP object class that represents a user in the LDAP repository. For example: inetOrgPerson for Oracle Internet Directory and Sun Java System Directory Server, and user for Microsoft Active Directory.
- Base DN: Enter the root DN that searches will start from.

If you selected LDAP for User Store, the Specify LDAP Attributes for User Data Store screen will appear. Enter the following information:

- LDAP Type: Select the appropriate LDAP repository.

- LDAP URL: Enter the URL connection string for the LDAP repository in the form: *protocol://hostname:port*

> **Note:** If you selected Microsoft Active Directory for the LDAP Type, you must specify an SSL LDAP URL, that is, ldaps://*hostname*:*port*.

- LDAP Bind DN: Enter the bind DN for the LDAP repository.
- LDAP Password: Enter the password for the bind DN.
- User Description Attribute: Enter the readable LDAP attribute that will identify the owner of a federation record. For example: uid for Oracle Internet Directory and Sun Java System Directory Server, and sAMAccountName for Microsoft Active Directory.
- User ID Attribute: Enter the LDAP attribute that will uniquely identify the user during authentication. For example: uid for Oracle Internet Directory and Sun Java System Directory Server, and sAMAccountName for Microsoft Active Directory.
- Person Object Class: Enter the LDAP object class that represents a user in the LDAP repository. For example: inetOrgPerson for Oracle Internet Directory and Sun Java System Directory Server, and user for Microsoft Active Directory.
- Base DN: Enter the root DN that searches will start from.

If you selected RDBMS for User Store, the Specify User Store Database Details screen will appear. Enter the following information:

- 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 database username.
- Password: Enter the password for the database user.
- Login Table: Enter the name of the table that will store user data. The value you enter must be a valid table name, and the values you enter for User ID Attribute and User Description Attribute must be valid column names in the table you identify.
- User ID Attribute: Enter the name of the table column to use for the Oracle Identity Federation user ID. The value you enter must be a valid column name in the table you identified for the Login Table parameter.
- User Description Attribute: Enter the name of the table column to use for the user description. The value you enter must be a valid column name in the table you identified for the Login Table parameter.

If you selected LDAP for Federation Store, the Specify LDAP Attributes for Federation Data Store screen will appear. Enter the following information:

- LDAP Type: Select the appropriate LDAP repository.
- LDAP URL: Enter the URL connection string for the LDAP repository in the form: *protocol://hostname:port*

Note: If you selected Microsoft Active Directory for the LDAP Type, you must specify an SSL LDAP URL, that is, ldaps://*hostname*:*port*.

- LDAP Bind DN: Enter the bind DN for the LDAP repository.
- LDAP Password: Enter the password for the bind DN.
- User Federation Record Context: Enter the location of the container where you want Oracle Identity Federation to store federation records. If the container you identify does not exist, it will be created at runtime. However, if you identify cn=example,dc=test,dc=com as the User Federation Record Context, dc=test,dc=com must exist in the LDAP repository.
- LDAP Container Object Class: *Optional*. Enter the object class for the container that stores federation records. If this field is empty, the default value of applicationProcess is used.
- Active Directory Domain: Appears only if you select Microsoft Active Directory for the LDAP Type. Enter the name of the Microsoft Active Directory domain.

If you selected RDBMS for Federation Store, the Specify Federation Store Database Details screen will appear. Enter the following information:

- 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.

If you selected RDBMS for User Session Store, Message Store, or Configuration Store, the Specify Transient Store Database Details screen will appear. Enter the following information:

- 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.

  Click **Next**.

13. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
14. The Configuration Progress screen appears. Click **Next** to continue.
15. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

11.7 Advanced Example: Configuring OIF with OID in a New WebLogic Domain for LDAP Authentication, User Store, and Federation Store

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

Note: When you configure 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 configuration:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

11.7.1 Appropriate Deployment Environment

Perform the 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.

11.7.2 Components Deployed

Performing the configuration in this section deploys the following components:

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

11.7.3 Dependencies

The configuration in this section depends on the following components:

- Oracle WebLogic Server
- 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.

11.7.4 Procedure

Perform the following steps to 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 for more information.
   b. Create the *Identity Management - Oracle Identity Federation* schema in the database. Refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) for more information.
2. Install the Oracle Database for Oracle Internet Directory. Refer to Installing Oracle Database 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 Oracle Fusion Middleware Repository Creation Utility (RCU)" for more information.
4. Ensure that Oracle Identity Federation is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.
5. Run `<ORACLE_HOME>/bin/config.sh` (On UNIX) or `<ORACLE_HOME>\bin\config.bat` to start the Oracle Identity Management Configuration Wizard. Click **Next** to continue.
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. 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**, **Oracle Identity Federation**, and *optionally*, **Oracle HTTP Server**. Refer to "Configuring Oracle HTTP Server for OIF" on page 11-3 for information about configuring Oracle HTTP Server with 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 of *hostname*:*port*:*servicename*. For Oracle Real Application Clusters (RAC), the connection string must be in the form of *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.

  Click **Next**.

16. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
17. The Configuration Progress screen appears. Click **Next** to continue.
18. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

11.8 Advanced Example: Configuring OIF in a New or Existing WebLogic Domain with RDBMS Data Stores

This topic describes how to configure Oracle Identity Federation (OIF) in a new or existing WebLogic administration domain with RDBMS data stores. It includes the following sections:

11.8.1 Appropriate Deployment Environment

Perform the configuration in this topic to quickly deploy Oracle Identity Federation with RDBMS User Store, Federation Store, Session Store, Message Store, and Configuration Store.

11.8.2 Components Deployed

Performing the configuration in this section deploys the following components:

If you configure Oracle Identity Federation in a new domain:

- WebLogic Administration Server
- Fusion Middleware Control
- WebLogic Managed Server
- Oracle Identity Federation
- *Optionally*, Oracle HTTP Server

If you configure Oracle Identity Federation in an existing domain:

- WebLogic Managed Server
- Oracle Identity Federation
- *Optionally*, Oracle HTTP Server

11.8.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Oracle Database for User Store, Federation Store, Session Store, Message Store, and Configuration Store.
- New *Identity Management - Oracle Identity Federation* schema existing in the database for Federation Store, Session Store, Message Store, and Configuration Store.
- Table for storing user data in the User Store database.
- LDAP repository, if using LDAP for Authentication.

11.8.4 Procedure

Perform the following steps to configure Oracle Identity Federation in a new or existing domain with RDBMS User Store, Federation Store, User Session Store, Message Store, and Configuration Store:

1. Install the database(s) for the RDBMS User Store, Federation Store, User Session Store, Message Store, and Configuration Store. Refer to Installing Oracle Database for more information.
2. Create the *Identity Management - Oracle Identity Federation* schema in the database(s). Refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) for more information.
3. Decide if you want to use an LDAP repository for Authentication. If you do, you must install the LDAP repository before you can install Oracle Identity Federation.
4. Ensure that Oracle Identity Federation is installed, as described in Installation Roadmap and Installing Oracle Identity Management Using "Install and Configure" Option.
5. Run `<ORACLE_HOME>/bin/config.sh` (On UNIX) or `<ORACLE_HOME>\bin\config.bat` to start the Oracle Identity Management Configuration Wizard. Click **Next** to continue.
6. On the Select Domain screen, choose whether to install Oracle Identity Federation in a new or existing domain:

To configure Oracle Identity Federation in a new domain:

a. Select **Create New Domain**.
b. Enter the user name for the new domain in the User Name field.
c. Enter the user password for the new domain in the User Password field.
d. Enter the user password again in the Confirm Password field.
e. Enter a name for the new domain in the Domain Name field.
f. Click **Next**. The Specify Installation Location screen appears.
g. Continue the installation by going to step 7 now.

To install Oracle Identity Federation in an existing domain:

a. Select **Extend Existing Domain**.
b. Enter the name of the host that contains the domain in the Host Name field.

c. Enter the listen port for the WebLogic Administration Server in the Port field.

d. Enter the user name for the domain in the User Name field.

e. Enter the password for the domain user in the User Password field.

f. Click **Next**. The Specify Installation Location screen appears.

7. Identify the Homes, Instances, and the WebLogic Server directory by referring to Identifying Installation Directories.

> **Note:** To install Oracle Identity Management components in an existing Oracle WebLogic Server administration domain, each Oracle WebLogic Server Home, Oracle Middleware Home, and Oracle Home directory in the domain must have identical directory paths and names.

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 Identity Federation**—and *optionally*, **Oracle HTTP Server**. Refer to "Configuring Oracle HTTP Server for OIF" on page 11-3 for information about configuring these two components simultaneously.

If you are installing Oracle Identity Federation in a new domain, the Fusion Middleware Control management component is automatically selected for 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 Select Oracle Identity Federation Configuration Type screen appears.

11. Select **Advanced** and click **Next**. The Specify OIF Details screen appears.

12. 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.

13. Select the following and click **Next**:
    - Authentication Type: **JAAS** or **LDAP**
      - Select JAAS to delegate authentication to the application server.
      - Select LDAP to authenticate against an LDAP repository.
    - User Store: **RDBMS**
    - Federation Store: **RDBMS**
    - User Session Store: **RDBMS**
    - Message Store: **RDBMS**
    - Configuration Store: **RDBMS**

    Note: The screen that appears next depends on what you selected for Authentication:

    - If you selected LDAP for Authentication Type, the Specify Authentication LDAP Details screen appears. Continue you installation by going to step 14 now.
    - If you selected JAAS for Authentication Type, the Specify User Store Database Details screen appears. Continue you installation by going to step 15 now.

    ---

14. Enter the following information on the Specify Authentication LDAP Details screen to identify the LDAP repository that will perform authentication:
    - LDAP Type: Select the appropriate LDAP repository.
    - LDAP URL: Enter the URL connection string for the LDAP repository in the form: *protocol://hostname:port*

    Note: If you selected Microsoft Active Directory for the LDAP Type, you must specify an SSL LDAP URL, that is, ldaps://*hostname*:*port*.

    - LDAP Bind DN: Enter the bind DN for the LDAP repository.
    - LDAP Password: Enter the password for the bind DN.
    - User Credential ID Attribute: Enter the LDAP attribute Oracle Identity Federation will use to authenticate users. For example, if you enter **mail** and the value of the mail attribute for a user is jane.doe@domain.com, then Jane Doe must enter **jane.doe.@domain.com** when challenged. Values for the

LDAP attribute you identify for User Credential ID Attribute must be unique for all users.

- User Unique ID Attribute: Enter the LDAP attribute that will uniquely identify users to Oracle Identity Federation. The value you enter must be identical to the value you enter for the User Data Store's User ID Attribute parameter. For example, if you enter mail for User Unique ID Attribute and you configure the User Data Store's User ID Attribute parameter with a value of EmailAddress, then the value of mail in the authentication engine repository must equal the value of EmailAddress in the User Data Store. Values for the LDAP attribute you identify for User Unique ID Attribute must be unique for all users.
- Person Object Class: Enter the LDAP object class that represents a user in the LDAP repository. For example: inetOrgPerson for Oracle Internet Directory and Sun Java System Directory Server, and user for Microsoft Active Directory.
- Base DN: Enter the root DN that searches will start from.

Click **Next**. The Specify User Store Database Details screen appears.

15. Enter the following information to identify the database that will store user data:
    - 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 database username.
    - Password: Enter the password for the database user.
    - Login Table: Enter the name of the table that will store user data. The value you enter must be a valid table name, and the values you enter for User ID Attribute and User Description Attribute must be valid column names in the table you identify.
    - User ID Attribute: Enter the name of the table column to use for the Oracle Identity Federation user ID. The value you enter must be a valid column name in the table you identified for the Login Table parameter.
    - User Description Attribute: Enter the name of the table column to use for the user description. The value you enter must be a valid column name in the table you identified for the Login Table parameter.

    Click **Next**. The Specify Federation Store Database Details screen appears.
16. Enter the following information to identify the database that will store federated user account linking data:
    - 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.

    Click **Next**. The Specify Transient Store Database screen appears.

17. Enter the following information to identify the database that will store transient runtime session state data, protocol messages, and Oracle Identity Federation configuration data:

    - 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.

    Click **Next**.

18. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
19. The Configuration Progress screen appears. Click **Next** to continue.
20. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

11.9 Verifying OIF

Verify the Oracle Identity Federation (OIF) 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.

11.10 Getting Started with OIF After Installation

After installing Oracle Identity Federation (OIF), refer to the "Common Tasks" section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation*.

12

Configuring Oracle Unified Directory with Oracle Identity Management 11.1.1.6.0

This chapter discusses the following topics:

12.1 Before You Begin

Before performing any installation, you should read the following documents to ensure that your Oracle Fusion Middleware environment meets the minimum installation requirements for the products you are installing.

- Review System Requirements and Specifications
- Review Certification Information

12.1.1 Review System Requirements and Specifications

Oracle Fusion Middleware System Requirements and Specifications document is available at:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html`

This document covers information such as hardware and software requirements, database schema requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches.

12.1.2 Review Certification Information

Oracle Fusion Middleware Supported System Configurations document is available at:

`http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html`

This document contains certification information related to supported 32-bit and 64-bit operating systems, databases, web servers, LDAP servers, adapters, IPv6, JDKs, and third-party products.

12.2 Configuring only Oracle Unified Directory (OUD)

To configure only Oracle Unified Directory (OUD), refer to the following topics of the *Oracle Fusion Middleware Installation Guide for Oracle Unified Directory 11g Release 1 (11.1.1):*

- "Installing the Software", available at:

  http://download.oracle.com/docs/cd/E22289_01/html/821-1274/installing-the-software.html#scrolltoc

- "Setting Up the Directory Server", available at:

  http://download.oracle.com/docs/cd/E22289_01/html/821-1274/setting-up-ds.html#scrolltoc

12.3 Configuring Oracle Unified Directory (OUD) with ODSM

To configure Oracle Unified Directory (OUD) with Oracle Directory Services Manager (ODSM), refer to the following topics:

- Installing Oracle WebLogic Server 11*g* Release 1 (10.3.5 or 10.3.6). For more information, see "Install Oracle WebLogic Server" in the *Oracle Fusion Middleware Installation Planning Guide*. In addition, see *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* for complete information about installing Oracle WebLogic Server.
- "Installing the Software" in the *Oracle Fusion Middleware Installation Guide for Oracle Unified Directory 11g Release 1 (11.1.1)*, available at:

  http://download.oracle.com/docs/cd/E22289_01/html/821-1274/installing-the-software.html#scrolltoc

  Note: In the **Specify Installation Location screen** enter the location of the Oracle Middleware Home for the OUD Base Location Home.

- "Setting Up the Directory Server" in the *Oracle Fusion Middleware Installation Guide for Oracle Unified Directory 11g Release 1 (11.1.1)*, available at:

  http://download.oracle.com/docs/cd/E22289_01/html/821-1274/setting-up-ds.html#scrolltoc

- "Managing Oracle Unified Directory With Oracle Directory Services Manager" in the *Oracle Fusion Middleware Installation Guide for Oracle Unified Directory 11g Release 1 (11.1.1)*, available at:

  http://download.oracle.com/docs/cd/E22289_01/html/821-1273/managing-ojd-with-odsm.html

12.4 Configuring OUD/ODSM/ODIP/Fusion Middleware Control and OVD/ODSM

This topic describes how to configure Oracle Unified Directory (OUD), Oracle Directory Services Manager (ODSM), Oracle Directory Integration Platform (ODIP) and Fusion Middleware Control in a new WebLogic administration domain (for example: *domain1*); and Oracle Virtual Directory(OVD) and Oracle Directory Services Manager (ODSM) in a separate WebLogic administration domain (for example: *domain2*). It includes the following sections:

- Part I: Configuring OVD with ODSM and Fusion Middleware Control in a New WebLogic Administration Domain
- Part II: Configuring OUD/ODSM/ODIP and Fusion Middleware Control in a New WebLogic Administration Domain

12.4.1 Part I: Configuring OVD with ODSM and Fusion Middleware Control in a New WebLogic Administration Domain

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

- Dependencies
- Procedure

Note: Part I is optional if you do not wish to use Oracle Virtual Directory (OVD).

12.4.1.1 Dependencies

The configuration in this section depends on Oracle WebLogic Server.

12.4.1.2 Procedure

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

1. Ensure that Oracle WebLogic Server 11*g* Release 1 (10.3.5 or 10.3.6) is installed. For more information, see "Install Oracle WebLogic Server" in the *Oracle Fusion Middleware Installation Planning Guide*. In addition, see *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* for complete information about installing Oracle WebLogic Server.

   Note: After installing Oracle WebLogic Server, ensure that you complete the following steps:

   1. Open the `setNMProps` file (located at `<MW_HOME>/oracle_common/common/bin` directory), and ensure that the `StartScriptEnabled` property is set to `true`.
   2. Run the `<MW_HOME>/oracle_common/common/bin/setNMProps.sh` script (on UNIX) or `<MW_HOME>\oracle_common\common\bin\setNMProps.cmd` (on Windows).
   3. Start the Node Manager by executing the following command:

      On UNIX:

      Run `startNodeManager.sh` (Located at `<WL_HOME>/server/bin` directory).

      On Windows:

      Run `startNodeManager.cmd` (Located at `<WL_HOME>\server\bin` directory).

   ---

2. Ensure that Oracle Virtual Directory is installed, as described in Installing Oracle Identity Management Using "Install and Configure" Option.

Note: If you selected Install and Configure option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, the **Select Domain** screen is displayed.

If you selected **Install Software - Do Not Configure** option in the Select Installation Type screen while installing Oracle Identity Management 11*g* Release 1 (11.1.1.6.0), as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software, you must now start the Oracle Identity Management Configuration Wizard. Run `<ORACLE_HOME>/bin/config.sh` (on UNIX) or `<ORACLE_HOME>\bin\config.bat` (on Windows) to start the Oracle Identity Management Configuration Wizard. The Select Domain screen is displayed.

---

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. 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**.
9. The Installation Summary screen appears. Verify the information on this screen. Click **Configure** to begin the configuration.
10. The Configuration Progress screen appears. Click **Next** to continue.
11. The Installation Complete screen appears. Click **Save** to save the configuration information to a file, and then click **Finish** to exit the installer.

    A new WebLogic domain (for example: *domain2*) is created to support Oracle Virtual Directory (OVD) with Oracle Directory Services Manager (ODSM) and Fusion Middleware Control in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

    For managing Oracle Virtual Directory (OVD) with Oracle Directory Services Manager (ODSM), refer to the "Getting Started with Administering Oracle Virtual Directory" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory*.

12.4.2 Part II: Configuring OUD/ODSM/ODIP and Fusion Middleware Control in a New WebLogic Administration Domain

This topic describes how to configure Oracle Unified Directory (OUD), Oracle Directory Services Manager (ODSM), Oracle Directory Integration Platform (ODIP) and Fusion Middleware Control in a New WebLogic administration domain. It includes the following sections:

12.4.2.1 Prerequisites

Ensure that the following prerequisites are met.

- Installing Oracle WebLogic Server 11g Release 1
- Installing Oracle Unified Directory
- Setting Up Oracle Unified Directory with Replication Topology Option

12.4.2.1.1 Installing Oracle WebLogic Server 11*g* Release 1

Ensure that Oracle WebLogic Server 11*g* Release 1 (10.3.5 or 10.3.6) is installed. For more information, see "Install Oracle WebLogic Server" in the *Oracle Fusion Middleware Installation Planning Guide*. In addition, see *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* for complete information about installing Oracle WebLogic Server.

12.4.2.1.2 Installing Oracle Unified Directory

Ensure that Oracle Unified Directory is installed, as described in "Installing the Software" in the *Oracle Fusion Middleware Installation Guide for Oracle Unified Directory 11g Release 1 (11.1.1)*, available at the following link:

http://download.oracle.com/docs/cd/E22289_01/html/821-1274/installing-the-software.html#scrolltoc

> **Note:** In the **Specify Installation Location screen** enter the location of the Oracle Middleware Home for the OUD Base Location Home.

12.4.2.1.3 Setting Up Oracle Unified Directory with Replication Topology Option

For the first directory server in your replication topology, follow the instructions in "To Set Up the Directory Server Using the GUI" in the *Oracle Fusion Middleware Installation Guide for Oracle Unified Directory 11g Release 1 (11.1.1)*, available at the following link:

http://download.oracle.com/docs/cd/E22289_01/html/821-1274/ds-gui-setup.html#to-set-up-the-directory-server-using-the-gui

> **Note:** To enable the changelog adapter, ensure that Oracle Unified Directory instance is setup with the replication topology option. Enabling the changelog adapter is a prerequisite for Oracle Directory Integration Platform (ODIP).

12.4.2.2 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Oracle Unified Directory

12.4.2.3 Procedure

Perform the following steps to configure Oracle Unified Directory (OUD), Oracle Directory Services Manager (ODSM), Oracle Directory Integration Platform (ODIP) and Fusion Middleware Control in one domain.

1. Ensure that all the prerequisites are met as described in Prerequisites.

2. Ensure that Oracle Directory Integration Platform is installed using **Install Software - Do Not Configure** option, as described in Installing and Configuring Oracle Identity Management 11g Release 1 (11.1.1.6.0) Software.
3. Run the `<MW_HOME>/oracle_common/common/bin/config.sh` script (on UNIX) or `<MW_HOME>\oracle_common\common\bin\config.cmd` (on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
4. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**.
5. On the Select Domain Source screen, select **Generate a domain configured automatically to support the following products:** option. Select the following domain configuration options:
   - Oracle Enterprise Manager - 11.1.1.0 [oracle_common]
   - Oracle Directory Services Manager - 11.1.1.5.0 [Oracle_OUD1]
   - Oracle Directory Integration Platform - 11.1.1.2.0 [Oracle_IDM1]

   Note: When you select **Oracle Enterprise Manager - 11.1.1.0 [oracle_common]** and **Oracle Directory Integration Platform - 11.1.1.2.0 [Oracle_IDM1]**, **Oracle Identity Management - 11.1.1.2.0 [Oracle_IDM1]** and **Oracle JRF 11.1.1.0 [oracle_common]** is also selected by default.

   Click **Next**. The Specify Domain Name and Location screen appears.
6. On the Specify Domain Name and Location screen, enter a name and location for the domain to be created. In addition, enter a location to store applications for the domain. Click **Next**. The Configure Administrator User Name and Password screen is displayed.
7. Configure a user name and a password for the administrator. The default user name is weblogic. Click **Next**. The Configure Server Start Mode and JDK screen is displayed.
8. Choose `JRockit SDK 1.6.0_24` and **Production Mode** in the Configure Server Start Mode and JDK screen. Click **Next**. The Select Optional Configuration Screen is displayed.
9. On the Select Optional Configuration screen, select **Administration Server** and **Managed Servers, Clusters, and Machines** option. Click **Next**. The Configure the Administration Server screen appears.
10. On the Configure the Administration Server screen, specify the Administration Server name and the Listen port (the default port is `7001`). Click **Next**. The Configure Managed Servers screen appears.

Note: If you used the default values for the Administration Server name and the Listen port for the Oracle Directory Services Manager (ODSM) that is managing Oracle Virtual Directory (OVD), then you must use a different Administration Server name and Listen port for the Oracle Directory Services Manager (ODSM) that is managing Oracle Directory Integration Platform (ODIP).

For example, you can use `8001` as the Listen port for the Administration Server for Oracle Directory Services Manager (ODSM) that is managing Oracle Directory Integration Platform (ODIP).

11. On the Configure Managed Servers screen, specify the Managed Server name and the Listen port (the default port is `7005`). Click **Next**.

Note: If you used the default values for the Managed Server name and the Listen port for the Oracle Directory Services Manager (ODSM) that is managing Oracle Virtual Directory (OVD), then you must use a different Managed Server name and Listen port for the Oracle Directory Services Manager (ODSM) that is managing Oracle Directory Integration Platform (ODIP).

For example, you can use *wls_ods2* as the Managed Server name and `8005` as the Listen port for the Managed Server for Oracle Directory Services Manager (ODSM) that is managing Oracle Directory Integration Platform (ODIP).

12. On the Configure Clusters screen, configure Clusters as required. Click **Next**.
13. On the Configure Machines screen, select the **Machine** or **Unix Machine** tab. Click on **Add** and specify the machine name. Click **Next**.
14. If you added a machine on the Configure Machines screen, then the Assign Servers to Machines screen appears. On the Assign Servers to Machines screen, assign the Administration Server and the Managed server to the specified machine. Click **Next**.
15. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.
16. Click **Done**, once the domain is created successfully.

    A new WebLogic domain (for example: *domain1*) is created to support Oracle Unified Directory (OUD), Oracle Directory Services Manager (ODSM), Oracle Directory Integration Platform (ODIP) and Fusion Middleware Control in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

12.4.2.4 Post-Configuration Steps

After configuring Oracle Directory Integration Platform, perform the following tasks:

1. If the Administration Server and the Managed Server is not up and running then start the Administration Server and the Managed Server (*wls_ods2)* as described in Starting the Stack.
2. Verify the Oracle Unified Directory (OUD) server is up and running using the `status` command, which is located in the *<OUD_INSTANCE>*`/bin/` directory.

3. Set the *JAVA_HOME*, *WL_HOME* and *ORACLE_HOME* environment variables and execute `<ORACLE_HOME>/bin/dipConfigurator`. Provide the following information when prompted for input.

   - WebLogic host, port, username and password details.
   - Oracle Unified Directory (OUD) host, port, username and password details. Also provide Oracle Unified Directory (OUD) admin port which is required to add global acis to access Changelog for DIP account.
   - Specify the suffix under which DIP metadata is to be stored.

   Following is a sample output for the `dipConfigurator` command:

```
Enter WLS Admin Server Host Name : myhost1.mycompany.com
Enter WLS Admin Server Port : 8001
Enter username to contact WebLogic Server : weblogic
[Enter password to contact WebLogic Server : ]
Enter backend LDAP Server HostName : myhost1.mycompany.com
Enter backend LDAP Server Port : 4389
Enter username to contact LDAP server : cn=directory manager
[Enter password to contact LDAP Server : ]
Enter backend LDAP Server Admin Port : 4444
Enter SUFFIX to store DIP metadata : dc=us,dc=mycompany,dc=com
```

   Note: dipConfigurator script creates a new ASInstance, and a new EMAgent component in that ASInstance. These agents are required for DIP metrics to display in Fusion Middleware Control. The instance, such as *dip_inst1*, is created under the *MW_HOME* directory.

4. Verify the Oracle Directory Integration Platform (ODIP) installation and configuration. For more information, see Verifying ODIP.

5. The `dipConfigurator` will set the below ACIs for the specified metadata suffix. But for the other suffixes, set the below ACIs for the containers in OUD, in order to write the changes imported from the other sources:

```
dn: <Container DN>
changetype:modify
add: aci
aci: (target="ldap:///<Container DN>")(version 3.0; acl "Anonymous read-search
access"; allow (read,add,delete,search,write,compare,proxy)
groupdn="ldap:///cn=dipadmingrp,cn=DIPadmins,cn=Directory Integration
Platform,<metadata suffix>"; allow
(read,add,delete,search,write,compare,proxy)
groupdn="ldap:///cn=odipigroup,cn=DIPadmins,cn=Directory Integration
Platform,<metadata suffix>"; )
-
add: aci
aci: (targetattr="*")(version 3.0; acl "Anonymous read-search access"; allow
(search,read,write,compare,add)
groupdn="ldap:///cn=dipadmingrp,cn=DIPadmins,cn=Directory Integration
Platform,<metadata suffix>"; allow (search,read,write,compare,add)
groupdn="ldap:///cn=odipigroup,cn=DIPadmins,cn=Directory Integration
Platform,<metadata suffix>";)
```

Note: ODIP configuration can be recreated any number of times if ODIP configuration is deleted or corrupted, for example, while setting up OUD Replication Gateway or OUD Proxy Server. However, if there are any sync profiles that already exists, the connected directory password of the existing profiles needs to be reset after executing `dipConfigurator`.

For recreating the ODIP configuration, re-run step 3.

Part III

Installing and Configuring Oracle Identity and Access Management (11.1.1.5.0)

Part III provides information about installing and configuring the following Oracle Identity and Access Management products:

- Oracle Identity Manager (OIM)
- Oracle Access Manager (OAM)
- Oracle Adaptive Access Manager (OAAM)
- Oracle Entitlement Server (OES)
- Oracle Identity Navigator (OIN)

Additionally, Part III provides information about installing and configuring Oracle HTTP Server 11*g* Webgate for Oracle Access Manager, and migrating from Domain Agent to Oracle HTTP Server 10*g* Webgate for Oracle Access Manager.

Part III contains the following chapters:

13

Installing Oracle Identity and Access Management (11.1.1.5.0)

This chapter includes the following topics:

- Installing Oracle Identity and Access Management (11.1.1.5.0)
- Understanding the Directory Structure After Installation
- After Installing the Oracle Identity and Access Management Software
- Configuring Oracle Identity and Access Management Products

> **Note:** This chapter provides information for Installing Oracle Identity and Access Management (11.1.1.5.0) for new users. If you are an existing Oracle Identity and Access Management 11.1.1.3.0 user, refer to "Patching Oracle Identity and Access Management 11.1.1.3.0 to 11.1.1.5.0" in the *Oracle Fusion Middleware Patching Guide*.

13.1 Installing Oracle Identity and Access Management (11.1.1.5.0)

This topic describes how to install the Oracle Identity and Access Management 11*g* software, which includes Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Identity Navigator, and Oracle Entitlements Server.

It includes the following sections:

- Products Installed
- Dependencies
- Procedure

13.1.1 Products Installed

Performing the installation in this section installs the following products:

- Oracle Identity Manager
- Oracle Access Manager

> **Note:** When you are installing Oracle Access Manager, Oracle Secure Token Service will also be installed. For more information on Oracle Secure Token Service, see *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager with Oracle Security Token Service*.

- Oracle Adaptive Access Manager

> **Note:** For Oracle Identity and Access Management 11.1.1.5.0, Oracle Adaptive Access Manager includes two components
>
> - Oracle Adaptive Access Manager (Online)
> - Oracle Adaptive Access Manager (Offline)

- Oracle Identity Navigator
- Oracle Entitlements Server

> **Note:** When you are installing Oracle Identity and Access Management, only the Administration Server of Oracle Entitlements Server is installed.
>
> To install and configure Oracle Entitlements Server Client, see Installing Oracle Entitlements Server Client.

13.1.2 Dependencies

The installation in this section depends on the following:

- Oracle WebLogic Server 11*g* Release 1 (10.3.5)
- Oracle Database and any required patches
- Oracle SOA Suite 11.1.1.5.0 (required for Oracle Identity Manager only)
- JDK (either Oracle WebLogic JRockit JDK or Sun JDK 1.6.0)

13.1.3 Procedure

Complete the following steps to install the Oracle Identity and Access Management suite that contains Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Identity Navigator, and Oracle Entitlements Server:

1. Install the Oracle Database. Refer to Installing Oracle Database for more information.

> **Note:** Ensure that the Oracle database is with the AL32UTF8 character set encoding.

2. Decide if you want to create new schemas for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Metadata Services, and SOA Infrastructure by using Oracle Fusion Middleware Repository Creation Utility (RCU) or if you want to use an existing schema:
   - If you want to create a new schema using the Oracle Fusion Middleware Repository Creation Utility (RCU), refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) for more information about creating schemas. After creating schemas, continue this procedure by going to Step 3.

- If you want to use an existing schema, you must upgrade the schema by using the Upgrade Assistant tool. For more information, see the *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*.

3. Install Oracle WebLogic Server. Refer to Installing Oracle WebLogic Server and Creating the Oracle Middleware Home for more information.
4. Install Oracle SOA 11*g* suite if you want to use Oracle Identity Manager. For information about installing the Oracle SOA 11*g* suite, refer to Installing the Latest Version of Oracle SOA Suite (Oracle Identity Manager Users Only).
5. Start your installation by performing all the steps in Starting an Installation. After you complete those steps, the Welcome screen appears.
6. Click **Next** on the Welcome screen. The Install Software Updates screen appears. Select whether or not you want to search for updates. Click **Next**.
7. The Prerequisite Checks screen appears. If all prerequisite checks pass inspection, click **Next**. The Specify Installation Location screen appears.
8. On the Specify Installation Location screen, enter the path to the Oracle Middleware Home installed on your system. Ensure that Oracle WebLogic Server is already installed on the system in the same Middleware Home. This directory is the same as the Oracle Home created in the Oracle WebLogic Server installation.

   Note: If you do not specify a valid Middleware Home directory on the Specify Installation Location screen, the Installer displays a message and prompts you to confirm whether you want to proceed with the installation of only Oracle Identity Manager Design Console and Oracle Identity Manager Remote Manager. These two components of Oracle Identity Manager do not require a Middleware Home directory.

   If you want to install only Oracle Identity Manager Design Console or Remote Manager, you do not need to install Oracle WebLogic Server or create a Middleware Home directory on the machine where Design Console or Remote Manager is being configured.

   Before using Oracle Identity Manager Design Console or Remote Manager, you must configure Oracle Identity Manager Server on the machine where the Administration Server is running. When configuring Design Console or Remote Manager on a different machine, you can specify the Oracle Identity Manager Server host and URL information.

9. In the **Oracle Home Directory** field, enter a name for the Oracle Home folder that will be created under your Middleware Home. This directory is also referred to as *IDM_Home* or *IAM_Home* in this book.

Note: The name that you provide for the Oracle Home for installing the Oracle Identity and Access Management suite should not be same as the Oracle Home name given for the Oracle Identity Management suite.

By default the installer chooses an alternate name `Oracle_IDM2` if `Oracle_IDM1` oracle home exists and has Oracle Identity Management components installed. This should not be changed to `Oracle_IDM1`.

Click **Next**.

10. The Installation Summary screen appears.

    The Installation Summary screen displays a summary of the choices that you made. Review this summary and decide whether to start the installation. If you want to modify any of the configuration settings at this stage, select a topic in the left navigation page and modify your choices. To continue installing Oracle Identity and Access Management, click **Install**. The Installation Progress screen appears.

    This installation process copies the Identity Management software to your system and creates an *IDM_Home* directory under your Middleware Home. You must proceed to create a WebLogic Domain, by running the Oracle Fusion Middleware Configuration Wizard. In addition, you must configure the Administration Server settings while creating the domain.

    If you are configuring Oracle Identity Manager (OIM), after configuring a domain, you must run the Oracle Identity Manager Configuration Wizard to configure OIM server, design console, and remote manager.

    For information about configuring Oracle Identity and Access Management products, see the following:

    - Configuring Oracle Identity Navigator
    - Configuring Oracle Identity Manager
    - Configuring Oracle Access Manager
    - Configuring Oracle Adaptive Access Manager
    - OAM and OAAM Joint Domain Configuration Scenarios
    - Installing and Configuring Oracle Entitlements Server

    For more information, see Configuring OIM Server, Configuring OIM Design Console, and Configuring OIM Remote Manager.

    Note: If you cancel or abort when the installation is in progress, you must manually delete the `<IAM_Home>` directory before you can reinstall the Oracle Identity and Access Management software.

    To invoke online help at any stage of the installation process, click the **Help** button on the installation wizard screens.

13.2 Understanding the Directory Structure After Installation

This section describes the directory structure after installation of Oracle WebLogic Server and Oracle Identity and Access Management. It also shows the structure of directories created after the Oracle Identity and Access Management software is installed.

After you install the Oracle Identity and Access Management suite, an Oracle Home directory for Oracle Identity and Access Management, such as *Oracle_IDM2*, is created under your Middleware Home. This home directory is also referred to as *IAM_Home* in this guide.

For more information about identifying installation directories, see Identifying Installation Directories.

13.3 After Installing the Oracle Identity and Access Management Software

After installing the Oracle Identity and Access Management software, you must proceed to configure Oracle Identity and Access Management products in a new or existing WebLogic domain. In addition, you must configure the Administration Server settings while creating the domain.You can use the Oracle Fusion Middleware Configuration Wizard to create a WebLogic domain or extend an existing domain. For more information about WebLogic administration domain options, see Understanding Oracle WebLogic Server Administration Domain Options.

> **See:** The "Understanding Oracle WebLogic Server Domains" chapter in the *Oracle Fusion Middleware Understanding Domain Configuration for Oracle WebLogic Server* guide for more information about Oracle WebLogic Server administration domains.

To configure Oracle Identity Manager Server, Oracle Identity Manager Design Console, and Oracle Identity Manager Remote Manager, you must launch the Oracle Identity Manager 11*g* Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard.

13.4 Configuring Oracle Identity and Access Management Products

For information about configuration scenarios for Oracle Identity and Access Management products, including joint-installation scenarios, read the following chapters:

- Configuring Oracle Identity Navigator
- Configuring Oracle Identity Manager
- Configuring Oracle Access Manager
- Configuring Oracle Adaptive Access Manager
- OAM and OAAM Joint Domain Configuration Scenarios
- Installing and Configuring Oracle Entitlements Server

14

Understanding Domain Extension Scenarios

This chapter describes the scenarios in which an existing Oracle Identity Management domain can be extended to support new Oracle Identity Management products.

It includes the following topics:

14.1 Overview

When you extend an Oracle Identity Management domain, you are configuring new products in the existing domain to support new Oracle Identity Management products.

For example, you can extend an Oracle Identity Management 11.1.1.5.0 domain to support Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, or Oracle Identity Navigator. The existing Oracle Identity Management 11.1.1.5.0 domain may contain one or more of the various combinations of Oracle Identity Management products, such as Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Identity Federation, or Oracle Directory Integration Platform.

In addition, you can extend an Oracle Identity Management domain that contains any of the various combinations of Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Navigator.

Note: Note that the existing domain must have been created using the Oracle Identity Management 11*g* Release 1 (11.1.1) Installer and configured using the Oracle Identity Management 11*g* Configuration Wizard. You cannot extend an existing domain for Oracle Identity Management components if the domain was created by another program, such as the Oracle Fusion Middleware 11g Oracle SOA Suite Installer or the Oracle Fusion Middleware Configuration Wizard.

14.2 Important Notes Before You Begin

Before you start installing and configuring Oracle Identity Management products in any of the scenarios discussed in this chapter, keep the following points in mind:

- It is assumed that you are installing Oracle Internet Directory, Oracle Virtual Directory, Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Navigator on the same machine.

  Note: In this chapter, two *IDM_Home* directories are mentioned in descriptions and procedures. For example, the first one, **IDM_Home** can be the *IDM_Home* directory for Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation. The second one, **IAM_Home** can be the *IDM_Home* directory for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

  However, note that **IDM_Home** and **IAM_Home** are used as examples in this document. You can specify any name for either of your *IDM_Home* directories. In addition, you can install the two Oracle Identity Management suites (one containing Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation; another containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator) in any order on your machine.

  For more information, see Overview and Structure of Oracle Identity Management 11g Installation.

- **For Oracle Identity Manager users**: You must use the Oracle Identity Manager Configuration Wizard to configure only Oracle Identity Manager Server, Oracle Identity Manager Design Console (on Windows only), and Oracle Identity Manager Remote Manager.

  You must complete this additional configuration for Oracle Identity Manager components after configuring Oracle Identity Manager in a new or existing WebLogic administration domain. For more information, see the chapter Configuring Oracle Identity Manager.

  If you are configuring Oracle Identity Manager Server, you must run the Oracle Identity Manager configuration wizard on the machine where the Administration Server is running. For configuring the Server, you can run the wizard only once during the initial setup of the Server. After the successful setup of Oracle Identity Manager Server, you cannot run the Oracle Identity Manager Configuration Wizard again to modify the configuration of Oracle Identity Manager Server. For such modifications, you must use Oracle Enterprise Manager Fusion Middleware Control.

  If you are configuring only Design Console or Remote Manager, you can run the Oracle Identity Manager Configuration Wizard on the machine where Design Console or Remote Manager is being configured. Note that you can run the Oracle Identity Manager Configuration Wizard to configure Design Console or Remote Manager as and when you need to configure them on new machines.

  Note that Oracle Identity Manager requires Oracle SOA Suite 11*g* (11.1.1.5.0), which should be exclusive to Oracle Identity Management. You must install

Oracle SOA Suite before configuring Oracle Identity Manager. If you are setting up integration between Oracle Identity Manager and Oracle Access Manager, ensure that Oracle Identity Manager and Oracle SOA Suite are installed under the same Middleware Home directory and configured in the same WebLogic domain.

14.3 Domain Extension Scenarios

The following lists the scenarios in which you can extend an existing Oracle Identity Management domain to support new Oracle Identity Management products:

- Extending an Oracle Identity Management 11.1.1.5.0 Domain to Support OIM, OAM, OAAM or OIN on the Local Machine
- Understanding Joint Configuration and Domain Extension Scenarios for OIM, OAM, OAAM, and OIN on the Local Machine

14.3.1 Extending an Oracle Identity Management 11.1.1.5.0 Domain to Support OIM, OAM, OAAM or OIN on the Local Machine

You can extend an existing Oracle Identity Management 11.1.1.5.0 domain (containing OID,OVD,ODSM,ODIP, and OIF) to support Oracle Identity and Access Management 11.1.1.5.0 products.

This scenario involves the following tasks:

1. Installing the latest version of Oracle SOA 11*g* Suite (for Oracle Identity Manager only), as described in Installing the Latest Version of Oracle SOA Suite (Oracle Identity Manager Users Only).
2. Installing the Oracle Identity Management Suite under your existing Middleware Home, as described in Installing Oracle Identity and Access Management (11.1.1.5.0).
3. Creating and loading the necessary schemas for the new components to be added, as described in Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
4. Launching the Oracle Fusion Middleware Configuration Wizard `<IAM_Home>/common/bin/config.sh` script on UNIX (`<IAM_Home>\common\bin\config.cmd` on Windows).
5. Selecting the **Extend an existing WebLogic domain** option on the Welcome screen.
6. Selecting the existing Oracle Identity Management 11.1.1.5.0 domain on the Select a WebLogic Domain Directory screen.
7. Selecting the required domain templates on the Select Extension Source screen to support Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, or Oracle Identity Navigator.
8. Modifying JDBC component schemas, configuration of Managed Servers, Deployments and Services, and so on.
9. Starting the Administration Server on the local machine, as described in Starting or Stopping the Oracle Stack.
10. Starting Managed Servers, as described in Starting or Stopping the Oracle Stack.

Note: When you extend an existing WebLogic domain to support Oracle Identity Manager, you should restart the Administration Server before launching the Oracle Identity Manager Configuration Wizard to configure Oracle Identity Manager Server.

14.3.2 Understanding Joint Configuration and Domain Extension Scenarios for OIM, OAM, OAAM, and OIN on the Local Machine

It is assumed that you have installed the latest versions of Oracle WebLogic Server and the Oracle Identity Management Suite. For Oracle Identity Manager, you should have installed the latest version of Oracle SOA 11*g* Suite. You should have created and loaded the necessary schemas by using Oracle Fusion Middleware Repository Creation Utility (RCU).

You should have configured a new domain to support any of the various combinations of Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), and Oracle Identity Navigator (OIN).

For example, you can configure Oracle Identity Manager in an existing Oracle Identity Management domain that contains Oracle Access Manager or Oracle Identity Navigator.

Several combinations are possible, based on your Oracle Identity Management environment and deployment.

This scenario involves the following tasks:

1. Creating and loading the necessary schemas for the new components to be added, as described in Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
2. Launching the Oracle Fusion Middleware Configuration Wizard `<IAM_Home>/common/bin/config.sh` script on UNIX (`<IAM_Home>\common\bin\config.cmd` on Windows).
3. Selecting the **Extend an existing WebLogic domain** option on the Welcome screen.
4. Selecting the existing Oracle Identity Management domain (the domain that contains any of the various combinations of Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Navigator) on the Select a WebLogic Domain Directory screen.
5. Selecting the required domain templates on the Select Extension Source screen to support Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, or Oracle Identity Navigator. The choice of domain templates in this step depends on the component you are trying to configure in the same domain.
6. Modifying JDBC component schemas, configuration of Managed Servers, Deployments and Services, and so on.
7. Starting the Administration Server on the local machine, as described in Starting or Stopping the Oracle Stack.
8. Starting Managed Servers, as described in Starting or Stopping the Oracle Stack.

Note: When you extend an existing WebLogic domain to support Oracle Identity Manager, you should restart the Administration Server before launching the Oracle Identity Manager Configuration Wizard to configure Oracle Identity Manager Server.

14.4 Starting the Administration Server on the Local Machine

In some scenarios, you may want to install the Administration Server on one machine and component-specific Managed Servers on another machine. You must start the Administration Server on the machine where it is installed before you can create and run Managed Servers on the remote machine.

14.5 Creating Managed Servers on a Remote Machine

Before you can create and run Managed Servers on a remote machine, you must install Oracle WebLogic Server and Oracle Identity Management Suite on the remote machine. Then you must use the pack and unpack commands to create Managed Servers on the remote machine.

14.5.1 Installing Oracle WebLogic Server and Oracle Identity Management Suite on the Remote Machine

You must install Oracle WebLogic Server and Oracle Identity Management Suite on the remote machine.

- On the remote machine, install Oracle WebLogic Server and create a Middleware Home directory, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.

  Note: The structure of Middleware Home and IDM Home directories on the remote machine should be identical to that of the local machine.

- On the remote machine, install Oracle Identity Management Suite, as described in Installing Oracle Identity and Access Management (11.1.1.5.0).

After this installation, you can create and start Managed Servers on the remote machine, as described in the following topic.

14.5.2 Creating and Starting Managed Servers on a Remote Machine

To create and start a Managed Server on a remote machine, complete the following steps:

- On the local machine where the domain is configured and the Administration Server is created, use the `pack` command located in the `\common\bin` directory under your IDM_Home directory to create a Managed Server template that contains a subset of the files in a domain that are required to create a Managed Server domain directory hierarchy on a remote machine.

  The `-managed={true}` parameter of the `pack` command specifies whether the template is to be used to create Managed Servers on remote machines.

- Ensure that the Administration Server is up and running on the local machine.

- On the remote machine, use the `unpack` command located in the `\common\bin` directory under your IDM_Home directory to create the Managed Server domain directory on the remote machine.

  Note: For Oracle Identity Manager users only:

  If you want to start the SOA Server on a remote machine, then you must manually copy the composite files from the `<DOMAIN_HOME>/soa/autodeploy` directory on the local machine to the `<DOMAIN_HOME>/soa/autodeploy` directory on the remote machine after running the `unpack` command on the remote machine. If the `<DOMAIN_HOME>/soa/autodeploy` directory does not exist on the remote machine, you must create this directory before copying the composite files.

For more information, see the topic "Creating and Starting a Managed Server on a Remote Machine" in the guide *Oracle Fusion Middleware Creating Templates and Domains Using the Pack and Unpack Commands*. In addition, see the topic "Extending WebLogic Domains" in the guide *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard*.

15

Configuring Oracle Identity Navigator

This chapter explains how to configure Oracle Identity Navigator (OIN). It includes the following topics:

- General Prerequisites
- Installing OIN
- Important Notes Before You Begin
- Configuring OIN in a New WebLogic Domain
- OIN with OIM, OAM, and OAAM
- Starting the Servers
- Verifying OIN
- Getting Started with Oracle OIN After Installation

15.1 General Prerequisites

The following are the general prerequisites for installing and configuring Oracle Identity and Access Management 11*g* Release 1 (11.1.1) products:

1. Installing Oracle Database, as described in Installing Oracle Database.
2. Installing Oracle WebLogic Server and creating a Middleware Home, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
3. Installing the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) suite, as described in Installing Oracle Identity and Access Management (11.1.1.5.0). The Oracle Identity and Access Management suite contains Oracle Identity Manager (OIM), Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), Oracle Entitlements Server (OES), and Oracle Identity Navigator (OIN).

15.2 Installing OIN

Oracle Identity Navigator (OIN) is included in the Oracle Identity and Access Management Suite. You can use the Oracle Identity and Access Management 11*g* Installer to install Oracle Identity and Access Management Suite, as described in Installing Oracle Identity and Access Management (11.1.1.5.0).

15.3 Important Notes Before You Begin

Before you start installing and configuring Oracle Identity and Access Management products in any of the scenarios discussed in this chapter, keep the following points in mind:

It is assumed that you are installing Oracle Internet Directory, Oracle Virtual Directory, Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Navigator on the same machine.

Note: In this chapter, two *IDM_Home* directories are mentioned in descriptions and procedures. For example, the first one, **IDM_Home** can be the *IDM_Home* directory for Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation. The second one, **IAM_Home** can be the *IDM_Home* directory for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

However, note that **IDM_Home** and **IAM_Home** are used as examples in this document. You can specify any name for either of your *IDM_Home* directories. In addition, you can install the two Oracle Identity Management suites (one containing Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation; another containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator) in any order on your machine.

For more information, see Overview and Structure of Oracle Identity Management 11g Installation.

15.4 Configuring OIN in a New WebLogic Domain

This topic describes how to configure only Oracle Identity Navigator (OIN) in a new WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

15.4.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to configure Oracle Identity Navigator with Oracle Identity Manager, Oracle Access Manager, and Oracle Adaptive Access Manager in a new WebLogic domain and then run the Oracle Identity Navigator discovery feature. This feature populates links to the product consoles for Oracle Identity Manager, Oracle Access Manager, and Oracle Adaptive Access Manager. You can then access those product consoles from within the Oracle Identity Navigator interface, without having to remember the individual console URLs.

15.4.2 Components Deployed

Performing the configuration in this section deploys the Oracle Identity Navigator application on a new WebLogic Administration Server.

15.4.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Installation of the Oracle Identity and Access Management 11*g* software

For more information, see Preparing to Install and Installing Oracle Identity and Access Management (11.1.1.5.0).

15.4.4 Procedure

Perform the following steps to configure only Oracle Identity Navigator in a new WebLogic administration domain:

1. Install Oracle WebLogic Server, and create a Middleware Home, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
2. Install the Oracle Identity and Access Management 11*g* software. Refer to Installing Oracle Identity and Access Management (11.1.1.5.0) for more information.
3. Run the `<IAM_Home>/common/bin/config.sh` script. (`<IAM_Home>\common\bin\config.cmd` on Windows). The Welcome screen of the Oracle Fusion Middleware Configuration Wizard appears.

   Note: `IAM_Home` is used as an example here. You must run this script from your *`IDM_Home`* directory that contains Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

4. On the Welcome screen, select **Create a new WebLogic domain**, and click **Next**. The Select Domain Source screen appears.
5. On the Select Domain Source screen, ensure that the **Generate a domain configured automatically to support the following products:** option is selected. Create a WebLogic administration domain, which supports Oracle Identity Navigator (choose **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]**), and click **Next**. The Specify Domain Name and Location screen appears.

   Note: When you select the **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]** check box, the **Oracle JRF 11.1.1.0 [oracle_common]** option is also selected, by default.

6. Enter a name and a location for the domain to be created, and click **Next**. The Configure Administrator User Name and Password screen appears.
7. Configure a user name and a password for the administrator. The default user name is weblogic. Click **Next**.

8. Choose `JRockit SDK 1.6.0_24` and Production Mode in the Configure Server Start Mode and JDK screen of the Oracle Fusion Middleware Configuration Wizard.

   The Select Optional Configuration screen appears.

9. On the Select Optional Configuration screen, you can configure **Administration Server** and **Managed Servers, Clusters, and Machines, Deployments and Services**, and **RDBMS Security Store** options. Click **Next**.

10. Optional: Configure the following Administration Server parameters:

    - Name
    - Listen address
    - Listen port
    - SSL listen port
    - SSL enabled or disabled

11. Optional: Configure Managed Servers, as required.

12. Optional: Configure Clusters, as required.

    For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.

13. Optional: Assign Managed Servers to clusters, as required.

14. Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

    Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.

15. Optional: Assign the Administration Server to a machine.

16. Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server.

17. Optional: Configure RDBMS Security Store, as required.

18. On the Configuration Summary screen, you can view summaries of your configuration for deployments, application, and service. Review the domain configuration, and click **Create** to start creating the domain.

A new WebLogic domain to support Oracle Identity Navigator is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

15.5 OIN with OIM, OAM, and OAAM

This topic describes how to configure Oracle Identity Navigator (OIN) in an existing Oracle Identity and Access Management domain that contains Oracle Identity Manager (OIM), Oracle Access Manager (OAM), and Oracle Adaptive Access Manager (OAAM).

It includes the following sections:

15.5.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install Oracle Identity Navigator in an existing Oracle Identity and Access Management environment where Oracle Identity Manager, Oracle Access Manager, and Oracle Adaptive Access Manager are installed.

After performing this configuration, you can run the discovery feature of Oracle Identity Navigator to discover the product consoles for Oracle Identity Manager, Oracle Access Manager, and Oracle Adaptive Access Manager. You can view the product consoles in the dashboard of Oracle Identity Navigator. Then you can use the Oracle Identity Navigator user interface to launch consoles for products, such as Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Enterprise Manager Fusion Middleware Control, and so on.

15.5.2 Components Deployed

Performing the configuration in this section deploys the Oracle Identity Navigator application on the existing Administration Server. This application is deployed on the same machine where the Administration Server is running.

15.5.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Installation of the Oracle Identity and Access Management 11*g* software

For more information, see Preparing to Install and Installing Oracle Identity and Access Management (11.1.1.5.0).

15.5.4 Procedure

To configure only Oracle Identity Navigator in an existing Oracle Identity and Access Management domain that contains Oracle Identity Manager, Oracle Access Manager, and Oracle Adaptive Access Manager, complete the following steps:

1. Install Oracle WebLogic Server, and create a Middleware Home, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
2. Install the Oracle Identity and Access Management 11*g* software. Refer to Installing Oracle Identity and Access Management (11.1.1.5.0) for more information.
3. Run the `<IAM_Home>/common/bin/config.sh` script. (`<IAM_Home>\common\bin\config.cmd` on Windows). Use the Oracle Fusion Middleware Configuration Wizard to create a new domain to support Oracle Identity Manager, Oracle Access Manager, and Oracle Adaptive Access Manager in the same domain. Ensure that the appropriate domain templates are selected during domain configuration.

A new domain with the selected configuration is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

4. Run the `<IAM_Home>/common/bin/config.sh` script. (`<IAM_Home>\common\bin\config.cmd` on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
5. On the Welcome screen, select the **Extend an existing WebLogic domain** option. Click **Next**.
6. Select your WebLogic domain directory that contains Oracle Identity Manager, Oracle Access Manager, and Oracle Adaptive Access Manager. Click **Next**.
7. On the Select Extension Source screen, ensure that the **Extend my domain automatically to support the following products:** option is selected. Select **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]**, and click **Next**. The Configure JDBC Component Schema screen appears.
8. On the Configure JDBC Component Schema screen, select a component schema that you want to modify. You can set values for Schema Owner, Schema Password, Database and Service, Host Name, and Port. Click **Next**. The Test JDBC Component Schema screen appears. After the test succeeds, the Select Optional Configuration screen appears.
9. Optional: On the Select Optional Configuration screen, you can configure **Managed Servers, Clusters, and Machines**, **Deployments and Services**, and **JMS File Store**. Select the relevant check boxes, and Click **Next**.
10. Optional: Configure Clusters, as required.

    For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.
11. Optional: Assign Managed Servers to clusters, as required.
12. Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

    Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.
13. Optional: Assign the Administration Server to a machine.
14. Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server.
15. On the Configuration Summary screen, review the domain configuration, and click **Extend** to start extending the domain.

    Your existing Oracle Identity and Access Management domain with Oracle Identity Manager, Oracle Access Manager, and Oracle Adaptive Access Manager is configured to support Oracle Identity Navigator.
16. Start the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard.
17. Configure Oracle Identity Manager Server, as described in Configuring OIM Server.

18. Follow the wizard and the steps described in Configuring OIM Server to complete the Oracle Identity Manager Server configuration. Similarly, follow the wizard to configure Oracle Identity Manager Design Console (Windows only) and to configure Oracle Identity Manager Remote Server, as described in Configuring OIM Design Console, and Configuring OIM Remote Manager.

15.6 Starting the Servers

After installing and configuring Oracle Identity Navigator, you must run the Oracle WebLogic Administration Server and various Managed Servers, as described in Starting or Stopping the Oracle Stack.

15.7 Verifying OIN

To verify the installation of Oracle Identity Navigator (OIN), complete the following steps:

1. Launch Oracle Identity Navigator in a browser by using the following URL:

   `http://<host>:7001/oinav/faces/idmNag.jspx`

   The Oracle Identity Navigator dashboard and the resource catalog are displayed.

2. Click the **Customize link** on the upper right corner of the screen to switch to the Edit mode.

3. Click the **Add Content** button on the page. A resource catalog pops up.

4. In the pop-up dialog, click the **Open** link for the folder IDM Product Launcher. The Launcher task flow pops up.

5. In the pop-up dialog, click the **Add** link. Verify that the Launcher portlet is added to the page content. Continue to add News task flows to the page, without closing the pop-up dialog. Click the up arrow at the upper left corner. The top folder layout is displayed again. Click the **Open** link for the folder News. The News and Announcements task flow pops up.

6. In the News and Announcements pop-up dialog, click the **Add** link. Verify that the Report portlet is added to the page content. Continue to add Reports task flows to the page, without closing the pop-up dialog. Click the up arrow at the upper left corner. The top folder layout is displayed again. Click the **Open** link for the folder My Reports. Click the **Add** link and the Close button (X). All the three workflows are added to the page content.

7. Change the default layout, if necessary, by clicking the Pencil icon located on the upper right area of the screen.

8. To exit the Edit mode, click the **Close** button.

   If the task flows are properly added to the page content, the screen displays the task flow content.

9. Test the Product Registration functionality as follows:

   a. Create, edit, or delete the product information by clicking the **Administration** tab.

   b. To add a new product, click the **Create image** icon in the Product Registration section. The New Product Registration dialog pops up.

c. Enter the relevant information in this dialog, and the new product registration is updated accordingly. The new product registration data is updated on the Launcher portlet after you click the **Dashboard** tab.

d. Click the product link and ensure that a new browser window or tab opens with the registered product URL.

10. Test the News functionality as follows:

a. Click the **refresh** icon to update the RSS feed content.

b. Click the news item link to open the source of content in a new browser window or tab.

11. Test the Reports functionality as follows:

a. Add a report by clicking the **Add** icon. The Add Report dialog pops up.

b. In this dialog, select a report to add, and click the **Add Report** button. Verify that the report is added.

c. Run a report by clicking the report icon. The report opens in a new browser window or tab.

15.8 Getting Started with Oracle OIN After Installation

After installing Oracle Identity Navigator (OIN), refer to the "Using Identity Navigator" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*.

16

Configuring Oracle Identity Manager

This chapter explains how to configure Oracle Identity Manager (OIM).

It includes the following topics:

Note: To invoke online help at any stage of the Oracle Identity Manager configuration process, click the **Help** button on the Oracle Identity Manager Configuration Wizard screens.

16.1 OIM Server Configuration Workflow

This section discusses the following topics:

OIM Server Configuration Steps for Existing Oracle Identity Management 11*g* Release 1 (11.1.1.5.0) Users

1. Ensure that Oracle WebLogic Server 10.3.5 is installed.
2. Create and load schemas for OIM and SOA 11.1.1.5.0 components using Oracle Fusion Middleware Repository Creation Utility (RCU).
3. Install Oracle SOA Suite 11*g* Release 1 (11.1.1.5.0).
4. Install the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) suite in the same Middleware Home directory where Oracle Identity Management 11*g* Release 1 (11.1.1.5.0) suite is installed. The Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) suite includes Oracle Identity Manager.
5. Create a new WebLogic domain or extend an existing Identity Management 11.1.1.5.0 domain for Oracle Identity Manager and Oracle SOA.
6. Configure OIM Server using the Oracle Identity Manager Configuration Wizard.
7. Complete post-configuration steps, if any.

OIM Server Configuration Steps for New Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) Users

The following lists the high-level steps to configure Oracle Identity Manager. This procedure applies only to new Oracle Identity and Access Management 11.1.1.5.0 users that have not installed Oracle Identity Management 11.1.1.5.0.

1. Install Oracle WebLogic Server 10.3.5 and create a Middleware Home.
2. Create and load schemas for OIM and SOA 11.1.1.5.0 components using Oracle Fusion Middleware Repository Creation Utility (RCU).
3. Install Oracle SOA Suite 11*g* Release 1 (11.1.1.5.0).
4. Install the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) suite. The Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) suite includes Oracle Identity Manager.
5. Create a new WebLogic domain or extend an existing Identity Management 11.1.1.5.0 domain for Oracle Identity Manager and Oracle SOA.
6. Configure OIM Server using the Oracle Identity Manager Configuration Wizard.
7. Complete post-configuration steps, if any.

16.2 Important Notes Before You Start Configuring OIM

Before you start configuring Oracle Identity Manager, keep the following points in mind:

Note: In this chapter, two *IDM_Home* directories are mentioned in descriptions and procedures. For example, the first one, **IDM_Home** can be the *IDM_Home* directory for Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation. The second one, **IAM_Home** can be the *IDM_Home* directory for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

However, note that **IDM_Home** and **IAM_Home** are used as examples in this document. You can specify any name for either of your *IDM_Home* directories. In addition, you can install the two Oracle Identity Management suites (one containing Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation; another containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator) in any order on your machine.

For more information, see Overview and Structure of Oracle Identity Management 11g Installation.

- By performing the domain configuration procedures described in this chapter, you can create Managed Servers on a local machine (the machine on which the Administration Server is running). However, you can create and start Managed Servers for Oracle Identity and Access Management components on a remote machine. For more information, see the "Creating and Starting a Managed Server on a Remote Machine" topic in the guide *Oracle Fusion Middleware Creating Templates and Domains Using the Pack and Unpack Commands*.
- You must use the Oracle Identity Manager Configuration Wizard to configure Oracle Identity Manager Server, Oracle Identity Manager Design Console (on Windows only), and Oracle Identity Manager Remote Manager.

  If you are configuring Oracle Identity Manager Server, you must run the Oracle Identity Manager configuration wizard on the machine where the Administration Server is running. For configuring the Server, you can run the wizard only once during the initial setup of the Server. After the successful setup of Oracle Identity Manager Server, you cannot run the Oracle Identity Manager Configuration Wizard again to modify the configuration of Oracle Identity Manager Server. For such modifications, you must use Oracle Enterprise Manager Fusion Middleware Control.

  If you are configuring only Design Console or Remote Manager, you can run the Oracle Identity Manager Configuration Wizard on the machine where Design Console or Remote Manager is being configured. You can configure Design Console or Remote Manager after configuring the OIM Server. Note that you can run the Oracle Identity Manager Configuration Wizard to configure Design Console or Remote Manager as and when you need to configure them on new machines.

  Note that Oracle Identity Manager requires Oracle SOA Suite 11*g* (11.1.1.5.0), which should be exclusive to Oracle Identity and Access Management. You must install Oracle SOA Suite before configuring Oracle Identity Manager. If you are setting up integration between Oracle Identity Manager and Oracle Access Manager, ensure that Oracle Identity Manager, Oracle Access Manager, and Oracle SOA Suite are configured in the same domain.

16.3 Creating a new WebLogic Domain for OIM and SOA

This topic describes how to create a new WebLogic domain for OIM and SOA. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

16.3.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install Oracle Identity Manager in an environment where you may use Oracle Identity Manager as a provisioning or request solution. This option is also appropriate for Oracle Identity Manager environments that do not use Single Sign-On (SSO) or Oracle Access Manager.

16.3.2 Components Deployed

Performing the configuration in this section installs the following components:

- Administration Server
- A Managed Server for Oracle Identity Manager
- Oracle Identity Administration Console, Oracle Identity Manager Self Service Console, and Oracle Identity Manager Advanced Administration Console on the Oracle Identity Manager Managed Server

16.3.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server.
- Installation of the Oracle Identity and Access Management 11g software.
- Installation of the latest version of Oracle SOA Suite.
- Database schemas for Oracle Identity Manager and Oracle SOA 11*g* Suite. For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).

16.3.4 Procedure

Complete the following steps to create a new WebLogic domain for OIM and SOA and to configure Oracle Identity Manager Server, Design Console, and Remote Manager:

1. Review the section Important Notes Before You Start Configuring OIM.
2. Run the `<IAM_Home>/common/bin/config.sh` script (on UNIX). (`<IAM_Home>\common\bin\config.cmd` on Windows). The Welcome screen of the Oracle Fusion Middleware Configuration Wizard appears.
3. On the Welcome screen, select **Create a new WebLogic domain**, and click **Next**. The Select Domain Source screen appears.
4. On the Select Domain Source screen, ensure that the **Generate a domain configured automatically to support the following products:** option is selected.

   Select **Oracle Identity Manager - 11.1.1.3.0 [Oracle_IDM2]**.

The **Oracle SOA Suite - 11.1.1.1.0 [Oracle_SOA1]** option, the Oracle JRF 11.1.1.0 [oracle_common] option, the **Oracle Enterprise Manager - 11.1.1.0 [oracle_common]**, and the **Oracle WSM Policy Manager 11.1.1.0 [oracle_common]** option are also selected, by default.

Click **Next**. The Specify Domain Name and Location screen appears.

5. Enter a name and a location for the domain to be created, and click **Next**. The Configure Administrator User Name and Password screen appears.
6. Configure a user name and a password for the administrator. The default user name is weblogic. Click **Next**.
7. Choose `JRockit SDK 1.6.0_24` and Production Mode in the Configure Server Start Mode and JDK screen of the Oracle Fusion Middleware Configuration Wizard. Click **Next**. The Configure JDBC Component Schema screen appears. This screen displays a list of the following component schemas:
   - SOA Infrastructure
   - User Messaging Service
   - OIM MDS Schema
   - OWSM MDS Schema
   - SOA MDS Schema
   - OIM Infrastructure
8. On the Configure JDBC Component Schema screen, for the OIM and its dependant schemas, specify the schema owner and password that you set in RCU when creating and loading the schemas. Click **Next**. The Test JDBC Component Schema screen appears. After the test succeeds, the Select Optional Configuration screen appears.
9. On the Select Optional Configuration screen, you can configure the **Administration Server**, **JMS Distributed Destination**, **Managed Servers, Clusters, and Machines, Deployments and Services**. Click **Next**.
10. Optional: Configure the following Administration Server parameters:
    - Name
    - Listen address
    - Listen port
    - SSL listen port
    - SSL enabled or disabled

    Click **Next**.
11. Optional: Configure JMS Distributed Destination, as required. Click **Next**.
12. Optional: Configure Managed Servers, as required. Click **Next**.
13. Optional: Configure Clusters, as required. Click **Next**.

    For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.
14. Optional: Assign Managed Servers to Clusters, as required. Click **Next**.

15. Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.Click **Next**.

    Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.

16. Optional: Assign servers to machines. Click **Next**.
17. Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server. Click **Next**.
18. On the Configuration Summary screen, you can view summaries of your configuration for deployments, application, and service. Review the domain configuration, and click **Create** to start creating the domain.

    After the domain configuration is complete, click **Done** to close the configuration wizard.

    A new WebLogic domain to support Oracle Identity Manager is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.
19. Start the Administration Server, as described in Starting or Stopping the Oracle Stack.
20. Start the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard.
21. Configure the Oracle Identity Manager Server, Design Console, or Remote Manager, as described in Configuring OIM Server, Configuring OIM Design Console, and Configuring OIM Remote Manager.

Note: If **weblogic** is not your WebLogic administrator user name, you must complete a set of manual steps after starting the servers. For more information, see Optional: Updating the WebLogic Administrator Server User Name in Oracle Enterprise Manager Fusion Middleware Control (OIM Only).

16.4 Starting the Servers

After installing and configuring Oracle Identity Manager in a WebLogic domain, you must run the Oracle WebLogic Administration Server and various Managed Servers, as described in Starting the Stack.

Notes:

- If **weblogic** is not your WebLogic administrator user name, you must complete a set of manual steps after starting the servers. For more information, see Optional: Updating the WebLogic Administrator Server User Name in Oracle Enterprise Manager Fusion Middleware Control (OIM Only).
- Oracle Identity Manager requires Oracle SOA Suite. In order to avoid concurrent update, wait for the first server (OIM server or SOA server) to come up before starting the other server. OIM and SOA servers should not be started simultaneously.

16.5 Configuring OIM Server, Design Console, and Remote Manager

The Oracle Identity Management 11*g* Configuration Wizard enables you to configure Oracle Identity Manager (OIM) Server, Design Console (Windows only), and Remote Manager.

If you are configuring OIM Server, you must run this configuration wizard on the machine where the Administration Server is running.

You must complete this additional configuration for Oracle Identity Manager components after configuring Oracle Identity Manager in a new or existing WebLogic administration domain.

> **Note:** You can run the Oracle Identity Manager Configuration Wizard to configure Oracle Identity Manager Server only once during the initial setup. After the initial setup, you cannot run the Oracle Identity Manager Configuration Wizard again to modify the configuration of Oracle Identity Manager Server, Design Console, or Remote Manager. For such modifications, you must use Oracle Enterprise Manager Fusion Middleware Control.

Note that Oracle Identity Manager requires Oracle SOA Suite 11*g* (11.1.1.5.0), which should be exclusive to Oracle Identity and Access Management. You must install Oracle SOA Suite before configuring Oracle Identity Manager.

This section discusses the following topics:

- Scope of Configuration Using the Oracle Identity Manager 11g Configuration Wizard
- Scenario 1: Oracle Identity Manager Server and Design Console on Different Machines
- Scenario 2: Oracle Identity Manager Server and Remote Manager on Different Machines
- Scenario 3: Oracle Identity Manager Server, Design Console, and Remote Manager on a Single Windows Machine

16.5.1 Scope of Configuration Using the Oracle Identity Manager 11*g* Configuration Wizard

You can use the Oracle Identity Manager 11*g* Configuration Wizard to configure the non-J2EE components and elements of Oracle Identity Manager. Most of the J2EE configuration is done automatically in the domain template for Oracle Identity Manager.

16.5.2 Scenario 1: Oracle Identity Manager Server and Design Console on Different Machines

In this scenario, you configure Oracle Identity Manager Server on one machine, and install and configure only Oracle Identity Manager Design Console on a different Windows machine (a development or design system).

Perform the following tasks:

1. Install and configure Oracle Identity Manager Server on a machine after completing all of the prerequisites, as described in Configuring OIM Server. Ensure that the Oracle Identity Manager Server is up and running.
2. On the Windows machine on which the Design Console is to be installed, install a JDK in a path without a space such as `c:/jdk1.6.0_24`.
3. Create a `Middleware_Home` folder such as `c:/oracle/Middleware`.
4. Run `setup.exe` from the installation media `disk1` and follow the prompts selecting the `Middleware_Home` created above.

> **Note:** When you specify the location of the `Middleware_Home`, you will see a message "Specified middleware home is not valid. If you continue with this installation only Remote Manager and Design Console can be configured." This is a valid message if you intend to install only the Design Console.

5. The installer will install the Oracle Identity and Access Management suite needed to install the Design Console .
6. On the Windows machine where you installed the Oracle Identity and Access Management 11*g* software, run the Oracle Identity Manager Configuration Wizard to configure only Design Console. Note that you must provide the Oracle Identity Manager Server information, such as host and URL, when configuring Design Console. For more information, see Installing and Configuring Only OIM Design Console on Windows.

16.5.3 Scenario 2: Oracle Identity Manager Server and Remote Manager on Different Machines

In this scenario, you configure Oracle Identity Manager Server on one machine, and install and configure only Oracle Identity Manager Remote Manager on a different machine.

The following are the high-level tasks in this scenario:

1. Install and configure Oracle Identity Manager Server on a machine after completing all of the prerequisites, as described in Configuring OIM Server. Ensure that the Oracle Identity Manager Server is up and running.
2. On a different machine, install the Oracle Identity and Access Management 11*g* software containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator. For information, see Installing Oracle Identity and Access Management (11.1.1.5.0).
3. On the machine where you installed the Oracle Identity and Access Management 11*g* software, run the Oracle Identity Manager Configuration Wizard to configure only Remote Manager. Note that you must provide the Oracle Identity Manager Server information, such as host and URL, when configuring Remote Manager. For more information, see Configuring OIM Remote Manager.

16.5.4 Scenario 3: Oracle Identity Manager Server, Design Console, and Remote Manager on a Single Windows Machine

In this scenario, suitable for test environments, you install and configure Oracle Identity Manager Server, Design Console, and Remote Manager on a single Windows machine.

The following are the high-level tasks in this scenario:

1. Install and configure Oracle Identity Manager Server on a machine after completing all the prerequisites, as described in Configuring OIM Server. Ensure that the Oracle Identity Manager Server is up and running.
2. On the same machine, configure Design Console, as described in Configuring OIM Design Console.
3. On the same machine, configure Remote Manager, as described in Configuring OIM Remote Manager.

16.6 Before Configuring OIM Server, Design Console, or Remote Manager

Before configuring Oracle Identity Manager (OIM) using the Oracle Identity Manager Wizard, ensure that you have installed and configured Oracle Identity Manager and SOA in a WebLogic.

The Oracle Identity Manager 11*g* Configuration Wizard prompts you to enter information about certain configurations, such as Database, Schemas, WebLogic Administrator User Name and Password, and LDAP Server. Therefore, keep this information ready with you before starting the Identity Management 11*g* Configuration Wizard.

This section discusses the following topics:

- Prerequisites for Configuring OIM Server
- Prerequisites for Configuring Only OIM Design Console on a Different Machine
- Prerequisites for Configuring Only OIM Remote Manager on a Different Machine

16.6.1 Prerequisites for Configuring OIM Server

Before you can configure Oracle Identity Manager (OIM) Server using the Oracle Identity Manager Configuration Wizard, you must complete the following prerequisites:

1. Installing Oracle WebLogic Server and creating a Middleware Home directory. For more information, see Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
2. Installing a supported version of Oracle database. For more information, see Installing Oracle Database.
3. Creating and loading the required schemas in the database. For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
4. Installing Oracle SOA Suite 11*g* Release 1(11.1.1.5.0) under the same Middleware Home directory. For more information, see Installing the Latest Version of Oracle SOA Suite (Oracle Identity Manager Users Only).
5. Installing the Oracle Identity and Access Management Suite (the suite that contains Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive

Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator) under the Middleware Home directory. For more information, see Installing Oracle Identity and Access Management (11.1.1.5.0).

6. Creating a new WebLogic domain or extending an existing Identity Management 11.1.1.5.0 domain for Oracle Identity Manager and Oracle SOA. For more information, see Creating a new WebLogic Domain for OIM and SOA.
7. Starting the Oracle WebLogic Administration Server for the domain in which the Oracle Identity Manager application is deployed. For more information, see Starting the Stack.

16.6.2 Prerequisites for Configuring Only OIM Design Console on a Different Machine

On the machine where you are installing and configuring Design Console, you must install the Oracle Identity and Access Management 11*g* (11.1.1.5.0) software containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator. For information, see Installing Oracle Identity and Access Management (11.1.1.5.0).

Before you can configure Oracle Identity Manager (OIM) Design Console by running the Oracle Identity Manager Configuration Wizard, you should have configured the Oracle Identity Manager Server, as described in Configuring OIM Server on a local or remote machine. In addition, the Oracle Identity Manager Server should be up and running.

Note: Oracle Identity Manager Design Console is supported on Windows operating systems only. If you are installing and configuring only Design Console on a machine, you do not need to install Oracle WebLogic Server and create a Middleware Home directory before installing the Oracle Identity and Access Management software.

16.6.3 Prerequisites for Configuring Only OIM Remote Manager on a Different Machine

On the machine where you are installing and configuring Remote Manager, you must install the Oracle Identity and Access Management 11*g* (11.1.1.5.0) software containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator. For information, see Installing Oracle Identity and Access Management (11.1.1.5.0).

Before you can configure Oracle Identity Manager (OIM) Remote Manager by running the Oracle Identity Manager Configuration Wizard, you should have configured the Oracle Identity Manager Server, as described in Configuring OIM Server. In addition, the Oracle Identity Manager Server should be up and running.

Note: If you are installing and configuring only Remote Manager on a machine, you do not need to install Oracle WebLogic Server and create a Middleware Home directory before installing the Oracle Identity and Access Management software.

16.7 Starting the Oracle Identity Manager 11*g* Configuration Wizard

To start the Oracle Identity Manager 11*g* Configuration Wizard, execute the `<IAM_Home>/bin/config.sh` script (on UNIX) on the machine where the Administration

Server is running. (`<IAM_Home>\bin\config.bat` on Windows). The Oracle Identity Management 11*g* Configuration Wizard starts, and the Welcome Screen appears.

> **Note:** If you have extended an existing WebLogic domain to support Oracle Identity Manager, you must restart the Administration Server before starting the Oracle Identity Manager Configuration Wizard to configure Oracle Identity Manager Server, Design Console, or Remote Manager.

16.8 Configuring OIM Server

This topic describes how to install and configure only Oracle Identity Manager (OIM) Server. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure
- Completing the Prerequisites for Enabling LDAP Synchronization
- Running the LDAP Post-Configuration Utility
- Verifying the LDAP Synchronization
- Post-Configuration Steps
- Setting oamEnabled Parameter for Identity Virtualization Library
- Enabling LDAP Sync after Installing and Configuring OIM Server at a Later Point

16.8.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install Oracle Identity Manager Server on a separate host.

16.8.2 Components Deployed

Performing the configuration in this section deploys only Oracle Identity Manager Server.

16.8.3 Dependencies

The installation and configuration in this section depends on Oracle WebLogic Server, on Oracle SOA Suite, and on the installation of Oracle Identity ans Access Management 11*g* software. For more information, see Preparing to Install and Installing Oracle Identity and Access Management (11.1.1.5.0).

16.8.4 Procedure

Perform the following steps to configure only Oracle Identity Manager Server:

1. Ensure that all the prerequisites, described in Prerequisites for Configuring OIM Server, are satisfied. In addition, see Important Notes Before You Start Configuring OIM.

2. On the machine where the Administration Server is running, start the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard. The Welcome screen appears.
3. On the Welcome screen, click **Next.** The Components to Configure screen appears.

   On the Components to Configure screen, ensure that only the **OIM Server** option is selected. It is selected, by default. Click **Next**. The Database screen appears.
4. On the Database screen, enter the full path, listen port, and service name for the database in the **Connect String** field. For a single host instance, the format of connect string is `hostname:port:servicename`. For example, if the hostname is `aaa.bbb.com`, port is 1234, and the service name is `xxx.bbb.com`, then you must enter the connect string for a single host instance as follows:

   ```
   aaa.bbb.com:1234:xxx.bbb.com
   ```

   If you are using a Real Application Cluster database, the format of the database connect string is as follows:

   ```
   hostname1:port1^hostname2:port2@servicename
   ```

   Note: You can use the same database or different databases for creating the Oracle Identity Manager schema and the Metadata Services schema.
5. In the **OIM Schema User Name** field, enter the name of the schema that you created for Oracle Identity Manager using the Oracle Fusion Middleware Repository Creation Utility (RCU). For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
6. In the **OIM Schema Password** field, enter the password for the Oracle Identity Manager schema that you set while creating the schema using the Oracle Fusion Middleware Repository Creation Utility (RCU).
7. If you want to use a different database for the Metadata Services (MDS) schema, select the **Select different database for MDS Schema** check box.
8. If you choose to use a different database for MDS schema, in the **MDS Connect String** field, enter the full path, listen port, and service name for the database associated with the MDS schema. For the format of the connect string, see Step 4.

   In the **MDS Schema User Name** field, enter the name of the schema that you created for AS Common Services - Metadata Services using the Oracle Fusion Middleware Repository Creation Utility (RCU). For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).

   In the **MDS Schema Password** field, enter the password for the AS Common Services - Metadata Services schema that you set while creating the schema using the Oracle Fusion Middleware Repository Creation Utility (RCU). Click **Next**. The WebLogic Admin Server screen appears.
9. On the WebLogic Admin Server screen, in the **WebLogic Admin Server URL** field, enter the URL of the WebLogic Administration Server of the domain in the following format:

   ```
   t3://hostname:port
   ```

   In the **UserName** field, enter the WebLogic administrator user name of the domain in which the Oracle Identity Manager (OIM) application and the Oracle SOA Suite

application are deployed. If you are setting up integration between Oracle Identity Manager and Oracle Access Manager, the Oracle Access Manager application is also configured in the same domain.

In the **Password** field, enter the WebLogic administrator password of the domain in which the Oracle Identity Manager (OIM) application and the Oracle SOA Suite application are deployed. Click **Next**.

The OIM Server screen appears. The OIM Server screen enables you to set a password for the system administrator (`xelsysadm`).

10. On the OIM Server screen, in the **OIM Administrator Password** field, enter a new password for the administrator. A valid password contains at least 6 characters; begins with an alphabetic character; includes at least one number, one uppercase letter, and one lowercase letter. The password cannot contain the first name, last name, or the login name for Oracle Identity Manager.
11. In the **Confirm User Password** field, enter the new password again.
12. In the **OIM HTTP URL** field, enter the http URL that front-ends the Oracle Identity Manager application.

    The URL is of the format: `http(s)://<oim_host>:<oim_port>`. For example, `https://localhost:7002`.
13. In the **KeyStore Password** field, enter a new password for the keystore. A valid password can contain 6 to 30 characters, begin with an alphabetic character, and use only alphanumeric characters and special characters like Dollar ($), Underscore (_), and Pound (#). The password must contain at least one number.
14. In the **Confirm Keystore Password** field, enter the new password again. Click **Next**. The BI Publisher screen appears.

    The BI Publisher screen enables you to perform the following optional tasks:

    - Configure Oracle Identity Manager to use Oracle BI Publisher for reporting purposes
    - Enable synchronization of Oracle Identity Manager roles, users, and their hierarchy to an LDAP directory
15. Optional: To configure Oracle Identity Manager to use Oracle BI Publisher for reporting purposes, select the **Configure BI Publisher** option, and enter the **BI Publisher URL** in the **BI Publisher URL** field. Note that you should have installed Oracle BI Publisher on a local or remote machine before selecting the **Configure BI Publisher** option on the BI Publisher screen. In addition, ensure that Oracle BI Publisher is up and running.
16. Optional: To enable LDAP Sync, you must select the **Enable LDAP Sync** option on the BI Publisher screen.

Note: If you want to enable LDAP Sync, before enabling LDAP Sync you must complete the steps, as described in Completing the Prerequisites for Enabling LDAP Synchronization.

Once LDAP Sync is enabled on the BI Publisher screen and prerequisites are completed, you must continue to configure the OIM Server. After you have configured the OIM Server and exited the Oracle Identity Management Configuration Wizard, you must run the LDAP post-configuration utility as described in Running the LDAP Post-Configuration Utility.

---

17. After making your selections, click **Next** on the BI Publisher screen. If you chose to enable LDAP Sync, the LDAP Server screen appears.

    The LDAP Server screen enables you to specify the following information:

    - **Directory Server Type** - Select the desired Directory Server from the dropdown list. You have the following options:
      - OID
      - ACTIVE_DIRECTORY
      - IPLANET
      - OVD

      Notes:

      - IPLANET is also referred to as Oracle Directory Server Enterprise Edition (ODSEE) in this guide.
      - If you choose to use OID, ACTIVE_DIRECTORY or IPLANET as the Directory Server and if you want to integrate OIM and OAM, you must set the `oamEnabled` parameter to `true`. To set the `oamEnabled` parameter to `true` in case of Identity Virtualization Library, see Setting oamEnabled Parameter for Identity Virtualization Library.

    - **Directory Server ID** - enter the Directory Server ID. It can be any unique value.

      For example: `oid1` for OID, `iplanet1` for IPLANET, and `ad1` for ACTIVE_DIRECTORY
    - **Server URL** - enter the LDAP URL in the format `ldap://oid_host:oid_port`.
    - **Server User** - enter the user name for Directory Server administrator.

      For example: `cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`
    - **Server Password** - enter the OIM admin password.
    - **Server SearchDN** - enter the Distinguished Names (DN). For example, `dc=exampledomain, dc=com`. This is the top-level container for users and roles in LDAP, and Oracle Identity Manager uses this container for reconciliation.

    Click **Next**. The LDAP Server Continued screen appears.

18. On the LDAP Server Continued screen, enter the following LDAP information:

    - **LDAP RoleContainer** - enter a name for the container that will be used as a default container of roles in the LDAP directory. You can configure isolation rules in Oracle Identity Manager to create roles in different containers in LDAP. For example, `cn=groups, dc=mycountry, dc=com`.
    - **LDAP RoleContainer Description** - enter a description for the default role container.
    - **LDAP Usercontainer** - enter a name for the container that will be used as a default container of users in the LDAP directory. You can configure isolation

rules in Oracle Identity Manager to create users in different containers in LDAP. For example, `cn=users, dc=mycountry, dc=com`.

- **LDAP Usercontainer Description** - enter a description for the default user container.
- **User Reservation Container** - enter a name for the container that will be used for reserving user names in the LDAP directory while their creation is being approved in Oracle Identity Manager. When the user names are approved, they are moved from the reservation container to the user container in the LDAP directory. For example, `cn=reserve, dc=mycountry, dc=com`.

After enabling LDAP synchronization and after running the LDAP post-configuration utility, you can verify it by using the Oracle Identity Manager Administration Console. For more information, see Verifying the LDAP Synchronization. Click **Next**. The Configuration Summary screen appears.

19. If you did not choose the **Enable LDAP Sync** option on the BI Publisher screen, the Configuration Summary screen appears after you enter information in the OIM Server screen.

    The Configuration Summary screen lists the applications you selected for configuration and summarizes your configuration options, such as database connect string, OIM schema user name, MDS schema user name, WebLogic Admin Server URL, WebLogic Administrator user name, and OIM HTTP URL.

    Review this summary and decide whether to start the configuration. If you want to modify any of the configuration settings at this stage, select a topic in the left navigation page and modify your choices. To continue installing this configuration of the Oracle Identity Manager Server, click **Configure**.

    Note: Before configuring an application, you can save your configuration settings and preferences in a response file. Response files are text files that you can create or edit in a text editor. You can use response files to perform a silent installation or use as templates or customized settings for your environment. For more information, see Performing a Silent Installation.

    After you click **Configure**, the Configuration Progress screen appears. Click **Next**.

    A configuration log is saved to the `logs` directory under Oracle Inventory directory. For information about the log files, see Installation Log Files. If the Configuration Progress screen displays any errors, click **Abort** to stop the installation and restart the Oracle Identity Manager Configuration Wizard.

20. Click **Finish**.

    Note: If the configuration fails, click **Abort** to stop the installation and restart the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard.

16.8.5 Completing the Prerequisites for Enabling LDAP Synchronization

You must complete the following prerequisites:

- Preconfiguring the Identity Store

- Creating Adapters in Oracle Virtual Directory

16.8.5.1 Preconfiguring the Identity Store

Before you can use your LDAP directory as an Identity store, you must preconfigure it.

Note: Follow the steps in this section if you are using any one of the Directory Servers mentioned below for LDAP Synchronization:

- OID
- Active Directory
- iPlanet/ODSEE
- OVD

You must complete the following steps to preconfigure the Identity Store if you have not configured already:

1. Create User, Group and Reserve Containers.
2. Create the proxy user for OIM, namely `oimadminuser` in the Directory Server outside the search base used for OIM reconciliation. This OIM proxy user should not be reconciled into OIM Database.
3. Create the `oimadmingroup` and assign the `oimadminuser` to the group.
4. Add the ACIs to the group and user container for the OIM proxy user to have access to all entries in those containers.
5. Extend OIM Schema for non-OID Directory Servers.
   - For Active Directory
     - The OIM Schema for Active Directory is in the following location :

       ```
       $MW_HOME/oracle_common/modules/oracle.ovd_
       11.1.1/oimtemplates
       ```

     - Run the following command to extend Active Directory schema:

       On Windows:

       ```
       extendadschema.bat -h AD_host -p AD_port -D <adminis-
       trator@mydomain.com> -q -AD <dc=mydomain,dc=com> -OAM
       true
       ```

       On UNIX:

       ```
       sh extendadschema.sh -h AD_host -p AD_port -D adminis-
       trator@mydomain.com -q -AD dc=mydomain,dc=com -OAM true
       ```

   - For ODSEE/iPlanet
     - The OIM Schema for iPlanet (also known as ODSEE) is in the following location :

       ```
       $MW_HOME/oracle_common/modules/oracle.ovd_
       11.1.1/oimtemplates/sunOneSchema.ldif
       ```

     - Run the following command to extend ODSEE schema:

```
ldapmodify -h <ODSEE Server> -p <ODSEE port> -D <ODSEE
Admin ID> -w <ODSEE Admin password> -f sunOne-
Schema.ldif
```

6. If you want to enable OAM-OIM integration, extend the following OAM Schema :
   - For OID
     - To extend OAM Schema for OID, locate the following files:

       ```
       $IAM_HOME/oam/server/oim-intg/ldif/oid/schema/OID_
       oblix_pwd_schema_add.ldif
       ```

       ```
       $IAM_HOME/oam/server/oim-intg/ldif/oid/schema/OID_
       oblix_schema_add.ldif
       ```

       ```
       $IAM_HOME/oam/server/oim-intg/ldif/oid/schema/OID_oim_
       pwd_schema_add.ldif
       ```

       ```
       $IAM_HOME/oam/server/oim-intg/ldif/oid/schema/OID_
       oblix_schema_index_add.ldif
       ```

     - Use ldapmodify from the command line to load the four LDIF files :

       ```
       cd $IAM_HOME/oam/server/oim-intg/ldif/oid/schema/
       ```

       ```
       ldapmodify -h <OID Server> -p <OID port> -D <OID Admin
       ID> -w <OID Admin password> -f OID_oblix_pwd_schema_
       add.ldif
       ```

       ```
       ldapmodify -h <OID Server> -p <OID port> -D <OID Admin
       ID> -w <OID Admin password> -f OID_oblix_schema_
       add.ldif
       ```

       ```
       ldapmodify -h <OID Server> -p <OID port> -D <OID Admin
       ID> -w <OID Admin password> -f OID_oim_pwd_schema_
       add.ldif
       ```

       ```
       ldapmodify -h <OID Server> -p <OID port> -D <OID Admin
       ID> -w <OID Admin password> -f OID_oblix_schema_index_
       add.ldif
       ```

   - For Active Directory
     - To extend OAM Schema for Active Directory, locate the following files:

       ```
       $IAM_HOME/oam/server/oim-intg/ldif/ad/schema/ADUser-
       Schema.ldif
       ```

       ```
       $IAM_HOME/oam/server/oim-intg/ldif/ad/schema/AD_oam_
       pwd_schema_add.ldif
       ```

       In both the above files, replace the domain-dn with the appropriate domain-dn value.

     - Use ldapadd from the command line to load the two LDIF files, as follows:

       ```
       cd $IAM_HOME/oam/server/oim-intg/ldif/ad/schema/
       ```

       ```
       ldapadd -h <activedirectoryhostname> -p <activedirecto-
       ryportnumber> -D <AD_administrator> -q -c -f ADUser-
       Schema.ldif
       ```

       ```
       ldapadd -h <activedirectoryhostname> -p <activedirecto-
       ryportnumber> -D <AD_administrator> -q -c -f AD_oam_
       pwd_schema.ldif
       ```

where *AD_administrator* is a user which has schema extension privileges to the directory.

For example:

```
ldapadd -h activedirectoryhost.mycompany.com -p 389 -D
adminuser –q -c -f ADUserSchema.ldif
```

- For ODSEE/iPlanet
  - To extend OAM Schema for ODSEE, locate the following files :

```
$IAM_
HOME/oam/server/oim-intg/ldif/iplanet/schema/iPlanet7_
user_index_add.ldif
```

```
$IAM_
HOME/oam/server/oim-intg/ldif/iplanet/schema/iPlanet7_
user_index_generic.ldif
```

```
$IAM_
HOME/oam/server/oim-intg/ldif/iplanet/schema/iPlanet_
oam_pwd_schema_add.ldif
```

```
$IAM_
HOME/oam/server/oim-intg/ldif/iplanet/schema/iPlanet_
user_schema_add.ldif
```

```
$IAM_
HOME/oam/server/oim-intg/ldif/iplanet/schema/iPlanet_
user_index_add.ldif
```

Note: If you are not sure about the which `index-root` you should use, instead of `iPlanet7_user_index_add.ldif`, please use `iPlanet7_user_index_generic.ldif` file which also has step by step instructions on finding `index-root`.

  - Use ldapmodify from the command line to load the four LDIF files :

```
cd $IAM_HOME/oam/server/oim-intg/ldif/iplanet/schema/
```

```
ldapmodify -h <ODSEE Server> -p <ODSEE port> -D <ODSEE
Admin ID> -w <ODSEE Admin password> -f iPlanet_oam_pwd_
schema_add.ldif
```

```
ldapmodify -h <ODSEE Server> -p <ODSEE port> -D <ODSEE
Admin ID> -w <ODSEE Admin password> -f iPlanet_user_
schema_add.ldif
```

```
ldapmodify -h <ODSEE Server> -p <ODSEE port> -D <ODSEE
Admin ID> -w <ODSEE Admin password> -f iPlanet_user_
index_add.ldif
```

7. If you are using Oracle Directory Server Enterprise Edition (ODSEE), you must enable `moddn` and `Changelog` properties in the ODSEE Directory Server.

   Skip this step if you are using Oracle Internet Directory (OID) or Active Directory.

Note: The preconfiguration differs, depending on the directory store you wish to use to hold your identity information. For a sample procedure of preconfiguring the Identity Store, refer to "Preconfiguring Oracle Directory Server Enterprise Edition (ODSEE)".

16.8.5.2 Creating Adapters in Oracle Virtual Directory

Oracle Virtual Directory communicates with other directories through adapters.

Before you can start using Oracle Virtual Directory as an identity store, you must create adapters to each of the directories you want to use.The procedure is slightly different, depending on the directory you are connecting to.

Note: This procedure is applicable only if you are using OVD as the Directory Server. If you choose to use OID, Active Directory or Oracle Directory Server Enterprise Edition (ODSEE) as the Directory Server, the required adapters are created and configured while installing and configuring the OIM server. For more information on managing the adapters, see "Managing Identity Virtualization Library (libOVD) Adapters" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Manager*.

The User Management and Changelog adapters for Identity Virtualization Library configured by the OIM installer are stored in `adapters.os_xml` file. The `adapters.os_xml` will be in the following location:

```
$DOMAIN_HOME/config/fmwconfig/ovd/<context>/
```

For example:

```
$DOMAIN_HOME/config/fmwconfig/ovd/oim1/adapters.os_
xml
```

The following sections show how to create adapters for the respective directories:

- Creating Adapters for Oracle Internet Directory
- Creating Adapters for Microsoft Active Directory Server
- Creating Adapters for Oracle Directory Server Enterprise Edition (ODSEE)
- Important Notes on Changelog Plugin Configuration

16.8.5.2.1 Creating Adapters for Oracle Internet Directory

User Adapter

Create the user adapter for Oracle Virtual Directory. Follow the steps below to create the User Adapter in Oracle Virtual Directory using Oracle Directory Services Manager.

1. Open a browser and bring up the ODSM console at `http://hostname:port/odsm`

   Note: The default port number is 7005.

2. Connect to Oracle Virtual Directory by using the appropriate connection entry.

3. On the Home page, click the **Adapter** tab.
4. Start the New Adapter Wizard by clicking **Create Adapter** at the top of the adapter window.
5. Create a new adapter using the New Adapter Wizard, with the following parameters:

Table 16–1 Parameters for User Adapter Creation

Screen	Field	Value/Step
Type	**Adapter Type**	`LDAP`
	Adapter Name	`User Adapter`
	Adapter Template	`User_OID`
Connection	**Use DNS for Auto Discovery**	No
	Host	`idstore.mycompany.com`
	Port	389
	Server Proxy Bind DN	`cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`
	Proxy Password	Password for `oimadmin` user.
Connection Test		Validate that the test succeeds.
Namespace	**Remote Base**	`dc=mycompany,dc=com`
	Mapped Namespace	`dc=mycompany,dc=com`

Verify that the summary is correct and then click **Finish**.

6. Edit the User Adapter as follows:
   a. Select the User Adapter.
   b. Click the **Plug-ins** Tab.
   c. Click the **User Management** Plug-in, then click **Edit** in the plug-ins table. The plug-in editing window appears.
   d. In the Parameters table, update the parameter values as follows:

Table 16–2 User Adapter Parameter Values

Parameter	Value
directoryType	`oid`
pwdMaxFailure	`10`
oamEnabled	`true` or `false` Note that this parameter should be set to `true` only if you are setting up integration between Oracle Identity Manager and Oracle Access Manager at a later time.
mapObjectclass	container=`orclContainer`

   e. Click **OK**.
   f. Click **Apply**.

Change Log Adapter

Create the change log adapter for Oracle Virtual Directory. Follow the steps below to create the Change Log Adapter in Oracle Virtual Directory using Oracle Directory Services Manager.

1. Open a browser and bring up the ODSM console at `http://hostname:port/odsm`

   Note: The default port number is 7005.

2. Connect to Oracle Virtual Directory by using the appropriate connection entry.
3. On the Home page, click on the **Adapter** tab.
4. Start the New Adapter Wizard by clicking **Create Adapter** at the top of the adapter window.
5. Create a new adapter using the New Adapter Wizard, with the following parameters:

Table 16–3 Parameters for Change Log Adapter Creation

Screen	Field	Value/Step
Type	**Adapter Type**	`LDAP`
	Adapter Name	`Change Log Adapter`
	Adapter Template	`Changelog_OID`
Connection	**Use DNS for Auto Discovery**	No
	Host	`policystore.mycompany.com`
	Port	389
	Server Proxy Bind DN	`cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`
	Proxy Password	Password for `oimadmin` user
Connection Test		Validate that the test succeeds
Namespace	**Remote Base**	Remote Base should be empty
	Mapped Namespace	`cn=changelog`

   Verify that the summary is correct, then click **Finish**.

6. To edit the change adapter follow the steps below:
   a. Select the OIM Change Log Adapter.
   b. Click the **Plug-ins** tab.
   c. In the Deployed Plus-ins table, click the **changelog** plug-in, then click **Edit** in the plug-ins table. The plug-in editing window appears.
   d. In the Parameters table, update the parameter values.

      Edit the Change Log Adapter to either add or modify the properties so that they match the values shown in the following table. You must add the `modifierDNFilter`, `sizeLimit`, and `targetDNFilter` properties to the adapter.

Table 16–4 Changelog Adapter Parameter Values

Parameter	Value
directoryType	`oid`
mapAttribute	`targetGUID=orclguid`
requiredAttribute	`orclguid`
modifierDNFilter	!(`modifiersname=cn=oimadmin,cn=systemids,<root suffix>`) Note : This is an example. This value can be of any Proxy DN that the customer defines. For example: rootSuffix can be `dc=mycompany,dc=com`
sizeLimit	1000
targetDNFilter	Optional parameter. For more information, see Important Notes on Changelog Plugin Configuration.
oamEnabled	`true` or `false` Note that this parameter should be set to `true` only if you are setting up integration between Oracle Identity Manager and Oracle Access Manager at a later time.
mapUserState	`true` For more information, see Important Notes on Changelog Plugin Configuration.
virtualDITAdapterName	Name of the OID User Management adapter. For more information, see Important Notes on Changelog Plugin Configuration.

e. Click **OK**.

f. Click **Apply**.

Note: For more information about these plug-in parameters, refer to the Understanding the Oracle Virtual Directory Plug-ins section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory 11g Release 1 (11.1.1)*.

Restarting Oracle Virtual Directory

Restart Oracle Virtual Directory, as described in Starting or Stopping the Oracle Stack.

16.8.5.2.2 Creating Adapters for Microsoft Active Directory Server

User Adapter

Create the user adapter for Oracle Virtual Directory. Follow these steps to create the User Adapter in Oracle Virtual Directory using Oracle Directory Services Manager.

1. Start the Administration Server and the ODSM Managed Server as described in Starting or Stopping the Oracle Stack.
2. Open a browser and bring up the ODSM console at `http://hostname:port/odsm`

Note: The default port number is 7005.

3. Connect to Oracle Virtual Directory by using the appropriate connection entry.
4. On the Home page, click the **Adapter** tab.
5. Start the New Adapter Wizard by clicking **Create Adapter** at the top of the adapter window.
6. Create a new adapter using the New Adapter Wizard, with the following parameters:

Table 16–5 Parameters for New User Adapter Creation

Screen	Field	Value/Step
Type	**Adapter Type**	`LDAP`
	Adapter Name	`User Adapter`
	Adapter Template	`User_ActiveDirectory`
Connection	**Use DNS for Auto Discovery**	No
	Host	Active Directory host/virtual name
	Port	Active Directory SSL port
	Server Proxy Bind DN	`cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`
	Proxy Password	Password for `oimadmin` user.
	User SSL/TLS	Selected
	SSL Authentication Mode	Server Only Authentication
Connection Test		Validate that the test succeeds.
Namespace	**Remote Base**	`dc=mycompany,dc=com`
	Mapped Namespace	`dc=mycompany,dc=com`

Verify that the summary is correct and then click **Finish**.

7. Edit the User Adapter as follows:
   a. Select the OIM User Adapter.
   b. Click the **Plug-ins** Tab.
   c. Click the **User Management** Plug-in, then click **Edit** in the plug-ins table. The plug-in editing window appears.
   d. In the Parameters table, update the parameter values as follows:

Table 16–6 User Adapter Parameter Values

Parameter	Value
directoryType	`activedirectory`
mapAttribute	`orclguid=objectGuid`
mapAttribute	`uniquemember=member`

Table 16–6 (Cont.) User Adapter Parameter Values

Parameter	Value
addAttribute	`user,samaccountname=%uid%,%orclshortuid%`
mapAttribute	`mail=userPrincipalName`
mapAttribute	`ntgrouptype=grouptype`
mapObjectclass	`groupofUniqueNames=group`
mapObjectclass	`inetOrgPerson=user`
mapObjectclass	`orclidxperson=user`
mapPassword	`true`
exclusionMapping	`orclappiduser,uid=samaccountname`
pwdMaxFailure	`10`
oamEnabled	`true` or `false` Note that this parameter should be set to `true` only if you are setting up integration between Oracle Identity Manager and Oracle Access Manager at a later time.
oimLanguages	For language support, you need to edit the User Management plugin to add a new configuration parameter `oimLanguages`. See Important Notes on User Management Plugin Configuration.

e. Click **OK**.

f. Click **Apply**.

Important Notes on User Management Plugin Configuration

oimLanguages attribute: For language support, you need to edit the User Management plugin to add a new configuration parameter `oimLanguages`.

For example, if the Managed Localization for the `DisplayName` while creating the User in OIM is selected as `French`, then the value for `oimLanguages` in the User Management adapter plugin should be `fr`. If you have other languages to be supported, say Japanese, then the value for the parameter should be `fr,ja`.

This parameter is functional only when the `directoryType` parameter is set to `activedirectory`.

The User Management plugin has the following configuration parameters:

`oimLanguages`,<separated list of language codes to be used in attribute language subtypes>.

Table 16–7 Language Codes'for the MLS Enabled Attributes

Objectclasses	MLS Enabled Attributes	Language Codes
orclIDXPerson	cn, sn, givenName, middleName, displayName, o, ou, title, postalAddress, st, description, orclGenerationQualifier	sq,ar,as,az,bn,bg, be,ca,zh-CN,zh-TW, hr,cs,da,nl,en,et, fi,fr,de,el,gu,he, hi,hu,is,id,it,ja, kn,kk,ko,lv,lt,mk, ms,ml,mr,no,or,pl, pt,pt-BR,pa,ro,ru, sr,sk,sl,es,sv,ta, te,th,tr,uk,uz,vi
orclIDXGroup	cn, displayName, description	sq, ar, as, az, bn, bg, be, ca, zh-CN, zh-TW, hr, cs, da, nl, en, et, fi, fr, de, el, gu, he, hi, hu, is, id, it, ja, kn, kk, ko, lv, lt, mk, ms, ml, mr, no, or, pl, pt, pt-BR, pa, ro, ru, sr, sk, sl, es, sv, ta, te, th, tr, uk, uz, vi

Note: If you are using Identity Virtualization Library, then see "Managing Identity Virtualization Library (libOVD) Adapters" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Manager*.

Change Log Adapter

Follow the steps below to create the Change Log Adapter in Oracle Virtual Directory using Oracle Directory Services Manager.

1. Open a browser and bring up the ODSM console at `http://hostname:port/odsm`

   Note: The default port number is 7005.

2. Connect to Oracle Virtual Directory by using the appropriate connection entry.
3. On the Home page, click on the **Adapter** tab.
4. Start the New Adapter Wizard by clicking **Create Adapter** at the top of the adapter window.
5. Create a new adapter using the New Adapter Wizard, with the following parameters:

Table 16–8 Parameters for New Change Log Adapter Creation

Screen	Field	Value/Step
Type	**Adapter Type**	LDAP

Table 16–8 (Cont.) Parameters for New Change Log Adapter Creation

Screen	Field	Value/Step
	Adapter Name	`OIM Change Log Adapter`
	Adapter Template	`Changelog_ActiveDirectory`
Connection	**Use DNS for Auto Discovery**	No
	Host	Active Directory host/virtual name
	Port	389
	Server Proxy Bind DN	`cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`
	Proxy Password	Password for `oimadmin` user
Connection Test		Validate that the test succeeds
Namespace	**Remote Base**	Remote Base should be empty
	Mapped Namespace	`cn=changelog`

Verify that the summary is correct and then click **Finish**.

6. To edit the change adapter follow the steps below:
   a. Select the OIM Change Log Adapter.
   b. Click the **Plug-ins** tab.
   c. In the Deployed Plus-ins table, click the **changelog** plug-in, then click **Edit** in the plug-ins table. The plug-in editing window appears.
   d. In the Parameters table, update the parameter values.

      Edit the Change Log Adapter to either add or modify the properties so that they match the values shown in Table 16–9. You must add the `sizeLimit`, and `targetDNFilter` properties to the adapter.

Table 16–9 Changelog Adapter Parameter Values

Parameter	Value
directoryType	`activedirectory`
mapAttribute	`targetGUID=objectGuid`
requiredAttribute	samaccountname
sizeLimit	1000
targetDNFilter	Optional parameter. For more information, see Important Notes on Changelog Plugin Configuration .
oamEnabled	`true` or `false` Note that this parameter should be set to `true` only if you are setting up integration between Oracle Identity Manager and Oracle Access Manager at a later time.
mapUserState	`true` For more information, see Important Notes on Changelog Plugin Configuration .

Table 16–9 (Cont.) Changelog Adapter Parameter Values

Parameter	Value
virtualDITAdapterName	The name of the User adapter For more information, see Important Notes on Changelog Plugin Configuration.

Note: The parameter **modifierDNFilter** should not be added to Active Directory Changelog plugin adapter.

e. Click **OK**.

f. Click **Apply**.

16.8.5.2.3 Creating Adapters for Oracle Directory Server Enterprise Edition (ODSEE)

User Adapter

Create the user adapter for Oracle Virtual Directory. Follow the steps below to create the User Adapter in Oracle Virtual Directory using Oracle Directory Services Manager.

1. Start the Administration Server and the ODSM Managed Server as described in Starting or Stopping the Oracle Stack.
2. Open a browser and bring up the ODSM console at `http://hostname:port/odsm`

Note: The default port number is 7005.

3. Connect to Oracle Virtual Directory by using the appropriate connection entry.
4. On the Home page, click on the **Adapter** tab.
5. Start the New Adapter Wizard by clicking on **Create Adapter** at the top of the adapter window.
6. Create a new adapter using the New Adapter Wizard, with the following parameters:

Table 16–10 Parameters for New User Adapter Creation

Screen	Field	Value/Step
Type	**Adapter Type**	`LDAP`
	Adapter Name	`User Adapter`
	Adapter Template	`User_SunOne`
Connection	**Use DNS for Auto Discovery**	No
	Host	Sun Java System Directory Server host/virtual name
	Port	Sun Java System Directory Server port
	Server Proxy Bind DN	`cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`

Table 16–10 (Cont.) Parameters for New User Adapter Creation

Screen	Field	Value/Step
	Proxy Password	Password for `oimadmin` user (`cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`)
Connection Test		Validate that the test succeeds.
Namespace	**Remote Base**	`dc=mycompany,dc=com`
	Mapped Namespace	`dc=mycompany,dc=com`

Verify that the summary is correct and then click **Finish**.

Note: For information about creating Oracle Identity Manager (OIM) user adapter by using Oracle Directory Services Manager, refer to the "Creating LDAP Adapters" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory*.

7. Edit the User Adapter as follows:
   a. Select the OIM User Adapter.
   b. Click the **Plug-ins** Tab.
   c. Click the **User Management** Plug-in, then click **Edit** in the plug-ins table. The plug-in editing window appears.
   d. In the Parameters table, update the parameter values as follows:

Table 16–11 User Adapter Parameter Values

Parameter	Value
directoryType	`sunone`
mapAttribute	`orclGUID=nsUniqueID`
mapObjectclass	`container=nsContainer`
pwdMaxFailure	`10`
oamEnabled	`true` or `false` Note that this parameter should be set to `true` only if you are setting up integration between Oracle Identity Manager and Oracle Access Manager at a later time.

   e. Click **OK**.
   f. Click **Apply**.

Change Log Adapter

Follow the steps below to create the Change Log Adapter in Oracle Virtual Directory using Oracle Directory Services Manager.

1. Open a browser and bring up the ODSM console at `http://hostname:port/odsm`

Note: The default port number is 7005.

2. Connect to Oracle Virtual Directory by using the appropriate connection entry.
3. On the Home page, click on the **Adapter** tab.
4. Start the New Adapter Wizard by clicking on **Create Adapter** at the top of the adapter window.
5. Create a new adapter using the New Adapter Wizard, with the following parameters:

Table 16–12 Parameters for New Change Log Adapter Creation

Screen	Field	Value/Step
Type	**Adapter Type**	`LDAP`
	Adapter Name	`OIM Change Log Adapter`
	Adapter Template	`Changelog_SunOne`
Connection	**Use DNS for Auto Discovery**	No
	Host	Sun Java System Directory Server host virtual name
	Port	Sun Java System Directory Server port
	Server Proxy Bind DN	`cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`
	Proxy Password	Password for `oimadmin` user. (`cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com`)
Connection Test		Validate that the test succeeds.
Namespace	**Remote Base**	
	Mapped Namespace	`cn=changelog`

Verify that the summary is correct, then click **Finish**.

> **Note:** For information about creating Oracle Identity Manager (OIM) user adapter by using Oracle Directory Services Manager, refer to the "Creating LDAP Adapters" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory*.

6. To edit the change adapter follow the steps below:
   a. Select the OIM Change Log Adapter.
   b. Click the **Plug-ins** tab.
   c. In the Deployed Plus-ins table, click the **changelog** plug-in, then click **Edit** in the plug-ins table. The plug-in editing window appears.
   d. In the Parameters table, update the parameter values.

      Edit the Change Log Adapter to either add or modify the properties so that they match the values shown in the following table. You must add the `mapObjectclass`, `modifierDNFilter`, `sizeLimit`, and `targetDNFilter` properties to the adapter.

Table 16–13 Changelog Adapter Parameter Values

Parameter	Value
directoryType	`sunone`
mapAttribute	`targetGUID=targetUniqueID`
mapObjectclass	`changelog=changelogentry`
modifierDNFilter	`!(modifiersname=cn=oimadmin,cn=systemids,<root suffix>)` Note : This is an example. This value can be of any Proxy DN that the customer defines. For example: rootSuffix can be `dc=mycompany,dc=com`
sizeLimit	1000
virtualDITAdapterName	Name of the iPlanet User Management adapter. For more information, see Important Notes on Changelog Plugin Configuration.
targetDNFilter	Optional parameter. For more information, see Important Notes on Changelog Plugin Configuration.
oamEnabled	`true` or `false` Note that this parameter should be set to `true` only if you are setting up integration between Oracle Identity Manager and Oracle Access Manager at a later time.
mapUserState	`true` For more information, see Important Notes on Changelog Plugin Configuration.

e. Click **OK**.

f. Click **Apply**.

Note: For more information about these plug-in parameters, refer to the Understanding the Oracle Virtual Directory Plug-ins section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory 11g Release 1 (11.1.1)*.

16.8.5.2.4 Important Notes on Changelog Plugin Configuration

- The **virtualDITAdapterName** parameter must be added after the changelog adapter is created.

  virtualDITAdapterName identifies the corresponding user profile adapter name. For example, in a single-directory deployment, you can set this parameter value to `A1`, which is the user adapter name.

  If you set this parameter **virtualDITAdapterName** to `A1`, the plug-in fetches the **mapAttribute** and **mapObjectclass** configuration in the UserManagementPlugin of adapter `A1`, so you do not have to duplicate those configurations.

  This configuration is a must for **directoryType**=`ActiveDirectory` for the GUID mapping to happen in the case of incremental reconciliation to avoid the missing required attribute exception. (`LDAP GUID=null`).

Add the attribute **virtualDITAdapterName** and set it to the value of the Active Directory User Management adapter name in the Active Directory changelog plugin. This is required to pick up the attribute mappings set in the Active Directory User Management adapter plugin as the Active Directory schema and OIM schema are different.

- **targetDNFilter** attribute should be set if you want to perform reconciliation from a certain user container and group container instead of from the root suffix.

  These values should be the ones entered for User Container and Role Container during the configuration of Oracle Identity Manager when LDAP Sync is enabled.

  For example:

  targetDNFilter : `cn=Users,dc=mycountry,dc=mycompany,dc=com`

  targetDNFilter : `cn=Groups,dc=mycountry,dc=mycompany,dc=com`

  These settings would pull in/reconcile all users and groups from the above mentioned containers in the backend Directory Server.

- The changelog adapter plugin should always have the attribute **mapUserState** set to `true` for the attribute **orclaccountenabled** to return in the search result.

Note: If you are using Identity Virtualization Library, then see "Managing Identity Virtualization Library (libOVD) Adapters" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Manager*.

For more information about these plug-in parameters, refer to the "Understanding the Oracle Virtual Directory Plug-ins" section in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory 11g Release 1 (11.1.1)*.

16.8.6 Running the LDAP Post-Configuration Utility

You must run the LDAP post-configuration utility after you have configured the OIM Server and exited the Oracle Identity Management Configuration Wizard. The LDAP configuration post-setup script enables all the LDAP Sync-related incremental Reconciliation Scheduler jobs, which are disabled by default.

Note: This procedure is applicable to all the Directory Server options. The LDAP post-configuration utility must be run after configuring OIM server. This procedure is required only if you chose to enable and configure LDAP Sync during the OIM Server configuration.

Run the LDAP post-configuration utility as follows:

1. Open the `ldapconfig.props` file in a text editor. This file is located in the `server/ldap_config_util` directory under the `IAM_Home` for Oracle Identity and Acccess Management.
2. In the `ldapconfig.props` file, set values for the following parameters:
   - **OIMProviderURL** - Specify the URL for the OIM provider in the format: `t3://localhost:8003`
   - **OIMAdminUser** - Specify the Oracle Identity Manager system administrator.

For example:

```
OIMAdminUser=xelsysadm
```

- **OIDURL** - Specify the URL for the OID instance.

  For example:

  ```
  OIDURL=ldap://localhost:389
  ```

  Note: If you are using Active Directory as the directory server, specify the URL for the Active Directory instance.

  If you are using Oracle Directory Server Enterprise Edition (ODSEE) as the directory server, specify the URL for the Oracle Directory Server Enterprise Edition (ODSEE) instance.

  If you are using Oracle Virtual Directory (OVD) as the directory server, specify the URL for the Oracle Virtual Directory (OVD) instance.

- **OIDAdminUsername** - Specify the OID Administrator's user name, such as `cn=orcladmin`.

  Notes:

  - `OIDAdminUsername` is the name of user used to connect to Identity Store.

    For example:

    ```
    cn=oimadmin,cn=systemids,dc=mycompany,dc=com
    ```

    This user should not be located in `cn=Users,dc=mycompany,dc=com`.

  - If you are using Active Directory as the directory server, specify the Active Directory Administrator's user name.

    If you are using Oracle Directory Server Enterprise Edition (ODSEE) as the directory server, specify the Oracle Directory Server Enterprise Edition (ODSEE) Administrator's user name.

- **OIDSearchBase** - Specify the OID search base, such as `dc=us, dc=mycompany,dc=com`.

  Note: If you are using Active Directory as the directory server, specify the Active Directory search base.

  If you are using Oracle Directory Server Enterprise Edition (ODSEE) as the directory server, specify the Oracle Directory Server Enterprise Edition (ODSEE) search base.

  If you are using Oracle Virtual Directory (OVD) as the directory server, specify the Oracle Virtual Directory (OVD) search base.

- **UserContainerName** - Specify the name of the user container, which is used as a default container of users in the LDAP directory.
- **RoleContainerName** - Specify the name of the user container, which is used as a default container of roles in the LDAP directory.

- **ReservationContainerName** - Specify the name of the user reservation container, which is used to reserve users while waiting for user creation approvals in Oracle Identity Manager. When the user creation is approved, users are moved from the reservation container to the actual user container.

  Note: `usercontainerName`, `rolecontainername`, and `reservationcontainername` are not used in this step. Even though these three parameters are not used, the input would be expected by the utility.

3. Ensure that the *WL_HOME* environment variable is set to the `wlserver_10.3` directory under your Middleware Home. On UNIX, it is the `<MW_HOME>/wlserver_10.3` directory. On Windows, it is the `<MW_HOME>\wlserver_10.3` directory. In addition, set the *JAVA_HOME* environment variable to the directory where the JDK is installed on your machine.
4. Start the OIM Managed Server. For more information, see Starting the Servers.
5. On the command line, run the LDAP configuration post-setup script (`LDAPConfigPostSetup.bat` on Windows, and `LDAPConfigPostSetup.sh` on UNIX). The files are located in the `server/ldap_config_util` directory under your `IAM_Home` for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.
6. When prompted, enter the OIM administrator's password and the `xelsysadm` password.

16.8.7 Verifying the LDAP Synchronization

To verify the configuration of LDAP with Oracle Identity Manager, complete the following steps:

1. Ensure that the WebLogic Administration Server is up and running.
2. Invoke the Oracle Identity Manager Administration Console (`http://<host>:<port>/oim`), which is deployed on the Administration Server.
3. In this console, click **Search** under **Configurations** -> **Manage IT Resource**. If the LDAP information is correct, the resource information is displayed.

   For more information, see "Managing IT Resources" in the *Oracle Fusion Middleware Developer's Guide for Oracle Identity Manager*.
4. Create a normal user using the same console.
5. If a user is created, verify the creation in the chosen LDAP store or OVD using any ldap client.

   Note: Ensure that the chosen Directory server or OVD and Oracle Identity Manager are up and running.

16.8.8 Post-Configuration Steps

After installing and configuring Oracle Identity Manager Server, you must complete the following manual steps:

- Set the *XEL_HOME* variable in the setenv script (`setenv.bat` on Windows, and `setenv.sh` on UNIX) as follows:

  On Windows: Open the `<IAM_Home>\server\bin\setenv.bat` file and search for *XEL_HOME* variable. Update the path of the *XEL_HOME* variable to the absolute path of `<IAM_Home>\server`. For example, if your IDM_Home is the `C:\oracle\Middleware\IAM_Home` directory, then set *XEL_HOME* in the `setenv.bat` file to the `C:\oracle\Middleware\IAM_Home\server` directory.

  On UNIX: Open the `<IAM_Home>/server/bin/setenv.sh` file and search for *XEL_HOME* variable.Update the path of the *XEL_HOME* variable to the absolute path of `<IAM_Home>/server`. For example, if your IDM_Home is the `/test/Middleware/IAM_Home` directory, then set *XEL_HOME* in the `setenv.sh` file to the `/test/Middleware/IAM_Home/server` directory.

16.8.9 Setting oamEnabled Parameter for Identity Virtualization Library

Follow these steps for setting `oamEnabled` parameter. You must set `oamEnabled` parameter to `true` only if you want to integrate OIM and OAM at a later time. This procedure applies only if you use Identity Virtualization Library.

1. Log in into Oracle Enterprise Manager Fusion Middleware Control at

   `http://adminvhn.mycompany.com:7001/em` as user `weblogic`.

2. Right click on **Oim(11.1.1.3.0)**, and click **System Mbean Browser**.
3. Go to: **Application defined MBeans** -> **com.oracle** -> **Domain:base_domain** -> **OVD**
4. There are two **AdaptersConfig** options. Click on the one that has a plus (+) symbol, indicating a subtree. Then click on **OVDAdaptersConfig**. You should see **CHANGELOG_oid1** and **oid1**.
5. Configure **oamenabled** in both the adapters.

   Follow these steps to configure oamenabled in the **Changelog** adapter:

   a. Click on **CHANGELOG_oid1** and keep going down the tree until the very end. You should see **changelog** with a bean symbol. Double click on **changelog**.

   b. Click on the **operations** subtab.

   c. Click on **removeParam operation**.

   d. Enter `oamEnabled` in the textbox and click **invoke**. It should give you a **false** or a **true**.

   e. Return to the original page with **operations**.

   f. Click on **AddParam** operation.

   g. Edit the names and values to contain **oamEnabled** and **true**.

   h. Click **invoke** to complete the `addParam` operation.

   Follow these steps to configure oamenabled in the **Usermanagement** adapter:

   a. Click on **oid1** and keep going down the tree until the very end. You should see **oid1** with a bean symbol. Double click on **oid1**.

   b. Click on the **operations** subtab.

   c. Click on **removeParam operation**.

d. Enter `oamEnabled` in the textbox and click **invoke**. It should give you a **false** or a **true**.

e. Return to the original page with **operations**.

f. Click on **AddParam** operation.

g. Edit the names and values to contain **oamEnabled** and **true**.

h. Click **invoke** to complete the `addParam` operation.

6. Restart OIM Managed Server and SOA Managed Server.

16.8.10 Enabling LDAP Sync after Installing and Configuring OIM Server at a Later Point

LDAP Sync can be enabled at any point after installing and configuring OIM Server. For more infromation on enabling LDAP Sync after installing and configuring OIM Server, see "Enabling LDAP Synchronization" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Manager*.

16.9 Installing and Configuring Only OIM Design Console on Windows

Table 16–14 lists the steps required to install and configure only Oracle Identity Manager (OIM) Design Console on Windows operating systems.

Table 16–14 Design Console Installation and Configuration Workflow

Task	For more information
Installing the Oracle Identity and Access Management 11g Release 1 (11.1.1.5.0) suite containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator on the Windows machine where you want to install only Design Console	See Installing Oracle Identity and Access Management (11.1.1.5.0).
Configuring Oracle Identity Manager Server on a local or remote machine **Note**: The Oracle Identity Manager Server must be up and running when you configure only Design Console.	See Configuring OIM Server.
Configuring Oracle Identity Manager Design Console on the Windows machine where you want to install only Design Console	See Configuring OIM Design Console.
Completing any post-configuration steps	See Post-Configuration Steps.

Note: For more information, see Prerequisites for Configuring Only OIM Design Console on a Different Machine and Scenario 1: Oracle Identity Manager Server and Design Console on Different Machines.

16.10 Configuring OIM Design Console

This topic describes how to install and configure only Oracle Identity Manager (OIM) Design Console, which is supported on Windows operating systems only.

It includes the following sections:

16.10.1 Appropriate Deployment Environment

Perform the installation and configuration in this topic if you want to install Oracle Identity Manager Design Console on a separate Windows machine where Oracle Identity Manager Server is not configured. For more information, see Scenario 1: Oracle Identity Manager Server and Design Console on Different Machines.

16.10.2 Components Deployed

Performing the installation and configuration in this section deploys only Oracle Identity Manager Design Console on the Windows operating system.

16.10.3 Dependencies

The installation and configuration in this section depends on the installation of Oracle Identity and Access Management 11*g* software and on the configuration of Oracle Identity Manager Server. For more information, see Installing Oracle Identity and Access Management (11.1.1.5.0) and Configuring OIM Server.

16.10.4 Procedure

Perform the following steps to install and configure only Oracle Identity Manager Design Console on the Windows operating system:

1. Ensure that all the prerequisites, described in Prerequisites for Configuring Only OIM Design Console on a Different Machine, are satisfied. In addition, see Important Notes Before You Start Configuring OIM.
2. On the Windows machine where Oracle Identity Manager Design Console should be configured, start the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard. The Welcome screen appears.
3. On the Welcome screen, click **Next.** The Components to Configure screen appears.

   On the Components to Configure screen, select only the **OIM Design Console** check box. Click **Next**. The OIM Server Host and Port screen appears.
4. On the OIM Server Host and Port screen, enter the host name of the Oracle Identity Server Manager Server in the **OIM Server Hostname** field. In the **OIM Server Port** field, enter the port number for the Oracle Identity Manager Server on which the Oracle Identity Manager application is running. Click **Next**. The Configuration Summary screen appears.

   The Configuration Summary screen lists the application that you selected for configuration and summarizes your configuration options, such as OIM Server host name and port.

Review this summary and decide whether to start the configuration. If you want to modify any of the configuration settings at this stage, select a topic in the left navigation page and modify your choices. To continue installing this configuration of the Oracle Identity Management Design Console, click **Configure**.

Note: Before configuring an application, you can save your configuration settings and preferences in a response file. Response files are text files that you can create or edit in a text editor. You can use response files to perform a silent installation or use as templates or customized settings for your environment. For more information, see Performing a Silent Installation.

After you click **Configure**, the Configuration Progress screen appears. A configuration log is saved to the `logs` directory under Oracle Inventory directory. For information about the log files, see Installation Log Files. If the Configuration Progress screen displays any errors, click **Abort** to stop the installation and restart the Oracle Identity Manager Configuration Wizard.

5. Click **Finish**.

Note: If the configuration fails, click **Abort** to stop the installation and restart the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard.

16.10.5 Post-Configuration Steps

Complete the following steps after configuring the Oracle Identity Manager Design Console on the Windows operating system:

1. On the machine where Oracle WebLogic Server is installed (the machine where Oracle Identity Manager Server is installed), create the `wlfullclient.jar` file as follows:

   a. Use the `cd` command to move from your present working directory to the `<MW_HOME>\wlserver_10.3\server\lib` directory.

   b. Ensure that *JAVA_HOME* is set, as in the following example:

      `D:\oracle\<MW_HOME>\jdk160_24`

      To set this variable, right-click the **My Computer** icon and select **Properties**. The System Properties screen is displayed. Click the **Advanced** tab and click the **Environment Variables** button. The Environment Variables screen is displayed. Ensure that the *JAVA_HOME* variable in the **User Variables** section is set to the path of the JDK directory installed on your machine.

      After setting the *JAVA_HOME* variable, select the **Path** variable in the System Variables section on the same Environment Variables screen, and click **Edit**. The Edit System Variable dialog box is displayed. In the **variable value** field, enter the complete path to your *JAVA_HOME*, such as `D:\oracle\<MW_HOME>\jdk160_24`, preceded by a semicolon (;). The semicolon is used as the delimiter for multiple paths entered in this field.

   c. After verifying the values, click **OK**.

2. Use the following steps to create a `wlfullclient.jar` file for JDK 1.6 client application:

a. Change directories to the `server/lib` directory.

   `cd WL_HOME/server/lib`

b. Use the following command to create `wlfullclient.jar` in the `server/lib` directory:

   `java -jar wljarbuilder.jar`

   This command generates the `wlfullclient.jar` file.

3. Copy the `wlfullclient.jar` file to the `<IAM_Home>\designconsole\ext\` directory on the machine where Design Console is configured.
4. Ensure that the Administration Server and the Oracle Identity Manager Managed Server are started. For information about starting the servers, see Starting the Stack.
5. Start the Design Console client by running the `xlclient.cmd` executable script, which is available in the `<IAM_Home>\designconsole\` directory.
6. Log in to the Design Console with your Oracle Identity Manager user name and password.

16.10.6 Updating the xlconfig.xml File to Change the Port for Design Console

To update the `xlconfig.xml` file and start the Design Console on a new port as opposed to what was set during configuration, complete the following steps:

1. In a text editor, open the `<IAM_Home>\designconsole\config\xlconfig.xml` file.
2. Edit the following tags:
   - `ApplicationURL`
   - `java.naming.provider.url`
3. Change the port number.
4. Restart the Design Console.

Note: You do not have to perform this procedure during installation. It is required if you want to change ports while using the product. You must ensure that the Oracle Identity Manager server port is changed to this new port before performing these steps.

16.10.7 Configuring Design Console to Use SSL

To configure the Design Console to use SSL, complete the following steps:

1. Add the WebLogic Server jar files required to support SSL by copying the `webserviceclient+ssl.jar` file from the `<WL_HOME>/server/lib` directory to the `<IAM_Home>/designconsole/ext` directory.
2. Use the server trust store in Design Console as follows:
   a. Log in to the Oracle WebLogic Administration Console using the WebLogic administrator credentials.
   b. Under **Domain Structure**, click **Environment** > **Servers**. The Summary of Servers page is displayed.

c. Click on the Oracle Identity Manager server name (for example, oim_server1). The Settings for oim_server1 is displayed.

d. Click the **Keystores** tab.

e. From the **Trust** section, note down the path and file name of the trust keystore.

3. Set the `TRUSTSTORE_LOCATION` environment variable as follows:

   - If Oracle Identity Manager Design Console and Oracle Identity Manager Server are installed and configured on the same machine, set the `TRUSTSTORE_LOCATION` environment variable to the location of the trust keystore that you noted down.

     For example, `setenv TRUSTSTORE_LOCATION=/test/DemoTrust.jks`

   - If Oracle Identity Manager Design Console and Oracle Identity Manager Server are installed and configured on different machines, copy the trust keystore file to the machine where Design Console is configured. Set the `TRUSTSTORE_LOCATION` environment variable to the location of the copied trust keystore file on the local machine.

4. If the Design Console was installed without SSL enabled, complete the following steps:

   a. Open the `<IAM_Home>/designconsole/config/xlconfig.xml` file in a text editor.

   b. Edit the `<ApplicationURL>` entry to use HTTPS, T3S protocol, and SSL port to connect to the server, as in the following example:

   ```
   <ApplicationURL>https://<host>:<sslport>/xlWebApp/loginWor
   kflowRenderer.do</ApplicationURL>
   ```

   Note: For a clustered installation, you can send an https request to only one of the servers in the cluster, as shown in the following element:

   ```
   <java.naming.provider.url>t3s://<host>:<sslport></ja
   va.naming.provider.url>
   ```

   c. Save the file and exit.

16.11 Configuring OIM Remote Manager

This topic describes how to install and configure only Oracle Identity Manager (OIM) Remote Manager. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

16.11.1 Appropriate Deployment Environment

Perform the installation and configuration in this topic if you want to install Oracle Identity Manager Remote Manager on a separate machine. For more information, see

Scenario 2: Oracle Identity Manager Server and Remote Manager on Different Machines.

16.11.2 Components Deployed

Performing the installation and configuration in this section deploys only Oracle Identity Manager Remote Manager.

16.11.3 Dependencies

The installation and configuration in this section depends on the installation of Oracle Identity and Access Management 11*g* software and on the configuration of OIM Server. For more information, see Installing Oracle Identity and Access Management (11.1.1.5.0) and Prerequisites for Configuring Only OIM Remote Manager on a Different Machine.

16.11.4 Procedure

Perform the following steps to install and configure only Oracle Identity Manager Remote Manager:

1. Ensure that all the prerequisites, described in Prerequisites for Configuring Only OIM Remote Manager on a Different Machine, are satisfied. In addition, see Important Notes Before You Start Configuring OIM.
2. On the machine where Oracle Identity Manager Remote Manager should be configured, start the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard. The Welcome screen appears.
3. On the Welcome screen, click **Next.** The Components to Configure screen appears.

   On the Components to Configure screen, select only the **OIM Remote Manager** check box. Click **Next**. The Remote Manager screen appears.
4. On the Remote Manager screen, enter the service name in the **Service Name** field. Oracle Identity Manager Remote Manager will be registered under this service name. The service name is used with the Registry URL to a build fully qualified service name, such as `rmi://host:RMI Registry Port/service name`.
5. In the **RMI Registry Port** field, enter the port number on which the RMI registry should be started. The default port number is 12345.
6. In the **Listen Port (SSL)** field, enter the port number on which a secure socket is opened to listen to client requests. The default port number is 12346. Click **Next**. The Keystore Password screen appears.
7. On the KeyStore Password screen, in the **KeyStore Password** field, enter a new password for the keystore. A valid password contains 6 to 30 characters, begins with an alphabetic character, and uses only alphanumeric characters and special characters like Dollar ($), Underscore (_), and Pound (#). The password must contain at least one number. In the **Confirm KeyStore Password** field, enter the new password again. Click **Next**. The Configuration Summary screen appears.
8. The Configuration Summary screen lists the application that you selected for configuration and summarizes your configuration options, such as Remote Manager Service Name, RMI Registry Port, and Remote Manager Listen Port (SSL).

Review this summary and decide whether to start the configuration. If you want to modify any of the configuration settings at this stage, select a topic in the left navigation page and modify your choices. To continue installing this configuration of the Oracle Identity Manager Remote Manager, click **Configure**.

Note: Before configuring an application, you can save your configuration settings and preferences in a response file. Response files are text files that you can create or edit in a text editor. You can use response files to perform a silent installation or use as templates or customized settings for your environment. For more information, see Performing a Silent Installation.

---

9. After you click **Configure**, the Configuration Progress screen appears. A configuration log is saved to the `logs` directory under Oracle Inventory directory. For information about the log files, see Installation Log Files. If the Configuration Progress screen displays any errors, click **Abort** to stop the installation and restart the Oracle Identity Manager Configuration Wizard.
10. Click **Finish**.

Note: Oracle Identity Manager Server certificates, such as `xlserver.cert`, are created in the `DOMAIN_HOME/config/fmwconfig/` directory. You can use these certificates if you require server-side certificates for configuring Oracle Identity Manager Remote Manager.

If the configuration fails, click **Abort** to stop the installation and restart the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard.

16.12 Verifying the OIM Installation

Before you can verify the Oracle Identity Manager (OIM) installation, ensure that the following servers are up and running:

- Administration Server for the domain in which the Oracle Identity Manager application is deployed
- Managed Server hosting Oracle Identity Manager
- Managed Server hosting the Oracle SOA 11*g* suite

You can verify your Oracle Identity Manager installation by:

- Checking the Oracle Identity Manager Server URL, such as `http://<Hostname>:<Port>/oim/faces/faces/pages/Admin.jspx`.
- Checking the Identity Management shell, such as `http://<Hostname>:<Port>/admin/faces/pages/Admin.jspx`. This shell is used for Users and Role Management tasks.
- Checking the Oracle Identity Manager Self Service URL, such as `http://<Hostname>:<Port>/oim`.
- Verifying the configuration between Oracle Identity Manager and Oracle SOA (BPEL Process Manager) as follows:

a. Log in to the Oracle Identity Manager Administration Console, with `xelsysadm`:

   `http://<host>:<oim_port>/oim/faces/pages/Admin.jspx`

b. Create a Request, such as modifying a user profile.

c. Log in to the SOA Infrastructure to verify whether the composite applications are displayed.

   `http://<host>:<bpel_port>/soa-infra`

d. Log in to the BPEL Worklist application, with `xelsysadm`:

   `http://<host>:<soa_port>/integration/worklistapp`

e. In the list of tasks, verify whether the request has come for approval.

f. Click on the task, and click **Approve** in the **Actions** tab.

g. Click on the refresh icon. The request comes back. Approve it again.

h. Go to `http://<host>:<oim_port>/oim/faces/pages/Admin.jspx` and verify whether the request is completed.

i. Go to `http://<host>:<oim_port>/admin/faces/pages/Admin.jspx` and verify whether the user profile is modified.

- Logging in to the Design Console, `xelsysadm`, and the appropriate password. A successful login indicates that the installation was successful.
- Starting the Remote Manager service by running `remotemanager.sh` or `remotemanager.bat`, as appropriate. (`remotemanager.sh` on UNIX or remotemanager.bat on Windows resides in your Oracle Home directory under a folder named `remote_manager`.

16.13 Setting Up Integration with OAM

For information about setting up integration between Oracle Identity Manager (OIM) and Oracle Access Manager (OAM), see "Integrating Oracle Access Manager and Oracle Identity Manager" in the *Oracle Fusion Middleware Integration Guide for Oracle Access Manager*.

16.14 List of Supported Languages

Oracle Identity Manager supports the following languages:

Arabic, Brazilian Portuguese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Simplified Chinese, Slovak, Spanish, Swedish, Thai, Traditional Chinese, and Turkish

16.15 Using the Diagnostic Dashboard

Diagnostic Dashboard is a stand-alone application that helps you validate some of the Oracle Identity Manager prerequisites and installation.

You must have the appropriate system administrator permissions for your Application Server and Oracle Identity Manager environments to use this tool. You need DBA-level permissions to execute some database-related tests.

Note: The Diagnostic Dashboard and Oracle Identity Manager must be installed on the same application server.

For more information about installing and using the Diagnostic Dashboard for Oracle Identity Manager, see the "Working with the Diagnostic Dashboard" topic in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Identity Manager*.

16.16 Getting Started with OIM After Installation

After installing Oracle Identity Manager (OIM), refer to "Part 1: Oracle Identity Manager System Administration Console" and "Part 2: Oracle Identity Manager Administrative and User Console" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Manager*.

17

Configuring Oracle Access Manager

This chapter explains how to configure Oracle Access Manager (OAM). It includes the following topics:

17.1 Prerequisites

The following are the prerequisites for installing and configuring Oracle Identity and Access Management 11*g* Release 1 (11.1.1) products:

1. Installing Oracle Database, as described in Installing Oracle Database.
2. Installing Oracle WebLogic Server 11*g* Release 1 (10.3.5) and creating a Middleware Home, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
3. Creating and loading schemas using Oracle Fusion Middleware Repository Creation Utility (RCU), as described in Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
4. Installing the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) suite, as described in Installing Oracle Identity and Access Management (11.1.1.5.0). The Oracle Identity and Access Management suite contains Oracle Identity Manager (OIM), Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), Oracle Entitlements Server (OES), and Oracle Identity Navigator (OIN).

17.2 Important Notes Before You Begin

Before you start installing and configuring Oracle Identity and Access Management products in any of the scenarios discussed in this chapter, keep the following points in mind:

It is assumed that you are installing Oracle Internet Directory, Oracle Virtual Directory, Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Navigator on the same machine.

Note: In this chapter, two *IDM_Home* directories are mentioned in descriptions and procedures. For example, the first one, **IDM_Home** can be the *IDM_Home* directory for Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation. The second one, **IAM_Home** can be the *IDM_Home* directory for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

However, note that **IDM_Home** and **IAM_Home** are used as examples in this document. You can specify any name for either of your *IDM_Home* directories. In addition, you can install the two Oracle Identity Management suites (one containing Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation; another containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator) in any order on your machine.

For more information, see Overview and Structure of Oracle Identity Management 11g Installation.

17.3 Installing OAM

Oracle Access Manager (OAM) is included in the Oracle Identity and Access Management Suite. You can use the Oracle Identity and Access Management 11*g* Installer to install the Oracle Identity and Access Management Suite. For more information, see Preparing to Install and Installing Oracle Identity and Access Management (11.1.1.5.0).

Note: When you are installing Oracle Access Manager, Oracle Secure Token Service will also be installed. For more information on Oracle Secure Token Service, see *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager with Oracle Security Token Service*.

17.4 Oracle Access Manager Domain Configuration Template

When configuring Oracle Access Manager in a new or existing WebLogic administration domain, you must choose Oracle Access Manager with Database Policy Store - 11.1.1.3.0 [Oracle_IDM2] as the domain configuration template on the Select Domain Source screen in the Oracle Fusion Middleware Configuration Wizard.

A database policy store offers more security measures that can be layered based on the storage, thereby ensuring higher resiliency to corruption and better high availability.

To configure Oracle Access Manager with a database policy store, choose the **Oracle Access Manager with Database Policy Store - 11.1.1.3.0 [Oracle_IDM2]** option on the Select Domain Source screen in the Oracle Fusion Middleware Configuration Wizard.

> **Note:** It is recommended that you use a database policy store in production environments.

For a list of screens in the Oracle Fusion Middleware Configuration Wizard, see Screens in Oracle Fusion Middleware Configuration Wizard.

17.5 OAM in a New WebLogic Domain

This topic describes how to configure Oracle Access Manager (OAM) in a new WebLogic domain.

It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

17.5.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install only Oracle Access Manager in an environment where you may add other Oracle Identity and Access Management 11*g* components, such as Oracle Identity Navigator, Oracle Identity Manager, and Oracle Adaptive Access Manager at a later time in the same domain.

17.5.2 Components Deployed

Performing the configuration in this section deploys the following:

- WebLogic Administration Server
- Managed Server for Oracle Access Manager
- Oracle Access Manager Console on the Administration Server

17.5.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server
- Installation of the Oracle Identity and Access Management 11*g* software
- Database schemas for Oracle Access Manager. For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).

17.5.4 Procedure

Perform the following steps to configure Oracle Access Manager in a new WebLogic domain:

1. Ensure that all prerequisites, listed in Prerequisites, are satisfied. In addition, see Important Notes Before You Begin.
2. Run the `<IAM_Home>/common/bin/config.sh` script (on UNIX). (`<IAM_Home>\common\bin\config.cmd` on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
3. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**. The Select Domain Source screen appears.
4. On the Select Domain Source screen, ensure that the **Generate a domain configured automatically to support the following products:** option is selected. Select **Oracle Access Manager with Database Policy Store - 11.1.1.3.0 [Oracle_IDM2]**, and click **Next**. The Select Domain Name and Location screen appears.

   Note: When you select the **Oracle Access Manager with Database Policy Store - 11.1.1.3.0 [Oracle_IDM2]** option, the **Oracle JRF 11.1.1.0 [Oracle_Common]** option is also selected, by default.

5. Enter a name and a location for the domain to be created, and click **Next**. The Configure Administrator User Name and Password screen appears.
6. Configure a user name and a password for the administrator. The default user name is `weblogic`. Click **Next**.
7. Choose `JRockit SDK 1.6.0_24` and Production Mode in the Configure Server Start Mode and JDK screen of the Oracle Fusion Middleware Configuration Wizard. Click **Next**. The Configure JDBC Component Schema screen appears.
8. On the Configure JDBC Component Schema screen, select a component schema, such as the OAM Infrastructure Schema that you want to modify.

   You can set values for Schema Owner, Schema Password, Database and Service, Host Name, and Port. Click **Next**. The Test JDBC Component Schema screen appears. After the test succeeds, the Select Optional Configuration screen appears.
9. On the Select Optional Configuration screen, you can configure the **Administration Server** and **Managed Servers, Clusters, and Machines**. Click **Next**.
10. Optional: Configure the following Administration Server parameters:
    - Name
    - Listen address
    - Listen port
    - SSL listen port
    - SSL enabled or disabled
11. Optional: Configure Managed Servers, as required.

    Note: If you want to configure the Managed Server on the same machine, ensure that the port is different from that of the Administration Server.

12. Optional: Configure Clusters, as required.

For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.

13. Optional: Assign Managed Servers to clusters, as required.
14. Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

    Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.

15. If the Administration Server is not assigned to a machine, you can assign it to a machine.

    Note that deployments, such as applications and libraries, and services that are targeted to a particular cluster or server are selected, by default.

16. Assign the newly created Managed Server, such as `oam_server1`, to a machine.
17. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.

A new WebLogic domain to support Oracle Access Manager is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

17.6 OAM and OIN in a New WebLogic Domain

This topic describes how to configure Oracle Access Manager (OAM) and Oracle Identity Navigator (OIN) together in a new WebLogic domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

17.6.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install Oracle Access Manager in an environment where you may add other Oracle Identity and Access Management products, such as Oracle Identity Access Manager and Oracle Adaptive Access Manager, at a later time. You can use Oracle Identity Navigator to discover and launch the Oracle Access Manager Console from within the Oracle Identity Navigator user interface.

17.6.2 Components Deployed

Performing the configuration in this section deploys the following:

- Administration Server
- Managed Server for Oracle Access Manager

- Oracle Access Manager Console and Oracle Identity Navigator application on the Administration Server

17.6.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server.
- Installation of the Oracle Identity and Access Management 11*g* software.
- Database schemas for Oracle Access Manager. For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).

17.6.4 Procedure

Perform the following steps to configure Oracle Access Manager and Oracle Identity Navigator in a new WebLogic domain:

1. Ensure that all prerequisites, listed in Prerequisites, are satisfied. In addition, see Important Notes Before You Begin.
2. Run the `<IAM_Home>/common/bin/config.sh` script (on UNIX). (`<IAM_Home>\common\bin\config.cmd` on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
3. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**. The Select Domain Source screen is displayed.
4. On the Select Domain Source screen, select the **Generate a domain configured automatically to support the following products:** option.
5. Select the following domain configuration options:
   - **Oracle Access Manager with Database Policy Store - 11.1.1.3.0 [Oracle_IDM2]**

     Note: When you select the **Oracle Access Manager with Database Policy Store - 11.1.1.3.0 [Oracle_IDM2]** option, the **Oracle JRF - 11.1.1.0 [oracle_common]** option is also selected, by default.

   - **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]**
6. After selecting the domain configuration options, click **Next**. The Specify Domain Name and Location screen is displayed.
7. On the Specify Domain Name and Location screen, enter a name and location for the domain to be created. In addition, enter a location to store applications for the domain. Click **Next**. The Configure Administrator User Name and Password screen is displayed.
8. Configure a user name and a password for the administrator. The default user name is weblogic. Click **Next**. The Configure Server Start Mode and JDK screen is displayed.
9. Choose `JRockit SDK 1.6.0_24` and **Production Mode** in the Configure Server Start Mode and JDK screen of the Oracle Fusion Middleware Configuration Wizard. Click **Next**. The Configure JDBC Data Sources Screen is displayed.

10. On the Configure JDBC Sources screen, configure the `oamDS` data source, as required. After the test succeeds, the Select Optional Configuration screen is displayed.
11. On the Select Optional Configuration screen, you can configure **Administration Server, Managed Servers, Clusters, and Machines**, **Deployments and Services**, and **RDBMS Security Store**. Select the relevant check boxes and click **Next**.
    - Optional: Configure Administration Server, as required.
    - Optional: Configure Managed Servers, as required.
    - Optional: Configure Clusters, as required.

      For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.
    - Optional: Assign Managed Servers to Clusters, as required.
    - Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

      Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.
    - Optional: Assign the Administration Server to a machine.
    - Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server.
    - Optional: Configure RDBMS Security Store, as required.
12. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.

A new WebLogic domain to support Oracle Access Manager and Oracle Identity Navigator is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

17.7 OAM in a Domain Containing OAAM and OIN

This topic describes how to configure Oracle Access Manager (OAM) in an Oracle Identity and Access Management domain that has Oracle Adaptive Access Manager (OAAM) and Oracle Identity Navigator (OIN) installed. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

17.7.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install Oracle Access Manager in an environment where Oracle Adaptive Access Manager and Oracle Identity

Navigator are already installed. At a later time, you may install Oracle Identity Manager in the same domain and set up integration between Oracle Access Manager and Oracle Identity Manager. You can also set up integration between Oracle Adaptive Access Manager and Oracle Access Manager, as described in the "Integrating OIM, OAM, and OAAM" topic in the *Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager*.

You can use Oracle Identity Navigator to discover and launch Consoles for Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Manager from within the Oracle Identity Navigator user interface

17.7.2 Components Deployed

Performing the configuration in this section deploys the following:

- Managed Server for Oracle Access Manager
- Oracle Access Manager Console on the existing Administration Server

17.7.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server.
- Installation of the Oracle Identity and Access Management 11*g* software.
- Database schemas for Oracle Access Manager and Oracle Adaptive Access Manager. For more information, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
- Installation and configuration of Oracle Adaptive Access Manager with Oracle Identity Navigator in a new WebLogic domain, as described in OAAM in a New WebLogic Domain.

17.7.4 Procedure

Perform the following steps to configure Oracle Access Manager in an Oracle Identity and Access Management domain that has Oracle Adaptive Access Manager and Oracle Identity Navigator installed:

1. Ensure that all prerequisites, listed in Prerequisites, are satisfied. In addition, see Important Notes Before You Begin.
2. Configure Oracle Adaptive Access Manager and Oracle Identity Navigator in a new WebLogic domain, as described in OAAM in a New WebLogic Domain. A new WebLogic domain to support Oracle Adaptive Access Manager and Oracle Identity Navigator is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.
3. Run the `<IAM_Home>/common/bin/config.sh` script (on UNIX). (`<IAM_Home>\common\bin\config.cmd` on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
4. On the Welcome screen, select the **Extend an existing WebLogic domain** option. Click **Next**.
5. On the Select a WebLogic Domain Directory screen, browse to the directory that contains the WebLogic domain in which you configured Oracle Adaptive Access

Manager and Oracle Identity Navigator. Click **Next**. The Select Extension Source screen appears.

6. On the Select Extension Source screen, select the **Oracle Access Manager with Database Policy Store - 11.1.1.3.0 [Oracle_IDM2]** domain configuration option.
7. After selecting the domain configuration options, click **Next**. The Configure JDBC Data Sources Screen is displayed. Configure the `oamDS` data source, as required. After the test succeeds, the Configure JDBC Component Schema screen is displayed.
8. On the Configure JDBC Component Schema screen, select a component schema, such as the OAAM Admin Server Schema, the OAAM Admin MDS Schema, the User Messaging Service Schema, the OWSM MDS Schema, the OIM MDS Schema, or the SOA MDS Schema, that you want to modify.

   You can set values for Schema Owner, Schema Password, Database and Service, Host Name, and Port. Click **Next**. The Test JDBC Component Schema screen appears. After the test succeeds, the Select Optional Configuration screen appears.
9. On the Select Optional Configuration screen, you can configure **Managed Servers, Clusters, and Machines** and **Deployments and Services**. Select the relevant check boxes and click **Next**.
   - Optional: Configure Managed Servers, as required.
   - Optional: Configure Clusters, as required.

     For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.
   - Optional: Assign Managed Servers to Clusters, as required.
   - Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

     Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.
   - Optional: Assign the Administration Server to a machine.
   - Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server.
10. On the Configuration Summary screen, review the domain configuration, and click **Extend** to start extending the domain.

Your existing domain with Oracle Adaptive Access Manager and Oracle Identity Navigator is extended to support Oracle Access Manager.

17.8 Starting the Servers

After configuring Oracle Access Manager in a new or existing domain, you must start the Oracle WebLogic Administration Server and various Managed Servers, as described in Starting or Stopping the Oracle Stack.

17.9 Optional Post-Installation Tasks

After installing and configuring Oracle Access Manager, you can perform the following optional tasks:

- Configure your own LDAP to use instead of the default embedded LDAP, which comes with Oracle WebLogic Server.
- Configure a policy store to protect resources.
- Add more Managed Servers to the existing domain.
- Add a Managed Server instance.

For more information, see the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager with Oracle Security Token Service*.

17.10 Verifying the OAM Installation

After completing the installation process, including post-installation steps, you can verify the installation and configuration of Oracle Access Manager (OAM) as follows:

1. Ensure that the Administration Server and the Managed Server are up and running.
2. Log in to the Administration Console for Oracle Access Manager using the URL: `http://<adminserver-host>:<adminserver-port>/oamconsole`

   When you access this Administration Console running on the Administration Server, you are prompted to enter a user name and password. Note that you must have Administrator's role and privileges.
3. Verify the Oracle WebLogic Server Administration Console. If the installation and configuration of Oracle Access Manager is successful, this console shows the Administration Server (for example, `oam_admin`) and the Managed Server (for example, oam_server) in the running mode. In addition, if you check Application Deployments in this console, both `oam_admin` and oam_server must be in active state.

17.11 Setting Up OAM Agents

You can set up either Oracle HTTP Server WebGate or mod_OSSO as an Agent for Oracle Access Manager (OAM). Setting up an Agent involves the following steps:

1. Installing and Configuring the Agent (WebGate or mod_osso)
2. Registering the Agent as a Partner Application
3. Restarting the WebLogic Managed Servers

17.11.1 Setting Up Oracle HTTP Server WebGate

Oracle HTTP Server WebGate is a Web server plug-in that is shipped out-of-the-box with Oracle Access Manager. The Oracle HTTP Server WebGate intercepts HTTP requests from users for Web resources and forwards them to the Access Server for authentication and authorization. Oracle HTTP Server WebGate installation packages are found on media and virtual media that is separate from the core components.

17.11.1.1 Installing and Configuring WebGate

To install and configure Oracle HTTP Server WebGate, complete the following steps:

1. Install Oracle HTTP Server 11g WebGate for Oracle Access Manager, as described in Installing and Configuring Oracle HTTP Server 11g Webgate for OAM.
2. Complete the post-installation steps and the registration setup, as described in Post-Installation Steps and Getting Started with a New Oracle HTTP Server 11g Webgate Agent for Oracle Access Manager.

17.11.1.2 Registering WebGate as a Partner Application

For information about registering WebGate as a Partner Application, refer to the "Agent Registration" topic and the "Managing Agents: OAM (WebGate) and OSSO (mod_osso)" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*. Note that the Administration Server must be up and running when you are registering WebGate as a Partner Application.

17.11.1.3 Restarting Managed Servers

For information about restarting Managed Servers, see Starting the Stack.

17.11.2 Setting Up the OSSO Agent

OSSO Agent (mod_osso) is used by Oracle HTTP Server to check for an existing, valid Oracle HTTP Server cookie. If necessary, it redirects to the Oracle Access Manager runtime server to communicate with the directory during authentication. In addition, it decrypts the encrypted user identity populated by the OSSO server and sets the headers with user attributes.

17.11.2.1 Installing mod_osso

To install mod_osso, complete the following steps:

1. Install the latest version of Oracle HTTP Server. For information about installing the Web Tier, including Oracle HTTP Server, see Installing and Configuring Oracle HTTP Server 11g.
2. After patching your Oracle Web Tier software to the latest version, run the configuration tool to configure Oracle HTTP Server.

   On UNIX operating systems:

   ```
   <Web_Tier_ORACLE_HOME>/bin/config.sh
   ```

   On Windows operating systems:

   ```
   <Web_Tier_ORACLE_HOME>\bin\config.bat
   ```

   For complete instructions, go to "Configuring Your Components" in *Oracle Fusion Middleware Installation Guide for Oracle Web Tier*.

   Note: After you configure Oracle HTTP Server, a working instance of Oracle HTTP Server is configured in an Instance Home.

3. Copy the `mod_osso.conf` file from the `<ORACLE_INSTANCE>/config/OHS/<OHS_INSTANCE>/disabled` directory to the `<ORACLE_INSTANCE>/config/OHS/<OHS_INSTANCE>/moduleconf` directory.
4. Register mod_osso as a Partner Application.

For information about registering mod_osso as a Partner Application, refer to the "Agent Registration" topic and the "Managing Agents: OAM (WebGate) and OSSO (mod_osso)" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*. Note that the Administration Server must be up and running when you are registering mod_osso as a Partner Application.

5. Edit the `mod_osso.conf` file to update the location of the `osso.conf` file as follows:

```
<IfModule osso_module>
                OssoIpCheck off
                OssoIdleTimeout off
                OssoSecureCookies off
                OssoConfigFile <location of the osso.conf>
              <Location>
                     require valid-user
                     AuthType Osso
              </Location>
</IfModule osso_module>
```

6. Restart Oracle HTTP Server by running the `restartproc` command in Oracle Process Manager and Notification Server (OPMN) or by using Oracle Fusion Middleware Control.

17.11.2.2 Restarting Managed Servers

For information about restarting Managed Servers, see Starting the Stack.

17.12 Setting Up Integration with OIM

For information about setting up integration between Oracle Access Manager and Oracle Identity Manager (OIM), see "Integrating Oracle Access Manager and Oracle Identity Manager" in the *Oracle Fusion Middleware Integration Guide for Oracle Access Manager*.

17.13 Getting Started with OAM After Installation

After installing Oracle Access Manager (OAM), refer to the "Getting Started with Administering Oracle Access Manager" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*.

18

Configuring Oracle Adaptive Access Manager

This chapter explains how to configure Oracle Adaptive Access Manager (OAAM). It includes the following topics:

18.1 Overview

For Oracle Identity and Access Management 11.1.1.5.0, Oracle Adaptive Access Manager includes two components:

- Oracle Adaptive Access Manager (Online)
- Oracle Adaptive Access Manager (Offline)

> **Note:** Oracle Adaptive Access Manager (Offline) is included in the Oracle Identity and Access Management Suite. When you are installing Oracle Identity and Access Management 11.1.1.5.0, Oracle Adaptive Access Manager (Offline) is also installed along with Oracle Adaptive Access Manager (OAAM). For configuring Oracle Adaptive Access Manager (Offline), see Configuring Oracle Adaptive Access Manager (Offline).

18.2 Prerequisites

The following are the prerequisites for installing and configuring Oracle Identity and Access Management 11*g* Release 1 (11.1.1) products:

1. Installing Oracle Database, as described in Installing Oracle Database.
2. Installing Oracle WebLogic Server and creating a Middleware Home, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
3. Creating and loading schemas using Oracle Fusion Middleware Repository Creation Utility (RCU), as described in Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
4. Installing the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) suite, as described in Installing Oracle Identity and Access Management (11.1.1.5.0). The Oracle Identity and Access Management suite contains Oracle Identity Manager (OIM), Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), Oracle Entitlements Server (OES), and Oracle Identity Navigator (OIN).

18.3 Important Notes Before You Begin

Before you start installing and configuring Oracle Identity and Access Management products in any of the scenarios discussed in this chapter, keep the following points in mind:

It is assumed that you are installing Oracle Internet Directory, Oracle Virtual Directory, Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Navigator on the same machine.

Note: In this chapter, two IDM_Home directories are mentioned in descriptions and procedures. For example, the first one, **IDM_Home** can be the IDM_Home directory for Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation. The second one, **IAM_Home** can be the IDM_Home directory for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

However, note that **IDM_Home** and **IAM_Home** are used as examples in this document. You can specify any name for either of your IDM_Home directories. In addition, you can install the two Oracle Identity Management suites (one containing Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation; another containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator) in any order on your machine.

For more information, see Overview and Structure of Oracle Identity Management 11g Installation.

18.4 Installing OAAM

Oracle Adaptive Access Manager (OAAM) is included in the Oracle Identity and Access Management 11*g* Release 1 (11.1.1) Suite. You can use the Oracle Identity and

Access Management 11*g* Installer to install the Oracle Identity and Access Management Suite. For more information, see Preparing to Install and Installing Oracle Identity and Access Management (11.1.1.5.0).

18.5 OAAM in a New WebLogic Domain

This topic describes how to configure Oracle Adaptive Access Manager (OAAM) in a new WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

18.5.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install Oracle Adaptive Access Manager in an environment where you may install other Oracle Identity and Access Management 11*g* components, such as Oracle Identity Navigator, Oracle Access Manager, or Oracle Identity Manager at a later time in the same domain.

You can use the Oracle Identity Navigator interface and dashboard to discover and launch the Oracle Adaptive Access Manager console from within Oracle Identity Navigator.

18.5.2 Components Deployed

Performing the configuration in this section deploys the following:

- WebLogic Administration Server
- Managed Servers for Oracle Adaptive Access Manager, depending on the Oracle Adaptive Access Manager Domain Configuration template you choose.
- Oracle Adaptive Access Manager Console and Oracle Identity Navigator application on the Administration Server.

18.5.3 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server.
- Installation of the Oracle Identity and Access Management 11*g* software.
- Database schema for Oracle Adaptive Access Manager. For more information about schemas specific to Oracle Adaptive Access Manager, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).

18.5.4 Procedure

Perform the following steps to configure only Oracle Adaptive Access Manager in a new WebLogic domain:

1. Ensure that all prerequisites, listed in Prerequisites, are satisfied. In addition, see Important Notes Before You Begin.

2. Run the `<IAM_Home>/common/bin/config.sh` script (on UNIX). (`<IAM_Home>\common\bin\config.cmd` on Windows). The Fusion Middleware Configuration Wizard appears.
3. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**. The Select Domain Source screen appears.
4. On the Select Domain Source screen ensure that the **Generate a domain configured automatically to support the following products:** option is selected. Select **Oracle Adaptive Access Manager Admin Server - 11.1.1.3.0 [Oracle_IDM2]**, which is mandatory.

   In addition, you can select **Oracle Adaptive Access Manager - Server Offline - 11.1.1.3.0**, which is optional. Click **Next**. The Select Domain Name and Location screen appears.

   Note: When you select the Oracle Adaptive Access Manager Admin Server - 11.1.1.3.0 [Oracle_IDM2], the following options are also selected, by default:

   - **Oracle Enterprise Manager 11.1.1.0 [oracle_common]**
   - **Oracle JRF 11.1.1.0 [oracle_common]**
   - **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]**

   ---

5. Enter a name and a location for the domain to be created, and click **Next**. The Configure Administrator User Name and Password screen appears.
6. Configure a user name and a password for the administrator. The default user name is `weblogic`. Click **Next**.
7. Choose `JRockit SDK 1.6.0_24` and Production Mode in the Configure Server Start Mode and JDK screen of the Oracle Fusion Middleware Configuration Wizard. Click **Next**. The Configure JDBC Component Schema screen is displayed.
8. On the Configure JDBC Component Schema screen, select a component schema, such as the OAAM Admin Server Schema or the OAAM Admin MDS Schema, that you want to modify.

   You can set values for Schema Owner, Schema Password, Database and Service, Host Name, and Port. Click **Next**. The Test JDBC Component Schema screen appears. After the test succeeds, the Select Optional Configuration screen appears.
9. On the Select Optional Configuration screen, you can configure the **Administration Server** and **Managed Servers, Clusters, and Machines**, and **Deployments and Services,** and **RDBMS Security Store**. Click **Next**.
10. Optional: Configure the following Administration Server parameters:
    - Name
    - Listen address
    - Listen port
    - SSL listen port
    - SSL enabled or disabled
11. On the Select Optional Configuration screen, select **Managed Servers, Clusters and Machines** to configure the managed server. For more information, see

"Configure Managed Servers" in the *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard*.

12. Optional: Configure Clusters, as required.

    For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.

13. Optional: Assign Managed Servers to Clusters, as required.
14. Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

    Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.

15. Optional: Assign the Administration Server to a machine.
16. Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server.
17. Optional: Configure RDBMS Security Store, as required.
18. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.

A new WebLogic domain to support Oracle Adaptive Access Manager is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

18.6 Configuring Oracle Adaptive Access Manager (Offline)

This topic describes how to configure Oracle Adaptive Access Manager (Offline) in a new WebLogic domain. It includes the following topics:

- Components Deployed
- Dependencies
- Procedure

18.6.1 Components Deployed

Performing the configuration in this section deploys the following:

- WebLogic Administration Server
- Oracle Adaptive Access Manager (Offline) application on the Administration Server

18.6.2 Dependencies

The configuration in this section depends on the following:

- Oracle WebLogic Server.
- Installation of the Oracle Identity and Access Management 11*g* software.
- Database schema for Oracle Adaptive Access Manager (Offline).

18.6.3 Procedure

Perform the following steps to configure Oracle Adaptive Access Manager (Offline) in a new WebLogic domain:

1. Ensure that all prerequisites, listed in Prerequisites, are satisfied.
2. Run the `<IAM_Home>/common/bin/config.sh` script (on UNIX). (`<IAM_Home>\common\bin\config.cmd` on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
3. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**. The Select Domain Source screen appears.
4. On the Select Domain Source screen, ensure that the **Generate a domain configured automatically to support the following products:** option is selected.

   Select the **Oracle Adaptive Access Manager Offline - 11.1.3.0 [Oracle_IDM2]** option. When you select this option, the following options are also selected by default:

   - **Oracle Enterprise Manger - 11.1.1.0 [oracle_common]**
   - **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]**
   - **Oracle JRF 11.1.1.0 [oracle_common]**

   Click **Next**. The Specify Domain Name and Location screen appears.
5. Enter a name and a location for the domain to be created, and click **Next**. The Configure Administrator User Name and Password screen appears.
6. Configure a user name and a password for the administrator. The default user name is `weblogic`. Click **Next**. The Configure Server Start Mode and JDK screen appears.
7. Choose `JRockit SDK 1.6.0_24` and Production Mode in the Configure Server Start Mode and JDK screen. Click **Next**. The Configure JDBC Component Schema screen is displayed.
8. On the Configure JDBC Component Schema screen, select a component schema, such as the OAAM Offline MDS Schema or the OAAM Offline Schema that you want to modify. You can set values for Schema Owner, Schema Password, Database and Service, Host Name, and Port. Click **Next**. The Test JDBC Component Schema screen appears. After the test succeeds, click **Next**. The Select Optional Configuration screen appears.
9. On the Select Optional Configuration screen, you can configure the **Administration Server**, **Managed Servers**, **Clusters**, **Machines**, **Deployments and Services**, and **RDBMS Security Store**. Select the relevant check boxes and click **Next**.
   - Optional: Configure the following Administration Server parameters:
     - Name
     - Listen Address
     - Listen Port
     - SSL Listen Port
     - SSL Enabled

- Optional: Add and configure Managed Servers, as required. Note that Oracle Entitlements Server does not require a Managed Server because the application is deployed on the WebLogic Administration Server.
- Optional: Configure Clusters, as required.

  For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the *Oracle Fusion Middleware High Availability Guide*.
- Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

  Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.
- Optional: Assign the Administration Server to a machine.
- Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server.
- Optional: Configure RDBMS Security Store Database, as required.

10. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.

A new WebLogic domain to support Oracle Adaptive Access Manager (Offline) is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

18.7 Starting the Servers

After installing and configuring Oracle Adaptive Access Manager, you must run the Oracle WebLogic Administration Server and various Managed Servers, as described in Starting the Stack.

Note: If you are upgrading from Oracle Adaptive Access Manager 10*g* to Oracle Adaptive Access Manager 11*g*, do not start Oracle Adaptive Access Manager Managed Servers until you have performed the Oracle Adaptive Access Manager Middle Tier Upgrade using the Upgrade Assistant tool. For more information, see the *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management*.

18.8 Post-Installation Steps

After installing and configuring Oracle Adaptive Access Manager, you must complete the following tasks:

1. Create Oracle WebLogic Server Users as follows:
   a. Log in to the Oracle WebLogic Administration Console for your WebLogic administration domain.
   b. Click on **Security Realms**, and then click on your security realm.
   c. Click the **Users and Groups** tab, and then click the **Users** tab under it.

d. Create a user, such as `user1`, in the security realm.

e. Assign the user `user1` to rule administrators and environment administrators groups.

2. Set up and back up Oracle Adaptive Access Manager Encryption Keys, as described in the "Setting Up Encryption and Database Credentials for OAAM" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Adaptive Access Manager*. Ensure that you have a backup of the Oracle Adaptive Access Manager Encryption Keys; they are required if you want to re-create the Oracle Adaptive Access Manager domain.

3. Import Snapshot of Policies as follows:

   A full snapshot of policies, dependent components and configurations is shipped with Oracle Adaptive Access Manager. The snapshot is in the `oaam_base_snapshot.zip` file and located in the `MW_HOME/IAM_ORACLE_HOME/oaam/init` directory.

   It contains the following items that must be imported into OAAM:

   - Challenge questions for English (United States)

     During registration, which could be enrollment, opening a new account, or another events such as a reset, the user selects different questions from a list of questions and enters answers to them. These questions, called challenge questions, are used to authenticate users.

     Questions for the languages you want to support must be in the system before users can be asked to register. These questions may also be required to log in to OAAM Server.

   - Entity definitions

     The actors that are tracked during authentication are called authentication entities and include user, city, device, and so on. These base entities are required to enable conditions that are used for patterns.

   - Out-of-the-box patterns

     Patterns are used by Oracle Adaptive Access Manager to either define one bucket or dynamically create buckets. Oracle Adaptive Access Manager collects data and populates these buckets with members based on pattern parameters, and rules perform risk evaluations on dynamically changing membership and distributions of the buckets.

   - Out-of-the-box configurable actions

     Configurable actions are actions that are triggered based on the result action or risk scoring or both after a checkpoint execution. The configurable actions are built using action templates.

     Note: If you are upgrading from Oracle Adaptive Access Manager 10.1.4.5 to Oracle Adaptive Access Manager 11*g*, you will see that the names and descriptions of the out-of-the-box action templates are slightly different, since the action templates in Oracle Adaptive Access Manager 11*g* are globalized and hence the difference.

   - Out-of-the-box policies

Policies are designed to help evaluate and handle business activities or potentially risky activities that are encountered in day-to-day operation.

- Any groups

  Collections of items used in rules, user groups, and action and alert groups are shipped with OAAM.

Notes:

- If you need to customize any properties, you should import the snapshot into your new test system, make the changes, export the snapshot, and import it into your new system. Alternatively you can import the snapshot on the new system and make the property changes directly, thereby eliminating the test system completely.
- For customers who are upgrading from 11.1.1.3.0 to 11.1.1.5.0: Do not import the snapshot. This procedure is only for first time initial setup. Importing a snapshot wipes out the existing environment and replaces it with a new one. For upgrades, import separate zip files for the entities, definitions, or policies.

For upgrading policies, components, and configurations, perform a backup, and then import the separate file. The following are available:

- Default questions are shipped in the `oaam_kba_questions_<locale>.zip` files, which are located in the *<MW_HOME>*`/`*<IAM_ORACLE_HOME>*`/oaam/init/kba_questions` directory. The locale identifier <locale> specifies the language version.
- Base policies are shipped in the `oaam_sample_policies_for_uio_integration.zip` file, which is located in the *<MW_HOME>*`/`*<IAM_ORACLE_HOME>*`/oaam/init` directory.
- Configurable action templates are shipped in the `OOTB_Configurable_Actions.zip` file, which is located in the *<MW_HOME>*`/`*<IAM_ORACLE_HOME>*`/oaam/init` directory.
- Base-authentication required entities are shipped in the `Auth_EntityDefinition.zip` file, which is located in the *<MW_HOME>*`/`*<IAM_ORACLE_HOME>*`/oaam/init` directory.

Note: For more information about policies, see "Importing the OAAM Snapshot" and "Managing Policies, Rules, and Conditions" topics in the *Oracle Fusion Middleware Administrator's Guide for Oracle Adaptive Access Manager*.

---

4. Load Location Data into the Oracle Adaptive Access Manager database as follows:

   a. Configure the IP Location Loader script, as described in the topics "OAAM Command Line Interface Scripts" and "Importing IP Location Data" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Adaptive Access Manager*.

   b. Make a copy of the `sample.bharosa_location.properties` file, which is located under the `<MW_HOME>/<IAM_Home>/oaam/cli` directory. Enter

location data details in the `location.data` properties, as in the following examples:

```
location.data.provider=quova

location.data.file=/tmp/quova/EDITION_Gold_2008-07-22_
v374.dat.gz

location.data.ref.file=/tmp/quova/EDITION_Gold_2008-07-22_
v374.ref.gz

location.data.anonymizer.file=/tmp/quova/anonymizers_
2008-07-09.dat.gz
```

c. Run the loader on the command line as follows:

On Windows: `loadIPLocationData.cmd`

On UNIX: `./loadIPLocationData.sh`

Ensure that the Oracle Middleware Home (*MW_HOME*) environment variable is set before running the `loadIPLocationData` script.

Note: If you wish to generate CSF keys or passwords manually, see the "Setting Up Encryption and Database Credentials for OAAM" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Adaptive Access Manager*.

18.9 Verifying the OAAM Installation

After completing the installation process, including post-installation steps, you can verify the installation and configuration of Oracle Adaptive Access Manager (OAAM) as follows:

1. Start the Administration Server to register the newly created managed servers with the domain. To start the Administration Server, run the following command:
   - On Windows: At the command prompt, run the `startWebLogic` script to start the Administration Server, as in the following example:

     ```
     \middleware\user_projects\domains\base_
     domain\bin\startWebLogic
     ```

   - On UNIX: At the $ prompt, run the startWebLogic.sh script, as in the following example:

     ```
     sh /MW_HOME/user_projects/domains/base_
     domain/bin/startWebLogic.sh
     ```

2. Start the Managed Server, as described in Starting the Servers.

   Wait for the Administration Server and the Managed Server to start up.

3. Log in to the Administration Server for Oracle Adaptive Access Manager, using the admin server username and password. Log in to the Administration Server using the following URL:

   ```
   http://<host>:<oaam_admin_server1_port>/oaam_admin
   ```

4. Log in to the Oracle Adaptive Access Managed Server using the following URL:

   ```
   https://<host>:<oaam_server_server1_sslport>:oaam_server
   ```

18.10 Migrating Policy and Credential Stores

You begin policy and credential store migration by creating the JPS root and then you reassociate the policy and credential store with Oracle Internet Directory.

Migrating policy and credential stores involves the following steps:

1. Creating JPS Root
2. Reassociating the Policy and Credential Store

18.10.1 Creating JPS Root

Create the jpsroot in Oracle Internet Directory using the command line `ldapadd` command as shown in these steps:

1. Create an `ldif` file similar to this:

```
dn: cn=jpsroot_iam
cn: jpsroot_iam_iam
objectclass: top
objectclass: orclcontainer
```

2. Use *ORACLE_HOME*`/bin/ldapadd` to add these entries to Oracle Internet Directory. For example:

```
ORACLE_HOME/bin/ldapadd -h oid.mycompany.com -p 389 -D cn="orcladmin" -w
welcome1 -c -v -f jps_root.ldif
```

18.10.2 Reassociating the Policy and Credential Store

To reassociate the policy and credential store with Oracle Internet Directory, use the WLST `reassociateSecurityStore` command. Follow these steps:

1. From IAMHOST1, start the `wlst` shell from the *ORACLE_HOME*`/common/bin` directory. For example:

```
./wlst.sh
```

2. Connect to the WebLogic Administration Server using the `wlst connect` command shown below.

```
connect('AdminUser',"AdminUserPassword",t3://hostname:port')
```

For example:

```
connect("weblogic_iam,"welcome1","t3://iamhost-vip.mycompany.com:7001")
```

3. Run the `reassociateSecurityStore` command as shown below:

Syntax:

```
reassociateSecurityStore(domain="domainName",admin="cn=orcladmin",
password="orclPassword",ldapurl="ldap://LDAPHOST:LDAPPORT",servertype="OID",
jpsroot="cn=jpsRootContainer")
```

For example:

```
wls:/IAMDomain/serverConfig> reassociateSecurityStore(domain="IAMDomain",
admin="cn=orcladmin",password="password",
ldapurl="ldap://oid.mycompany.com:389",servertype="OID",
jpsroot="cn=jpsroot_iam_iamhost1")
```

The output for the command is as follows:

```
{servertype=OID, jpsroot=cn=jpsroot_iam, admin=cn=orcladmin,
domain=IAMDomain, ldapurl=ldap://oid.mycompany.com:389, password=password}
Location changed to domainRuntime tree. This is a read-only tree with
DomainMBean as the root.
For more help, use help(domainRuntime)

Starting Policy Store reassociation.
LDAP server and  ServiceConfigurator setup done.

Schema is seeded into LDAP server
Data is migrated to LDAP server
Service in LDAP server after migration has been tested to be available
Update of jps configuration is done
Policy Store reassociation done.
Starting credential Store reassociation
LDAP server and  ServiceConfigurator setup done.
Schema is seeded into LDAP server
Data is migrated to LDAP server
Service in LDAP server after migration has been tested to be available
Update of jps configuration is done
Credential Store reassociation done
Jps Configuration has been changed. Please restart the server.
```

4. Restart the Administration Server after the command completes successfully. For information about restarting the Administration Server, see Starting the Servers.

18.11 Getting Started with OAAM After Installation

After installing Oracle Adaptive Access Manager (OAAM), refer to the *Oracle Fusion Middleware Administrator's Guide for Oracle Adaptive Access Manager*.

19

OAM and OAAM Joint Domain Configuration Scenarios

This chapter explains how to configure Oracle Access Manager (OAM) and Oracle Adaptive Access Manager (OAAM) with other Oracle Identity and Access Management components, such as Oracle Identity Manager (OIM) and Oracle Identity Navigator (OIN), in a new or existing WebLogic domain. It includes the following topics:

19.1 Prerequisites

The following are the prerequisites for installing and configuring Oracle Identity and Access Management 11*g* Release 1 (11.1.1) products:

1. Installing Oracle Database, as described in Installing Oracle Database.
2. Installing Oracle WebLogic Server and creating a Middleware Home, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home.
3. **For Oracle Identity Manager users only**: Installing Oracle SOA Suite 11*g* Release 1 (11.1.1.5.0), as described in Installing the Latest Version of Oracle SOA Suite (Oracle Identity Manager Users Only).
4. Creating and loading schemas using Oracle Fusion Middleware Repository Creation Utility (RCU), as described in Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).
5. Installing the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) suite, as described in Installing Oracle Identity and Access Management (11.1.1.5.0). The Oracle Identity and Access Management suite contains Oracle Identity Manager (OIM), Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), Oracle Entitlements Server (OES), and Oracle Identity Navigator (OIN).

19.2 Important Notes Before You Begin

Before you start installing and configuring Oracle Identity and Access Management products in any of the scenarios discussed in this chapter, keep the following points in mind:

It is assumed that you are installing Oracle Internet Directory, Oracle Virtual Directory, Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Navigator on the same machine.

Note: In this chapter, two *IDM_Home* directories are mentioned in descriptions and procedures. For example, the first one, **IDM_Home** can be the IDM_Home directory for Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation. The second one, **IAM_Home** can be the *IDM_Home* directory for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

However, note that **IDM_Home** and **IAM_Home** are used as examples in this document. You can specify any name for either of your *IDM_Home* directories. In addition, you can install the two Oracle Identity Management suites (one containing Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation; another containing Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator) in any order on your machine.

For more information, see Overview and Structure of Oracle Identity Management 11g Installation.

19.3 Installing Oracle Identity and Access Management 11*g* Release 1 (11.1.1)

You can use the Oracle Identity and Access Management 11*g* Installer to install the Oracle Identity and Access Management 11*g* Release 1 (11.1.1) suite that contains Oracle Access Manager (OAM), Oracle Identity Manager (OIM), Oracle Adaptive Access Manager (OAAM), Oracle Entitlements Server (OES), and Oracle Identity Navigator (OIN). For more information, see Preparing to Install and Installing Oracle Identity and Access Management (11.1.1.5.0).

19.4 OAM, OIM, and OIN in a New WebLogic Domain

This topic describes how to configure Oracle Access Manager (OAM), Oracle Identity Manager (OIM), and Oracle Identity Navigator (OIN) in a new WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

19.4.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install Oracle Access Manager, Oracle Identity Manager, and Oracle Identity Navigator together in an environment. You can also set up integration between Oracle Identity Manager and Oracle Access Manager, as described in "Integrating Oracle Access Manager and Oracle Identity Manager" in the *Oracle Fusion Middleware Integration Guide for Oracle Access Manager*.

19.4.2 Components Deployed

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

- Administration Server
- Managed Servers for Oracle Access Manager and Oracle Identity Manager
- Oracle Identity Administration Console, Oracle Identity Manager Self Service Console, and Oracle Identity Manager Advanced Administration Console on the Oracle Identity Manager Managed Server
- Oracle Access Manager Console and Oracle Identity Navigator application on the Administration Server

19.4.3 Dependencies

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

- Oracle WebLogic Server.
- Complete installation of the Oracle Identity and Access Management 11*g* software.
- Installation of Oracle SOA Suite
- Database schemas for Oracle Identity Manager, Oracle SOA Suite, and Oracle Access Manager. For more information about schemas specific to Oracle Identity Manager and Oracle Access Manager, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).

19.4.4 Procedure

Perform the following steps to install and configure Oracle Access Manager, Oracle Identity Manager, and Oracle Identity Navigator in a new WebLogic administration domain:

1. Ensure that all the prerequisites, listed in Prerequisites, are satisfied. In addition, see Important Notes Before You Begin.
2. Run the `<Oracle_IDM2>/common/bin/config.sh` script. (`<Oracle_IDM2>\common\bin\config.cmd` on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
3. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**. The Select Domain Source screen is displayed.
4. On the Select Domain Source screen, select the **Generate a domain configured automatically to support the following products:** option.
5. Select the following domain configuration options:
   - **Oracle Access Manager with Database Policy Store - 11.1.1.4.0 [Oracle_IDM2]**

Note: When you select the **Oracle Access Manager with Database Policy Store - 11.1.1.4.0 [Oracle_IDM2]** option, the **Oracle JRF - 11.1.1.0 [oracle_common]** option is also selected, by default.

- **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]**
- **Oracle Identity Manager - 11.1.1.3.0 [Oracle_IDM2]**

Note: When you select the **Oracle Identity Manager - 11.1.1.3.0 [Oracle_IDM2]** option, the following options are also selected, by default: **Oracle SOA Suite - 11.1.1.0 [Oracle_SOA1]**, **Oracle Enterprise Manager - 11.1.1.0 [oracle_common]**, and **Oracle WSM Policy Manager - 11.1.1.0 [oracle_common]**.

6. After selecting the domain configuration options, click **Next**. The Specify Domain Name and Location screen is displayed.
7. On the Specify Domain Name and Location screen, enter a name and location for the domain to be created. In addition, enter a location to store applications for the domain. Click **Next**. The Configure Administrator User Name and Password screen is displayed.
8. Configure a user name and a password for the administrator. The default user name is weblogic. Click **Next**. The Configure Server Start Mode and JDK screen is displayed.
9. Choose `JRockit SDK 1.6.0_24` and Production Mode in the Configure Server Start Mode and JDK screen of the Oracle Fusion Middleware Configuration Wizard. Click **Next**. The Configure JDBC Data Sources Screen is displayed. Configure the `oamDS` data source, as required. After the test succeeds, the Configure JDBC Component Schema screen is displayed.
10. On the Configure JDBC Component Schema screen, select a component schema, such as the OIM Infrastructure Schema, the SOA Infrastructure Schema, the User Messaging Service Schema, the OWSM MDS Schema, the OIM MDS Schema, or the SOA MDS Schema, that you want to modify.

    You can set values for Schema Owner, Schema Password, Database and Service, Host Name, and Port. Click **Next**. The Test JDBC Component Schema screen appears. After the test succeeds, the Select Optional Configuration screen appears.
11. On the Select Optional Configuration screen, you can configure **Administration Server, Managed Servers, Clusters, and Machines**, **Deployments and Services**, **JMS File Store**, and **RDBMS Security Store**. Select the relevant check boxes and click **Next**.
    - Optional: Configure Administration Server, as required.
    - Optional: Configure Managed Servers, as required.
    - Optional: Configure Clusters, as required.

      For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.
    - Optional: Assign Managed Servers to Clusters, as required.

- Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

  Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.

- Optional: Assign the Administration Server to a machine.
- Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server.
- Optional: Configure JMS File Store, as required.
- Optional: Configure RDBMS Security Store, as required.

12. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.

    A new WebLogic domain to support Oracle Identity Manager, Oracle Access Manager, and Oracle Identity Navigator is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

13. Start the Oracle Identity Manager Configuration Wizard, as described in Starting the Oracle Identity Manager 11g Configuration Wizard.
14. Configure Oracle Identity Manager Server, as described in Configuring OIM Server.
15. Follow the wizard and the steps described in Configuring OIM Server to complete the Oracle Identity Manager Server configuration. Similarly, follow the wizard to configure Oracle Identity Manager Design Console (Windows only) and to configure Oracle Identity Manager Remote Server, as described in Configuring OIM Design Console, and Configuring OIM Remote Manager.

19.5 OAM, OAAM, and OIN in a New WebLogic Domain

This topic describes how to configure Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), and Oracle Identity Navigator (OIN) together in a new WebLogic administration domain. It includes the following sections:

- Appropriate Deployment Environment
- Components Deployed
- Dependencies
- Procedure

19.5.1 Appropriate Deployment Environment

Perform the configuration in this topic if you want to install Oracle Access Manager, Oracle Access Manager, and Oracle Identity Navigator together in an environment.

19.5.2 Components Deployed

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

- Administration Server

- Managed Servers for Oracle Access Manager and Oracle Adaptive Access Manager
- Oracle Access Manager Console, Oracle Adaptive Access Manager Console, and Oracle Identity Navigator application on the Administration Server

19.5.3 Dependencies

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

- Oracle WebLogic Server.
- Complete installation of the Oracle Identity and Access Management 11*g* software.
- Database schemas for Oracle Access Manager and Oracle Adaptive Access Manager. For more information about schemas specific to Oracle Adaptive Access Manager and Oracle Access Manager, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).

19.5.4 Procedure

Perform the following steps to install and configure Oracle Access Manager, Oracle Adaptive Access Manager, and Oracle Identity Navigator in a new WebLogic administration domain:

1. Ensure that all the prerequisites, listed in Prerequisites, are satisfied. In addition, see Important Notes Before You Begin.
2. Run the `<Oracle_IDM2>/common/bin/config.sh` script. (`<Oracle_IDM2>\common\bin\config.cmd` on Windows). The Oracle Fusion Middleware Configuration Wizard appears.
3. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**. The Select Domain Source screen is displayed.
4. On the Select Domain Source screen, select the **Generate a domain configured automatically to support the following products:** option.
5. Select the following domain configuration options:
   - **Oracle Access Manager with Database Policy Store - 11.1.1.4.0 [Oracle_IDM2]**

     Note: When you select the **Oracle Access Manager with Database Policy Store - 11.1.1.4.0 [Oracle_IDM2]** option, the **Oracle JRF - 11.1.1.0 [oracle_common]** option is also selected, by default.

   - **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]**
   - **Oracle Adaptive Access Manager Admin Server - 11.1.1.3.0 [Oracle_IDM2]**, which is mandatory.

     and

     Optionally, **Oracle Adaptive Access Manager - Server - 11.1.1.3.0 [Oracle_IDM2]**

Note: When you select the **Oracle Adaptive Access Manager - Server - 11.1.1.30 [Oracle_IDM2]** option, the **Oracle WSM Policy Manager - 11.1.1.0 [oracle_common]** option is also selected, by default.

When you select the **Oracle Adaptive Access Manager Admin Server - 11.1.1.3.0 [Oracle_IDM2}** option, the **Oracle Identity Navigator - 11.1.1.3.0 [Oracle_IDM2]** option is also selected, by default.

6. After selecting the domain configuration options, click **Next**. The Specify Domain Name and Location screen is displayed.
7. On the Specify Domain Name and Location screen, enter a name and location for the domain to be created. Click **Next**. The Configure Administrator User Name and Password screen is displayed.
8. Configure a user name and a password for the administrator. The default user name is weblogic. Click **Next**. The Configure Server Start Mode and JDK screen is displayed.
9. Choose `JRockit SDK 1.6.0_24` and Production Mode in the Configure Server Start Mode and JDK screen of the Oracle Fusion Middleware Configuration Wizard. Click **Next**. The Configure JDBC Data Sources Screen is displayed. Configure the `oamDS` data source, as required. After the test succeeds, the Configure JDBC Component Schema screen is displayed.
10. On the Configure JDBC Component Schema screen, select a component schema, such as the OAAM Admin Server Schema, the OAAM Admin MDS Schema, that you want to modify.

    You can set values for Schema Owner, Schema Password, Database and Service, Host Name, and Port. Click **Next**. The Test JDBC Component Schema screen appears. After the test succeeds, the Select Optional Configuration screen appears.
11. On the Select Optional Configuration screen, you can configure **Administration Server, Managed Servers, Clusters, and Machines**, **Deployments and Services**, and **RDBMS Security Store**. Select the relevant check boxes and click **Next**.
    - Optional: Configure Administration Server, as required.
    - Optional: Configure Managed Servers, as required.
    - Optional: Configure Clusters, as required.

      For more information about configuring clusters for Oracle Identity and Access Management products, see the "Configuring High Availability for Identity Management Components" topic in the guide *Oracle Fusion Middleware High Availability Guide*.
    - Optional: Assign Managed Servers to Clusters, as required.
    - Optional: Configure Machines, as needed. This step is useful when you want to run the Administration Server on one machine and Managed Servers on another physical machine.

      Tip: Before configuring a machine, use the `ping` command to verify whether the machine or host name is accessible.

    - Optional: Assign the Administration Server to a machine.

- Optional: Select Deployments, such as applications and libraries, and Services to target them to a particular cluster or server.
- Optional: Configure RDBMS Security Store, as required.

12. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.

A new WebLogic domain to support Oracle Adaptive Access Manager, Oracle Access Manager, and Oracle Identity Navigator is created in the `<MW_HOME>\user_projects\domains` directory (on Windows). On UNIX, the domain is created in the `<MW_HOME>/user_projects/domains` directory.

19.6 Starting the Servers

After installing and configuring Oracle Access Manager and Oracle Adaptive Access Manager, you must run the Oracle WebLogic Administration Server and various Managed Servers, as described in Starting or Stopping the Oracle Stack.

19.7 Getting Started with OAM After Installation

After installing Oracle Access Manager (OAM), refer to the "Getting Started with Administering Oracle Access Manager" chapter in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*.

19.8 Getting Started with OAAM After Installation

After installing Oracle Adaptive Access Manager (OAAM), refer to the *Oracle Fusion Middleware Administrator's Guide for Oracle Adaptive Access Manager*.

20

Installing and Configuring Oracle Entitlements Server

This chapter describes how to install and configure Oracle Entitlements Server 11*g* Release 1 (11.1.1).

It discusses the following topics:

- Overview of Oracle Entitlements Server 11g Installation
- Installing Oracle Entitlements Server Administration Server
- Configuring Oracle Entitlements Server Administration Server
- Installing Oracle Entitlements Server Client
- Configuring Oracle Entitlements Server Client
- Getting Started with Oracle Entitlements Server After Installation

20.1 Overview of Oracle Entitlements Server 11*g* Installation

Oracle Entitlements Server, formerly AquaLogic Enterprise Security, is a fine-grained authorization and entitlement management solution that can be used to precisely control the protection of application resources. It simplifies and centralizes security for enterprise applications and SOA by providing comprehensive, reusable, and fully auditable authorization policies and a simple, easy-to-use administration model. For more information, see "Introducing Oracle Entitlements Server" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Entitlements Server*.

Oracle Entitlements Server 11*g* includes two distinct components:

- Oracle Entitlements Server Administration Server (Authorization Policy Manager)
- OES Client (Security Module)

Oracle Entitlements Server Administration Server (Authorization Policy Manager)

This component is included in the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) installation and requires Oracle WebLogic Server that creates the Middleware Home directory.

OES Client (Security Module)

This component has its own installer and it is not included in the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) installation. The OES Client does not require Oracle WebLogic Server.

20.2 Installing Oracle Entitlements Server Administration Server

This section contains the following topics:

20.2.1 Prerequisites

The following are the prerequisites for installing Oracle Entitlements Server 11*g* Release 1 (11.1.1):

- Oracle WebLogic Server 11*g* Release 1 (10.3.5)
- One of the following database for the Oracle Entitlements Server policy store:
  - Oracle Database
  - Apache Derby, an evaluation database included in your Oracle WebLogic Server installation

20.2.2 Procedure

Installing Oracle Entitlements Server 11*g* Administration Server involves the following steps:

20.2.2.1 System Requirements and Certification

For more information, see Reviewing System Requirements and Certification.

20.2.2.2 Obtaining the Oracle Fusion Middleware Software

For installing Oracle Entitlements Server Administration Server, you must obtain the following software:

- Oracle WebLogic Server
- Oracle Database (Recommended)
- Oracle Repository Creation Utility
- Oracle Identity and Access Management Suite

For more information on obtaining Oracle Fusion Middleware 11*g* software, see *Oracle Fusion Middleware Download, Installation, and Configuration ReadMe*.

20.2.2.3 Installing Oracle WebLogic Server and Creating the Oracle Middleware Home

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

For more information, see "Install Oracle WebLogic Server" in *Oracle Fusion Middleware Installation Planning Guide*.

In addition, see *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* for complete information about installing Oracle WebLogic Server.

20.2.2.4 Installing Oracle Database (Recommended)

For more information, see Installing Oracle Database.

> **Note:** Oracle Entitlements Server also supports Apache Derby 10.5.3.0, an evaluation database included in your Oracle WebLogic Server installation.

20.2.2.5 Creating a Schema for Oracle Entitlement Server

Depending on the policy store you choose for Oracle Entitlements Server, complete one of the following:

- Using Oracle Database for Oracle Entitlement Server Policy Store
- Using Apache Derby for Oracle Entitlement Server Policy Store

Using Oracle Database for Oracle Entitlement Server Policy Store

If you are using Oracle Database for Oracle Entitlements Server policy store, then create an OES schema and an MDS schema by using the Oracle Fusion Middleware Repository Creation Utility (RCU). Refer to Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU) for more information about creating schemas.

> **Note:** When you create a schema, be sure to remember the schema owner and password that is shown in RCU.

Using Apache Derby for Oracle Entitlement Server Policy Store

If you are using Apache Derby for Oracle Entitlements Server policy store, then you must complete the following:

1. Open `setNetworkServerCP` (Located at `wlserver_10.3/common/derby/bin` on UNIX) or `setNetworkServerCP.bat` (Located at `wlserver_10.3\common\derby\bin` on Windows) in a text editor and specify the `DERBY_HOME` as shown in the following example:

   ```
   DERBY_HOME="Oracle/Middleware/wlserver_10.3/common/derby"
   ```

2. Start the Apache Derby database by running the following commands:
   - `setNetworkServerCP` (UNIX) or `setNetworkServerCP.bat` (Windows).
   - `startNetworkServer` (Located at `wlserver_10.3/common/derby/bin` on UNIX) or `startNetworkServer.bat` (Located at `wlserver_10.3\common\derby\bin` on Windows).

You can also run `startDerby.sh` (Located at `wlserver_10.3/common/bin`) or `startDerby.cmd` (Located at `wlserver_10.3\common\bin`) to start the Apache Derby database. The Apache Derby database also starts automatically when you start Oracle WebLogic Server.

3. Test the network server connection, by running `ij`(Located at `wlserver_10.3/common/derby/bin` on UNIX) or `ij.bat` (Located at `wlserver_10.3\common\derby\bin` on Windows) as follows:

   ```
   bin/ij
   ```

4. Connect to the Apache Derby Server, as shown in the following example:

   ```
   ij> connect 'jdbc:derby://127.0.0.1:1527/data/oesdb;create=true';
   ```

   `oesdb` is the name of database and `data` is the relative path (based on the directory where you start the server. In this example, it is `Oracle/Middleware/wlserver_10.3/common/derby/bin` where the database files will be saved.

5. Open `opss_user.sql` (Located at `RCU_HOME/rcu/integration/apm/sql/derby`) in a text editor and replace `&&1` with the schema user name.

   Repeat the above steps for the following SQL files (Located at `RCU_HOME/rcu/integration/apm/sql/derby`):

   - `opss_tables.sql`
   - `opss_version.sql`
   - `opss_gencatalog.sql`

   Note: This is the schema name you will specify when you configure the Oracle Entitlements Server described in Configuring Oracle Entitlements Server Administration Server.

6. Run the following SQL files (Located at `RCU_HOME/rcu/integration/apm/sql/derby`) in the ij console:

   - `run'opss_user.sql';`
   - `run'opss_tables.sql';`
   - `run'opss_version.sql';`
   - `run'opss_gencatalog.sql';`

   Note: Ensure that you run the SQL files in the same order listed above and make a note of the schema owner and password that you have created.

20.2.2.6 Starting the Installer

This topic explains the steps that are common to starting most Oracle Identity and Access 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 and Access Management installation:

> **Note:** Oracle Entitlements Server Administration is a part of the Oracle Identity and Access Management Suite.

1. Download the contents of the `ofm_iam_generic_11.1.1.5.0_disk1_1of1.zip` file to a directory. By default, this directory is named `ofm_iam_generic_11.1.1.5.0_disk1_1of1`.
2. Change your present working directory to `ofm_iam_generic_11.1.1.5.0_disk1_1of1/Disk1` directory under the `ofm_iam_generic_11.1.1.5.0_disk1_1of1` folder.
3. Start the Installer by executing one of the following commands:

   UNIX: `<full path to the runInstaller directory>/runInstaller -jreLoc <Middleware Home>/jdk160_24/jre`

   Windows: `<full path to the setup.exe directory>\ setup.exe -jreLoc <Middleware Home>\jdk160_24\jre`

> **Note:** The installer prompts you to enter the absolute path of the JDK that is installed on your system. When you install Oracle WebLogic Server, the `jdk160_24` directory is created under your Middleware Home. You must enter the absolute path of the JRE folder located in this JDK when launching the installer. For example, on Windows, if the JRE is located in `C:\oracle\Middleware\jdk160_24`, then launch the installer from the command prompt as follows:
>
> ```
> C:\setup.exe -jreLoc C:\oracle\Middleware\jdk160_24\jre
> ```
>
> You must specify the `-jreLoc` option on the command line when using the JDK to avoid installation issues. If this option is not specified on the command line, then you might get the following error:
>
> ```
> InvocationTargetException
> ```

20.2.2.7 Installation Screens and Instructions

Follow the instructions in Table 20–1 to install Oracle Entitlements Server.

If you need additional help with any of the installation screens, click **Help** to access the online help.

> **Note:** `IDM_HOME` is mentioned in descriptions and procedures throughout this guide for the Oracle Identity and Access Management home directory. You can specify any name for your IDM_Home directory.

Table 20–1 Installation Flow for the Oracle Entitlements Server

No.	Screen	Description and Action Required
1	Welcome	Click **Next** to continue.
2	Install Software Updates	Select one of the following and then click **Next**: ■ **Skip Software Updates**: Select this option to skip this screen. The installer will not check for updates that might be applicable to the current product installation. ■ **Search My Oracle Support for Updates**: If you have a My Oracle Support account, then select this option to have the installer automatically search My Oracle Support for software updates that apply to the software products are about to install. Enter your My Oracle Support account name and password, and then click **Search for Updates**. The installer automatically downloads applicable software updates from My Oracle Support. Before you search for update, you can test your login credentials and the connection to My Oracle Support by clicking **Test Connection**. Click **Proxy Settings** to configure a proxy server if one is required. ■ **Search Local Directory for Updates**: Select this option if you already downloaded the latest software updates and you want the installer to search a local directory for updates applicable to the products you are about to install. When you select this option, the installer displays an additional field and Browse button that you can use to identify the local directory where your updates are located.
3	Prerequisite Checks	If all prerequisite checks pass inspection, then click **Next** to continue. **Note:** You can ignore warnings about missing Operating System Packages. If you using this product for evaluation purpose, then ignore the warning about Kernel Parameter.
4	Specify Installation Location	In the **Oracle Middleware Home** field, enter the path to the Oracle Middleware Home installed on your system. Ensure that Oracle WebLogic Server is already installed on the system in the same Middleware Home as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home. This directory is the same as the Oracle Home created in the Oracle WebLogic Server installation. In the **Oracle Home Directory** field, enter a name for the Oracle Home folder that will be created under your Middleware Home. This directory is also referred to as `IDM_HOME`. Click **Next** to continue.

Table 20–1 (Cont.) Installation Flow for the Oracle Entitlements Server

No.	Screen	Description and Action Required
5	Installation Summary	The Summary Page screen displays a summary of the choices that you made. Review this summary and decide whether to start the installation. If you want to modify any of the configuration settings at this stage, select a topic in the left navigation page and modify your choices. To continue installing Oracle Identity and Access Management, click **Install**.
6	Installation Progress	If you are installing on a UNIX system, you may be asked to run the *ORACLE_HOME*/oracleRoot.sh script to set up the proper file and directory permissions. Click **Next** to continue.
7	Installation Complete	Click **Finish** to dismiss the installer. This installation process copies the Oracle Identity and Access Management software to your system and creates an IDM_Home directory under your Middleware Home. You must proceed to create a WebLogic Domain, by running the Oracle Fusion Middleware Configuration Wizard. In addition, you must configure the Administration Server settings while creating the domain.

20.2.2.8 Verifying Oracle Entitlements Server Installation

To verify that your Oracle Entitlements Server Administration Server install was successful, go to your Oracle Middleware Home directory associated with the Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) installation and verify that the **OES** folder is created under **IDM_HOME**.

20.3 Configuring Oracle Entitlements Server Administration Server

This topic describes how to configure Oracle Entitlements Server in a new WebLogic domain. It includes the following sections:

- Components Deployed
- Prerequisites
- Procedure
- Starting the Administration Server
- Post-Configuration
- Verifying Oracle Entitlements Server Configuration

20.3.1 Components Deployed

Performing the configuration in this section deploys the following:

- WebLogic Administration Server
- Oracle Entitlements Server application on the Administration Server

20.3.2 Prerequisites

The following are the prerequisites for configuring Oracle Entitlements Server 11*g* Release 1 (11.1.1):

- Installing Oracle Entitlements Server
- Editing the weblogic.policy file

- Extracting Apache Derby Template (Optional)

20.3.2.1 Installing Oracle Entitlements Server

You must install Oracle Entitlements Server Administration Server as described in Installing Oracle Entitlements Server Administration Server.

20.3.2.2 Editing the weblogic.policy file

To edit the `weblogic.policy` file, run the following command:

```
IDM_HOME/common/bin/wlst.sh IDM_HOME/oes/modifygrants.py
```

Note: The above command will only work if use the default policy name, `weblogic.policy` file. If you change the default name for the policy file, then you must open the file in a text editor and add the following lines, as shown in the example:

```
grant codeBase "file:${idm.opss.oracle.home}/modules/oracle.jps_
${jrf.version}/*" {
    permission java.security.AllPermission;
};

grant codeBase "file:${idm.opss.oracle.home}/oes/*" {
    permission java.security.AllPermission;
};

grant codeBase "file:${oes.client.home}/-" {
    permission java.security.AllPermission;
};
```

20.3.2.3 Extracting Apache Derby Template (Optional)

If you are using Apache Derby, then you must extract the `oracle.apm_11.1.1.3.0_template_derby.zip` file (Located at `IDM_HOME/common/templates/applications`) and save `oracle.apm_11.1.1.3.0_template_derby.jar` file to the following location:

```
IDM_HOME\common\templates\applications
```

20.3.3 Procedure

Perform the following steps to configure Oracle Entitlements Server in a new WebLogic domain:

Note: You must have a dedicated Oracle WebLogic Server domain for Oracle Entitlements Server. Do not configure any other Oracle Identity and Access Management components in this domain.

1. Run the `IDM_HOME/common/bin/config.sh` script on UNIX or `IDM_HOME\common\bin\config.cmd` on Windows.

   The Fusion Middleware Configuration Wizard appears.

2. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**.

   The Select Domain Source screen appears.

3. On the Select Domain Source screen, ensure that the **Generate a domain configured automatically to support the following products:** option is selected.

   Select the **Oracle Entitlements Server - 11.1.1.0 [Oracle_IDM1]** option, and click **Next**.

   Notes:

   - When you select the Oracle Entitlements Server - 11.1.1.0 [Oracle_IDM1] option, the Oracle JRF 11.1.1.0 [Oracle_Common] option is also selected, by default.
   - If you using Apache Derby, then select the Oracle Entitlements Server Derby template.

   The Specify Domain Name and Location screen appears.

4. Enter a name and a location for the domain to be created, and click **Next**.

   The Configure Administrator User Name and Password screen appears.

5. Enter a user name and a password for the administrator. The default user name is `weblogic`. Click **Next**.

   The Configure Server Start Mode and JDK screen appears.

   Note: When you enter the user name and the password for the administrator, be sure to remember them.

6. Choose a JDK from the **Available JDKs** and then select a **WebLogic Domain Startup Mode**. Click **Next**.

   Note: Ensure that the JDK version you select is Java SE 6 Update 24 or higher.

   The Configure JDBC Component Schema screen is displayed.

7. On the Configure JDBC Component Schema screen, select the Oracle Entitlements Server schema and the MDS Schema, then specify the Schema Owner, Schema Password, Database and Service, Host Name, and Port. Click **Next**.

   Note: You get the Schema information from the steps you completed in Section 20.2.2.5, "Creating a Schema for Oracle Entitlement Server".

   The Test JDBC Component Schema screen appears.

8. Select the component schema you want to test, and click **Test Connections**. After the test succeeds, click Next.

   The Select Optional Configuration screen appears.

9. On the Select Optional Configuration screen, you can configure the **Administration Server**, **Managed Servers**, **Clusters**, **Machines**, **Deployments and Services**, and **RDBMS Security Store**. Select the relevant check boxes, and click **Next**.

Note: This step is optional.

10. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.

A new WebLogic domain to support Oracle Entitlements Server is created in the <MW_HOME>\user_projects\domains directory (on Windows). On UNIX, the domain is created in the <MW_HOME>/user_projects/domains directory.

20.3.4 Starting the Administration Server

You must start the Administration Server by running the following command on the command line:

Windows

```
MW_HOME\user_projects\domains\domain_name\bin\startWebLogic.cmd
```

UNIX

```
MW_HOME/user_projects/domains/domain_name/bin/startWebLogic.sh
```

20.3.5 Post-Configuration

To complete the configuration, run the following command in the command line:

Note: Ensure that your Administration Server is up and running.

1. Run `wlst.sh` (located at `IDM_HOME/common/bin`).
2. Connect to your Administration Server using the following command:

   ```
   connect('weblogic-username', 'weblogic-password','t3://host:port')
   ```

3. Run the following WLST(online) command depending on your policy store:

   Oracle Database

   ```
   configureOESAdminServer(servertype="DB_ORACLE");
   ```

Table 20–2 WLST Command Oracle Database

Argument	Definition
domain	Name of the Oracle Entitlements Server domain. The default value is oes_domain.
jpsroot	Specifies the root node in the target repository under which all data is migrated. The default value is cn=jpsroot.
datasourcename	Name of the data source. The default value is jdbc/APMDBDS.
servertype	Name of the target database server. Enter DB_ORACLE.

Note: You can enter `domain`, `jpsroot`, and `datasourcename` arguments on the command line if you want to change the default values. For example, `configureOESAdminServer(domain="oes_domain", servertype="DB_ORACLE", jpsroot="cn=jpsroot", datasourcename="jdbc/APMDBDS")`

Apache Derby

```
configureOESAdminServer(servertype="DB_DERBY");
```

Table 20–3 WLST Command Apache Derby

Argument	Definition
`domain`	Name of the Oracle Entitlements Server domain. The default value is `oes_domain`.
jpsroot	Specifies the root node in the target repository under which all data is migrated. The default value is `cn=jpsroot`.
datasourcename	Name of the data source. The default value is `jdbc/APMDBDS`.
servertype	Name of the target database server. Enter `DB_DERBY`.

Note: You can enter `domain`, `jpsroot`, and `datasourcename` arguments in the command line, if you want to change the default values. For example, `configureOESAdminServer(domain="farm", servertype="DB_DERBY", jpsroot="cn=root", datasourcename="jdbc/APMDBDS");.`

For more information about WLST command, see *Oracle Fusion Middleware Oracle WebLogic Scripting Tool* and *Oracle Fusion Middleware WebLogic Scripting Tool Command Reference*.

4. Restart the Oracle Entitlements Server Administration Server as described in Restarting Servers.

20.3.6 Verifying Oracle Entitlements Server Configuration

To verify that your Oracle Entitlements Server Administration Server configuration was successful, use the following URL to log in to the Oracle Entitlements Server Administration Console:

```
http://hostname:port/apm/
```

Where `hostname` is the DNS name or IP address of the Administration Server and `port` is the address of the port on which the Administration Server listens for requests.

For more information, see the section "Logging In to and Signing Out of the User Interface" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Entitlements Server*.

20.4 Installing Oracle Entitlements Server Client

This section contains the following topic:

20.4.1 Prerequisites

You must install and configure Oracle Entitlements Server Administration Server, as described in Installing Oracle Entitlements Server Administration Server and Configuring Oracle Entitlements Server Administration Server.

20.4.2 Obtaining Oracle Entitlements Server Client Software

For more information on obtaining OES Client 11*g* software, see *Oracle Fusion Middleware Download, Installation, and Configuration ReadMe*.

20.4.3 Installing Oracle Entitlements Server Client

To install Oracle Entitlements Server 11*g* Release 1 (11.1.1.5.0) installation, extract the content of `oesclient.zip` to your local directory and then run `setup.exe` (for **Windows**) or `./runInstaller` (for **UNIX**) from the `Disk1` directory.

Note: The installer prompts you to enter the absolute path of the JDK that is installed on your system. When you install Oracle WebLogic Server, the `jdk160_24` directory is created under your Middleware Home. You must enter the absolute path of the JRE folder located in this JDK when launching the installer. For example, on Windows, if the JRE is located in `C:\oracle\Middleware\jdk160_24`, then launch the installer from the command prompt as follows:

```
C:\setup.exe -jreLoc C:\oracle\Middleware\jdk160_
24\jre
```

You must specify the `-jreLoc` option on the command line when using the JDK to avoid installation issues.

Follow the instructions in Table 20–4 to install OES Client.

If you need additional help with any of the installation screens, click **Help** to access the online help.

Table 20–4 Installation Flow for the OES Client

No.	Screen	Description and Action Required
1	Welcome	Click **Next** to continue.
2	Prerequisite Checks	If all prerequisite checks pass inspection, then click **Next** to continue.
3	Specify Installation Location	In the **Oracle Home Directory** field, enter the directory where you want to save the OES client installation to. This directory is also referred to as `OES_Client_Home` in this book. Oracle Entitlements Server Client does not require a Middleware Home with the Oracle WebLogic Server installed. Oracle recommends that you save the OES client installation in a separate directory in the same Middleware Home where the Oracle Entitlements Server Administration server is installed. For example, `MW_HOME/Oracle_OESClient`. Click **Next** to continue.
4	Installation Summary	The Installation Summary Page screen displays a summary of the choices that you made. Review this summary and decide whether to start the installation. If you want to modify any of the configuration settings at this stage, select a topic in the left navigation page and modify your choices. To continue installing OES Client Management, click **Install**.
5	Installation Progress	If you are installing on a UNIX system, you may be asked to run the *`ORACLE_HOME`*`/oracleRoot.sh` script to set up the proper file and directory permissions. Click **Next** to continue.
8	Installation Complete	Click **Finish** to dismiss the installer. This installation process copies the Identity Management software to your system and creates an IDM_Home directory under your Middleware Home. You must proceed to create a WebLogic Domain, by running the Oracle Fusion Middleware Configuration Wizard. In addition, you must configure the Administration Server settings while creating the domain.

20.4.4 Verifying Oracle Entitlements Server Client Installation

To verify that your OES Client install was successful, go to your Oracle Home directory which you specified during installation and verify that the OES Client installation files are created.

20.5 Configuring Oracle Entitlements Server Client

OES Client distributes policies to individual Security Modules that protect applications and services. Policy data is distributed in a *controlled* manner or in a *non-controlled* manner. The distribution mode is defined in the `jps-config.xml` configuration file for each Security Module. The specified distribution mode is applicable for all Application Policy objects bound to that Security Module.

> **Note:** Oracle recommends that you to configure OES Client in the controlled distribution mode.

This section describes how to configure the following:

- Configuring Security Modules in a Controlled Mode (Quick Configuration)

- Configuring Distribution Modes
- Configuring Security Module
- Creating the OES Client Domain
- Locating Security Module Instances
- Using the Java Security Module

20.5.1 Configuring Security Modules in a Controlled Mode (Quick Configuration)

These section describes how to configure the Security Module quickly using pre-existing `smconfig.prp` files.

- Configuring Java Security Module in a Controlled Mode
- Configuring RMI Security Module in a Controlled Mode
- Configuring Web Service Security Module in a Controlled Mode
- Configuring Oracle WebLogic Server Security Module in a Controlled Mode

20.5.1.1 Configuring Java Security Module in a Controlled Mode

To configure Java Security Module instance in a controlled distribution mode, do the following:

1. Open `smconfig.java.controlled.prp` file (Located at, `OES_CLIENT_HOME/oessm/SMConfigTool`) in a text editor, and then specify the parameters described in Table 20–5.
2. Run the `config.sh` (Located at `OES_CLIENT_HOME/oessm/bin` on UNIX) or config.cmd (Located at `OES_CLIENT_HOME\oessm\bin` on Windows) as follows:

   ```
   config.sh -smConfigId <SM_NAME> -prpFileName OES_CLIENT_
   HOME/oessm/SMConfigTool/smconfig.java.controlled.prp
   ```

3. When prompted, specify the following:
   - Oracle Entitlements Server user name (This is the Administration Server's user name).
   - Oracle Entitlements Server password (This is the Administration Server's password)
   - New key store password for enrollment

20.5.1.2 Configuring RMI Security Module in a Controlled Mode

To configure RMI Security Module instance in a controlled distribution mode, then do the following:

1. Open `smconfig.rmi.controlled.prp` file (Located at `OES_CLIENT_HOME/oessm/SMConfigTool`) in a text editor, and then specify the parameters described in Table 20–5.
2. Run the `config.sh` (Located at `OES_CLIENT_HOME/oessm/bin` on UNIX) or `config.cmd` (Located at `OES_CLIENT_HOME\oessm\bin` on Windows) as follows:

   ```
   config.sh -smConfigId <SM_NAME> -RMIListeningPort <RMISM_PORT> -prpFileName
   OES_CLIENT_HOME/oessm/SMConfigTool/smconfig.rmi.controlled.prp
   ```

3. When prompted, specify the following:

- Oracle Entitlements Server user name (This is the Administration Server's user name)
- Oracle Entitlements Server Password (This is the Administration Server's password)
- New key store password for enrollment

20.5.1.3 Configuring Web Service Security Module in a Controlled Mode

To configure Webservice Security Module instance in a controlled distribution mode, do the following:

1. Open `smconfig.ws.controlled.prp` file (Located at `OES_CLIENT_HOME/oessm/SMConfigTool`) in a text editor, and then specify the parameters described in Table 20–5.
2. Run the `config.sh` (Located at `OES_CLIENT_HOME/oessm/bin` on UNIX) or `config.cmd` (Located at `OES_CLIENT_HOME\oessm\bin` on Windows) as follows:

   ```
   config.sh -smConfigId <SM_NAME> -WSListeningPort <WSSM_PORT> -prpFileName OES_
   CLIENT_HOME/oessm/SMConfigTool/smconfig.ws.controlled.prp
   ```

3. When prompted, specify the following:
   - Oracle Entitlements Server user name (This is the Administration Server's user name)
   - Oracle Entitlements Server password (This is the Administration Server's password)
   - Key store password for enrollment

20.5.1.4 Configuring Oracle WebLogic Server Security Module in a Controlled Mode

To configure Oracle WebLogic Server Security Module instance in a controlled distribution mode, do the following:

1. Open `smconfig.wls.controlled.prp` file (Located at `OES_CLIENT_HOME/oessm/SMConfigTool`) in a text editor, and then specify the parameters described in Table 20–5.
2. Run the `config.sh` (Located at `OES_CLIENT_HOME/oessm/bin` on UNIX) or `config.cmd` (Located at `OES_CLIENT_HOME\oessm\bin` for Windows) as follows:

   ```
   config.sh -smConfigId <SM_NAME> -prpFileName $OES_CLIENT_
   HOME/oessm/SMConfigTool/smconfig.wls.controlled.prp -serverLocation <Location
   of Web Logic Server Home
   ```

3. Create a OES Client, as described in Section 20.5.4, "Creating the OES Client Domain".

20.5.2 Configuring Distribution Modes

For more information about distribution modes, see the section "Defining Distribution Modes" in the *Oracle Fusion Middleware Developer's Guide for Oracle Entitlements Server*.

The following sections explains how to configure distribution modes.

- Configuring Controlled Distribution

- Configuring Non-Controlled and Controlled Pull Distribution Mode

20.5.2.1 Configuring Controlled Distribution

To configure a controlled Distribution mode, open the `smconfig.prp` file (Located at `OES_CLIENT_HOME/oessm/bin/SMConfigTool`) in a text editor, and edit the following parameters described in Table 20–5.

Table 20–5 smconfig.prp File Parameters (Controlled Distribution)

Parameter	Description
`oracle.security.jps.runtime.pd.client.policyDistributionMode`	Accept the default value `controlled-push` as the distribution mode.
`oracle.security.jps.runtime.pd.client.RegistrationServerHost`	Enter the address of the Oracle Entitlements Server Administration Server.
`oracle.security.jps.runtime.pd.client.RegistrationServerPort`	Enter the SSL port number of the Oracle Entitlements Server Administration Server. You can find the SSL port number from the WebLogic Administration console.

20.5.2.2 Configuring Non-Controlled and Controlled Pull Distribution Mode

Open the `smconfig.prp` file (Located at `OES_CLIENT_HOME/oessm/bin/SMConfigTool`) in a text editor and edit the following parameters described in Table 20–6.

Table 20–6 smconfig.prp File Parameters Non- Controlled Distribution

Parameter	Description
`oracle.security.jps.runtime.pd.client.policyDistributionMode`	Enter non-`controlled` or `controlled-pull` as the distribution mode.
`oracle.security.jps.policystore.type`	Specify the policy store type. For example, `DB` for Oracle Database, `OID` for Oracle Internet Directory, and `Derby` for Apache Derby.
`jdbc.url`	Specify your database policy store JDBC URL.
`ldap.url`	Specify your LDAP URL.
`oracle.security.jps.farm.name`	Specify your domain name. The default value is `cn=oes_domain`.
`oracle.security.jps.ldap.root.name`	Specify the root name of jps context. The default value is `cn=jpsroot`.

When prompted, specify the following:

- Oracle Entitlements Server user name (This is the Administration Server's user name).
- Oracle Entitlements Server password (This is the Administration Server's password)
- New key store password for enrollment

20.5.3 Configuring Security Module

OES Client includes the following Security Modules:

- Java Security Module
- Multi-Protocol Security Module
- WebLogic Security Module

For more information, see "Understanding the Types of Security Modules" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Entitlements Server*.

20.5.3.1 Creating Java Security Module

The Java Security Module is a generic Policy Decision Point that provides authorization decisions using Java API. This Security Module can be configured on:

- Java Standard Edition (JSE)
- IBM WebSphere

Java Standard Edition (JSE)

To create a Java Security Module instance, you must run the `config.sh` (Located at `OES_CLIENT_HOME/oessm/bin` on UNIX) or `config.cmd` (Located at `OES_CLIENT_HOME\oessm\bin` on Windows) as follows:

> **Note:** If you are using Java Security Module in the proxy mode with Web Service Security Module or RMI Security Module, then you must use `oes-ws-client.jar` or `oes-rmi-client.jar` and ensure that you do not use `oes-client.jar`.

```
config.sh -smType java -smConfigId mySM_Java_Controlled -pdServer <oes_server_
address> -pdPort <oes_server_ssl_port>
```

In controlled push mode, you will be prompted for the Oracle Entitlements Server Administration Server username, password, and a new key store password for enrollment.

In non-controlled and controlled pull modes, you will be prompted for Oracle Entitlements Server schema username, and Password.

Table 20–7 describes the parameters you specify on the command line.

Table 20–7 JSE Security Module Parameters

Parameter	Distribution Mode	Description
`smType`	All	Type of security module instance you want to create. For example, `java`.
`smConfigId`	All	Name of the security module instance. For example, `mySM_java`.
`pdServer`	`controlled-push`	The address of the Oracle Entitlements Server Administration Server.
`pdPort`	`controlled-push`	The SSL port number of the Oracle Entitlements Server Administration Server. For example, `7002`.

The Java Security Module Instance is created at `OES_CLIENT_HOME/oes_sm_instances/mySM_java`. If you use the default values described in Table 20–7.

IBM WebSphere

To configure Java Security Module on IBM WebSphere, complete the following steps:

1. Create a new application server using the IBM WebSphere console and name it `OesServer`.
2. Start the Oracle Entitlements Server (OesServer) you created for IBM WebSphere.
3. Deploy `was-client.war` (Located at `OES_CLIENT_HOME/oessm/pd`) to the Oracle Entitlements Server you created.
4. Open the `smconfig.prp` file in a text editor and specify the pd client port and the pd app client context. The pd client port number is the SSL port number of the IBM WebSphere application server and pd app client contex is the location where the was-client.jar is deployed. For example:

   ```
   oracle.security.jps.pd.was.client.appcontext=pd-client
   oracle.security.jps.pd.clientPort=8002
   ```

5. Run the `config.sh` command as follows:

   ```
   $OES_CLIENT_HOME/oessm/bin/config.sh -smType was -smConfigId mySM_WAS -pdServer
   <oes_admin_server> -pdPort <oes_admin_port> -serverNodeName <was_node_name>
   -serverName <server_name> -serverLocation WAS_HOME
   ```

   `WAS_HOME` is the location of the IBM WebSphere Application Server.

   For any distribution mode you choose, you must specify the IBM WebSphere server user name and password, when prompted.

   In controlled push mode, you will be prompted for Oracle Entitlements Server Administration Server user name, Oracle Entitlements Server Administration Server password, and a new key store password for enrollment.

   In non-controlled and controlled-pull modes, you will be prompted for Oracle Entitlements Server schema user name and password.

   Table 20–8 describes the parameters you specify on the command line.

Table 20–8 IBM WebSphere Security Module Parameter

Parameter	Distribution Mode	Description
`smType`	All	Type of security module instance you want to create. For example, `was`.
`smConfigId`	All	Name of the security module instance. For example, `mySM_WAS`.
`pdServer`	controlled-push	The address of the Oracle Entitlements Server Administration Server.
`pdPort`	controlled-push	The SSL port number of the Oracle Entitlements Server Administration Server. For example, `7002`.
`serverLocation`	All	Location of the IBM WebSphere Server.

6. Configure SSL for the IBM WebSphere application server as follows:
   a. Import the Oracle WebLogic Server demo trust certificate into IBM WebSphere node default trust keystore and cell default trust keystore by using keytool to export WLS demo trust certificate from WLS demo trust keystore file, or `OES trust.jks` file into a `.der`, as shown in the following example:

```
keytool -exportcert -keystore $OES_CLIENT_HOME/oessm/enroll/DemoTrust.jks
-alias wlscertgencab -file ~/was.der
```

b. Import the `was.der` file into WAS node default trust keystore and cell default trust keystore. as follows:

- You may find the import in IBM WebSphere Administration Server console:

  security->SSL certificate and key management -> Key stores and certificates -> <NodeDefaultTrustStore> <CellDefaultTrustStore> (here you need to choose one name) -> Signer certificates.
- Click **Add**.
- Enter an alias. For example, **WLS**.
- Choose the `.der` file that you exported earlier, and select data type as **DER**.

c. Import the issued private key into the IBM WebSphere node default keystore as follows:

- You may find the import in IBM WebSphere Administration Server console:

  security->SSL certificate and key management -> Key stores and certificates -> NodeDefaultKeyStore -> Personal certificates.
- Click **Import**.
- Select Keystore and enter the path to the keystore file (Located at `OES_CLIENT_HOME/oes_sm_instances/mySM_WAS/security/identity.jks`)
- Select **JKS** as type and enter the password you used to create the keystore file.
- The certificate alias name is the same name as the hostname.

Note: You must import demo trust certificate into two trust stores for the WAS ND edition. For the private key, you must import one keystore.

---

d. Enable Inbound SSL for the server running IBM WebSphere Security Module as follows:

- In the IBM WebSphere administration console, go to **Security >SSL certificate and key management -> Manage endpoint security configurations**.
- Expand inbound tree to get:Inbound->DefaultCell(CellDefaultSSLSettings) -> nodes -> DefaultCellFederatedNode -> servers -> <server name running IBM WebSphere Security Module> and select the server.
- In the General Properties page, select **Override inherited values**.
- From the **SSL configuration** list, select **NodeDefaultSSLSettings**.
- Click **Update certificate alias list** button and then choose the new imported private key alias in the **Certificate alias in key store** list.

- Click **Apply**.

e. Enable Out bound SSL for the server running IBM WebSphere Security Module, follows:

- In the IBM WebSphere administration console, go to **Security >SSL certificate and key management -> Manage endpoint security configurations**.
- Expand inbound tree to get:Outbound->DefaultCell(CellDefaultSSLSettings) -> nodes -> DefaultCellFederatedNode -> servers -> <server name running IBM WebSphere Security Module> and select the server.
- In the General Properties page, select **Override inherited values**.
- From the **SSL configuration** list, select **NodeDefaultSSLSettings**.
- Click **Update certificate alias list** and choose the new imported private key alias in the **Certificate alias in key store** list.
- Click **Apply**.

20.5.3.2 Creating Multi-Protocol Security Module

The Multi-Protocol Security Module is an authorization service (based on service-oriented architecture principles) wrapped around a generic Java Security Module. This section describes how to configure Multi-Protocol Security Module using:

- RMI
- Web Service

RMI

To configure a RMI Security Module Instance, you must run the `config.sh` (Located at `OES_CLIENT_HOME/oessm/bin` for UNIX) or config.cmd (Located at `OES_CLIENT_HOME\oessm\bin` for Windows) as follows:

```
config.sh -smType rmi -smConfigId mySM_Rmi_Controlled -pdServer <oes_server_
address> -pdPort <oes_server_ssl_port> -RMIListeningPort 9405
```

In controlled push mode, when prompted, specify the Oracle Entitlements Server Administration Server user name, Oracle Entitlements Server Administration Server password, and a new key store password for enrollment.

In non-controlled and controlled-pull distribution modes when prompter specify the Oracle Entitlements Server schema username and password.

Table 20–9 describes the parameters you specify on the command line.

Table 20–9 RMI Security Module Parameters

Parameter	Distribution Mode	Description
`smType`	All	The type of security module instance you want to create. For example, `rmi`.
`smConfigId`	All	The name of the security module instance. For example, `mySM_rmi_Controlled`.
`pdserver`	controlled-push	The address of the Oracle Entitlements Server Administration Server.

Table 20–9 (Cont.) RMI Security Module Parameters

Parameter	Distribution Mode	Description
pdPort	controlled-push	The SSL port of the Oracle Entitlements Server Administration Server. For example, 7002.
RMIListeningPort	All	The RMI listening port. For example, 9405.

This command also creates client configuration for the RMI Security Module Instance.

Web Service

To create a Webservice Security Module instance, you must run the config.sh (Located at OES_CLIENT_HOME/oessm/bin for UNIX) or config.cmd (Located at OES_CLIENT_HOME\oessm\bin for Windows) as follows:

```
config.sh -smType ws -smConfigId mySM_Ws_Controlled -pdServer <oes_server_address>
-pdPort <oes_server_ssl_port> -WSListeningPort 9410
```

In controlled push mode, when prompted, specify the Oracle Entitlements Server Administration Server user name, Oracle Entitlements Server Administration Server password, and a new key store password for enrollment.

In non-controlled and controlled-pull distribution modes when prompted, specify the Oracle Entitlements Server schema user name and password.

Table 20–10 describes the parameters you specify on the command line.

Table 20–10 Web Service Security Module Parameter

Parameters	Distribution Mode	Description
smType	All	Type of security module instance you want to create. For example, ws.
smConfigId	All	Name of the security module instance. For example, mySM_ws_Controlled.
pdserver	controlled-push	The address of the Oracle Entitlements Server Administration Server.
pdPort	controlled-push	The SSL port of the Oracle Entitlements Server Administration Server. For example, 7002.
WSListeningPort	All	The web service listening port. For example, 9410.

This command also creates client configuration for Webservice Security Module Instance.

20.5.3.3 Creating WebLogic Security Module

The WebLogic Security Module is a custom Java Security Module that includes both a Policy Decision Point and a Policy Enforcement Point. It can receive requests directly from the WebLogic Server without the need for explicit authorization API calls. It will only run on the WebLogic Server container.

To configure a WebLogic Server Security Module instance, you must run the config.sh (Located at OES_CLIENT_HOME/oessm/bin on UNIX) or config.cmd (Located at OES_CLIENT_HOME\oessm\bin on Windows) as follows:

```
config.sh -smType wls -smConfigId mySM_WLS -pdServer <oes server> -pdPort <oes_
```

```
server_ssl_port>  -serverLocation MW_HOME/wlserver_10.3/
```

In non-controlled and controlled-pull distribution modes, when prompted, specify the Oracle Entitlements Server schema user name and password.

Table 20–11 described the parameters you specify on the command line.

Table 20–11 Oracle WebLogic Server Security Module Parameters

Parameter	Distribution Mode	Description
`smType`	All	Type of security module instance you want to create. For example, `WLS`.
`smConfigId`	All	Name of the security module instance. For example, `mySM_WLS_Controlled`.
`pdServer`	controlled-push	Address of the Oracle Entitlements Server Administration server.
`pdPort`	controlled-push	The SSL port of the Oracle Entitlements Server Administration server. For example, 7002.
`serverLocation`	All	Location of the Oracle WebLogic Server.

The Configuration Wizard is displayed. Create a OES Client as described in Section 20.5.4, "Creating the OES Client Domain".

20.5.3.4 Configuring the PDP Proxy Client

Configure a PDP Proxy Client for your web service Security Module or RMI Security Module, as described in Table 20–12:

Table 20–12 PDP Proxy Client Security Module Parameters

Parameter	Description
`oracle.security.jps.pdp.isProxy`	Specify `true` as the value.
`oracle.security.jps.pdp.PDPTransport`	Specify Web Service (`WS`) or RMI.
`oracle.security.jps.pdp.proxy.PDPAddress`	Specify `http://hostname:port` (WS) or `rmi://hostname:port` (RMI).

You must run the `config.sh` (Located at `OES_CLIENT_HOME/oessm/bin` on UNIX) or `config.cmd` (Located at `OES_CLIENT_HOME\oessm\bin` on Windows) as shown in the following example:

For Java Security Module:

```
OES_CLIENT_HOME/oessm/bin/config.sh -smType <SM_TYPE> -smConfigId <SM_NAME>
```

The `SM_TYPE` can be `java`, `wls`, or `was`. and for `SM_NAME` enter an appropriate name.

20.5.4 Creating the OES Client Domain

To create the OES Client domain, complete the following steps:

> **Note:** You can extend an existing Oracle WebLogic Server domain for Oracle Entitlements Server. Any existing domain with JRF is not supported.

1. The Fusion Middleware Configuration Wizard appears after you invoke the Security Module configuration tool.
2. On the Welcome screen, select the **Create a new WebLogic domain** option. Click **Next**.

   The Select Domain Source screen appears.
3. On the Select Domain Source screen, ensure that the **Generate a domain configured automatically to support the following products:** option is selected.

   Select the **Oracle Entitlements Server WebLogic Security Module - 11.1.1.0 [OESCLIENT]** option. Click **Next**.

   > **Note:** Ensure that you do not select the domain template associated with the Oracle Entitlements Server Administration Server from the `IDM_HOME`.

   The Specify Domain Name and Location screen appears.
4. Enter a name and a location for the domain to be created, and click **Next**.

   The Configure Administrator User Name and Password screen appears.
5. Enter a user name and a password for the administrator. The default user name is `weblogic`. Click **Next**.

   The Configure Server Start Mode and JDK screen appears.

   > **Note:** When you enter the user name and the password for the administrator, be sure to remember them.

6. Choose a JDK from the **Available JDKs** and then select a **WebLogic Domain Startup Mode**. Click **Next**.

   > **Note:** Ensure that the JDK version you select is Java SE 6 Update 24 or higher.

   The Select Optional Configuration screen is displayed.
7. On the Select Optional Configuration screen, select **Administration Server** and **Managed Servers**, **Clusters and Machines**, **Deployments and Services** check boxes and click **Next**.

   The Configure the Administration Servers screen is displayed.
8. In the Configure the Administration Servers screen, enter the following details:
   - Name: Valid server names are a string of characters (alphabetic and numeric). The name must be unique in the domain. For example, `AdminServer`.

- Listen address: From the drop-down list, select a value for the listen address. See Specifying the Listen Address for information about the available values.
- Listen port—Enter a valid value for the listen port to be used for regular, nonsecure requests (through protocols such as HTTP and T3). The default value is the next available listen port. If you leave this field blank, the default value is used. For example, 8001.
- SSL enabled—Select this check box to enable the SSL listen port. By default, SSL is disabled for all new servers.
- SSL listen port—Enter a valid value to be used for secure requests (through protocols such as HTTPS and T3S). The default value is the next available listen port. If you leave this field blank, the default value is used. For example, 8002.

Note: After you specify the SSL listen port value, you must update the `oracle.security.jps.pd.clientPort` property in the `smconfig.wls.controlled.prp` file or `smconfig.prp` file with the SSL listen port value. You must then run the `smconfig` tool for Oracle WebLogic Server Security Module and set the Administration Server SSL port to the port specified in `oracle.security.jps.pd.clientPort`.

---

9. In the Configure Managed Servers screen, click **Add** and create two Managed Servers. Enter the following information:
   - Name: Enter `OES_ManagedServer_1` and OES_ManagedServer_2.
   - Listen address: From the drop-down list, select a value for the listen address for `OES_ManagedServer_1` and OES_ManagedServer_2.
   - Listen port—Enter a valid value for the listen port to be used for `OES_ManagedServer_1` and OES_ManagedServer_2. The default value is the next available listen port. If you leave this field blank, the default value is used. The valid listen port range is 1 to 65535.
   - SSL enabled—Select this check box to enable the SSL listen port. By default, SSL is disabled for all new servers.
   - SSL listen port—Enter a valid value to be used for secure requests (through protocols such as HTTPS and T3S) for `OES_ManagedServer_1` and OES_ManagedServer_2. The default value is the next available listen port. If you leave this field blank, the default value is used. The valid listen port range is 1 to 65535.

   Click **Next**.
10. The Configure Clusters screen is displayed, click Next.
11. The Configure Machines screen is displayed, click Next.
12. On the Configuration Summary screen, review the domain configuration, and click **Create** to start creating the domain.
13. Create three directories under `DOMAIN_HOME/config/oeswlssmconfig` and name them as follows:
    - **AdminServer**
    - **OES_ManagedServer_1**

- **OES_ManagedServer_2**

14. Select and copy all the files except the new folder you created above in `DOMAIN_HOME/config/oeswlssmconfig` and paste them to the following newly created folders:
    - **AdminServer**
    - **OES_ManagedServer_1**
    - **OES_ManagedServer_2**
15. Open `jps-config.xml` (Located at `DOMAIN_HOME/config/oeswlssmconfig/OES_ManagedServer_1`) and specify the OES_ManagedServer_1 Managed Server host name and port number for `oracle.security.jps.runtime.pd.client.DistributionServiceURL`.
16. Open `jps-config.xml` (Located at `DOMAIN_HOME/config/oeswlssmconfig/OES_ManagedServer_2`) and specify the OES_ManagedServer_2 Managed Server host name and port number for `oracle.security.jps.runtime.pd.client.DistributionServiceURL`.
17. Open `setDomainEnv.sh` (UNIX) or `setDomainEnv.cmd` (Windows) in a text editor and edit the line `-Doracle.security.jps.config=${DOMAIN_HOME}/config/oeswlssmconfig/jps-config.xml` as follows:

    ```
    b.-Doracle.security.jps.config=${DOMAIN_HOME}/config/oeswlssmconfig/${SERVER_NAME}/jps-config.xml
    ```

20.5.5 Locating Security Module Instances

The Oracle Entitlements Server security module instances are created in the `OES_CLIENT_HOME/oes_sm_instances`. directory.

For Oracle WebLogic Server security module, the domain configuration is located at `DOMAIN_HOME/config/oeswlssmconfig`.

You can create, delete, or modify the security module instances, as required.

20.5.6 Using the Java Security Module

After configuring Java Security Module for your program, you must start the Java Security module for your program by completing the following:

1. Set a new Java System Property with the location of the `jps-config.xml` created at `OES_CLIENT_HOME/oes_sm_instances/<SM_NAME>/config/jps-config.xml`. as the value.
2. Enter `oes-client.jar` (Located at `OES_CLIENT_HOME/modules/oracle.oes_sm.1.1.1`) into the Classpath of the program.

20.6 Getting Started with Oracle Entitlements Server After Installation

After installing Oracle Entitlements Server, refer to the following documents:

- *Oracle Fusion Middleware Administrator's Guide for Oracle Entitlements Server*
- *Oracle Fusion Middleware Developer's Guide for Oracle Entitlements Server*

21

Migrating from Domain Agent to Oracle HTTP Server 10*g* Webgate for OAM

This chapter describes how to migrate from the Domain Agent to Oracle HTTP Server 10*g* Webgate for Oracle Access Manager (OAM) to protect applications by using the same policy domain used by the Domain Agent. By default, applications deployed in an Oracle Identity and Access Management 11.1.1.5.0 domain are protected by the Domain Agent.

> **Note:** Read this chapter only if you want to use Oracle HTTP Server 10*g* Webgate for Oracle Access Manager after setting up integration between Oracle Identity Manager and Oracle Access Manager, as described in the chapter "Integrating Oracle Access Manager and Oracle Identity Manager" in the *Oracle Fusion Middleware Integration Guide for Oracle Access Manager*.

This chapter discusses the following topics:

21.1 Installing and Configuring Oracle HTTP Server 11*g* (11.1.1.5.0)

If you do not have an existing Oracle HTTP Server 11g (11.1.1.5.0) installation, you can install Oracle HTTP Server 11.1.1.2.0 and patch it to the latest version 11.1.1.5.0.

Oracle HTTP Server 11.1.1.2.0 is included in the Oracle Web Tier 11*g* Installer, you must download the Oracle Web Tier 11*g* (11.1.1.2.0) Installer from the Oracle Technology Network (OTN):

`http://www.oracle.com/technology/software/products/middleware/htdocs/fmw_11_download.html`

Alternatively, you can download the latest Oracle Fusion Middleware 11*g* software from the following website:

`http://edelivery.oracle.com/`

Note: For information about installing and configuring Oracle HTTP Server 11*g* (11.1.1.2.0), see the "Installing Oracle Web Tier" topic in the *Oracle Fusion Middleware Installation Guide for Oracle Web Tier*. For information about patching Oracle HTTP Server 11.1.1.2.0 to 11.1.1.5.0 using the Patch Set Installer, see the "Applying the Latest Oracle Fusion Middleware Patch Set" topic in the *Oracle Fusion Middleware Patching Guide*.

After you install and configure Oracle HTTP Server, a working instance of Oracle HTTP Server is configured in an Instance Home.

21.2 Provisioning Oracle HTTP Server 10*g* Webgate for OAM Profile

For information about provisioning a profile for Oracle HTTP Server 10g Webgate for use with Oracle Access Manager 11*g* server, see the "Provisioning a 10g WebGate for Use with OAM 11g" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*.

Note: Ensure that the **hostIdentifier** parameter is set to `IDMDomain` and the **autoCreatePolicy** parameter is set to `false` when you are provisioning Oracle HTTP Server 10*g* Webgate to replace Domain Agent for OAM-OIM integration.

21.3 Installing Oracle HTTP Server 10*g* Webgate for OAM

For information about installing Oracle HTTP Server 10*g* Webgate for Oracle Access Manager (OAM), see the "Locating and Installing the Latest OAM 10g WebGate for OAM 11g" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*.

21.4 Configuring mod_weblogic

After installing Oracle HTTP Server 10*g* Webgate for Oracle Access Manager, you must configure the Web server to forward requests to the applications deployed on the WebLogic Server.

Open the `mod_wl_ohs.conf`, which is located in `<OHS_Instance_Home>/config/OHS/<Instance_Name>`, in a text editor and add appropriate entries, as in the following example:

```
<IfModule weblogic_module>
     <Location /oamconsole>
     SetHandler weblogic-handler
     WebLogicHost examplehost.exampledomain.com
     WebLogicPort   6162
     </Location>
     <Location /apmconsole>
     SetHandler weblogic-handler
     WebLogicHost examplehost.exampledomain.com
     WebLogicPort   6162
```

```
    </Location>
</IfModule>
```

Add similar Location entries for all the URIs for all the applications that were previously accessed directly on WebLogic Server.

After making the changes, restart Oracle HTTP Server. You can use the OPMN command-line tool to start or stop your Oracle HTTP Server instance. If any instances are running, run the following command on the command-line to stop all running instances:

```
<Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl stopall
```

To restart the Oracle HTTP Server instance, run the following commands on the command line:

1. `<Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl start`
2. `<Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl startproc ias-component=<Oracle_HTTP_Server_Instance_Name>`

21.5 Optional: Configuring Host Identifier

This task is required only if you have set up integration between Oracle Identity Manager and Oracle Access Manager.

To configure host identifiers for auto-login functionality, complete the following steps:

1. Launch the Oracle Access Manager Administration Console (`http://<oamserverhost>:<adminport>/oamconsole`).
2. Click the **Policy Configuration** tab.
3. On the left navigation pane, click **Host Identifiers** > **IDMDomain**. The Host Identifier page is displayed.
4. In the **Operations** section on the Host Identifier page, all the host name and port number combinations are listed. Verify whether the section includes the host name and port number of the web server on which the Oracle HTTP Server 10*g* Webgate is configured.

   If it is not listed, add an entry as follows:

   a. On the **Operation** section, click the **+** icon. A new blank row is added to the Operations section.

   b. In the **Host Name** field, enter the host name of the web server on which the Oracle HTTP Server 10*g* Webgate is configured.

   c. In the **Port** field, enter the port number.

   d. Click **Apply**.

21.6 Updating OIM Server Configuration

Update the Oracle Identity Manager (OIM) configuration in the `oam-config.xml` file (located in the `<DOMAIN_HOME>/config/fmwconfig` directory) to ensure that the Host and Port attributes of the IdentityManagement element in the file point to the Oracle HTTP Server on which the Oracle HTTP Server Webgate 10*g* is configured:

1. Open the `oam-config.xml` file in a text editor.
2. Update the entries as follows:

```
<Setting Name="IdentityManagement" Type="htf:map">
      <Setting Name="ServerConfiguration" Type="htf:map">
      <Setting Name="OIM-SERVER-1" Type="htf:map">
      <Setting Name="Host" Type="xsd:string">OHS-HOST</Setting>
      <Setting Name="Port" Type="xsd:integer">OHS-PORT</Setting>
      <Setting Name="SecureMode" Type="xsd:boolean">false</Setting>
      </Setting>
</Setting>
```

Note: Ensure that you have set up integration between Oracle Identity Manager and Oracle Access Manager, as described in the topic "Integrating Oracle Access Manager and Oracle Identity Manager" in the *Oracle Fusion Middleware Integration Guide for Oracle Access Manager*.

After updating OIM Server configuration, you must perform logout configuration as follows:

1. Copy the `logout.html` file from the `<IDM_ORACLE_HOME>/oam/server/oamsso` directory to the `<10gWebgateInstallation>/access/oamsso` directory.
2. Edit the `SERVER_LOGOUTURL` variable in the `logout.html` file to point to the host and port of the Oracle Access Manager Server. Follow the instructions in the `logout.html` file.
3. If the `http.conf` file of the web server includes the following entries, remove the entries from the `http.conf` file:

```
<LocationMatch "/oamsso/*">
     Satisfy any
     </LocationMatch>
```

21.7 Optional: Disabling Domain Agent

Domain Agent, which runs on the Administration Server and all Managed Servers in the Oracle Identity and Access Management domain, automatically detects the existence of a Webgate in the request flow. You do not need to disable the Domain Agent. However, if you want to disable the out-of-the-box Domain Agent, you can complete the following steps:

1. From your present working directory, move to the `<MW_HOME>/user_projects/domains/<name_of_your_WebLogic_domain>` directory (On UNIX). On Windows, move to the `<MW_HOME>\user_projects\domains\<name_of_your_WebLogic_domain>` directory.
2. To disable the Domain Agent running on the Administration Server, start the WebLogic Administration Server on the command line as follows:

   On UNIX:

   ```
   ./startWebLogic.sh -DWLSAGENT_DISABLED=true
   ```

   On Windows:

   ```
   startWebLogic.cmd -DWLSAGENT_DISABLED=true
   ```

3. From your present working directory, move to the `<MW_HOME>/user_projects/domains/<name_of_your_WebLogic_domain>/bin` directory

(On UNIX). On Windows, move to the <MW_HOME>\user_projects\domains\<name_of_your_WebLogic_domain</bin directory.

4. To disable the Domain Agent running on Managed Servers in the domain, start the Managed Servers on the command line as follows:

   On UNIX:

   ```
   ./startManagedWebLogic.sh <name_of_your_Managed_Server>
   -DWLSAGENT_DISABLED=true
   ```

   On Windows:

   ```
   startManagedWebLogic.cmd <name_of_your_Managed_Server>
   -DWLSAGENT_DISABLED=true
   ```

21.8 Optional: Updating Oracle Identity Manager Configuration

You can update the <OHS_Instance_Home>/config/OHS/<ohs_name>/mod_wl_ohs.conf to front-end Oracle Identity Manager URLs with Oracle HTTP Server.

To do so, complete the following steps:

Open the mod_wl_ohs.conf file in a text editor and add appropriate entries, as in the following example:

```
<IfModule weblogic_module>
     WebLogicHost OIM_MANAGED_SERVER_HOST
     WebLogicPort OIM_MANAGED_SERVER_PORT
     MatchExpression /oim*
     MatchExpression /admin*
     MatchExpression /xlWebApp*
     MatchExpression /Nexaweb*
     MatchExpression /workflowservice*
     MatchExpression /callbackService*
     MatchExpression /SchedulerService-web*
     MatchExpression /iam-consoles-faces*
</IfModule>
```

Replace the values of OIM_MANAGED_SERVER_HOST and OIM_MANAGED_SERVER_PORT with the values of Oracle Identity Manager Managed Server's host and port.

After making the changes, restart Oracle HTTP Server. You can use the OPMN command-line tool to start or stop your Oracle HTTP Server instance. If any instances are running, run the following command on the command-line to stop all running instances:

```
<Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl stopall
```

To restart the Oracle HTTP Server instance, run the following commands on the command line:

1. <Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl start
2. <Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl startproc ias-component=<Oracle_HTTP_Server_Instance_Name>

Updating the OIM Configuration When the OAM URL or Agent Profile Changes

You can update the Oracle Identity Manager configuration when the name of the agent profile is modified or the OAM URL is modified.

To update Oracle Identity Manager configuration, complete the following steps:

1. Export the `oim-config.xml` file from metadata by running `<IDM_ORACLE_HOME>/server/bin/weblogicExportMetadata.sh` (on UNIX), and export the file - `/db/oim-config.xml`. On Windows operating systems, you can use the `weblogicExportMetadata.bat` file located in the same directory.
2. Update the file to use Oracle HTTP Server 10g Webgate by updating following element under the `<ssoConfig>` tag:

   `<webgateType>javaWebgate</webgateType>` to `<webgateType>ohsWebgate10g</webgateType>`
3. Import `oim-config.xml` back to metadata by running `<IDM_Home>/server/bin/weblogicImportMetadata.sh` on UNIX. On Windows, use the `weblogicImportMetadata.bat` located in the same directory.
4. Log in to Oracle Enterprise Manager Fusion Middleware Control using your WebLogic Server administrator credentials.
5. Click **Identity and access** > **oim** > **oim(version)**. Right-click and select **System MBean Browser**. The System MBean Browser page is displayed.
6. Under Application Defined MBeans, select `oracle.iam` > `Server:oim_server1` > `Application: oim` > `XMLConfig` > `config`.
7. Replace the front-end URL with the URL of Oracle HTTP Server. This should be the same Oracle HTTP Server that was used before installing Oracle HTTP Server 10*g* Webgate for Oracle Access Manager. Complete the following steps:
   a. Under `XMLConfig` MBean, move to `XMLConfig.DiscoveryConfig`.
   b. Update **OimFrontEndURL** with the URL of Oracle HTTP Server.
   c. Click **Apply**.
8. Restart the OIM server.

22

Installing and Configuring Oracle HTTP Server 11*g* Webgate for OAM

This chapter describes how to install and configure Oracle HTTP Server 11*g* Webgate for Oracle Access Manager.

It discusses the following topics:

- Installation Overview
- Preparing to Install Oracle HTTP Server 11g Webgate for Oracle Access Manager
- Installing Oracle HTTP Server 11g Webgate for Oracle Access Manager
- Post-Installation Steps
- Verifying the Oracle HTTP Server 11g Webgate for Oracle Access Manager
- Getting Started with a New Oracle HTTP Server 11g Webgate Agent for Oracle Access Manager

> **Note:** Oracle HTTP Server 11*g* Webgate for Oracle Access Manager is not intended for use in Oracle Identity and Access Management environments where you want to set up integration among Oracle Identity and Access Management components.

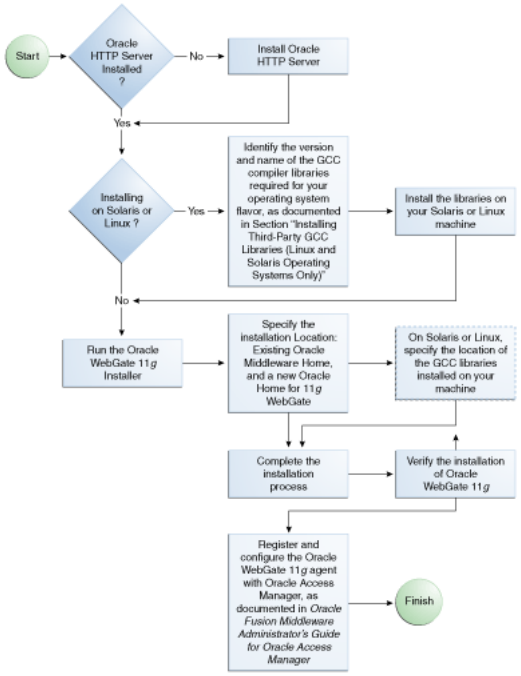
22.1 Installation Overview

Installing Oracle HTTP Server 11*g* Webgate for Oracle Access Manager involves the following steps:

1. Installing Oracle HTTP Server 11*g* (11.1.1.3.0, 11.1.1.4.0, or 11.1.1.5.0)
2. On Linux and Solaris operating systems: Installing third-party GCC libraries
3. Running the Oracle HTTP Server Webgate Installer to install Oracle HTTP Server 11*g* Webgate for Oracle Access Manager
4. Verifying the installation of Oracle HTTP Server 11*g* Webgate for Oracle Access Manager
5. Completing post-installation configuration steps
6. Registering the new Webgate agent

The following figure illustrates the process of installing Oracle HTTP Server 11*g* Webgate for Oracle Access Manager.

Figure 22–1 Oracle HTTP Server 11g Webgate Installation Process



As a standard practice, complete the following prerequisites for installing Oracle Fusion Middleware software:

1. Review Oracle Fusion Middleware certification information.

   `http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html`

2. Review the system requirements.
3. Satisfy all dependencies, such as installing Oracle HTTP Server, which is included in the Oracle Web Tier Installer.
4. Perform the installation procedure for the appropriate component.
5. Verify the installation.

Table 22–1 lists the Installers and tools used to install and configure Oracle HTTP Server 11*g* Webgate for Oracle Access Manager at different stages of the installation and configuration process.

Table 22–1 Installation and Configuration Tools

Task	Tool
Install Oracle HTTP Server (11.1.1.3.0, 11.1.1.4.0, or 11.1.1.5.0)	Oracle Web Tier Installer based on the version you want to use
Install Oracle HTTP Server Webgate 11*g*	Oracle HTTP Server Webgate 11*g* Installer
Register Webgate Agent	RREG Tool, or the Oracle Access Manager Administration Console
Start or Stop Process Instances	OPMN Command-Line Tool

22.2 Preparing to Install Oracle HTTP Server 11*g* Webgate for Oracle Access Manager

Oracle HTTP Server 11*g* Webgate for Oracle Access Manager requires Oracle HTTP Server 11*g* (11.1.1.3.0, 11.1.1.4.0, or 11.1.1.5.0), which is included in the Oracle Web Tier 11*g* Installer. For information about installing Oracle HTTP Server, see the *Oracle Fusion Middleware Installation Guide for Oracle Web Tier* corresponding to the Oracle HTTP Server version you are using.

In addition, if you are using the Linux or Solaris operating system, you must install third-party GCC libraries on your machine before installing Oracle HTTP Server 11*g* Webgate for Oracle Access Manager.

This section discusses the following topics:

- Oracle Fusion Middleware Certification
- Installing and Configuring OAM 11g
- Installing and Configuring Oracle HTTP Server 11g
- Installing Third-Party GCC Libraries (Linux and Solaris Operating Systems Only)
- Prerequisites for 64-Bit Oracle HTTP Server 11g Webgates on Windows 2003 and Windows 2008 64-Bit Platforms

22.2.1 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 and Access Management 11*g* 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/technetwork/middleware/ias/downloads/fusion-certification-100350.html`

22.2.2 Installing and Configuring OAM 11*g*

For information about installing Oracle Access Manager (OAM), see Installing Oracle Identity and Access Management (11.1.1.5.0). For information about configuring Oracle Access Manager in a new or existing WebLogic administration domain, see Configuring Oracle Access Manager.

In addition, see the "Securing Communication Between OAM 11g Servers and WebGates" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager* for information about configuring Oracle Access Manager in Open, Simple, or Cert mode.

22.2.3 Installing and Configuring Oracle HTTP Server 11*g*

Oracle HTTP Server 11*g* Webgate for Oracle Access Manager is supported on Oracle HTTP Server 11.1.1.3.0, Oracle HTTP Server 11.1.1.4.0, and Oracle HTTP Server 11.1.1.5.0. You can choose to install any of these versions. You must install the Oracle HTTP Server 11.1.1.2.0 software before patching it to 11.1.1.3.0, 11.1.1.4.0, or 11.1.1.5.0.

If you do not have Oracle HTTP Server 11.1.1.2.0 installed, you can download the Oracle Web Tier 11*g* (11.1.1.2.0) Installer from the Oracle Technology Network (OTN):

```
http://www.oracle.com/technology/software/products/middleware/htdocs/fmw_11_
download.html
```

Alternatively, you can download the latest Oracle Fusion Middleware 11*g* software from the following website:

```
http://edelivery.oracle.com/
```

Note: For information about installing and configuring Oracle HTTP Server 11*g* (11.1.1.2.0), see the "Installing Oracle Web Tier" topic in the *Oracle Fusion Middleware Installation Guide for Oracle Web Tier*. For information about patching Oracle HTTP Server 11.1.1.2.0 to 11.1.1.3.0, 11.1.1.4.0, or 11.1.1.5.0 using the corresponding Patch Set Installer, see the "Applying the Latest Oracle Fusion Middleware Patch Set" topic in the *Oracle Fusion Middleware Patching Guide*.

After you install and configure Oracle HTTP Server, a working instance of Oracle HTTP Server is configured in an Instance Home.

22.2.4 Installing Third-Party GCC Libraries (Linux and Solaris Operating Systems Only)

If you are installing Oracle HTTP Server 11*g* Webgate for Oracle Access Manager on a Linux or Solaris operating system, you must download and install third-party GCC libraries on your machine. See Table 22–2 for more information.

You can download the appropriate GCC library from the following third-party website:

http://gcc.gnu.org/

Note: You must download sources from this website and compile them to obtain the GCC libraries.

For some operating systems, the required libraries may be available as installable packages from the support websites of operating system vendors.

Table 22–2 Versions of GCC Third-Party Libraries for Linux and Solaris

Operating System	Architecture	GCC Libraries	Required Library Version
Linux 32-bit	x86	libgcc_s.so.1 libstdc++.so.5	3.3.2
Linux 64-bit	x64	libgcc_s.so.1 libstdc++.so.6	3.4.6
Solaris 64-bit	SPARC	libgcc_s.so.1 libstdc++.so.5	3.3.2

22.2.4.1 Verifying the GCC Libraries Version on Linux and Solaris Operating Systems

Perform the following checks to verify the version of GCC libraries:

On the Linux32 on i386 platform:

Run the following commands and ensure that their output is always greater than 0:

```
strings -a libgcc_s.so.1 | grep -c "GCC_3.0"
strings -a  libgcc_s.so.1 | grep -v "GCC_3.3.1" | grep -c "GCC_3.3"
file  libgcc_s.so.1 | grep "32-bit" | grep -c "80386"
file  libstdc++.so.5  | grep "32-bit" | grep -c "80386"
```

On the Linux 64 on x86-64 platform:

Run the following commands and ensure that their output is always greater than 0:

```
strings -a libgcc_s.so.1 | grep -c "GCC_3.0"
strings  -a libgcc_s.so.1  | grep -v "GCC_3.3.1" | grep -c "GCC_3.3"
strings -a libgcc_s.so.1 | grep -c "GCC_4.2.0"
file  libgcc_s.so.1 | grep "64-bit" | grep -c "x86-64"
file  -L libstdc++.so.6  |  grep "64-bit" | grep -c "x86-64"
```

On the Solaris 64 on SPARC platform:

Run the following commands and ensure that their output is always greater than 0:

```
strings -a libgcc_s.so.1 | grep -c "GCC_3.0"
strings  -a libgcc_s.so.1  | grep -v "GCC_3.3.1" | grep -c "GCC_3.3"
file  libgcc_s.so.1 | grep "64-bit" | grep -c "SPARC"
file  libstdc++.so.5 | grep "64-bit" | grep -c "SPARC"
```

22.2.5 Prerequisites for 64-Bit Oracle HTTP Server 11*g* Webgates on Windows 2003 and Windows 2008 64-Bit Platforms

If you are using Windows 2003 or Windows 2008 64-bit operating systems, you must install Microsoft Visual C++ 2005 libraries on the machine hosting the Oracle HTTP Server 11*g* Webgate for Oracle Access Manager.

These libraries are included in the Microsoft Visual C++ 2005 SP1 Redistributable Package (x64), which can be downloaded from the following website:

http://www.microsoft.com/DownLoads/details.aspx?familyid=EB4EBE2D-33C0-4A47-9DD4-B9A6D7BD44DA&displaylang=en

In addition, install the Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package MFC Security Update, which can be downloaded from the following website:

http://www.microsoft.com/downloads/en/details.aspx?familyid=fb01abe6-9099-4544-9aec-0ac13f19bc50&displaylang=en

22.3 Installing Oracle HTTP Server 11*g* Webgate for Oracle Access Manager

This section discusses the following topics:

- Launching the Installer
- Installation Flow and Procedure

22.3.1 Launching the Installer

The Installer program for Oracle HTTP Server 11*g* Webgate for Oracle Access Manager is included in the `webgate.zip` file.

Perform the following steps to start the installation wizard:

1. Extract the contents of the `webgate.zip` file to a directory. By default, this directory is named `webgate`.
2. Move to the `Disk1` directory under the `webgate` folder.
3. Start the Installer by executing one of the following commands:

   UNIX: `<full path to the runInstaller directory>./runInstaller -jreLoc <WebTier_Home>/jdk`

   Windows: `<full path to the setup.exe directory>\ setup.exe -jreLoc <WebTier_Home>\jdk`

   Note: When you install Oracle HTTP Server, the `jdk` directory is created under the `<WebTier_Home>` directory. You must enter the absolute path of the JRE folder located in this JDK when launching the installer. For example, on Windows, if the JDK is located in `D:\oracle\Oracle_WT1\jdk`, then launch the installer from the command prompt as follows:

   ```
   D:\setup.exe -jreLoc D:\oracle\Oracle_WT1\jdk
   ```

After the Installer starts, the Welcome screen appears. Continue by referring to the section Installation Flow and Procedure for installing Oracle HTTP Server 11*g* Webgate for Oracle Access Manager.

22.3.2 Installation Flow and Procedure

Follow the instructions in Table 22–3 to install Oracle HTTP Server 11*g* Webgate for Oracle Access Manager.

If you need additional help with any of the installation screens, click **Help** to access the online help.

Table 22–3 Installation Flow

No.	Screen	Description and Action Required
1	Welcome Screen	Click **Next** to continue.
2	Prerequisite Checks Screen	Click **Next** to continue.
3	Specify Installation Location Screen	Specify the Middleware Home and Oracle Home locations. Note that the Middleware Home should contain an Oracle Home for Oracle Web Tier. Oracle WebLogic Server is not a prerequisite for installing Oracle HTTP Server Webgate. However, Oracle HTTP Server, which is a component of Oracle Web Tier, requires only the directory structure for the Middleware home. For more information about these directories, see "Understanding Oracle Fusion Middleware Concepts and Directory Structure" in *Oracle Fusion Middleware Installation Planning Guide*. Click **Next** to continue.
4	On selected UNIX operating systems only (Linux 32- and 64-bit, and Solaris 64-bit): Specify GCC Library Screen	Specify the directory that contains the GCC libraries. Click **Next** to continue.

Table 22–3 (Cont.) Installation Flow

No.	Screen	Description and Action Required
5	Installation Summary Screen	Verify the information on this screen. Click **Install** to begin the installation.
6	Installation Progress Screen	If you are installing on a UNIX system, you may be asked to run the *ORACLE_HOME*/oracleRoot.sh script to set up the proper file and directory permissions. Click **Next** to continue.
7	Installation Complete Screen	Click **Finish** to dismiss the installer.

22.4 Post-Installation Steps

You must complete the following steps after installing Oracle HTTP Server 11*g* Webgate for Oracle Access Manager:

1. Move to the following directory under your Oracle Home for Webgate:

   On UNIX operating systems:

   ```
   <Webgate_Home>/webgate/ohs/tools/deployWebGate
   ```

   On Windows operating systems:

   ```
   <Webgate_Home>\webgate\ohs\tools\deployWebGate
   ```

2. On the command line, run the following command to copy the required bits of agent from the Webgate_Home directory to the Webgate Instance location:

   On UNIX operating systems:

   ```
   ./deployWebgateInstance.sh -w <Webgate_Instance_Directory>
   -oh <Webgate_Oracle_Home>
   ```

   On Windows operating systems:

   ```
   deployWebgateInstance.bat -w <Webgate_Instance_Directory> -oh
   <Webgate_Oracle_Home>
   ```

   Where <Webgate_Oracle_Home> is the directory where you have installed Oracle HTTP Server Webgate and created as the Oracle Home for Webgate, as in the following example:

   ```
   <MW_HOME>/Oracle_OAMWebGate1
   ```

   The <Webgate_Instance_Directory> is the location of Webgate Instance Home, which is same as the Instance Home of Oracle HTTP Server, as in the following example:

   ```
   <MW_HOME>/Oracle_WT1/instances/instance1/config/OHS/ohs1
   ```

   Note that an Instance Home for Oracle HTTP Server is created after you configure Oracle HTTP Server. This configuration is performed after installing Oracle HTTP Server 11.1.1.2.0 or patching to Oracle HTTP Server 11.1.1.5.0.

3. Run the following command to ensure that the LD_LIBRARY_PATH variable contains <Oracle_Home_for_Oracle_HTTP_Server>/lib:

   On UNIX (depending on the shell):

   ```
   export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<Oracle_Home_for_
   Oracle_HTTP_Server>/lib
   ```

   On Windows:

Set the <Webgate_Installation_Directory>\webgate\ohs\lib location and the <Oracle_Home_for_Oracle_HTTP_Server>\bin location in the PATH environment variable. Add a semicolon (;) followed by this path at the end of the entry for the PATH environment variable.

4. From your present working directory, move up one directory level:

   On UNIX operating systems, move to:

   ```
   <Webgate_Home>/webgate/ohs/tools/setup/InstallTools
   ```

   On Windows operating systems, move to:

   ```
   <Webgate_Home>\webgate\ohs\tools\EditHttpConf
   ```

5. On the command line, run the following command to copy the apache_webgate.template from the Webgate_Home directory to the Webgate Instance location (renamed to webgate.conf) and update the httpd.conf file to add one line to include the name of webgate.conf:

   On UNIX operating systems:

   ```
   ./EditHttpConf -w <Webgate_Instance_Directory> [-oh <Webgate_
   Oracle_Home>] [-o <output_file>]
   ```

   On Windows operating systems:

   ```
   EditHttpConf.exe -w <Webgate_Instance_Directory> [-oh
   <Webgate_Oracle_Home>] [-o <output_file>]
   ```

   Note: The -oh <WebGate_Oracle_Home> and -o <output_file> parameters are optional.

   Where <Webgate_Oracle_Home> is the directory where you have installed Oracle HTTP Server Webgate for Oracle Access Manager and created as the Oracle Home for Webgate, as in the following example:

   ```
   <MW_HOME>/Oracle_OAMWebGate1
   ```

   The <Webgate_Instance_Directory> is the location of Webgate Instance Home, which is same as the Instance Home of Oracle HTTP Server, as in the following example:

   ```
   <MW_HOME>/Oracle_WT1/instances/instance1/config/OHS/ohs1
   ```

   The <output_file> is the name of the temporary output file used by the tool, as in the following example:

   ```
   Edithttpconf.log
   ```

   Note that an Instance Home for Oracle HTTP Server is created after you configure Oracle HTTP Server. This configuration is performed after installing Oracle HTTP Server 11.1.1.2.0 or patching to Oracle HTTP Server 11.1.1.5.0.

22.5 Verifying the Oracle HTTP Server 11*g* Webgate for Oracle Access Manager

After completing the installation of Oracle HTTP Server 11*g* Webgate for Oracle Access Manager, including the post-installation steps, you can examine the *installDATE-TIME_STAMP.out* log file to verify the installation.

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

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

22.6 Getting Started with a New Oracle HTTP Server 11*g* Webgate Agent for Oracle Access Manager

Before you can get started with the new Oracle HTTP Server 11*g* Webgate agent for Oracle Access Manager, you must complete the following tasks:

1. Register the New Webgate Agent
2. Copy Generated Files and Artifacts to the Webgate Instance Location
3. Restart the Oracle HTTP Server Instance

22.6.1 Register the New Webgate Agent

You can register the new Webgate agent with Oracle Access Manager by using the Oracle Access Manager Administration Console. For more information, see the "Registering Partners (Agents and Applications) by Using the Console" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*.

Alternatively, you can use the RREG command-line tool to register a new Webgate agent. The tool can be run in two modes: **In-Band** mode, and **Out-Of-Band** mode.

Setting Up the RREG Tool

1. After installing and configuring Oracle Access Manager, navigate to the following location:

   On UNIX operating systems:

   ```
   <Oracle_IDM2>/oam/server/rreg/client
   ```

   On Windows operating systems:

   ```
   <Oracle_IDM2>\oam\server\rreg\client
   ```

2. On the command line, untar the RREG.tar.gz file using `gunzip`, as in the following example:

   ```
   gunzip RREG.tar.gz
   ```

   ```
   tar -xvf RREG.tar
   ```

The tool used to register the agent is located in the following location:

On UNIX operating systems:

```
<RREG_Home>/bin/oamreg.sh
```

On Windows operating systems:

```
<RREG_Home>\bin\oamreg.bat
```

> **Note:** `<RREG_Home>` is the directory where you extracted the contents of `RREG.tar.gz/rreg` to.

Set the following environment variables in the `oamreg.sh` script or in the `oamreg.bat` script:

- `OAM_REG_HOME` - Set this variable to the absolute path to the directory where you extracted the contents of `RREG.tar/rreg`.
- `JDK_HOME` - Set this variable to the absolute path to the directory where Java/JDK is installed on your machine.

Updating the OAM11gRequest.xml File

You must update the agent parameters, such as `agentName`, in the `OAM11GRequest.xml` file located in the `<RREG_Home>\input` directory on the Windows operating system. On the UNIX operating system, the file is located in the `<RREG_Home>/input` directory.

Note: The `OAM11GRequest.xml` file or the short version `OAM11GRequest_short.xml` is used as a template. You can copy this template file and use.

Modify the following required parameters in the `OAM11GRequest.xml` file or in the `OAM11GRequest_short.xml` file:

- `<serverAddress>`

  Specify the host and the port of the Administration Server.

- `<agentName>`

  Specify any custom name for the agent.

- `<agentBaseUrl>`

  Specify the host and the port of the machine where Oracle HTTP Server 11*g* Webgate is installed.

- `<preferredHost>`

  Specify the host and the port of the machine where Oracle HTTP Server 11*g* Webgate is installed.

- `<security>`

  Specify the security mode, such as `open`, based on the Webgate installed.

- `<primaryServerList>`

  Specify the host and the port of Managed Server for Oracle Access Manager proxy, under a `<Server>` container element.

After modifying the file, save the file and close.

In-Band Mode

If you run the RREG tool once after updating the Webgate parameters in the `OAM11GRequest.xml` file, the files and artifacts required by Webgate are generated in the following directory:

On UNIX operating systems:

```
<RREG_Home>/output/<agent_name>
```

On Windows operating systems:

```
<RREG_Home>\output\<agent_name>
```

Note: You can run RREG either on a client machine or on the server machine. If you are running it on the server machine, you must manually copy the artifacts back to the client machine.

Complete the following steps:

1. Open the `OAM11GRequest.xml` file, which is located in the `input` directory (`<RREG_Home>/input/` on UNIX, and `<RREG_Home>\input` on Windows). `<RREG_Home>` is the directory where you extracted the contents of `RREG.tar.gz/rreg` to. Edit this XML file and fill in parameters for the new Oracle HTTP Server Webgate for Oracle Access Manager.
2. Run the following command on the command line:

   On UNIX operating systems:

   ```
   ./<RREG_Home>/bin/oamreg.sh inband input/OAM11GRequest.xml
   ```

   On Windows operating systems:

   ```
   <RREG_Home>\bin\oamreg.bat inband input\OAM11GRequest.xml
   ```

Out-Of-Band Mode

If you are an end-user with no access to the server, you can email your updated `OAM11GRequest.xml` file to the system administrator, who can run RREG in the Out-Of-Band mode. You can collect the generated `<AgentID>_Response.xml` file from the system administrator and run RREG on this file to obtain the Webgate files and artifacts you require.

After you receive the generated `<AgentID>_Response.xml` file from the administrator, you must manually copy the file to the `input` directory on your machine.

Complete the following steps:

1. If you are an end-user with no access to the server, open the `OAM11GRequest.xml` file, which is located in the `input` directory (`<RREG_Home/input/` on UNIX, and `<RREG_Home\input\` on Windows). `<RREG_Home>` is the directory where you extracted the contents of `RREG.tar.gz/rreg` to. Edit this XML file and fill in parameters for the new Oracle HTTP Server Webgate for Oracle Access Manager. Send the updated file to your system administrator.
2. If you are an administrator, copy the updated `OAM11GRequest.xml` file to the `input` directory on your machine (`<RREG_Home>/input/` on UNIX, and `<RREG_Home>\input\` on Windows). This is the file you received from the end-user. Move to your (administrator's) RREG_Home directory and run the following command on the command line:

   On UNIX operating systems:

   ```
   ./<RREG_Home>/bin/oamreg.sh outofband input/OAM11GRequest.xml
   ```

   On Windows operating systems:

   ```
   <RREG_Home>\bin\oamreg.bat outofband input\OAM11GRequest.xml
   ```

   An `<Agent_ID>_Response.xml` file is generated in the `output` directory on the administrator's machine (`<RREG_Home>/output/` on UNIX, and `<RREG_Home>output\` on Windows). Send this file to the end-user who sent you the updated `OAM11GRequest.xml` file.

3. If you are an end-user, copy the generated <Agent_ID>_Response.xml file to your input directory (<RREG_Home>/input/ on UNIX, and <RREG_Home>input\ on Windows). This is the file you received from the administrator. Move to your (client's) RREG home directory and run the following command on the command line:

   On UNIX operating systems:

   ```
   ./<RREG_Home>/bin/oamreg.sh outofband input/<Agent_ID>_Response.xml
   ```

   On Windows operating systems:

   ```
   <RREG_Home>\bin\oamreg.bat outofband input\<Agent_ID>_Response.xml
   ```

   Note: If you register the Webgate agent using the Oracle Access Manager Administration Console, as described in the "Registering Partners (Agents and Applications) by Using the Console" topic in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*, you must manually copy the files and artifacts generated after the registration from the server machine (the machine where Oracle Access Manager Administration Console is running) to the client machine. The files and artifacts are generated in the <MW_HOME>/user_projects/domains/<name_of_the_WebLogic_domain_for_OAM>/output/<Agent_ID> directory.

Files and Artifacts Generated by RREG

Regardless of the method or mode you use to register the new Webgate agent, the following files and artifacts are generated in the <RREG_Home>/output/<Agent ID> directory:

- cwallet.sso
- ObAccessClient.xml
- In the **SIMPLE** mode, RREG generates:
  - password.xml, which contains the obfuscated global passphrase to encrypt the private key used in SSL. This passphrase can be the same as the passphrase used on the server.
  - aaa_key.pem
  - aaa_cert.pem
- In the **CERT** mode, RREG generates:

  password.xml, which contains the obfuscated global passphrase to encrypt the private key used in SSL. This passphrase can be different than the passphrase used on the server.

  Note: You can use these files generated by RREG to generate a certificate request and to get it signed by a third-party Certification Authority. To install an existing certificate, you must use the existing aaa_cert.pem and aaa_chain.pem files along with password.xml and aaa_key.pem.

22.6.2 Copy Generated Files and Artifacts to the Webgate Instance Location

After RREG generates these files and artifacts, you must manually copy them (`cwallet.sso, ObAccessClient.xml, password.xml, aaa_key.pem, aaa_cert.pem`, based on the security mode you are using) from the `<RREG_Home>/output/<Agent ID>` directory to the `<Webgate_Instance_Home>` directory.

In **OPEN** mode, copy the following files from the `<RREG_Home>/output/<Agent_ID>` directory to the <Webgate_Instance_Home>/webgate/config directory:

- `ObAccessClient.xml`
- `cwallet.sso`

In **SIMPLE** mode, copy the following files from the `<RREG_Home>/output/<Agent_ID>` directory to the `<Webgate_Instance_Home>/webgate/config` directory:

- `ObAccessClient.xml`
- `cwallet.sso`
- `password.xml`

In addition, copy the following files from the `<RREG_Home>/output/<Agent_ID>` directory to the `<Webgate_Instance_Home>/webgate/config/simple` directory:

- `aaa_key.pem`
- `aaa_cert.pem`

In **CERT** mode, copy the following files from the `<RREG_Home>/output/<Agent_ID>` directory to the `<Webgate_Instance_Home>/webgate/config` directory:

- `ObAccessClient.xml`
- `cwallet.sso`
- `password.xml`

After copying the files, you must either generate a new certificate or migrate an existing certificate.

Generating a New Certificate

You can generate a new certificate as follows:

1. From your present working directory, move to the `<Webgate_Home>/webgate/ohs/tools/openssl` directory.
2. On the command line, create a certificate request as follows:

   ```
   ./openssl req -utf8 -new -nodes -config openssl_silent_
   ohs11g.cnf -keyout aaa_key.pem -out aaa_req.pem -rand
   <Webgate_Home>/webgate/ohs/config/random-seed
   ```

3. Self-sign the certificate as follows:

   ```
   ./openssl ca -config openssl_silent_ohs11g.cnf -policy
   policy_anything -batch -out aaa_cert.pem -infiles aaa_req.pem
   ```

4. Copy the following generated certificates to the <Webgate_Instance_Home>/webgate/config directory:

   - `aaa_key.pem`

- aaa_cert.pem
- cacert.pem located in the simpleCA directory

Note: After copying the cacert.pem file, you must rename the file to aaa_chain.pem.

Migrating an Existing Certificate

If you want to migrate an existing certificate (aaa_key.pem, aaa_cert.pem, and aaa_chain.pem), be sure to remember the passphrase that you used to encrypt aaa_key.pem. You must enter the same passphrase during the RREG registration process. If you do not use the same passphrase, the password.xml file generated by RREG does not match the paraphrase used to encrypt the key.

If you enter the same passphrase, you can copy these certificates as follows:

1. From your present working directory, move to the <Webgate_Instance_Home>/webgate/config directory.
2. Copy the following certificates to the <Webgate_Instance_Home>/webgate/config directory:
   - aaa_key.pem
   - aaa_cert.pem
   - aaa_chain.pem

22.6.3 Restart the Oracle HTTP Server Instance

You can use the Oracle Process Manager and Notification Server (OPMN) command-line tool to start or stop your Oracle HTTP Server instance. If any instances are running, run the following command on the command-line to stop all running instances:

```
<Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl stopall
```

To restart the Oracle HTTP Server instance, run the following commands on the command line:

1. <Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl start
2. <Oracle_Home_for_Oracle_HTTP_Server>/opmn/bin/opmnctl startproc ias-component=<Oracle_HTTP_Server_Instance_Name>

23

Lifecycle Management

This chapter explains how to address situations where a lifecycle change event occurs for an Oracle Identity and Access Management component that is integrated with one or more components.

Topics include:

23.1 How Lifecycle Events Impact Integrated Components

Following are ways in which certain lifecycle events, sometimes referred to as rewiring, affect a component that is already integrated with others:

- Reassociation

  The hostname or port of an integrated component is reassociated. For example, the hostname of an OVD server changes.

- Test to Production

  When entities in a test or pilot environment are migrated into a pre-installed production environment, this can affect dependent components. For example, moving Oracle Identity Manager Navigator to a new production environment.

> **Note:** For some components, "rewiring" to achieve Test to Production is not feasible, and it is advisable to simply create a new production instance of the server. Oracle Identity Federation is an example of a server that is freshly installed in the production environment rather than changing the test configuration.

23.2 LCM for Oracle Identity Manager

Lifecycle management events for Oracle Identity Manager include:

- reassociation when the host or port changes for these components:
  - Oracle Virtual Directory

  - Oracle SOA Suite
  - MDS
- moving metadata from a test environment to a production environment

Refer to the following sources for lifecycle management procedures relating to OIM:

- "Oracle Virtual Directory Host and Port Changes" in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Identity Manager*
- "Changing OVD Password" in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Identity Manager*
- "SPML Client Host and Port Changes" in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Identity Manager*
- "SOA Host and Port Changes" in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Identity Manager*
- "Oracle Identity Manager Database Host and Port Changes" in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Identity Manager*
- "Oracle Identity Manager (OIM) Rewiring with Existing Oracle Adaptive Access Manager (OAAM)" in the *Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager*
- "Changing Oracle Identity Manager Database Password" in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Identity Manager*
- "Configuring LDAP Adapters" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory*
- "Adding a Component Link to the Product Launcher by Using Product Discovery" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*
- "Editing Adapter Plug-Ins" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Virtual Directory*
- "Move Oracle Identity Manager to a New Production Environment" in the *Oracle Fusion Middleware Administrator's Guide*
- "Move Oracle Identity Manager to an Existing Production Environment" in the *Oracle Fusion Middleware Administrator's Guide*

23.3 LCM for Oracle Access Manager

Lifecycle events for Oracle Access Manager include replicating the policy configuration information from the test system into production.

Refer to the following sources for lifecycle management procedures relating to OAM:

- "Adding a Component Link to the Product Launcher by Using Product Discovery" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*
- "Moving OAM 11g Data from a Test to a Production Deployment" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Access Manager*

23.4 LCM for Oracle Adaptive Access Manager

Lifecycle events for Oracle Adaptive Access Manager include reassociation when the host or port changes for the following components:

- Oracle Virtual Directory

- Oracle Internet Directory
- Oracle Database
- Oracle Identity Manager

Refer to the following sources for lifecycle management procedures relating to OAAM:

- "Adding a Component Link to the Product Launcher by Using Product Discovery" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*
- "Oracle Virtual Directory (OVD) Rewiring with Existing Oracle Adaptive Access Manager (OAAM)" in the *Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager*
- "Oracle Identity Manager (OIM) Rewiring with Existing Oracle Adaptive Access Manager (OAAM)" in the *Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager*
- "OID Rewiring with Existing OAAM (in Cases without OVD)" in the *Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager*
- "Database Rewiring with Existing OAAM" in the *Oracle Fusion Middleware Developer's Guide for Oracle Adaptive Access Manager*
- "Move Oracle Adaptive Access Manager to a New Production Environment" in the *Oracle Fusion Middleware Administrator's Guide*
- "Move Oracle Adaptive Access Manager to an Existing Production Environment" in the *Oracle Fusion Middleware Administrator's Guide*

23.5 LCM for Oracle Identity Navigator

Lifecycle events for Oracle Identity Navigator include migrating from test to production, and rewiring the integration with Oracle Business Intelligence Publisher.

Refer to the following sources for lifecycle management procedures relating to OIN:

- "Migrating Oracle Identity Navigator from Test to Production" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*.
- "Configuring Oracle Business Intelligence Publisher" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*.
- "Adding a Component Link to the Product Launcher by Using Product Discovery" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*
- "Migrating Oracle Identity Navigator from Test to Production" in the *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Navigator*

23.6 References

For additional information about lifecycle management in Oracle Fusion Middleware, see "Part V Advanced Administration: Expanding Your Environment" in the *Oracle Fusion Middleware Administrator's Guide*.

Part IV

Appendixes

Part IV contains the following appendixes:

- Appendix A, "Oracle Identity Management 11.1.1.6.0 Software Installation Screens"
- Appendix B, "Oracle Identity and Access Management 11.1.1.5.0 Software Installation Screens"
- Appendix C, "Oracle Identity Manager Configuration Screens"
- Appendix D, "Starting or Stopping the Oracle Stack"
- Appendix E, "Preconfiguring Oracle Directory Server Enterprise Edition (ODSEE)"
- Appendix F, "Deinstalling and Reinstalling Oracle Identity Management"
- Appendix G, "Deinstalling and Reinstalling Oracle Identity and Access Management"
- Appendix H, "Performing Silent Installations"
- Appendix I, "Troubleshooting the Installation"
- Appendix J, "OAAM Partition Schema Reference"
- Appendix K, "Software Deinstallation Screens"

A

Oracle Identity Management 11.1.1.6.0 Software Installation Screens

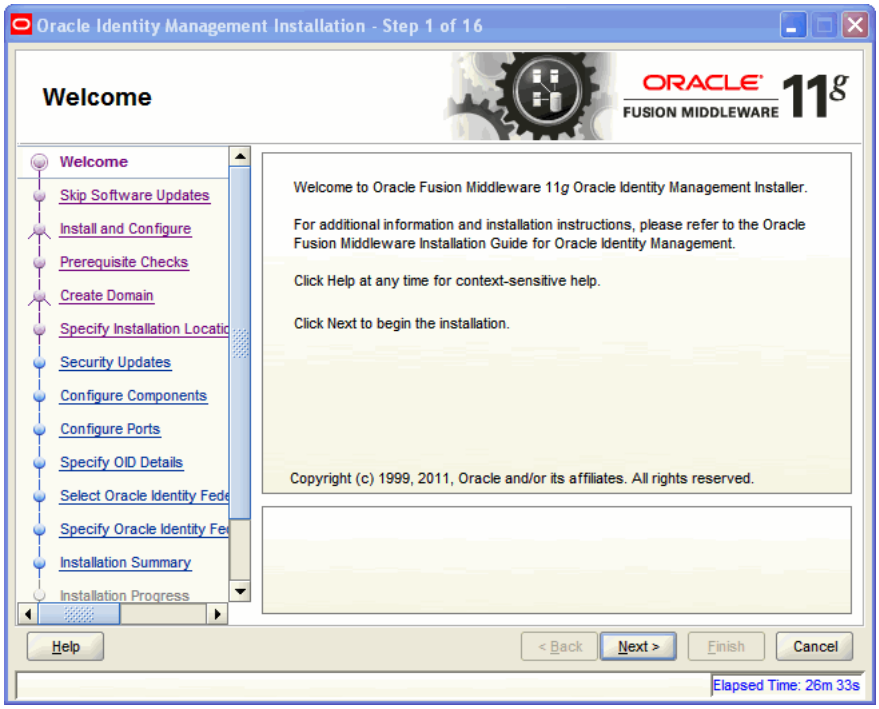
This appendix describes the screens of the Oracle Identity Management 11*g* software Installation and Wizard that enables you to install and configure Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, and Oracle Identity Federation.

It contains the following topics:

A.1 Welcome

The Welcome screen is displayed each time you start the Oracle Identity Management 11*g* Installer wizard.

Figure A–1 Welcome Screen

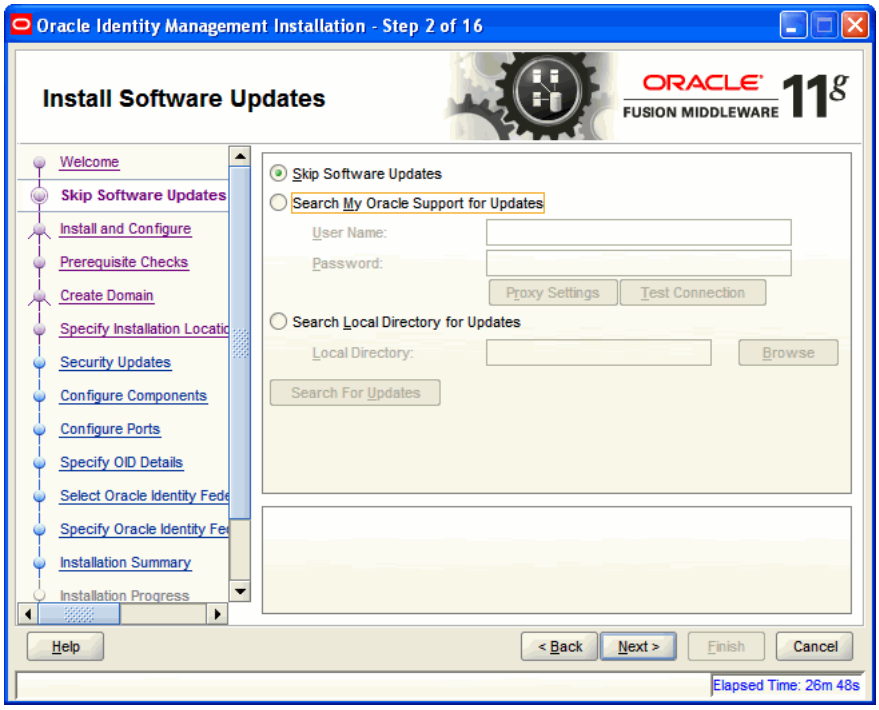


Click **Next** to continue.

A.2 Install Software Updates

This screen enables you to search for and install software updates before you install Oracle Identity Management.

Figure A–2 Install Software Updates Screen



To get updates from My Oracle Support, you can select **Search My Oracle Support for Updates**, specify a user name and password, and then click **Search for Updates**. Before you search, you can click **Proxy Settings** to change the settings for the proxy server and **Test Connection** to test the credentials.

To get updates that you have saved to your computer, you can select **Search Local Directory for Updates**, specify a directory, and then click **Search for Updates**.

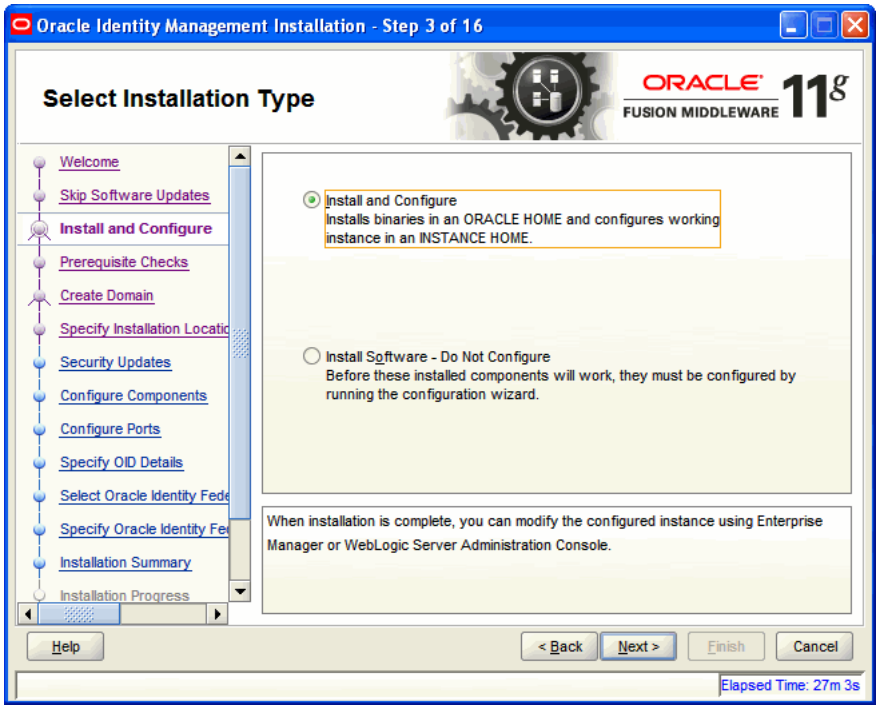
If you do not want to update any software, you can select **Skip Software Updates**. The link on the left changes from **My Oracle Support Updates** to **Skip Software Updates**.

Click **Next** to start the software updates or continue the installation.

A.3 Select Installation Type

This screen enables you to select the installation type.

Figure A–3 Select Installation Type Screen



The Select Installation Type screen presents two options: **Install and Configure** and **Install Software - Do Not Configure**.

- Choose the **Install and Configure** option to install Oracle Identity Management components and simultaneously configure some of their fundamental elements, such as passwords, user names, and so on. Oracle Identity Management components start running and are immediately ready for use after deploying them using the **Install and Configure** option.
- Choose the **Install Software - Do Not Configure** option to install Oracle Identity Management components without configuring them during installation. If you choose the **Install Software - Do Not Configure** option, the Installer installs the component software and then closes. Oracle Identity Management components will *not* start running after deploying them using the **Install Software - Do Not Configure** option, as additional configuration is needed.

  After you install components using the **Install Software - Do Not Configure** option, you can configure them at a later time using the Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) Configuration Wizard. To start the Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) Configuration Wizard, execute the *ORACLE_HOME*`/bin/config.sh` script (`config.bat` on Windows).

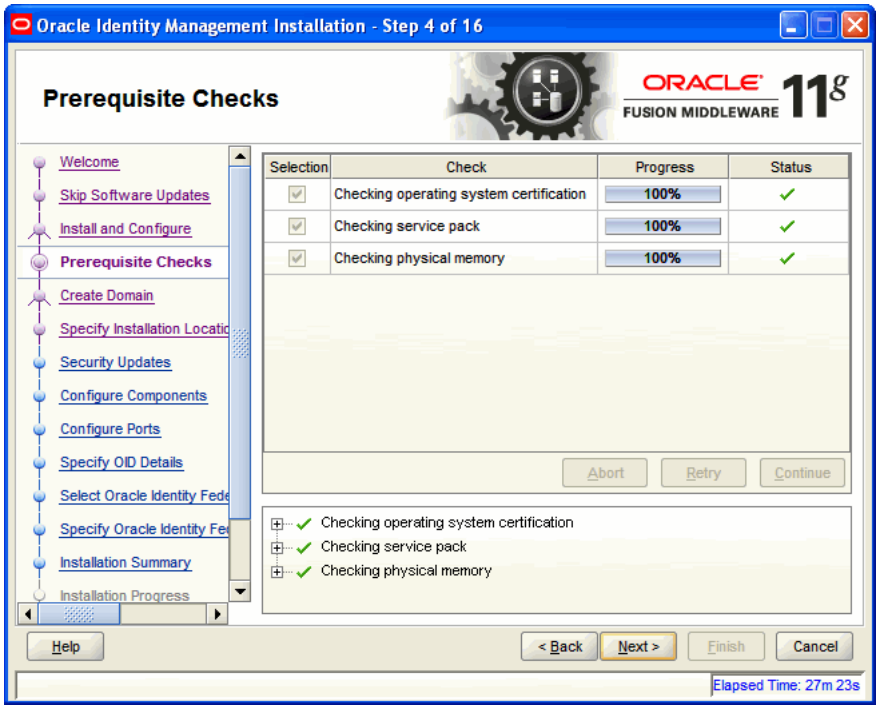
Click **Next** to continue.

A.4 Prerequisite Checks

The installation program ensures that you have a certified version, the correct software packages, sufficient space and memory to perform the operations that you have selected. If any issues are detected, errors appear on this page.

The following example screen applies to Windows operating systems only.

Figure A–4 Prerequisite Checks Screen



On this screen, you can select to **Abort**, **Retry**, or **Continue** with the installation.

If all the prerequisite checks pass inspection, click **Next** to continue.

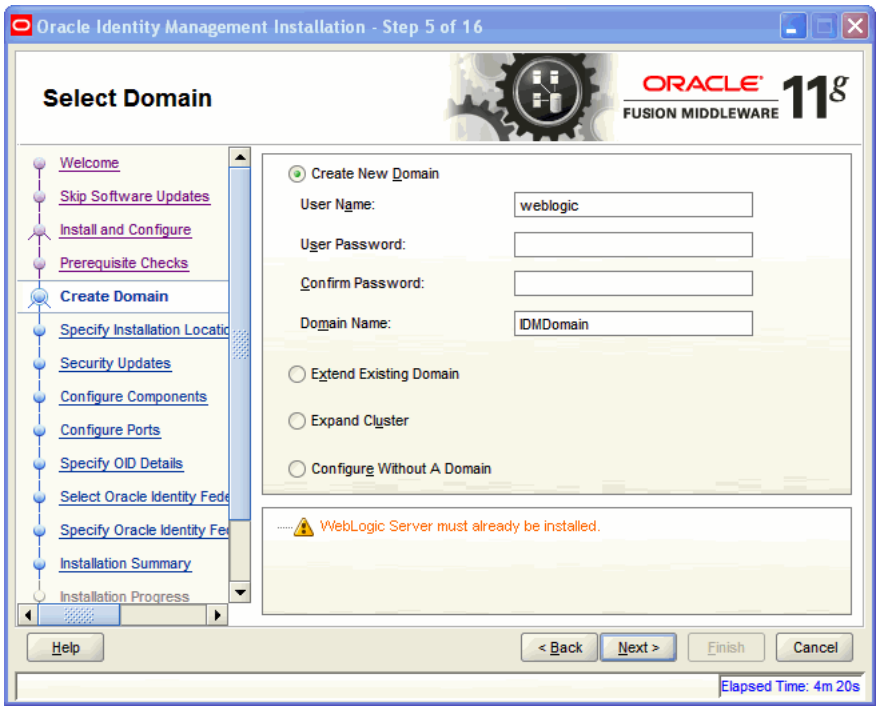
A.5 Select Domain

This screen allows you to select the Domain. Select one of the following options:

- Option 1: Create New Domain
- Option 2: Extend Existing Domain
- Option 3: Expand Cluster
- Option 4: Configure Without a Domain

Option 1: Create New Domain

Figure A–5 Create New Domain option

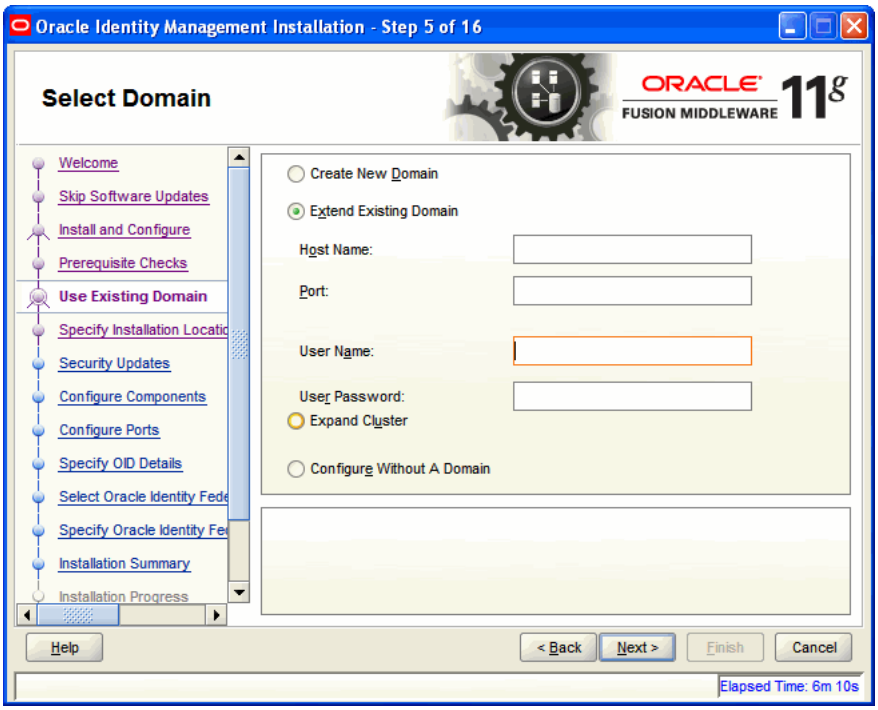


Enter the User Name, User Password, and Domain Name for the domain you want to create.

Click **Next** to continue.

Option 2: Extend Existing Domain

Figure A–6 Extend Existing Domain option

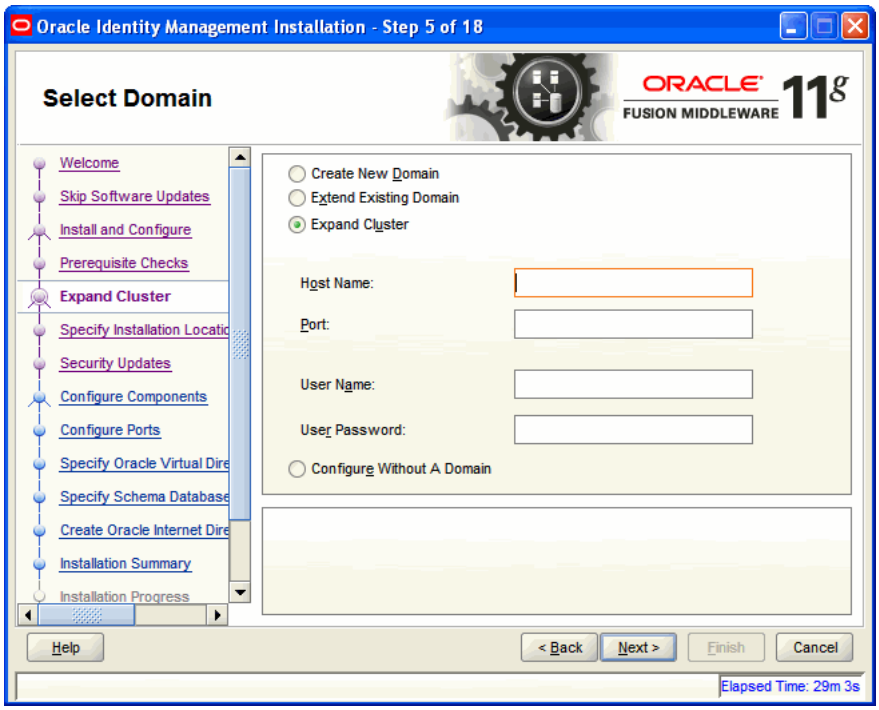


Enter the Host Name, Port, User Name, and User Password for the existing domain you want to extend into.

Click **Next** to continue.

Option 3: Expand Cluster

Figure A–7 Expand Cluster option



Enter the information for the existing cluster you want to expand your Oracle Identity Management installation into. Enter the Host Name, Port, User Name, and User Password for cluster inclusion.

Click **Next** to continue.

Option 4: Configure Without a Domain

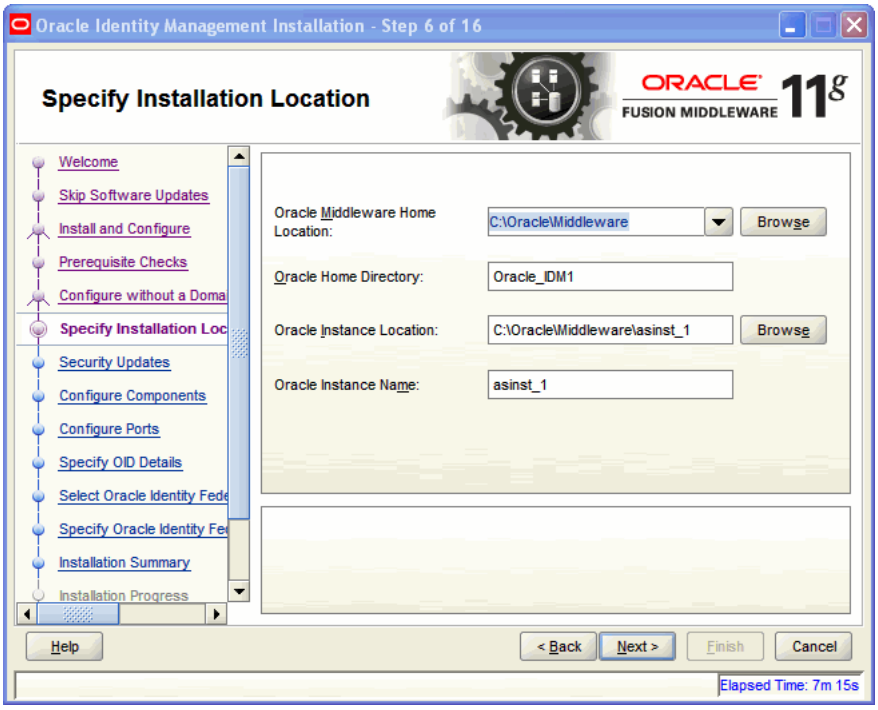
If you select this option, you will not be creating or extending the domain of your installation.

Click **Next** to continue.

A.6 Specify Installation Location

This screen allows you to enter a location for the new Oracle Identity Management 11*g* software being installed.

Figure A–8 Specify Installation Location Screen



Ensure that Oracle WebLogic Server is already installed on your machine. Navigate to the Oracle Fusion Middleware Home directory by clicking **Browse**. Enter a name for the new Oracle Home directory for Oracle Identity Management 11g components.

If the Middleware location does not exist, you must install WebLogic Server and create a Middleware Home directory, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home, before running the Oracle Identity Management Installer.

Note: If you do not specify a valid Middleware Home directory on the Specify Installation Location screen, the Installer displays a message and prompts you to confirm whether you want to proceed with the installation of only Oracle Identity Manager Design Console and Oracle Identity Manager Remote Manager. These two components of Oracle Identity Manager do not require a Middleware Home directory.

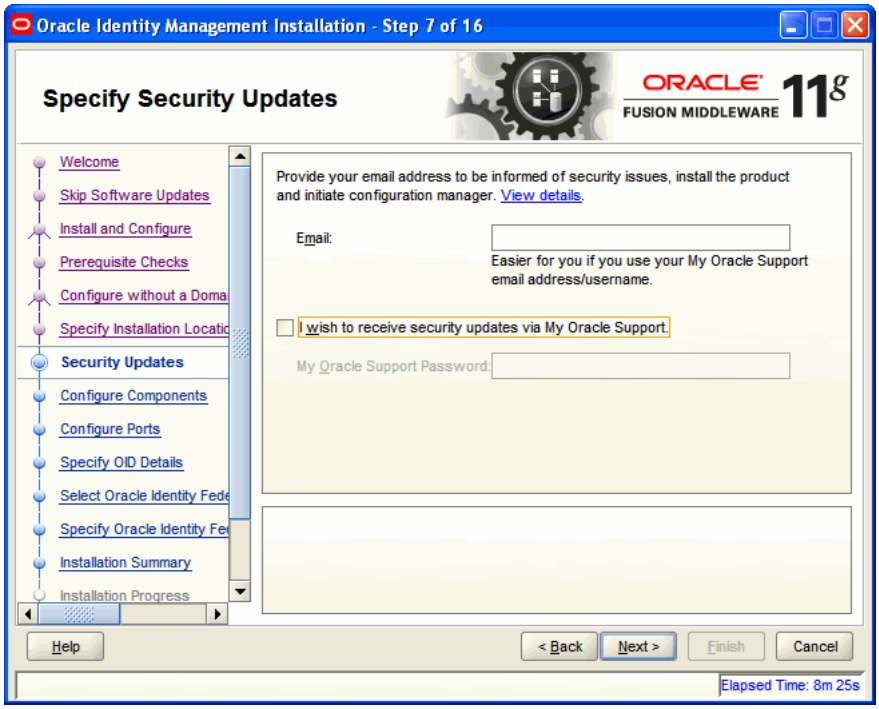
If you want to install only Oracle Identity Manager Design Console or Remote Manager, you do not need to install Oracle WebLogic Server or create a Middleware Home directory on the machine where Design Console or Remote Manager is being configured.

Click **Next** to continue.

A.7 Specify Security Updates

This screen allows you to provide your E-mail address to be informed of the latest product issues.

Figure A–9 Specify Security Updates Screen

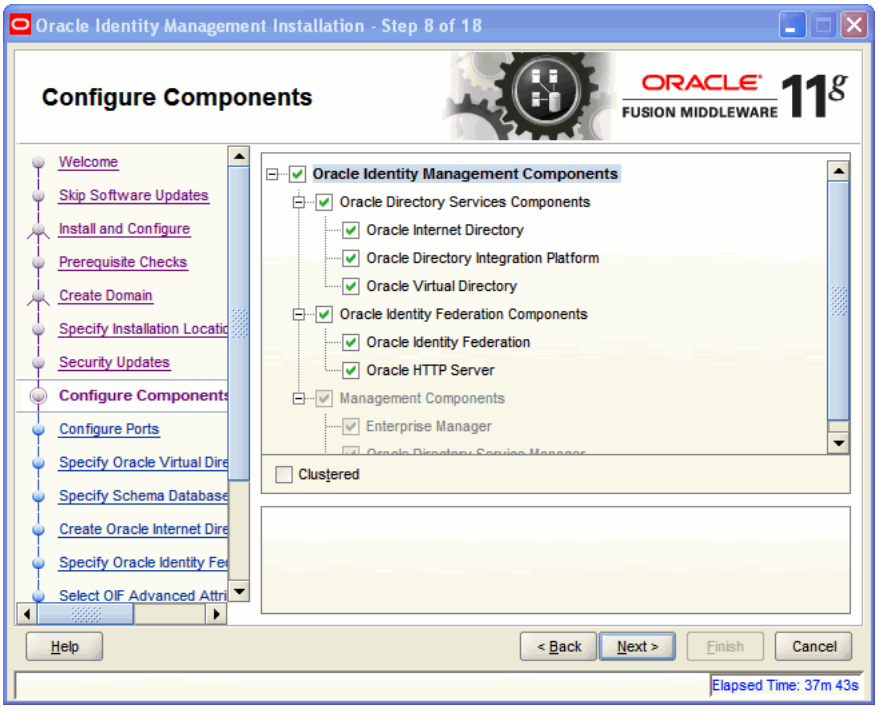


Click **Next** to continue.

A.8 Configure Components

This screen allows you to select the Oracle Identity Management components that you wish to install and configure.

Figure A–10 Configure Components Screen

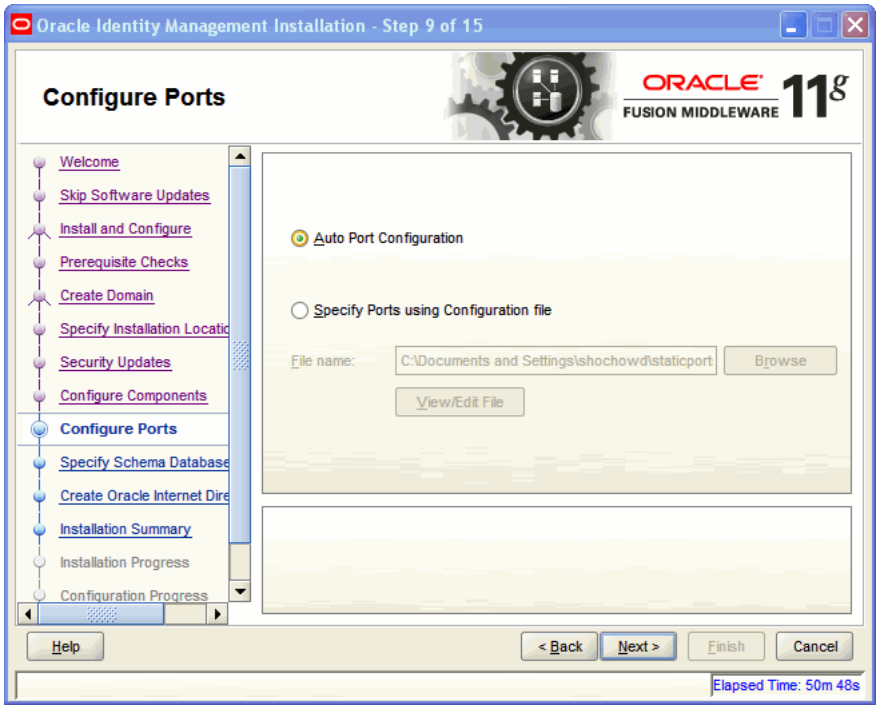


Click **Next** to continue.

A.9 Configure Ports

This screen allows you to choose how you want the Installer to configure ports.

Figure A–11 Configure Ports Screen



The screen presents two options:

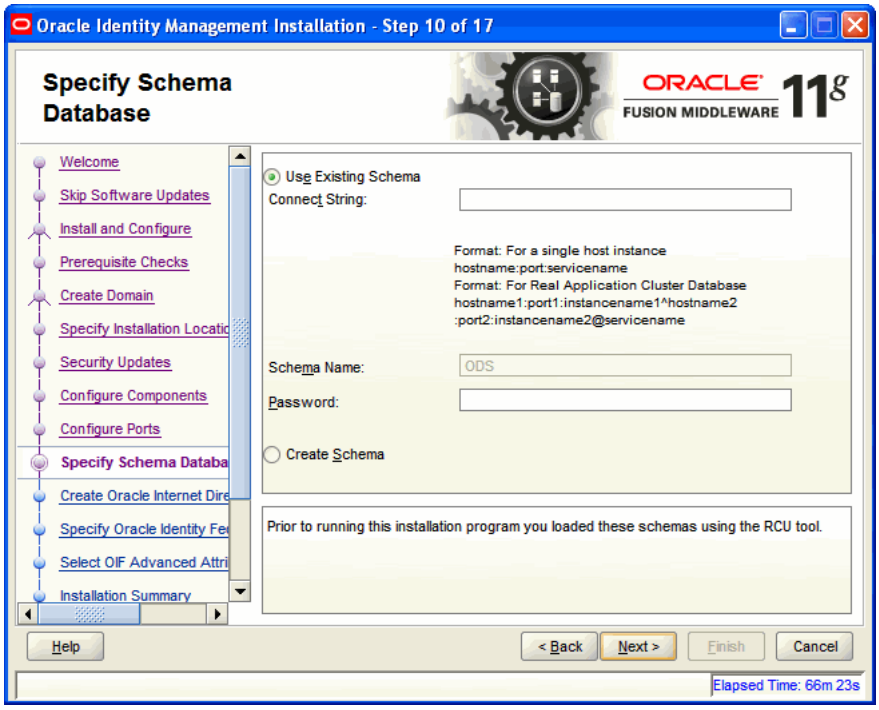
- Select **Auto Port Configuration** if you want the Installer to configure ports from a predetermined range.
- Select **Specify Ports using Configuration File** if you want the Installer to configure ports using the staticports.ini file. You can click **View/Edit** File to update the settings in the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

Click **Next** to continue.

A.10 Specify Schema Database

This screen is displayed if you selected Oracle Internet Directory. This screen allows you to choose whether to use an existing schema or to create a new one using the Installer.

Figure A–12 Specify Schema Database Screen



This figure shows the Specify Schema Database screen in the Oracle Identity Management software Installer.

****

The Specify Schema Database screen presents two options:

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 now using the Oracle Fusion Middleware Repository Creation Utility.

- Use Existing Schema

  To use an existing schema:

  1. Select **Use Existing Schema**.
  2. Enter the database connection information in the Connect String field. The connection string must be in the form of `hostname:port:servicename`. For Oracle Real Application Clusters (RAC), the connection string must be in the form of `hostname1:port1:instance1^hostname2:port2:instance2@servicename`.
  3. Enter the password for the existing ODS schema in the Password field.
  4. Click **Next** to continue.

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**.

- Create Schema

  To create a new schema:

  1. Select **Create Schema**.
  2. Enter the database connection information in the Connect String field. The connection string must be in the form of `hostname:port:servicename`. For Oracle Real Application Clusters (RAC), the connection string must be in the form of `hostname1:port1:instance1^hostname2:port2:instance2@servicename`.
  3. Enter the name of the database user in the User Name field. The user you identify must have DBA privileges.

     Note: If you are using Oracle Database 11*g* Release 2 (11.2) or higher version, the database user should be only 'SYS'.

  4. Enter the password for the database user in the Password field.
  5. Click **Next**. The Enter OID Passwords screen appears.
  6. Create a password for the new ODS schema by entering it in the ODS Schema Password field.

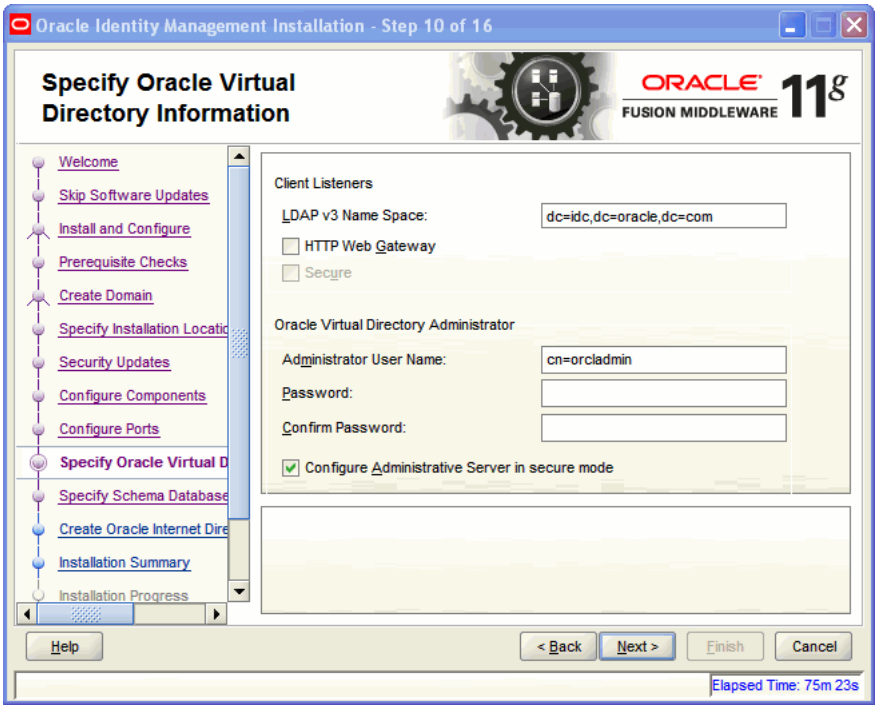
     Enter it again in the Confirm ODS Schema Password field.
  7. Create a password for the new ODSSM schema by entering it in the ODSSM Schema Password field.

     Enter it again in the Confirm ODSSM Schema Password field.
  8. Click **Next** to continue.

A.11 Specify Oracle Virtual Directory Information

This screen is displayed if you selected Oracle Virtual Directory. This screen allows you to specify Oracle Virtual Directory information.

Figure A–13 Specify Oracle Virtual Directory Information Screen



This figure shows the Specify Oracle Virtual Directory Information screen in the Oracle Identity Management software Installer.

****

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** to continue.

A.12 Specify OID Administrator Password

This screen is displayed if you selected Oracle Internet Directory.

Figure A–14 Specify OID Administrator Password Screen

This figure shows the Specify OID Administrator Password screen in the Oracle Identity Management software Installer.

****

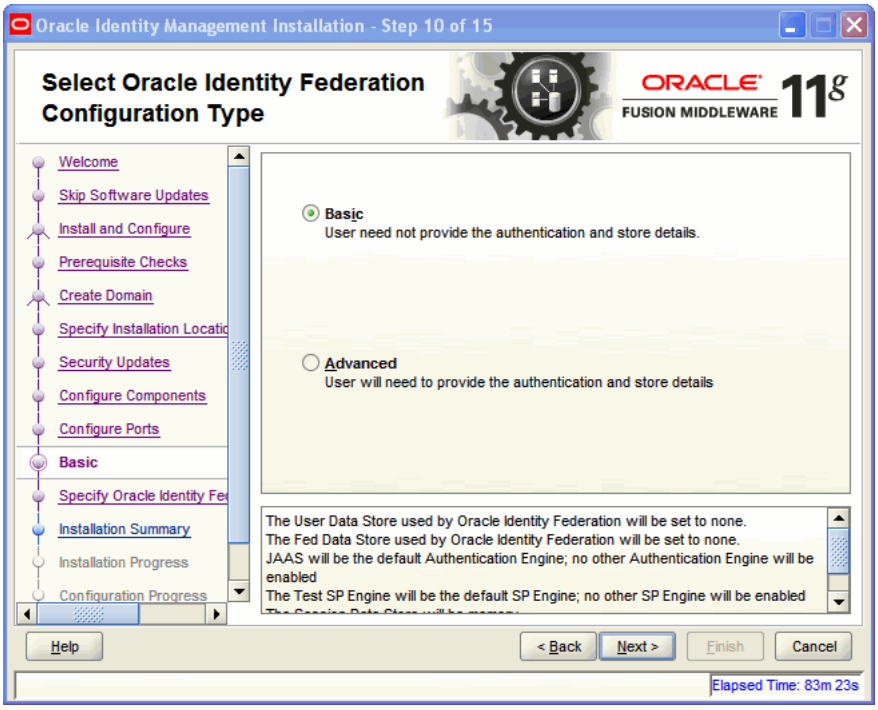
Enter the password for the Oracle Internet Directory administrator.

Click **Next** to continue.

A.13 Select Oracle Identity Federation Configuration Type

This screen is displayed if you selected Oracle Identity Federation.

Figure A–15 Select Oracle Identity Federation Configuration Type Screen



This figure shows the Select Oracle Identity Federation Configuration Type screen in the Oracle Identity Management software Installer.

****

Select one of the following configuration types:

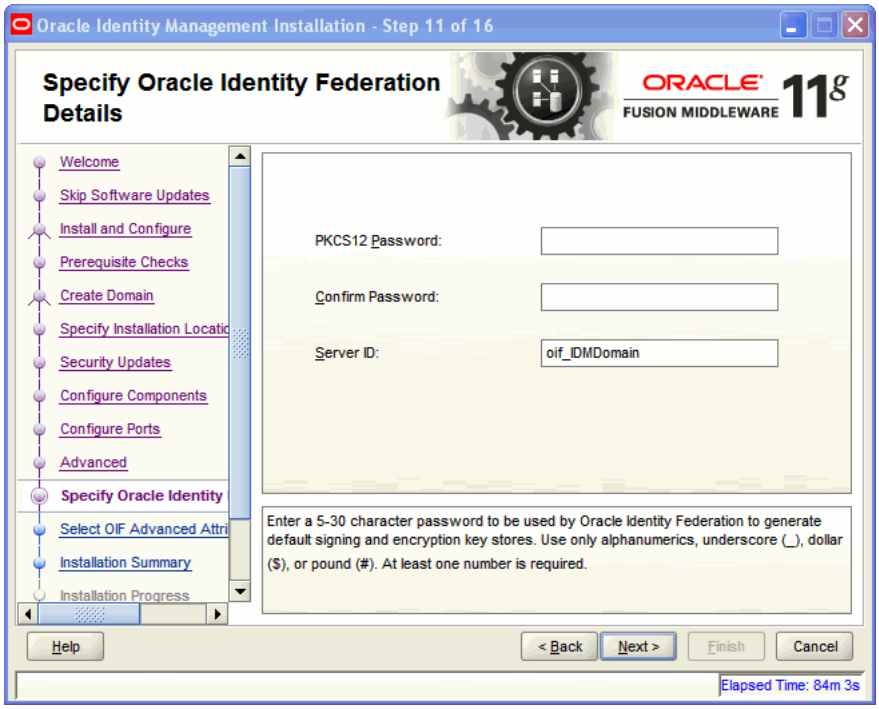
- **Basic**: You do not need to choose the datastore and authentication engine types or specify the connection details for Oracle Identity Federation.
- **Advanced**: This option will enable you to choose the configuration types for the datastores, the authentication engine, and specify the connection details datastores and authentication engine.

Click **Next** to continue.

A.14 Specify Oracle Identity Federation Details

This screen is displayed if you selected Oracle Identity Federation.

Figure A–16 Specify Oracle Identity Federation Details Screen



This figure shows the Specify Oracle Identity Federation Details screen in the Oracle Identity Management software Installer.

****

Enter the following information:

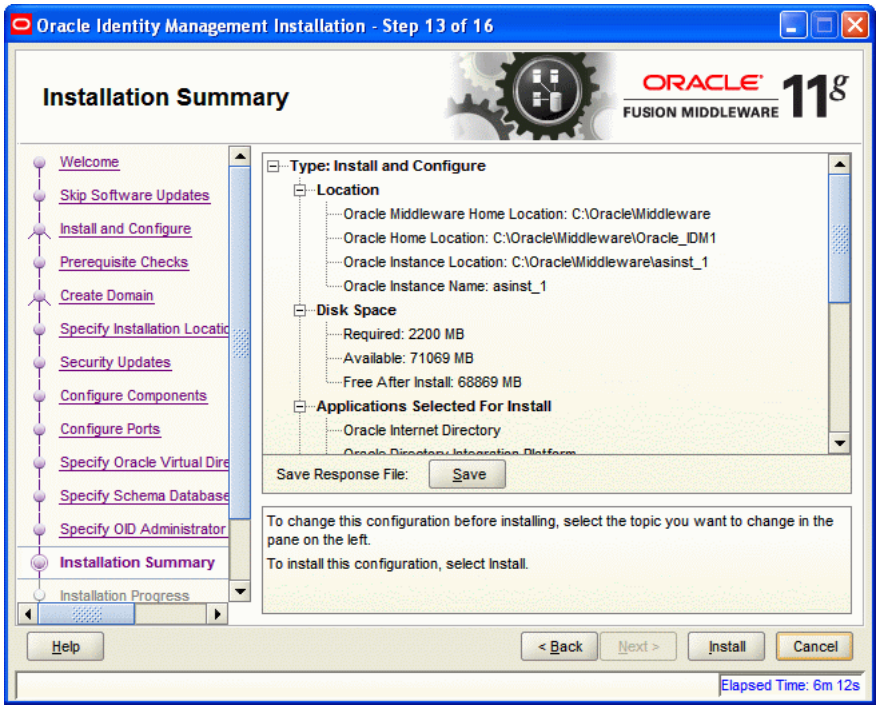
- PKCS12 Password: Enter the password Oracle Identity Federation will use for encryption and for signing wallets. The Installer automatically generates these wallets with self-signed certificates. Oracle recommends using the wallets only for testing.
- Confirm Password: Enter the PKCS12 password again.
- Server ID: Enter a string that will be used to identify this Oracle Identity Federation instance. A prefix `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** to continue.

A.15 Installation Summary

This screen displays a summary of your Oracle Identity Management 11*g* installation.

Figure A–17 Installation Summary Screen

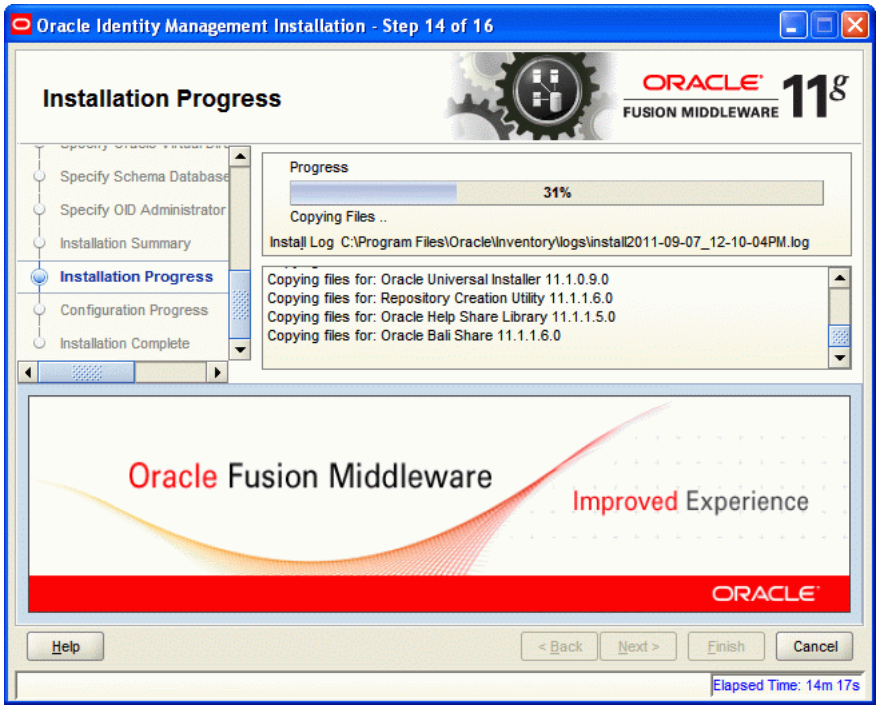


Review the contents of this screen, and click **Install** to start installing the Oracle Identity Management 11g software.

A.16 Installation Progress

This screen displays the progress of the Oracle Identity Management installation.

Figure A–18 Installation Progress Screen



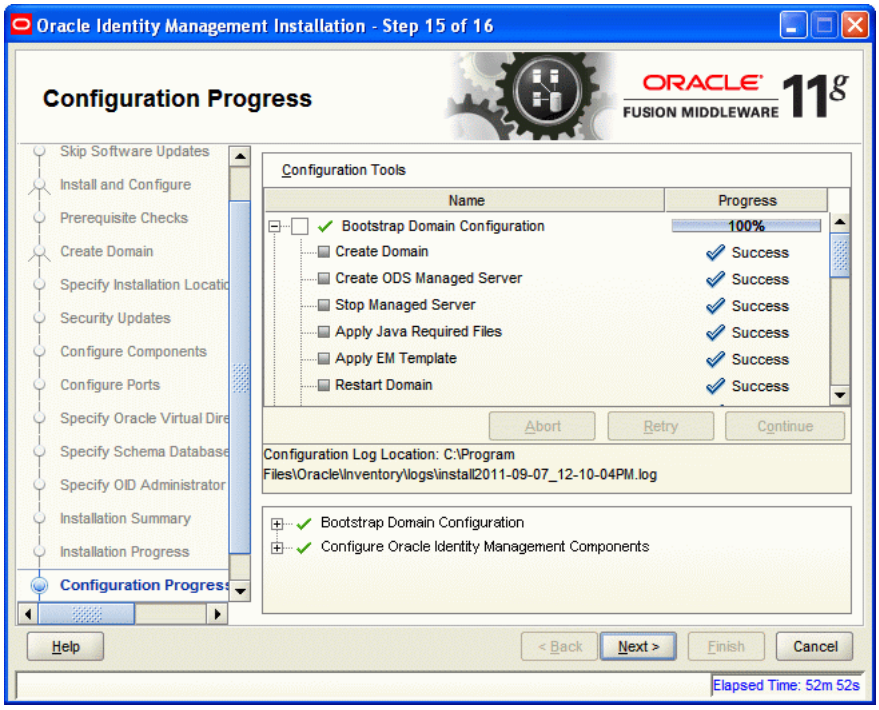
If you want to quit before the installation is completed, click **Cancel**. The installation progress indicator gives a running inventory of the files that are being installed. If you are only installing the software binaries, installation is complete after all of the binaries have been installed.

Click **Next** to continue.

A.17 Configuration Progress

This screen displays the progress of the Oracle Identity Management configuration.

Figure A–19 Configuration Progress Screen



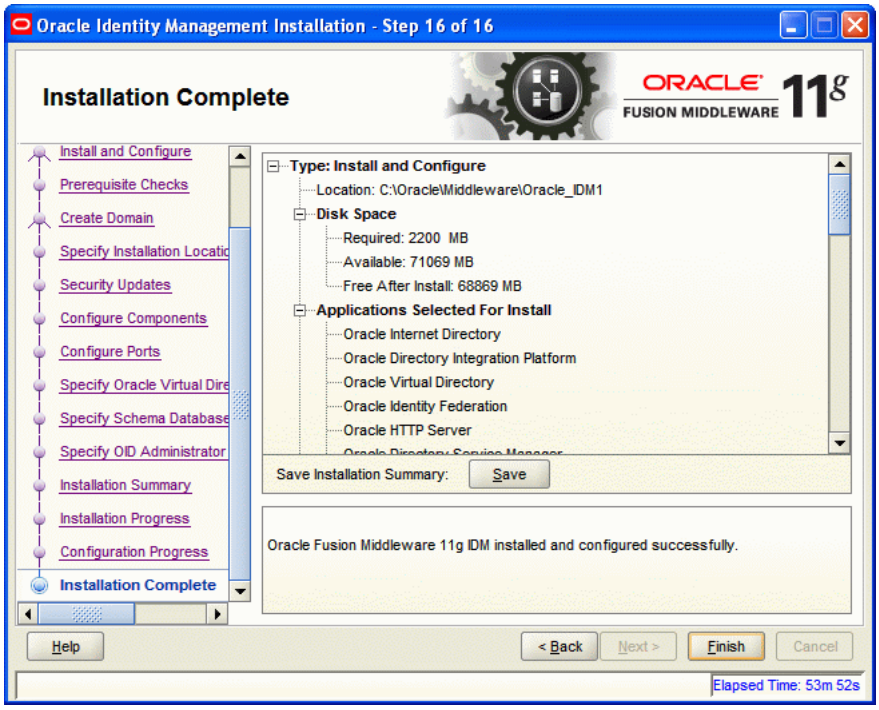
If you want to abort the configuration before the configuration is completed, click **Abort**. If you want to retry the configuration, click **Retry**.

Click **Next** to continue.

A.18 Installation Complete

This screen displays a summary of the installation parameters, such as Location, Disk Space, and Applications. To save the installation configuration in a response file, which is used to perform silent installations, click **Save**.

Figure A–20 Installation Complete Screen



Click **Finish** to complete the installation process.

B

Oracle Identity and Access Management 11.1.1.5.0 Software Installation Screens

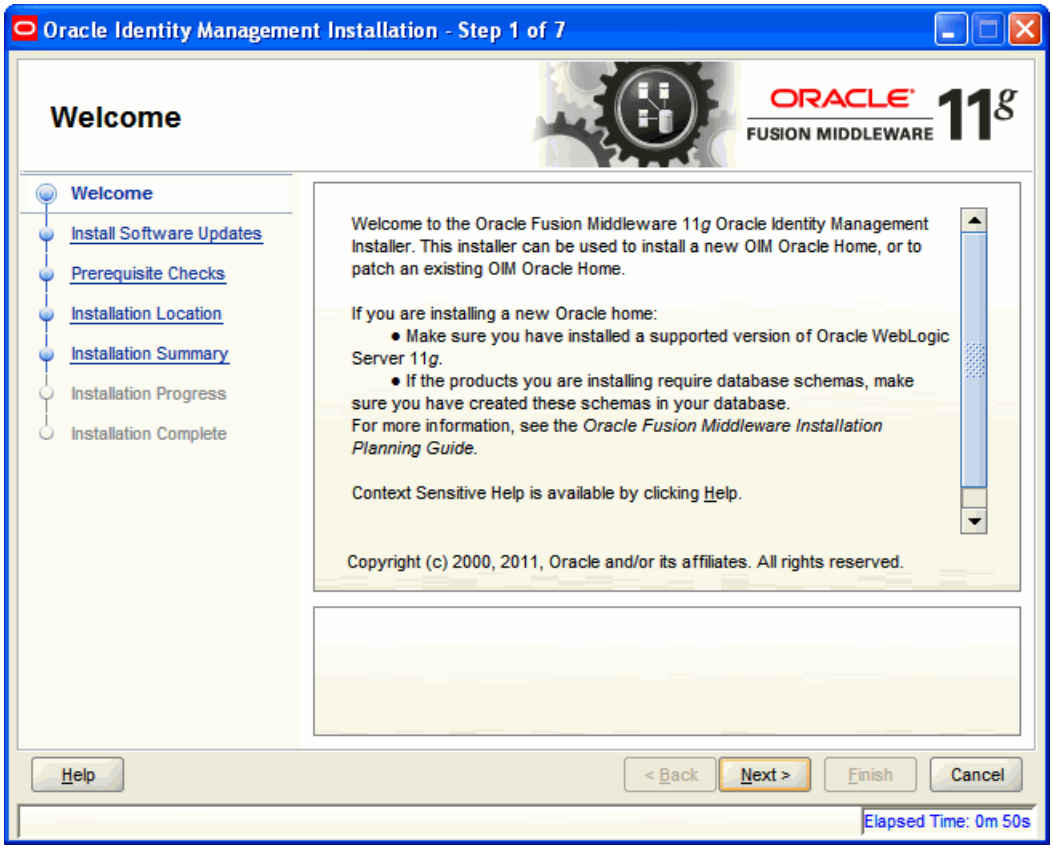
This appendix describes the screens of the Oracle Identity and Access Management 11*g* software Installation Wizard that enables you to install Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator.

It contains the following topics:

B.1 Welcome

The Welcome screen is displayed each time you start the Oracle Identity and Access Management 11*g* Installer wizard.

Figure B–1 Welcome Screen

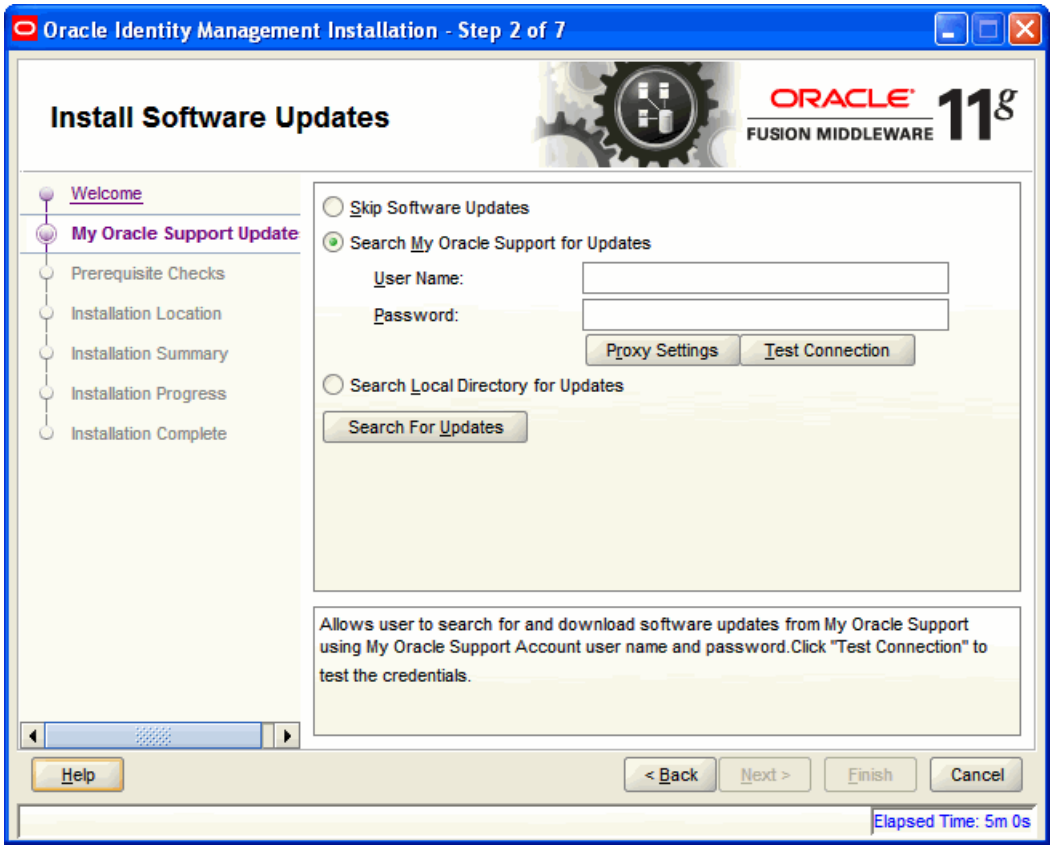


Click **Next** to continue.

B.2 Install Software Updates

This screen helps to quickly and easily search for the latest software updates, including important security updates, via your My Oracle Support account.

Figure B–2 Install Software Updates

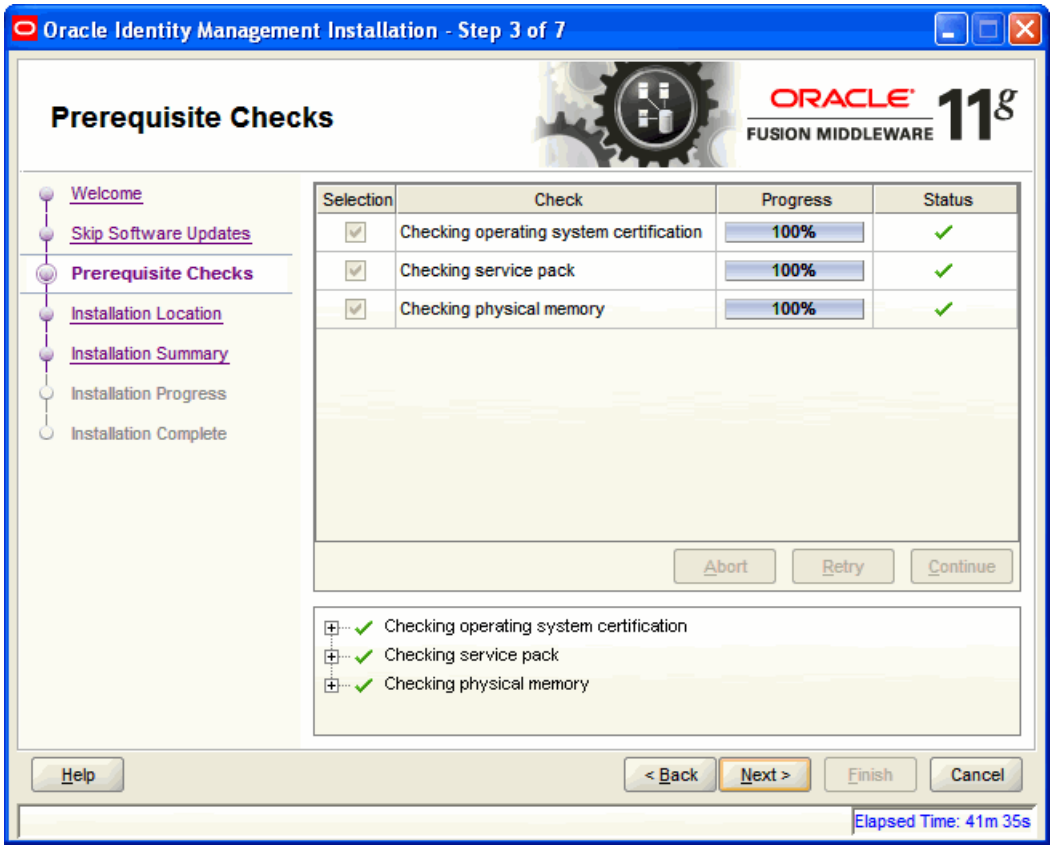


B.3 Prerequisite Checks

The installation program ensures that you have a certified version, the correct software packages, sufficient space and memory to perform the operations that you have selected. If any issues are detected, errors appear on this page.

The following example screen applies to Windows operating systems only. For more information about prerequisite checks performed by the Installer, see Prerequisite Checks Performed by the Oracle Identity and Access Management Installer.

Figure B–3 Prerequisite Checks Screen



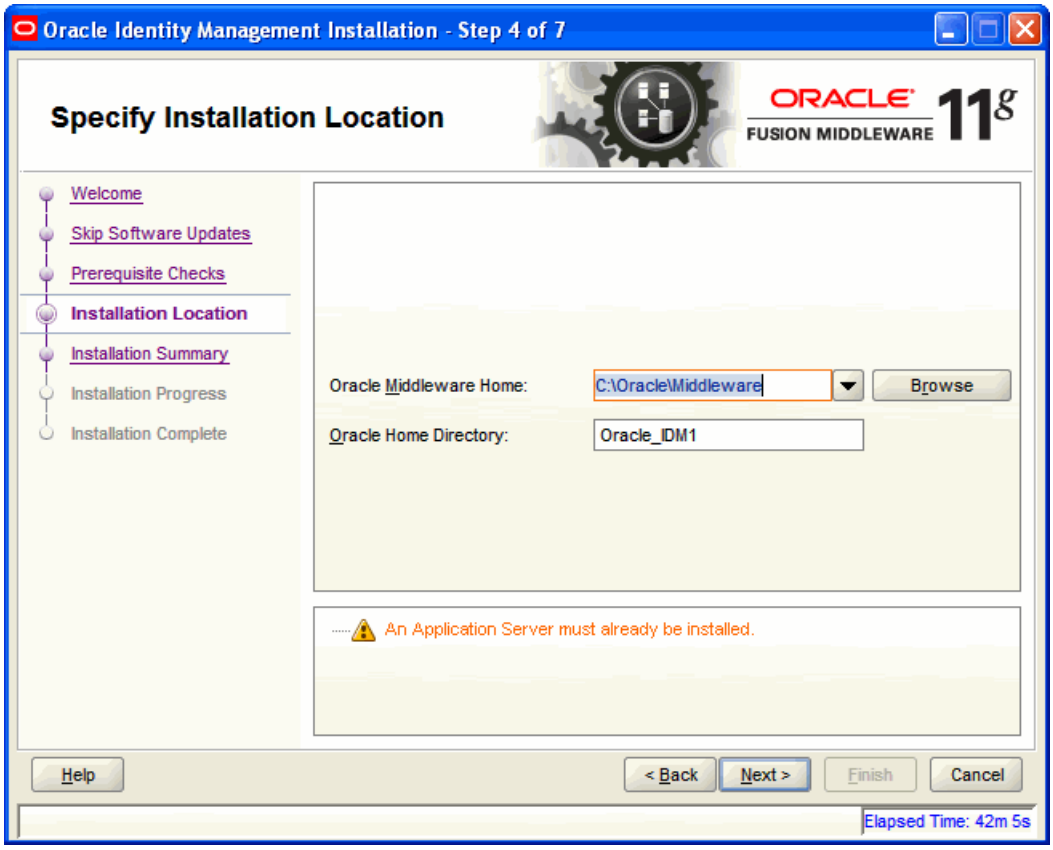
On this screen, you can select to **Abort**, **Retry**, or **Continue** with the installation.

If all the prerequisite checks pass inspection, click **Next** to continue.

B.4 Specify Installation Location

In this screen, you enter a location for the new Oracle Identity and Access Management 11*g* software being installed.

Figure B–4 Specify Installation Location Screen



Ensure that Oracle WebLogic Server is already installed on your machine. Navigate to the Oracle Fusion Middleware Home directory by clicking **Browse**. Enter a name for the new Oracle Home directory for Oracle Identity and Access Management 11g components.

If the Middleware location does not exist, you must install WebLogic Server and create a Middleware Home directory, as described in Installing Oracle WebLogic Server and Creating the Oracle Middleware Home, before running the Oracle Identity and Access Management Installer.

Note: If you do not specify a valid Middleware Home directory on the Specify Installation Location screen, the Installer displays a message and prompts you to confirm whether you want to proceed with the installation of only Oracle Identity Manager Design Console and Oracle Identity Manager Remote Manager. These two components of Oracle Identity Manager do not require a Middleware Home directory.

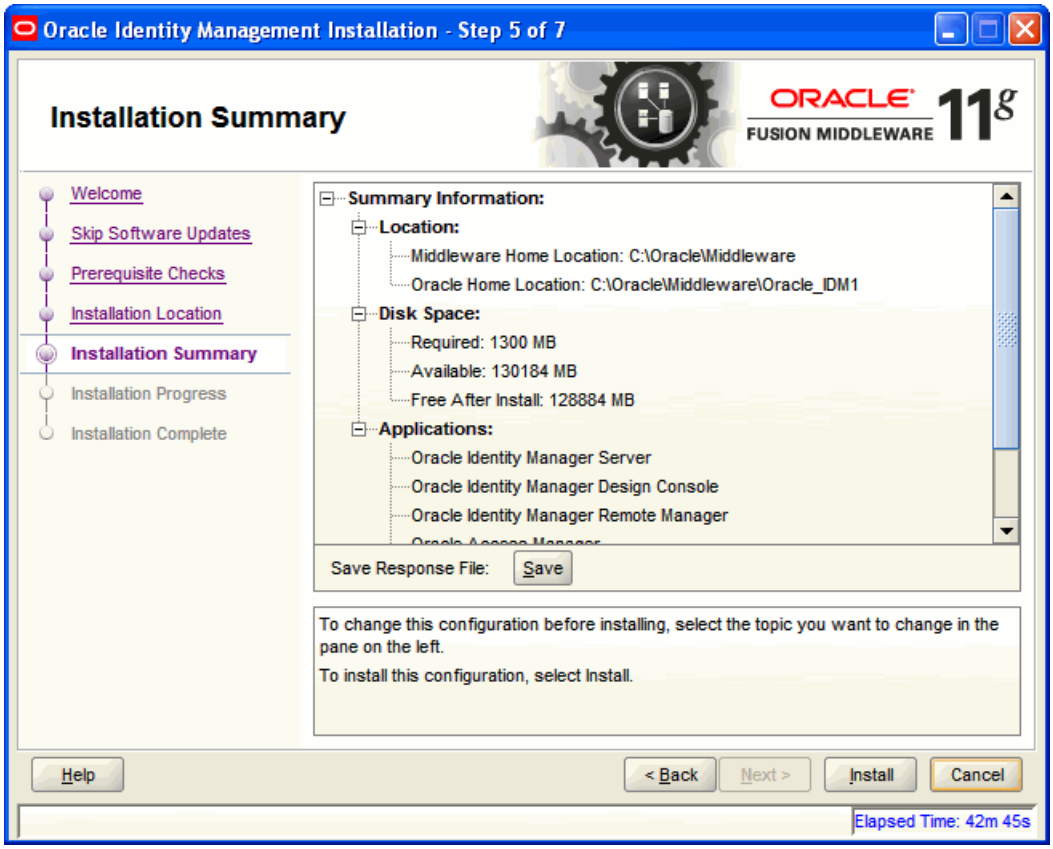
If you want to install only Oracle Identity Manager Design Console or Remote Manager, you do not need to install Oracle WebLogic Server or create a Middleware Home directory on the machine where Design Console or Remote Manager is being configured.

Click **Next** to continue.

B.5 Installation Summary

This screen displays a summary of your Oracle Identity and Access Management 11*g* installation.

Figure B–5 Installation Summary Screen

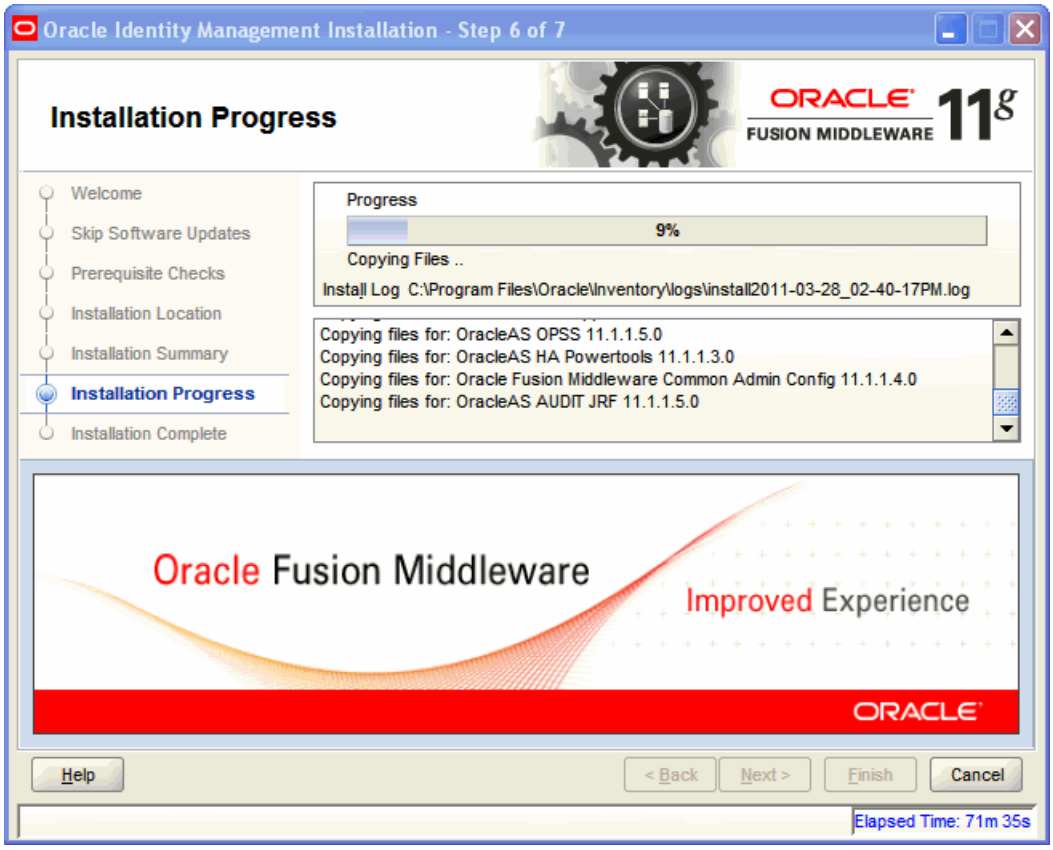


Review the contents of this screen, and click **Install** to start installing the Oracle Identity and Access Management 11*g* software.

B.6 Installation Progress

This screen displays the progress of the Oracle Identity and Access Management installation.

Figure B–6 Installation Progress Screen

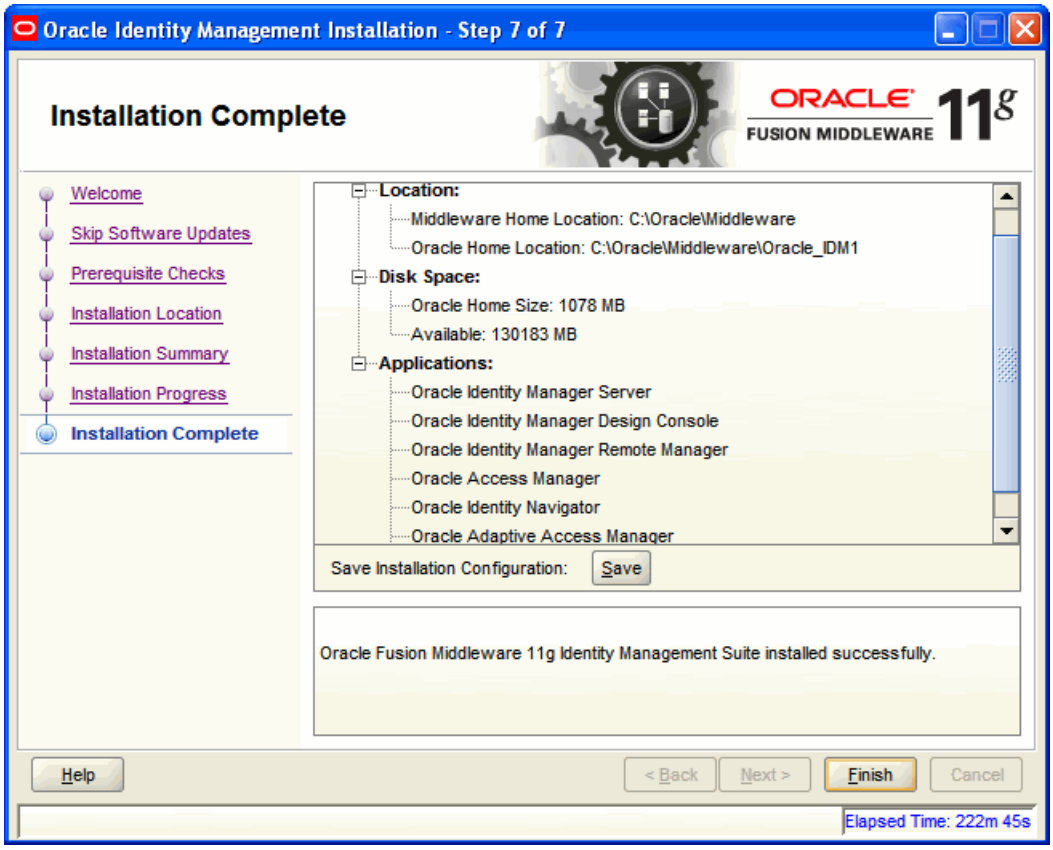


If you want to quit before the installation is completed, click **Cancel**. The installation progress indicator gives a running inventory of the files that are being installed. If you are only installing the software binaries, installation is complete after all of the binaries have been installed.

B.7 Installation Complete

This screen displays a summary of the installation parameters, such as Location, Disk Space, and Applications. To save the installation configuration in a response file, which is used to perform silent installations, click **Save**.

Figure B–7 Installation Complete Screen



Click **Finish** to complete the installation process.

C

Oracle Identity Manager Configuration Screens

This appendix describes the screens of the Oracle Identity Manager 11*g* Configuration Wizard that enables you to configure Oracle Identity Manager Server, Oracle Identity Manager Design Console, and Oracle Identity Manager Remote Manager.

This appendix contains the following topics:

C.1 Welcome

The Welcome screen is displayed each time you start the Oracle Identity Manager Configuration Wizard.

Figure C–1 Welcome Screen

You can use the Oracle Identity Manager Configuration Wizard only once during initial setup for configuring Oracle Identity Manager Server. After configuring Oracle Identity Manager Server using this wizard, you cannot re-run this wizard to modify the configuration of Oracle Identity Manager. You must use Oracle Enterprise Manager Fusion Middleware Control to make such modifications. However, you can run this wizard on other machines, where Design Console or Remote Manager is configured, as and when needed.

Ensure that you have configured Oracle Identity Manager in a new or existing WebLogic domain before launching the Oracle Identity Manager Configuration Wizard to configure Oracle Identity Manager Server, Design Console on Windows, and Remote Manager.

If you are configuring Server, you must run this wizard on the machine where the WebLogic Administration Server is running (the Administration Server for the domain in which Oracle Identity Manager is deployed). Ensure that the Administration Server is up and running before you start configuring Oracle Identity Manager Server.

If you are configuring only Design Console, you must run this wizard on the Windows machine where Design Console should be configured. If you are configuring only Remote Manager, you must run this wizard on the machine where Remote Manager is being configured. Note that the Oracle Identity Manager Server should be configured before you can configure Design Console or Remote Manager.

Click **Next** to continue.

C.2 Components to Configure

Use this screen to select the Oracle Identity Manager components that you want to configure. Oracle Identity Manager components include Server, Design Console, and Remote Manager.

Before configuring Oracle Identity Manager Server, Design Console or Remote Manager, ensure that you have configured Oracle Identity Manager in a new or existing WebLogic domain using the Oracle Fusion Middleware Configuration Wizard.

Figure C–2 Components to Configure Screen

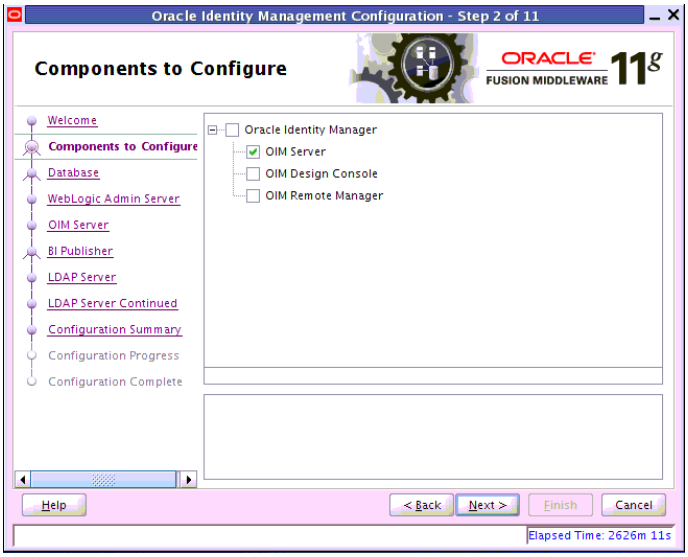


Table C–1 describes the Oracle Identity Manager components that you can choose.

Table C–1 Oracle Identity Manager Configuration Choices

Option	Description
Configure all components on this screen	To configure Oracle Identity Manager Server, Design Console, and Remote Manager simultaneously on the same machine, select the **Oracle Identity Manager** option.
Configure only Oracle Identity Manager Server	To configure only Oracle Identity Manager Server, select the **OIM Server** option. This option is selected, by default. Note that WebLogic Administration Server for the domain (the domain in which Oracle Identity Manager is deployed) should be up and running.
Configure only Oracle Identity Manager Design Console	To configure only Oracle Identity Manager Design Console, select the **OIM Design Console** option. However, note that Oracle Identity Manager Server must be configured either on the local machine or on a remote machine before you can run Design Console on development machines. Design Console is supported on Windows operating systems only.
Configure only Oracle Identity Manager Remote Manager	To configure only Oracle Identity Manager Remote Manager, select the **OIM Remote Manager** option. However, note that Oracle Identity Manager Server must be configured either on the local machine or on a remote machine before you can run Remote Manager.

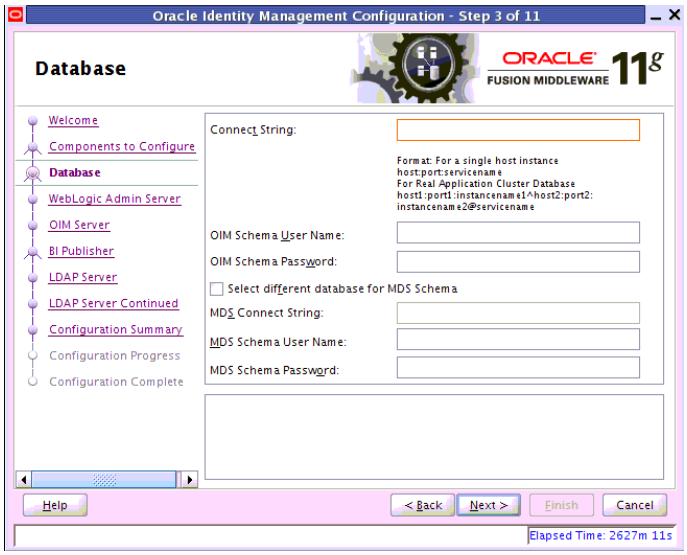
Note: You can also select any combination of two of the three Oracle Identity Manager components.

C.3 Database

In this screen, you specify the database and schema information. Note that you should have created and loaded Oracle Identity Manager schemas using the Oracle Fusion Middleware Repository Creation Utility (RCU) before configuring Oracle Identity Manager Server. For information about creating and loading Oracle Identity Manager

schemas, see Creating Database Schema Using the Oracle Fusion Middleware Repository Creation Utility (RCU).

Figure C–3 Database Screen



You can use the same database or different databases for creating the Oracle Identity Manager schema and the Metadata Services schema.

Table C–2 describes the database connection information that you must specify.

Table C–2 Fields in the Database Screen

Field	Description

Connect String	Enter the full path, listen port, and service name for your Oracle database. For a single host instance, the format of connect string is `hostname:port:servicename`.
	For example, if the hostname is aaa.bbb.com, port is 1234, and the service name is xxx.bbb.com, then you must enter the connect string for a single host instance as follows:
	`aaa.bbb.com:1234:xxx.bbb.com`
	If you are using a Real Application Cluster database, the format of the database connect string is as follows:
	`hostname1:port1:instancename1^host2:port2:instancename2@servicename`

OIM Schema User Name	Enter the name of the schema user that you created for Oracle Identity Manager using the Oracle Fusion Middleware Repository Creation Utility. If you upgraded your existing Oracle Identity Manager schema to 11*g* Release 1 (11.1.1), enter the user name for your existing schema.
OIM Schema Password	Enter the password for the Oracle Identity Manager schema user that you set while creating the schema using the Oracle Fusion Middleware Repository Creation Utility (RCU). If you upgraded your existing Oracle Identity Manager schema to 11*g* Release 1 (11.1.1), enter the password for your existing schema.
Select different database for MDS schema	Select this check box if you want to use a different database for the Metadata Services (MDS) schema.

Table C–2 (Cont.) Fields in the Database Screen

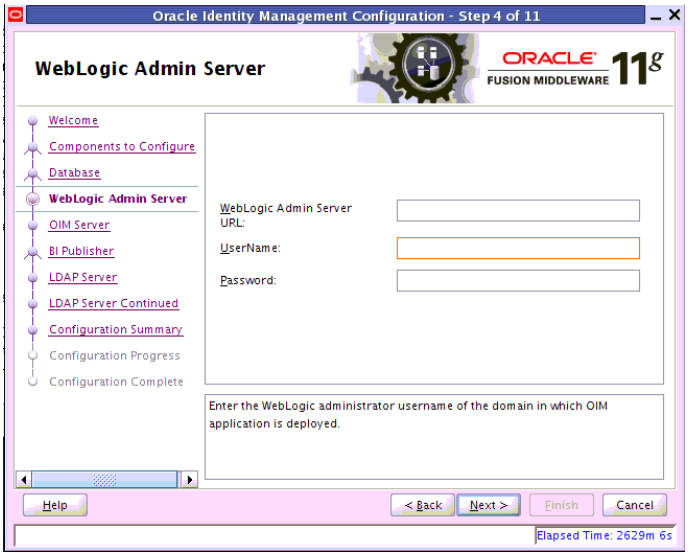
Field	Description
MDS Connect String	If you are using a different database for the Metadata Services (MDS) schema, enter the full path, listen port, and service name for the database associated with the MDS schema. The format of the connect string is similar to that of the standard Connect String.
MDS Schema User Name	Enter the name of the schema user that you created for **AS Common Services - Metadata Services** by using the Oracle Fusion Middleware Repository Creation Utility (RCU). If you upgraded your existing Metadata Services schema to 11*g* Release 1 (11.1.1), enter the user name for your existing schema.
MDS Schema Password	Enter the password for the **AS Common Services - Metadata Services** schema user that you set while creating the schema by using the Oracle Fusion Middleware Repository Creation Utility (RCU). If you upgraded your existing Oracle Identity Manager schema to 11*g* Release 1 (11.1.1), enter the password for your existing schema.

After entering information in the fields, click **Next** to continue.

C.4 WebLogic Admin Server

In this screen, you specify the t3 URL, user name and password for the WebLogic administration domain in which the Oracle Identity Manager application is deployed. Ensure that the Administration Server is up and running.

Figure C–4 WebLogic Admin Server Screen



In the **WebLogic Admin Server URL** text box, enter the t3 URL of the Administration Server for the WebLogic domain in the following format:

```
t3://hostname:port
```

In the **UserName** text box, enter the WebLogic Administrator user name.

In the **Password** text box, enter the WebLogic Administrator password.

After entering information in the fields, click **Next** to continue.

C.5 OIM Server

Use this screen to set a password for the for the system administrator (`xelsysadm`).

Figure C–5 OIM Server Screen

Table C–3 describes the Oracle Identity Manager Server parameters that you can configure.

Table C–3 Oracle Identity Manager Server Configuration Parameters

Field Name	Description
OIM Administrator Password	Enter a new password for the administrator. A valid password contains at least six characters, begins with an alphabetic character, and includes at least one number, one uppercase letter and one lowercase letter. The password cannot contain first name, last name, or login name of Oracle Identity Manager. Note that you are not prompted to enter this password in upgrade scenarios. You must set a password only if you are performing a new 11*g* installation.
Confirm Password	Enter the new password again to confirm.
OIM HTTP URL	Enter the http URL that front-ends the Oracle Identity Manager application. For example, `http://localhost:7002`. By default, this field contains the URL of the Oracle Identity Manager Managed Server.
KeyStore Password	Enter new password for the keystore. A valid password can contain 6 to 30 characters, begin with an alphabetic character, and use only alphanumeric characters and special characters like Underscore (_), Dollar ($), Pound (#). The password must contain at least one number.
Confirm KeyStore Password	Enter the new password again to confirm.

After entering information in the fields, click **Next** to continue.

C.6 BI Publisher

In this screen, you can perform the following optional tasks:

- Enable synchronization of Oracle Identity Manager roles, users, and their hierarchy to an LDAP directory
- Configure Oracle Identity Manager to use Oracle BI Publisher by specifying the BI publisher URL

Figure C–6 BI Publisher Screen

Enabling OIM-LDAP Synchronization

If you want to enable LDAP sync, you must first set up LDAP Sync for Oracle Identity Manager (OIM) before selecting the **Enable LDAP Sync** option on this screen. For information about setting up OIM-LDAP Sync, see Completing the Prerequisites for Enabling LDAP Synchronization. After completing the prerequisites for enabling LDAP Synchronization, select the **Enable LDAP Sync** option.

If you do not want to perform the other optional tasks, click **Next** to continue.

Configuring Oracle Identity Manager to Use Oracle BI Publisher

Ensure that Oracle BI Publisher is installed on your local or remote machine.

To configure Oracle Identity Manager to use Oracle BI Publisher, select the **Configure BI Publisher** option, and enter the BI Publisher URL in the **BI Publisher URL** text box.

The URL is of the format: `http://hostname:port/xmlpserver`, where hostname and port are the host name and the port on which the Oracle BI Publisher server is running.

After entering information in the fields, click **Next** to continue.

C.7 LDAP Server

This screen is displayed only if you select the **Enable LDAP Sync** option on the BI Publisher screen. In the LDAP Server screen, you should specify the authentication information for the Directory Server, as you want to synchronize Oracle Identity Manager roles, users, and their hierarchy to an LDAP directory.

Figure C–7 LDAP Server Screen

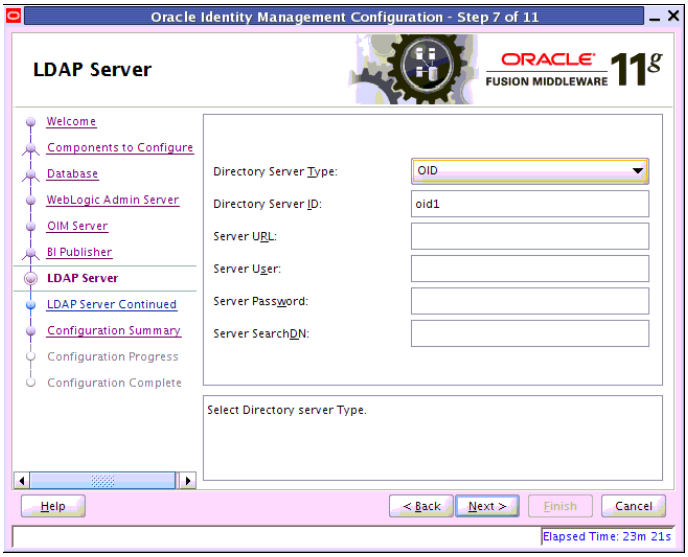


Table C–4 describes the parameters that you must specify.

Table C–4 LDAP Server Information

Field Name	Description
Directory Server Type	Select the desired Directory Server from the dropdown list.
Directory Server ID	Enter the Directory Server ID.
Server URL	Enter the LDAP URL in the format: `ldap://oid_host:oid_port`
Server User	Enter the user name for the Directory Server administrator. For example: `cn=oimAdminUser,cn=Users,dc=us,dc=oracle,dc`
Server Password	Enter the OIM admin password
Server SearchDN	Enter the Distinguished Names (DN). For example, `dc=acme`, `dc=com` This is the top-level container for users and roles in LDAP that is used for Oracle Identity Manager for reconciliation purposes.

After entering information in the fields, click **Next** to continue.

C.8 LDAP Server Continued

This screen is a continuation of the LDAP Server screen.

Figure C–8 LDAP Server Continued Screen

Table C–5 describes the LDAP parameters that you must specify.

Table C–5 LDAP Server Continued Information

Field Name	Description
LDAP RoleContainer	Enter a name for the container that will be used as a default container of roles in the LDAP directory.
LDAP RoleContainer Description	Type a description for the role container.
LDAP UserContainer	Enter a name for the container that will be used as a default container of users in the LDAP directory.
LDAP UserContainer Description	Type a description for the user container.
User Reservation Container	Enter a name for the container that will be used for reserving user names in the LDAP directory while their creation is being approved in Oracle Identity Manager. When the user names are approved, they are moved from the reservation container to the user container in the LDAP directory.

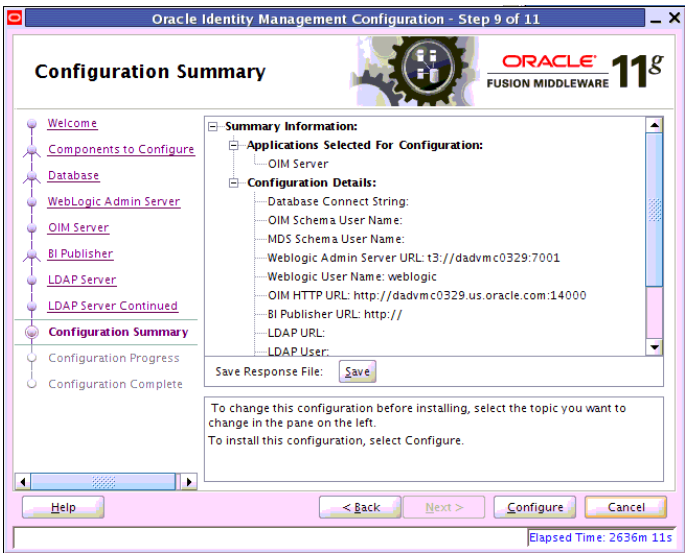
After entering information in the fields, click **Next** to continue.

C.9 Configuration Summary

This screen displays a list of the applications or components you have selected for configuration. It includes the following information:

- Location of your installation
- Disk space that will be used for the installation
- Applications or components you have selected for configuration
- Configuration choices you made on different screens in the Oracle Identity Manager Configuration Wizard

Figure C–9 Configuration Summary Screen



Review this summary screen.

Additionally, you can select to create a response file from your installation selections by clicking on the **Save** button in the Save Response File field. A response file can be used for silent or non-interactive installations of software requiring no or very little user input.

Click **Configure** to start configuring the selected Oracle Identity Manager components.

D

Starting or Stopping the Oracle Stack

You must start or stop the components of the Oracle stack in a specific order. This appendix describes that order and contains the following topics:

- Starting the Stack
- Stopping the Stack
- Restarting Servers

Note: When executing the startManagedWebLogic and stopManagedWebLogic scripts described in the following topics:

- *SERVER_NAME* represents the name of the Oracle WebLogic Managed Server, such as wls_oif1, wls_ods1, or oam_server1.
- You will be prompted for values for *USER_NAME* and *PASSWORD* if you do not provide them as options when you execute the script.
- The value for *ADMIN_URL* will be inherited if you do not provide it as an option when you execute the script.

D.1 Starting the Stack

After completing the installation and domain configuration, you must start the Administration Server and various Managed Servers to get your deployments up and running:

1. To start the Administration Server, run the `startWebLogic.sh` (on UNIX operating systems) or `startWebLogic.cmd` (on Windows operating systems) script in the directory where you created your new domain.

   On UNIX systems:

   MW_HOME`/user_projects/domains/`*domain_name*`/startWebLogic.sh`

   On Windows systems:

   MW_HOME`\user_projects\domains\`*domain_name*`\startWebLogic.cmd`

   You entered the domain name and location on the Specify Domain Name and Location Screen in the Configuration Wizard.

2. Ensure that the Node Manager is running. Oracle WebLogic Administration Server does not do this automatically. If the Node Manager is not running, start the Node Manager by executing the following command:

```
$WLS_HOME/server/bin/startNodeManager.sh
```

3. Start system components, such as Oracle Internet Directory and Oracle Virtual Directory, by executing the following command:

   ```
   ORACLE_INSTANCE/bin/opmnctl startall
   ```

   You can verify that the system components have started by executing the following command:

   ```
   ORACLE_INSTANCE/bin/opmnctl status -l
   ```

4. To start the Managed Servers, run the `startManagedWebLogic.sh` (on UNIX operating systems) or `startManagedWebLogic.cmd` (on Windows operating systems) script in the `bin` directory inside the directory where you created your domain. You must start these Managed Servers from the command line.

   This command also requires that you specify a server name. You must start the servers you created when configuring the domain, as shown in the following example:

   - `oam_server1` (Oracle Access Manager Server)
   - `oim_server1` (Oracle Identity Manager Server)

   For example, to start Oracle Access Manager Server on a UNIX system:

   ```
   MW_HOME/user_projects/domains/domain_name/bin/startManagedWebLogic.sh oam_
   server1
   ```

   On Windows systems:

   ```
   MW_HOME\user_projects\domains\domain_name\bin\startManagedWebLogic.cmd oam_
   server1
   ```

   Before the Managed Server is started, you are prompted for the WebLogic Server user name and password. These were provided on the Configure Administrator Username and Password Screen in the Configuration Wizard.

   If your Administration Server is using a non-default port, or resides on a different host than your Managed Servers (in a distributed environment), you must also specify the URL to access your Administration Server.

   On UNIX systems:

   ```
   MW_HOME/user_projects/domains/domain_name/bin/startManagedWebLogic.sh oam_
   server1 http://host:admin_server_port
   ```

   On Windows systems:

   ```
   MW_HOME\user_projects\domains\domain_name\bin\startManagedWebLogic.cmd oam_
   server1 http://host:admin_server_port
   ```

   Instead of being prompted for the Administration Server user name and password, you can also specify them directly from the command lime.

   On UNIX systems:

   ```
   MW_HOME/user_projects/domains/domain_name/bin/startManagedWebLogic.sh oam_
   server1 http://host:admin_server_port -Dweblogic.management.username=user_name
   -Dweblogic.management.password=password
   ```

   On Windows systems:

   ```
   MW_HOME\user_projects\domains\domain_name\bin\startManagedWebLogic.cmd oam_
   ```

```
server1 http://host:admin_server_port -Dweblogic.management.username=user_name
-Dweblogic.management.password=password
```

Note: You can use the Oracle WebLogic Administration Console to start managed components in the background. See *Oracle Fusion Middleware Introduction to Oracle WebLogic Server* for more information.

If you do not know the names of the Managed Servers that should be started, you can view the contents of the following file on UNIX systems:

```
MW_HOME/user_projects/domains/domain_name/startManagedWebLogic_readme.txt
```

On Windows systems:

```
MW_HOME\user_projects\domains\domain_name\startManagedWebLogic_readme.txt
```

Or, you can access the Administration Server console at the following URL:

```
http://host:admin_server_port/console
```

Supply the user name and password that you specified on the Configure Administrator Username and Password Screen of the Configuration Wizard. Then, navigate to **Environment > Servers** to see the names of your Managed Servers.

D.2 Stopping the Stack

You can stop the Oracle WebLogic Administration Server and all the managed servers by using Oracle WebLogic Administration Console. See *Oracle Fusion Middleware Introduction to Oracle WebLogic Server* for more information.

To stop the stack components from the command line, perform the following steps:

1. Stop WebLogic managed components, such as Oracle Directory Integration Platform, Oracle Identity Federation, Oracle Directory Services Manager, Oracle Access Manager, Oracle Identity Manager, and Oracle Adaptive Access Manager, by executing the following command:

   ```
   MW_HOME/user_projects/domains/DOMAIN_NAME/bin/stopManagedWebLogic.sh \
   {SERVER_NAME} {ADMIN_URL} {USER_NAME} {PASSWORD}
   ```

2. Stop system components, such as Oracle Internet Directory and Oracle Virtual Directory, by executing the following command:

   ```
   ORACLE_INSTANCE/bin/opmnctl stopall
   ```

3. Stop the Oracle WebLogic Administration Server by executing the following command:

   ```
   MW_HOME/user_projects/domains/DOMAIN_NAME/bin/stopWebLogic.sh
   ```

4. If you want to stop the Node Manager, you can use the `kill` command:

   ```
   kill -9 PID
   ```

D.3 Restarting Servers

To restart the Administration Server or Managed Servers, you must stop the running Administration Server or Managed Servers first before starting them again. For more information, see Stopping the Stack and Starting the Stack.

E

Preconfiguring Oracle Directory Server Enterprise Edition (ODSEE)

Before you can use your LDAP directory as an Identity store, you must preconfigure it. The procedure in this section enables you to preconfigure Oracle Directory Server Enterprise Edition (ODSEE) for using Oracle Directory Server Enterprise Edition (ODSEE) as your LDAP Identity store.

> **Note:** If your LDAP Identity store (Oracle Directory Server Enterprise Edition (ODSEE) or iPlanet) has been configured for the containers and oimadminuser with the schema extension, you need not follow the below mentioned configuration steps.

You must complete the following steps to preconfigure the Identity Store:

1. Create a new file `iPlanetContainers.ldif`. Add the following entries and save the file.

```
dn:cn=Users,dc=mycompany,dc=com
cn:Users
objectClass:nsContainer

dn:cn=Groups,dc=mycompany,dc=com
cn:Groups
objectClass:nsContainer

dn:cn=Reserve,dc=mycompany,dc=com
cn:Reserve
objectClass:nsContainer
```

2. Import the containers into iPlanet Directory Server with `ldapadd` command. This will create the user, group and reserve containers.

```
ldapadd -h <ODSEE Server> -p <ODSEE port> -D <ODSEE Admin ID> -w <ODSEE Admin
password> -c -f ./iPlanetContainers.ldif
```

   For example:

```
ldapadd -h localhost -p 1389 -D "cn=Directory Manager" -w "welcome1" -c -f
./iPlanetContainers.ldif
```

   If the above gives authentication error, try the command with '-x' option with simple bind option.

```
ldapadd -h localhost -p 1389 -x -D "cn=Directory Manager" -w "welcome1" -c -f
./iPlanetContainers.ldif
```

3. Enable the moddn property for the rename of entries to happen between nodes.

```
..dsee7/bin/dsconf set-server-prop -h <ODSEE Server> -p <ODSEE port>
moddn-enabled:on
```

For example:

```
..dsee7/bin/dsconf set-server-prop -h localhost -p 1389 moddn-enabled:on
```

4. Enable changelog.

```
..dsee7/bin/dsconf set-server-prop -h <ODSEE Server> -p <ODSEE port>
retro-cl-enabled:on
```

For example:

```
..dsee7/bin/dsconf set-server-prop -h localhost -p 1389 retro-cl-enabled:on
```

5. Check the status.

```
..dsee7/bin/dsccsetup status
```

6. Stop and Start the ODSEE server instance.

```
..dsee7/bin/dsadm stop <ODSEE instance>
..dsee7/bin/dsadm start <ODSEE instance>
```

For example:

```
..dsee7/bin/dsadm stop /scratch/<userid>/iPlanet/dsinst1/
..dsee7/bin/dsadm start /scratch/<userid>/iPlanet/dsinst1/
```

7. Extend the Sun schema to include OIM-specific Object Classes and Attribute Types.

```
cd to $MIDDLEWARE_HOME/oracle_common/modules/oracle.ovd_11.1.1/oimtemplates
```

Run the following command to load the ldif file, sunOneSchema.ldif.

```
ldapmodify -h <ODSEE Server> -p <ODSEE port> -D <ODSEE Admin ID> -w <ODSEE
Admin password> -f sunOneSchema.ldif
```

For example:

```
./ldapmodify -h localhost -p 1389 -D "cn=directory manager" -w welcome1 -c -f
sunOneSchema.ldif
```

8. Enable Referential Integrity for OIM's Common Name Generation feature.

Anytime the DN or RDN is being modified, then the Referential Integrity needs to be enabled in OIM and OID/Active Directory/ODSEE.

If Referential Integrity is enabled in the Directory Server, then customers need to set the OIM property XL.IsReferentialIntegrityEnabledInLDAP to TRUE as by default it is set to FALSE. To set XL.IsReferentialIntegrityEnabledInLDAP to TRUE, log into OIM and go to **Advanced** > **System Management** > **System Configuration**. Search for System Properties (XL.IsReferentialIntegrityEnabled), and set the property value to TRUE.

a. Use the following command to see the value of the referential integrity property.

```
..dsee7/bin/dsconf get-server-prop -h <ODSEE server> -p <ODSEE port>
ref-integrity-enabled
Enter "cn=Directory Manager" password:
```

```
ref-integrity-enabled : off
```

b. Use the following commands to enable the referential integrity property.

```
./dsconf set-server-prop -h <ODSEE server> -p <ODSEE port>
ref-integrity-enabled:on
Enter "cn=Directory Manager" password:
```

Directory Server must be restarted for changes to take effect. Restart ODSEE/iPlanet Server after enabling referential integrity property.

```
..dsee7/bin/dsadm stop <ODSEE instance>
..dsee7/bin/dsadm start <ODSEE instance>
```

For Example:

```
..dsee7/bin/dsadm stop /scratch/<userid>/iPlanet/dsinst1/
..dsee7/bin/dsadm start /scratch/<userid>/iPlanet/dsinst1/
```

c. Now query to see if the value has been set correctly.

```
..dsee7/bin/dsconf get-server-prop -h <ODSEE server> -p <ODSEE port>
ref-integrity-enabled
Enter "cn=Directory Manager" password:
ref-integrity-enabled : on
```

9. Create the OIM Admin User, Group and the ACIs. Open a new file `oimadminuser.ldif`. This oimadminuser would be used as a proxy user for OIM.

The root suffix is given as 'dc=mycompany,dc=com'. This can be replaced with the appropriate root suffix of the ODSEE server.

a. Add the following LDAP entries and save the file `oimadminuser.ldif`. Run the following command to load the ldif file, `oimadminuser.ldif`.

```
ldapmodify -h <ODSEE Server> -p <ODSEE port> -D <ODSEE Admin ID> -w <ODSEE
Admin password> -f oimadminuser.ldif

dn: cn=systemids,dc=mycompany,dc=com
changetype: add
objectclass: nsContainer
objectclass: top
cn: systemids

dn: cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com
changetype: add
objectclass: top
objectclass: person
objectclass: organizationalPerson
objectclass: inetorgperson
mail: oimAdminUser
givenname: oimAdminUser
sn: oimAdminUser
cn: oimAdminUser
uid: oimAdminUser
userPassword: welcome1

dn: cn=oimAdminGroup,cn=Groups,dc=mycompany,dc=com
changetype: add
objectclass: groupOfUniqueNames
objectclass: top
cn: oimAdminGroup
```

```
description: OIM administrator role
uniquemember: cn=oimAdminUser,cn=systemids,dc=mycompany,dc=com

dn: cn=users,dc=mycompany,dc=com
changetype: modify
add: aci
aci: (target = "ldap:///cn=users,dc=mycompany,dc=com")(targetattr =
 "*")(version 3.0; acl "Allow OIMAdminGroup add, read and write access to
 all attributes"; allow (add, read, search, compare,write, delete, import)
 (groupdn = "ldap:///cn=oimAdminGroup,cn=Groups,dc=mycompany,dc=com");)

dn: cn=Groups,dc=mycompany,dc=com
changetype: modify
add: aci
aci: (target = "ldap:///cn=Groups,dc=mycompany,dc=com")(targetattr =
 "*")(version 3.0; acl "Allow OIM AdminGroup to read and write access";
 allow (read, search, compare, add, write,delete) (groupdn =
 "ldap:///cn=oimAdminGroup,cn=Groups,dc=mycompany,dc=com");)

dn: cn=reserve,dc=mycompany,dc=com
changetype: modify
add: aci
aci: (target = "ldap:///cn=reserve,dc=mycompany,dc=com")(targetattr =
 "*")(version 3.0; acl "Allow OIM AdminGroup to read and write access";
 allow (read, search, compare, add, write,delete,export) (groupdn =
 "ldap:///cn=oimAdminGroup,cn=Groups, dc=mycompany,dc=com");)

dn: cn=changelog
changetype: modify
add: aci
aci: (target = "ldap:///cn=changelog")(targetattr = "*")(version 3.0; acl
 "Allow OIM AdminGroup to read and write access"; allow (read, search,
 compare, add, write,delete,export) (groupdn =
 "ldap:///cn=oimAdminGroup,cn=Groups, dc=mycompany,dc=com");)
```

b. Use the following commands to check for the entries and ACI in the LDAP:

```
ldapsearch -h <ODSEE Server> -p <ODSEE Port> -x -D "cn=Directory Manager"
 -w <ODSEE Admin Password> -b "cn=changelog" -s sub "objectclass=*" aci

ldapsearch -h <ODSEE Server> -p <ODSEE Port> -x -D "cn=Directory Manager"
 -w <ODSEE Admin Password> -b "cn=users,dc=mycompany,dc=com" -s sub
 "objectclass=*" aci

ldapsearch -h <ODSEE Server> -p <ODSEE Port> -x -D "cn=Directory Manager"
 -w <ODSEE Admin Password> -b "cn=groups,dc=mycompany,dc=com" -s sub
 "objectclass=*" aci
ldapsearch -h <ODSEE Server> -p <ODSEE Port> -x -D "cn=Directory Manager"
 -w <ODSEE Admin Password> -b "cn=reserve,dc=mycompany,dc=com" -s sub
 "objectclass=*" aci
```

F

Deinstalling and Reinstalling Oracle Identity Management

This appendix provides information about deinstalling and reinstalling Oracle Identity Management 11*g* Release 1 (11.1.1). It contains the following topics:

- Deinstalling Oracle Identity Management
- Reinstalling Oracle Identity Management

> **Note:** Always use the instructions provided in this appendix for removing the software. If you try to remove the software manually, you may experience problems when you try to reinstall the software. Following the procedures in this appendix ensures that the software is properly removed.

F.1 Deinstalling Oracle Identity Management

This topic contains procedures for deinstalling Oracle Identity Management. It contains the following sections:

- Deinstalling the Oracle Identity Management Oracle Home
- Deinstalling the Oracle Common Home
- Deinstalling Applications Registered with Oracle Single Sign-On 10g Release 10.1.4.3.0

F.1.1 Deinstalling the Oracle Identity Management Oracle Home

The deinstaller attempts to remove the Oracle Home directory from which it was started. Before you choose to remove your Oracle Identity Management Oracle Home directory, make sure that it is not in use by an existing domain and that you stop all running processes that use this Oracle Home.

Deinstalling Oracle Identity Management will not remove any WebLogic domains that you have created—it only removes the software in the Oracle Identity Management Oracle Home directory.

> **Note:** The oraInventory is required for removing instances and Oracle Home. For example, on UNIX it can be found in the following location:
>
> `/etc/oraInst.loc`

This section describes how to deinstall your Oracle Identity Management Oracle Home using the graphical, screen-based deinstaller. However, you can also perform a silent deinstallation using a response file. A deinstall response file template that you can customize for your deinstallation is included in the Disk1/stage/Response directory on UNIX, or in the Disk1\stage\Response directory on Windows.

Perform the following steps to deinstall your Oracle Identity Management Oracle Home using the graphical, screen-based deinstaller:

1. Verify your Oracle Identity Management Oracle Home is not in use by an existing domain.
2. Stop all processes that use the Oracle Identity Management Oracle Home.
3. Open a command prompt and move (cd) into the *IDM_ORACLE_HOME*`/oui/bin directory` (UNIX) or the *IDM_ORACLE_HOME*`\oui\bin directory` (Windows).
4. Invoke the Deinstaller from command line using the `-deinstall` option. For example:

   On UNIX:

   ```
   ./runInstaller -deinstall
   ```

   On Windows:

   ```
   setup.exe -deinstall
   ```

   The Welcome screen appears.
5. Click **Next**.
   - If you are deinstalling Oracle Internet Directory, Oracle Virtual Directory, Oracle Directory Services Manager, Oracle Directory Integration Platform, or Oracle Identity Federation, the Select Deinstallation Type screen appears.

     Select the deinstallation type you want to perform. Table F–1 lists and describes each of the deinstallation types:

Table F–1 Deinstallation Types

Type	Description
Deinstall Oracle Home	Select this option to deinstall the binaries contained in the listed Oracle Identity Management Oracle Home. If you select this option, the Deinstall Oracle Home screen appears next, where you can save a response file that contains the deinstallation settings before deinstalling.
Deinstall ASInstances managed by WebLogic Domain - Applicable to Oracle Internet Directory and Oracle Virtual Directory only.	Select this option to deinstall the Oracle Identity Management system component instances, such as Oracle Internet Directory and Oracle Virtual Directory, that are registered in a WebLogic domain. If you select this option, the Specify WebLogic Domain Detail screen appears next where you identify the administration domain containing the system components you want to deinstall. The Select Managed Instance screen appears next, where you identify the instances you want to deinstall.

Table F–1 (Cont.) Deinstallation Types

Type	Description
DeInstall Unmanaged ASInstances - Applicable to Oracle Internet Directory and Oracle Virtual Directory only.	Select this option to deinstall the Oracle Identity Management system component instances, such as Oracle Internet Directory and Oracle Virtual Directory, that are not registered in a WebLogic domain. If you select this option, the Specify Instance Location screen appears next where you identify the instances you want to deinstall.

Regardless of the option you choose and the subsequent screens that appear, you will arrive at the Deinstall Progress screen, which shows the progress and status of the deinstallation. If you want to quit before the deinstallation is completed, click **Cancel**.

Click **Finish** after the deinstallation progresses to 100%. The Deinstallation Complete screen appears.

6. Click **Finish** on the Deinstallation Complete screen to exit the deinstaller.

F.1.2 Deinstalling the Oracle Common Home

The *ORACLE_COMMON_HOME* directory located in the *MW_HOME* directory contains the binary and library files required for Oracle Enterprise Manager Fusion Middleware Control and Oracle Java Required Files (JRF). Before you deinstall the *ORACLE_COMMON_HOME* directory, ensure that no other Oracle Fusion Middleware software, such as Oracle SOA Suite, depends on *ORACLE_COMMON_HOME*. You cannot deinstall the *ORACLE_COMMON_HOME* directory until all software that depends on it has been deinstalled.

Perform the following steps to deinstall the *ORACLE_COMMON_HOME* directory:

1. Stop all processes that use the *ORACLE_COMMON_HOME* directory. To know all the processes that are using *ORACLE_COMMON_HOME* directory use the following commands:

   On UNIX:

   ```
   ps-ef grep <oracle_common>
   ```

   On Windows:

   Use the Windows Task Manager to identify the processes that use the *ORACLE_COMMON_HOME* directory.

2. Deinstall your Oracle Identity Management Oracle Home by performing the steps in Deinstalling the Oracle Identity Management Oracle Home.

3. Open a command prompt and move (cd) into the *ORACLE_COMMON_HOME*`/oui/bin/ directory` (on UNIX) or the *ORACLE_COMMON_HOME*`\oui\bin\ directory` (on Windows).

4. Invoke the Deinstaller from command line using the -deinstall option and the -jreLoc option, which identifies the location where Java Runtime Environment (JRE) is installed. For example:

   On UNIX:

   ```
   ./runInstaller -deinstall -jreLoc FULL_PATH_TO_JRE_DIRECTORY
   ```

   On Windows:

```
setup.exe -deinstall -jreLoc FULL_PATH_TO_JRE_DIRECTORY
```

The Welcome screen appears.

5. Click **Next**. The Select Deinstallation Type screen appears.
6. Select the **Deinstall Oracle Home** option at the top of the Select Deinstallation Type screen.

> **Note:** The path to the *ORACLE_COMMON_HOME* directory appears in the text describing the **Deinstall Oracle Home** option.

Click **Next**. The Deinstall Oracle Home screen appears.

7. Confirm the correct *ORACLE_COMMON_HOME* directory is listed and click **Deinstall**.

   The Deinstallation Progress screen appears, along with a Warning dialog box prompting you to confirm that you want to deinstall the *ORACLE_COMMON_HOME* directory.
8. Click **Yes** on the Warning dialog box to confirm you want to remove the *ORACLE_COMMON_HOME* directory. The deinstallation begins.
9. Click **Finish** after the deinstallation progresses to 100%. The Deinstallation Complete screen appears.
10. Click **Finish** on the Deinstallation Complete screen to exit the deinstaller.

F.1.3 Deinstalling Applications Registered with Oracle Single Sign-On 10*g* Release 10.1.4.3.0

To deinstall a partner application registered with Oracle Single Sign-On 10*g* Release 10.1.4.3.0, you must manually deregister the partner application from Oracle Single Sign-On. Refer to the "Reregister mod_osso on the single sign-on middle tiers" section in Chapter 9 of the *Oracle Application Server Single Sign-On Administrator's Guide 10g Release 10.1.4.0.1* available at:

http://www.oracle.com/technology/documentation/oim1014.html

F.2 Reinstalling Oracle Identity Management

Perform the following steps to reinstall Oracle Identity Management:

1. Verify the directory you want to reinstall Oracle Identity Management into does not contain an existing Oracle Identity Management instance. If it does, you must deinstall it before reinstalling. You cannot reinstall Oracle Identity Management 11g Release1(11.1.1) in a directory that contains an existing Oracle Identity Management instance.
2. Reinstall Oracle Identity Management as if it was the first installation by performing the steps in the appropriate procedure in this guide.

> **Note:** Reinstalling Oracle Directory Integration Platform and Oracle Directory Services Manager in the same domain from where it was deinstalled, is supported.

G

Deinstalling and Reinstalling Oracle Identity and Access Management

This appendix provides information about deinstalling and reinstalling Oracle Identity and Access Management 11*g* Release 1 (11.1.1). It contains the following topics:

- Deinstalling Oracle Identity and Access Management
- Reinstalling Oracle Identity and Access Management

> **Note:** Always use the instructions provided in this appendix for removing the software. If you try to remove the software manually, you may experience problems when you try to reinstall the software. Following the procedures in this appendix ensures that the software is properly removed.

G.1 Deinstalling Oracle Identity and Access Management

This topic contains procedures for deinstalling Oracle Identity and Access Management. It contains the following sections:

- Deinstalling the Oracle Identity and Access Management Oracle Home
- Deinstalling the Oracle Common Home

G.1.1 Deinstalling the Oracle Identity and Access Management Oracle Home

The deinstaller attempts to remove the Oracle Home directory from which it was started. Before you choose to remove your Oracle Identity and Access Management Oracle Home directory, make sure that it is not in use by an existing domain and that you stop all running processes that use this Oracle Home.

Deinstalling Oracle Identity and Access Management will not remove any WebLogic domains that you have created—it only removes the software in the Oracle Identity and Access Management Oracle Home directory.

> **Note:** The oraInventory is required for removing instances and Oracle Home. For example, on UNIX it can be found in the following location:
>
> `/etc/oraInst.loc`

This section describes how to deinstall your Oracle Identity and Access Management Oracle Home using the graphical, screen-based deinstaller. However, you can also

perform a silent deinstallation using a response file. A deinstall response file template that you can customize for your deinstallation is included in the `Disk1/stage/Response` directory on UNIX, or in the `Disk1\stage\Response` directory on Windows.

Perform the following steps to deinstall your Oracle Identity and Access Management Oracle Home using the graphical, screen-based deinstaller:

1. Verify your Oracle Identity and Access Management Oracle Home is not in use by an existing domain.
2. Stop all processes that use the Oracle Identity and Access Management Oracle Home.
3. Open a command prompt and move (cd) into the *`IDM_ORACLE_HOME`*`/oui/bin directory` (UNIX) or the *`IAM_HOME`*`\oui\bin directory` (Windows).
4. Invoke the Deinstaller from command line using the `-deinstall` option. For example:

   On UNIX:

   ```
   ./runInstaller -deinstall
   ```

   On Windows:

   ```
   setup.exe -deinstall
   ```

   The Welcome screen appears.
5. Click **Next**.

   In the Deinstall Oracle Home screen, you can save a response file that contains the deinstallation settings before deinstalling. Click **Deinstall**. The Deinstall Progress screen appears. This screen shows the progress and status of the deinstallation.

   Click **Finish** after the deinstallation progresses to 100%. The Deinstallation Complete screen appears.
6. Click **Finish** on the Deinstallation Complete screen to exit the deinstaller.

G.1.2 Deinstalling the Oracle Common Home

The *`ORACLE_COMMON_HOME`* directory located in the *`MW_HOME`* directory contains the binary and library files required for Oracle Enterprise Manager Fusion Middleware Control and Oracle Java Required Files (JRF). Before you deinstall the *`ORACLE_COMMON_HOME`* directory, ensure that no other Oracle Fusion Middleware software, such as Oracle SOA Suite, depends on *`ORACLE_COMMON_HOME`*. You cannot deinstall the *`ORACLE_COMMON_HOME`* directory until all software that depends on it has been deinstalled.

Perform the following steps to deinstall the *`ORACLE_COMMON_HOME`* directory:

1. Stop all processes that use the *`ORACLE_COMMON_HOME`* directory. To know all the processes that are using *`ORACLE_COMMON_HOME`* directory use the following commands:

   On UNIX:

   ```
   ps-ef grep <oracle_common>
   ```

   On Windows:

Use the Windows Task Manager to identify the processes that use the *ORACLE_COMMON_HOME* directory.

2. Deinstall your Oracle Identity and Access Management Oracle Home by performing the steps in Deinstalling the Oracle Identity and Access Management Oracle Home.
3. Open a command prompt and move (cd) into the *ORACLE_COMMON_HOME*`/oui/bin/ directory` (on UNIX) or the *ORACLE_COMMON_HOME*`\oui\bin\ directory` (on Windows).
4. Invoke the Deinstaller from command line using the -deinstall option and the -jreLoc option, which identifies the location where Java Runtime Environment (JRE) is installed. For example:

   On UNIX:

   ```
   ./runInstaller -deinstall -jreLoc FULL_PATH_TO_JRE_DIRECTORY
   ```

   On Windows:

   ```
   setup.exe -deinstall -jreLoc FULL_PATH_TO_JRE_DIRECTORY
   ```

   The Welcome screen appears.
5. Click **Next**. The Select Deinstallation Type screen appears.
6. Select the **Deinstall Oracle Home** option at the top of the Select Deinstallation Type screen.

   Note: The path to the *ORACLE_COMMON_HOME* directory appears in the text describing the **Deinstall Oracle Home** option.

   Click **Next**. The Deinstall Oracle Home screen appears.
7. Confirm the correct *ORACLE_COMMON_HOME* directory is listed and click **Deinstall**.

   The Deinstallation Progress screen appears, along with a Warning dialog box prompting you to confirm that you want to deinstall the *ORACLE_COMMON_HOME* directory.
8. Click **Yes** on the Warning dialog box to confirm you want to remove the *ORACLE_COMMON_HOME* directory. The deinstallation begins.
9. Click **Finish** after the deinstallation progresses to 100%. The Deinstallation Complete screen appears.
10. Click **Finish** on the Deinstallation Complete screen to exit the deinstaller.

G.2 Reinstalling Oracle Identity and Access Management

Perform the following steps to reinstall Oracle Identity and Access Management:

1. Verify the directory you want to reinstall Oracle Identity and Access Management into, does not contain an existing Oracle Identity and Access Management instance. If it does, you must deinstall it before reinstalling. You cannot reinstall Oracle Identity and Access Management 11*g* Release1(11.1.1) in a directory that contains an existing Oracle Identity and Access Management instance.
2. Reinstall Oracle Identity and Access Management as if it was the first installation by performing the steps in the appropriate procedure in this guide.

H

Performing Silent Installations

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

- What is a Silent Installation?
- Before Performing a Silent Installation
- Creating Response Files
- Performing a Silent Installation
- Installer Command Line Parameters

H.1 What is a Silent Installation?

A silent installation eliminates the need to monitor the Oracle Identity Management installation because no graphical output is displayed and no input by the user is required.

To perform a silent Oracle Identity Management installation, you invoke the Installer with the -silent flag and provide a response file from the command line. The response file is a text file containing variables and parameter values which provide answers to the Installer prompts.

H.2 Before Performing a Silent Installation

This topic describes tasks that may be required before you perform a silent installation. This topic includes the following sections:

- UNIX Systems: Creating the oraInst.loc File
- Windows Systems: Creating the Registry Key

H.2.1 UNIX Systems: Creating the oraInst.loc File

The Installer uses the Oracle inventory directory to keep track of all Oracle products installed on the systems. The inventory directory is stored in a file named oraInst.loc. If this file does not already exist on your system, you must create it before starting a silent installation.

Perform the following steps to create the `oraInst.loc` file if it does not exist:

1. Log in as the root user.
2. Using a text editor such as vi or emacs, create the oraInst.loc file in any directory. The contents of the file consist of the following two lines:

```
inventory_loc=oui_inventory_directory
inst_group=oui_install_group
```

Replace *oui_inventory_directory* with the full path to the directory where you want the Installer to create the inventory directory. Replace *oui_install_group* with the name of the group whose members have write permissions to this directory.

3. Exit from the root user.

> **Note:** After you performing the silent installation on UNIX platforms, you must run the *ORACLE_HOME*/root.sh script as the root user. The root.sh script detects settings of environment variables and enables you to enter the full path of the local bin directory.

H.2.2 Windows Systems: Creating the Registry Key

If you have not installed Oracle Identity Management on your system, you must create the following Registry key and value:

```
HKEY_LOCAL_MACHINE / SOFTWARE / Oracle / inst_loc = [inventory_directory]
```

Replace *inventory_directory* with the full path to your Installer files. For example: C:\Program Files\Oracle\Inventory

H.3 Creating Response Files

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

Several default response files, which you can use as templates and customize for your environment, are included in the installation media. These default response files are located in the Disk1/stage/Response directory on UNIX, or in the Disk1\stage\Response directory on Windows.

Creating Response Files for Oracle Identity Management Software Installation

When you use the Oracle Identity Management Installation Wizard to install the software for the first time, you can save a summary of your installation in a response file.

To create a response file for Oracle Identity and Access Management software Installer for Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Entitlements Server, and Oracle Identity Navigator, complete the following steps:

1. On the Installation Summary screen in the installation wizard, click **Save** in the **Save Response File** field.
2. When prompted, save the file to a local directory.

Creating Response Files for Oracle Identity Manager Configuration

When you use the Oracle Identity Manager Configuration Wizard to configure Oracle Identity Manager Server, Design Console, or Remote Manager for the first time, you can save a summary of your configuration in a response file.

To create this response file, complete the following steps:

1. On the Configuration Summary screen in the installation wizard, click **Save** in the **Save Response File** field.
2. When prompted, save the file to a local directory.

H.3.1 OID, OVD, ODSM, ODIP, and OIF

The following is a list of the default response files included in the installation media for the Oracle Identity Management Suite containing Oracle Internet Directory (OID), Oracle Virtual Directory (OVD), Oracle Directory Services Manager (ODSM), Oracle Directory Integration Platform (ODIP), and Oracle Identity Federation (OIF):

- im_install_only.rsp: Use this response file to install Oracle Identity Management components without configuring them.
- im_install_config.rsp: Use this response file to install and configure Oracle Identity Management components.
- im_config_only.rsp: Use this response file with the Oracle Identity Management 11g Release 1 (11.1.1) Configuration Wizard (config.sh script or config.bat) in *ORACLE_HOME*/bin/ to configure installed components.

H.3.2 OIM, OAM, OAAM, OES, and OIN

The following is a list of the default response files included in the installation media for the Oracle Identity Management Suite containing Oracle Identity Manager (OIM), Oracle Access Manager (OAM), Oracle Adaptive Access Manager (OAAM), Oracle Entitlements Server (OES), and Oracle Identity Navigator (OIN):

- iamsuite_install_only.rsp: Use this response file to install Oracle Identity Management components without configuring them.
- iamsuite_config_only.rsp: Use this response file with the Oracle Identity Manager 11*g* Release 1 (11.1.1) Configuration Wizard (config.sh script or config.bat) in *ORACLE_HOME*/bin/ to configure Oracle Identity Manager Server, Design Console, and Remote Manager.
- deinstall_oh.rsp: Use this response file with the Oracle Identity Management 11*g* Release 1 (11.1.1) Deinstaller to deinstall installed components.

H.3.3 Securing Your Silent Installation

Your response files contain certain passwords required by the Installer. To minimize security issues regarding these passwords in the response file, follow these guidelines:

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

H.4 Performing a Silent Installation

To perform a silent Oracle Identity Management installation, you invoke the Installer with the -silent flag and provide a response file from the command line.

On UNIX

The following is the syntax for running the Installer from the command line on UNIX systems:

```
runInstaller [-mode] [-options] [(COMMAND_LINE_VARIABLE=VARIABLE_VALUE)*]
```

For example:

```
./runInstaller -silent -response FILE
```

On Windows

The following is the syntax for running the Installer from the command line on Windows systems:

```
setup.exe [-mode] [-options] [(COMMAND_LINE_VARIABLE=VARIABLE_VALUE)*]
```

For example:

```
setup.exe -silent -response FILE
```

H.5 Installer Command Line Parameters

Table H–1 lists and describes supported Installer command line parameters:

Table H–1 Installer Command Line Parameters

Parameter	Description
Installation Modes - Only One Mode Can be Specified	
-i | -install	Launches the Installer in GUI mode. This is the default mode and is used if no mode is specified on the command line.
-silent	Install in silent mode. The Installer must be passed either a response file or command line variable value pairs.
-d | -deinstall	Launches the Installer in GUI mode for deinstallation.
-p | -prerequisite	Launches the Installer in GUI mode but only checks the prerequisites. No software is installed.
-v | -validate	Launches the Installer in GUI mode and performs all prerequisite and validation checking, but does not install any software.
-sv | -silentvalidate	Performs all prerequisite and validation checking in silent mode. You must pass the Installer either a response file or a series of command line variable value pairs.
Installation Options	
-help | --help | --usage	Displays the usage parameters for the runInstaller command.
-invPtrLoc *file*	Pointer to the inventory location file. Replace file with the full path and name of the oraInst.loc file.
-response *file* | -responseFile *file*	Pointer to the response file. Replace file with the full path and name of the response file.
-jreLoc *location*	Pointer to the location where Java Runtime Environment (JRE) is installed. Replace *location* with the full path to the jre directory where your JRE is installed.

Table H–1 (Cont.) Installer Command Line Parameters

Parameter	Description
-logLevel *level*	Specify the level of logging performed by the Installer; all messages with a lower priority than the specified level will be recorded. Valid levels are: ■ severe ■ warning ■ info ■ config ■ fine ■ finer ■ finest
-debug	Obtain debug information from the Installer.
-force	Allow the silent installation to proceed in a non-empty directory.
-printdiskusage	Log debugging information pertaining to disk usage.
-printmemory	Log debugging information pertaining to memory usage.
-printtime	Log debugging information pertaining to time usage. This command causes the timeTakentimestamp.log file to be created.
-waitforcompletion	Windows only - the Installer will wait for completion instead of spawning the Java engine and exiting.
-noconsole	Messages will not be displayed to the console window.
-ignoreSysPrereqs	Ignore the results of the system prerequisite checks and continue with the installation.
-executeSysPrereqs	Execute the system prerequisite checks only, then exit.
-paramFile *file*	Specify the full path to the oraparam.ini file. This file is the initialization file for the Installer. The default location of this file is Disk1/install/platform.
-novalidation	Disables all validation checking performed by the Installer.
-nodefaultinput	For the GUI install, several screens have information or default values pre-populated. Specifying this option disables this behavior so that no information or values are pre-populated.
Command Line Variables	
Installer Variables	Installer variables are specified using *varName=value*. For example: `ORACLE_HOME=/scratch/install/IDM_Home`
Session Variables	Session variables are specified using session:*varName=value*

Troubleshooting the Installation

This appendix describes solutions to common problems that you might encounter when installing Oracle Identity Management. It contains the following topics:

I.1 General Troubleshooting Tips

If you encounter an error during installation:

- Consult the Oracle Fusion Middleware 11*g* Release 1 (11.1.1). You can access the Release Notes on the Oracle Technology Network (OTN) Documentation Web site. To access this Web site, go to the following URL:

  `http://www.oracle.com/technetwork/indexes/documentation/index.html`

- Verify your system and configuration is certified. See Reviewing System Requirements and Certification for more information.
- Verify your system meets the minimum system requirements. See Reviewing System Requirements and Certification for more information.
- Verify you have satisfied the dependencies for the deployment you are attempting. Each deployment documented in this guide contains a "Dependencies" section.
- If you entered incorrect information on one of the installation screens, return to that screen by clicking **Back** until you see the screen.
- If an error occurred while the Installer is copying or linking files:
  1. Note the error and review the installation log files.
  2. Remove the failed installation. See "Deinstalling Oracle Identity Management" on page F-1 for more information.
  3. Correct the issue that caused the error.
  4. Restart the installation.
- If an error occurred while configuring Oracle Identity Manager using the Oracle Identity Manager Configuration Wizard:
  1. Note the error and review the configuration log files.

2. Verify whether the dependencies are met. For example, Administration Server and Database should be up and running.
3. Correct the issue that caused the error.
4. Restart the Oracle Identity Manager Configuration Wizard.

I.2 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 server log files are created in the <DOMAIN_HOME>/server/<servername/logs directory.

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

I.3 Configuring OIM Against an Existing OIM 11*g* Schema

In this scenario, you have created and loaded the appropriate Oracle Identity Manager (OIM) schema, installed and configured Oracle Identity Manager in a new or existing WebLogic domain. During domain configuration, you have configured JDBC Component Schemas by using the Oracle Fusion Middleware Configuration Wizard.

If you want to configure Oracle Identity Manager in a second WebLogic domain against the existing Oracle Identity Manager 11*g* schemas, you must complete the following steps when you try to configure Oracle Identity Manager using the Oracle Identity Manager Configuration Wizard:

1. When prompted, you must copy the `.xldatabasekey` file from the first WebLogic domain directory (`/<MW_HOME>/user_projects/domains/<name_of_your_first_oim_domain>/config/fmwconfig/`) to the second WebLogic domain directory (`/<MW_HOME>/user_projects/domains/<name_of_your_second_oim_domain>/config/fmwconfig/`). Proceed with the Oracle Identity Manager configuration.
2. After configuring Oracle Identity Manager using the Oracle Identity Manager Configuration Wizard, copy the `cwallet.so`, `default_keystore.jks`, and `xlserver.crt` files from the first WebLogic domain directory (`/<MW_HOME>/user_projects/domains/<name_of_your_first_oim_domain>/config/fmwconfig/`) to the second domain Home directory (`/<MW_HOME>/user_projects/domains/<name_of_your_second_oim_domain>/config/fmwconfig/`).

3. After copying the files, start the Oracle Identity Manager Managed Server, as described in Starting the Stack.

I.4 Need More Help?

If you cannot solve a problem using the information in this appendix, look for additional information in My Oracle Support at

`http://support.oracle.com`.

If you cannot find a solution to your problem, open a service request.

J

OAAM Partition Schema Reference

This appendix provides information about tables and stored procedures used with Oracle Adaptive Access Manager (OAAM) with Partition support.

It contains the following topics:

J.1 Overview

Database tables in the Oracle Adaptive Access Manager database are divided into the following categories:

- Static partition tables
- Transactional partition tables
- Non-partitioned tables

Note: All the tables contain the composite partition (RANGE, HASH). The Range partition is created using CREATE_TIME while the HASH key is defined based on application logic.

lists the Oracle Adaptive Access Manager (OAAM) partition tables. All the other tables are non-partitioned.

Table J–1 OAAM Database Partition Tables

Table Type	Frequency	Table Name
Static Partition	Monthly	V_USER_QA
		V_USER_QA_HIST
Transactional Partition	Monthly	VCRYPT_TRACKER_NODE_HISTORY
		VCRYPT_TRACKER_USERNODE_LOGS
		VCRYPT_TRACKER_NODE
		VT_USER_DEVICE_MAP
		V_MONITOR_DATA
		VT_SESSION_ACTION_MAP
		VT_ENTITY_ONE
		VT_ENTITY_ONE_PROFILE
		VT_USER_ENTITY1_MAP
		VT_ENT_TRX_MAP
		VT_TRX_DATA
		VT_TRX_LOGS
Transactional Partition	Weekly	VR_POLICYSET_LOGS
		VR_POLICY_LOGS
		VR_RULE_LOGS
		VR_MODULE_LOGS

J.2 Partition Add Maintenance

After the initial Oracle Adaptive Access Manager repository setup, the following stored procedures are set up as dbms_jobs to maintain the partitions on a regular basis:

- Sp_Oaam_Add_Monthly_Partition
- Sp_Oaam_Add_Weekly_Partition

J.2.1 Sp_Oaam_Add_Monthly_Partition

This stored procedure adds partitions for tables with the monthly frequency.

The script runs at the end of each month to create partitions for the following month. To simultaneously add partitions for subsequent months, the partitions are added based on the partition of the previous month.

If this stored procedure fails to exceute (if your monthly partition is missing), you may see database errors, `"ORA-14400 and ORA-14401,"` forcing the Oracle Adaptive Access Manager application to stop.

J.2.2 Sp_Oaam_Add_Weekly_Partition

This stored procedure adds partitions for tables with the weekly frequency.

The script runs at the end of each week to create partitions for the following week. To simultaneously add partitions for subsequent weeks, the partitions are added based on the partition of the previous week.

If this stored procedure fails to exceute (if your weekly partition is missing), you may see database errors, "ORA-14400 and ORA-14401," forcing the Oracle Adaptive Access Manager application to stop.

J.3 Partition Maintenance Scripts

After the initial Oracle Adaptive Access Manager repository setup, use the following scripts with purging or archiving maintenance scripts to maintain the partitions on a regular basis:

- drop_monthly_partition_tables.sql
- drop_weekly_partition_tables.sql
- add_monthly_partition_tables.sql
- add_weekly_partition_tables.sql

The above mentioned scripts are located at <IDM_ORACLE_HOME>\oaam\oaam_db_maint_scripts\oaam_db_partition_maint_scripts

Note: You do not have to execute partition add scripts. You should only use them to create partitions manually because other automated dbms_jobs create partitions at regular intervals.

J.3.1 drop_monthly_partition_tables.sql

You can use this script to drop partitions for tables with the monthly frequency. You should run this script at the end of each month to drop partitions older than sixth months, based on the requirements of the Oracle Adaptive Access Manager application. Note that these tables will have six partitions at a given time.

J.3.2 drop_weekly_partition_tables.sql

You can use this script to drop partitions for tables with the weekly frequency. You should run this script either at the end of every fourteenth day or at the end of third week from the day the Oracle database was created to the dropping of partitions older than two weeks, based on the requirements of the Oracle Adaptive Access Manager application.

J.3.3 add_monthly_partition_tables.sql

You can use this script to add partitions for tables with the monthly frequency. You should run this script at the end of each month to create partitions for the following month. To add partitions for subsequent months at the same time, run this script multiple times. When you run the script multiple times, partitions are added based on the previous month's partition.

J.3.4 add_weekly_partition_tables.sql

You can use this script to add partitions for tables with the weekly frequency. You should run this script at the end of each month to create partitions for the following week. To add partitions for subsequent weeks at the same time, run this script multiple times. When you run the script multiple times, partitions are added based on the previous week's partition.

K

Software Deinstallation Screens

This appendix describes the screens of the Oracle Fusion Middleware 11*g* Deinstallation Wizard that enables you to remove the Oracle Identity Management software from your machine. This appendix contains the following topics:

K.1 Welcome

The Welcome screen is the first screen that appears when you start the Oracle Fusion Middleware 11*g* Deinstallation Wizard.

Figure K–1 Welcome Screen

Click **Next** to continue.

K.2 Select Deinstallation Type

Select the type of deinstallation you want to perform.

Figure K–2 Select Deinstallation Type Screen

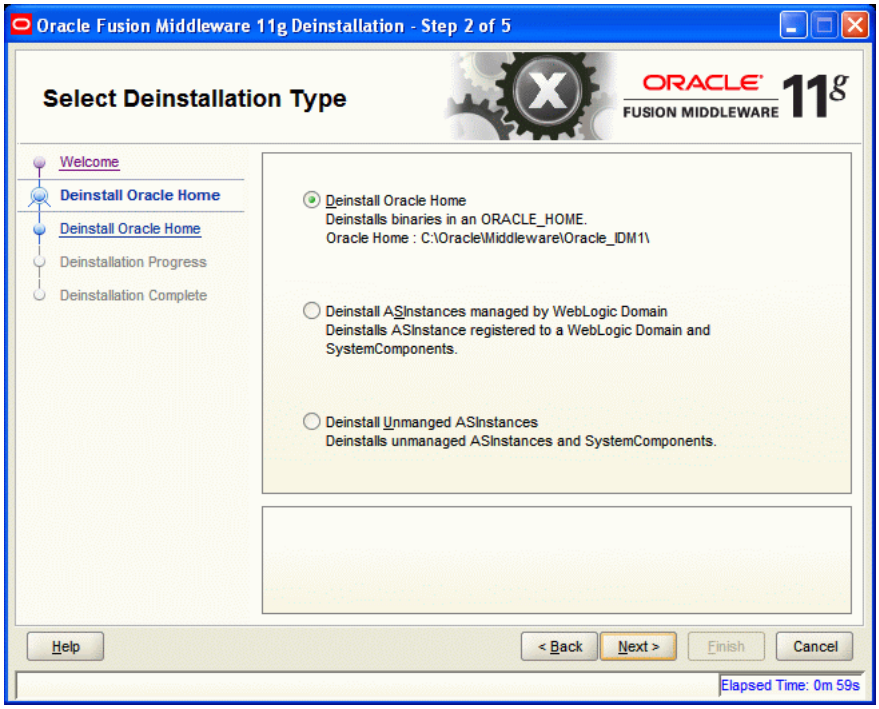


Table K–1 Deinstallation Types

Type	Description
Deinstall Oracle Home	Select this option to deinstall the binaries contained in the listed Oracle Identity Management Oracle Home. If you select this option, the Deinstall Oracle Home screen appears next, where you can save a response file that contains the deinstallation settings before deinstalling.
Deinstall ASInstances managed by WebLogic Domain - Applicable to Oracle Internet Directory and Oracle Virtual Directory only.	Select this option to deinstall the Oracle Identity Management system component instances, such as Oracle Internet Directory and Oracle Virtual Directory, that are registered in a WebLogic domain. If you select this option, the Specify WebLogic Domain Detail screen appears next where you identify the administration domain containing the system components you want to deinstall. The Select Managed Instance screen appears next, where you identify the instances you want to deinstall.
Deinstall Unmanaged ASInstances - Applicable to Oracle Internet Directory and Oracle Virtual Directory only.	Select this option to deinstall the Oracle Identity Management system component instances, such as Oracle Internet Directory and Oracle Virtual Directory, that are not registered in a WebLogic domain. If you select this option, the Specify Instance Location screen appears next where you identify the instances you want to deinstall.

Click **Next** to continue.

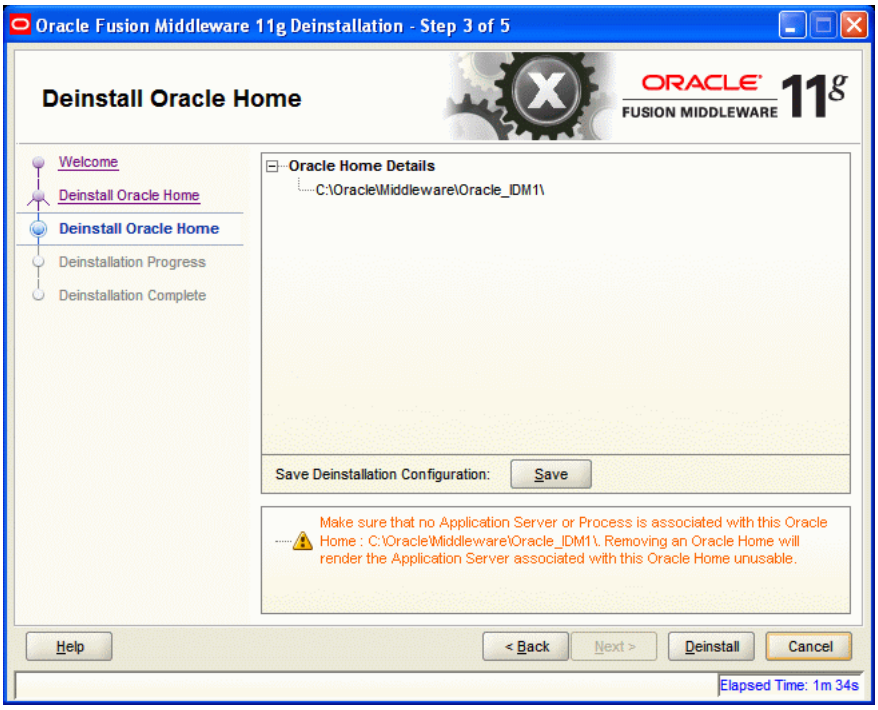
K.2.1 Option 1: Deinstall Oracle Home

If you selected **Deinstall Oracle Home** on the Select Deinstallation Type screen, the following screen appears:

K.2.1.1 Deinstall Oracle Home

This screen shows the Oracle Home directory that is about to be deinstalled. It is the Oracle Home directory in which the deinstaller was started.

Figure K–3 Deinstall Oracle Home Screen



Verify that this is the correct directory, and also verify that there are no processes associated with this Oracle Home.

Click **Deinstall** to start the deinstallation process.

K.2.2 Option 2: Deinstall ASInstances managed by WebLogic Domain

If you selected **Deinstall ASInstances managed by WebLogic Domain** on the Select Deinstallation Type screen, the following screens appears:

- Specify WebLogic Domain Detail
- Select Managed Instance
- Deinstallation Summary (Managed Instance)

K.2.2.1 Specify WebLogic Domain Detail

Specify the WebLogic Domain credentials:

- **Domain Host Name**

  The name of the system on which the WebLogic Domain is running.

- **Domain Port No**

Listen port number of the domain. The default port number is `7001`.

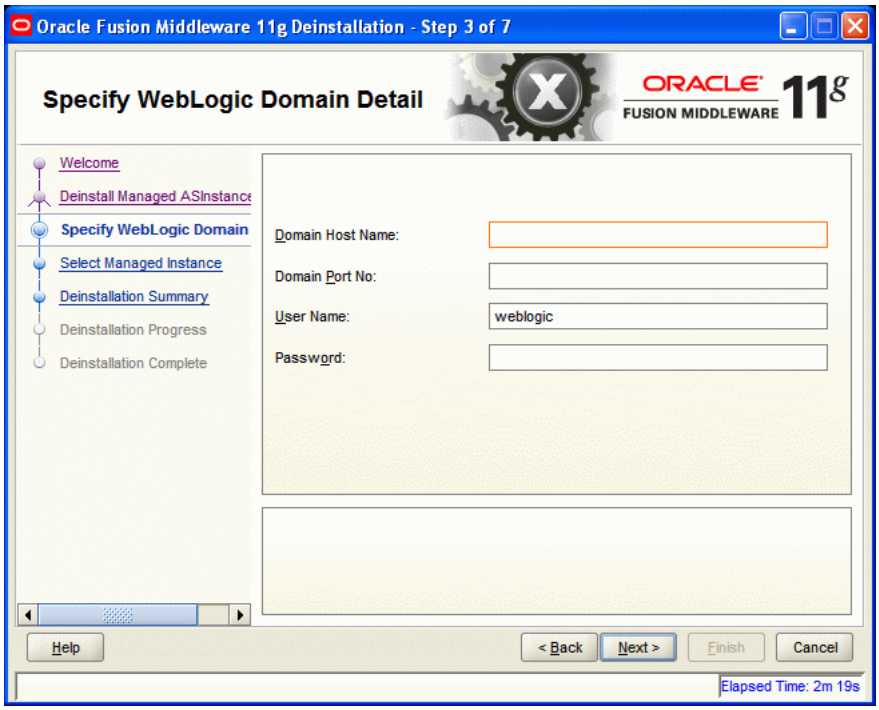
- **User Name**

  The WebLogic Domain user name.

- **Password**

  The password of the WebLogic Domain user.

Figure K–4 Specify WebLogic Domain Detail Screen

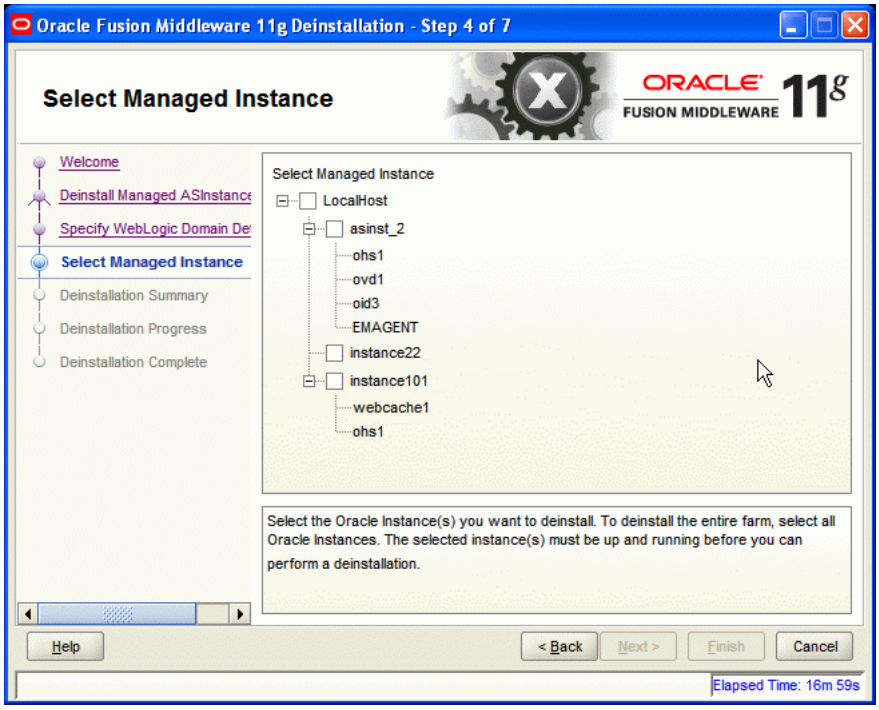


Click **Next** to continue.

K.2.2.2 Select Managed Instance

Select the managed instance you want to deinstall.

Figure K–5 Select Managed Instance Screen

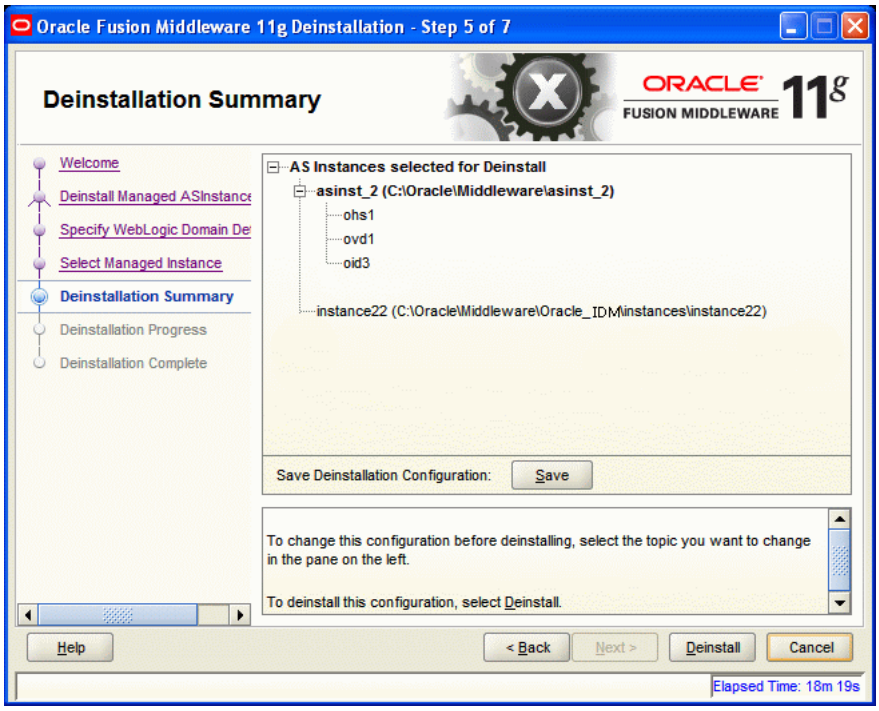


Click **Next** to continue.

K.2.2.3 Deinstallation Summary (Managed Instance)

Verify that the specified instance is the one you want to deinstall.

Figure K–6 Deinstallation Summary Screen



Click **Deinstall** to start the deinstallation process.

K.2.3 Option 3: Deinstall Unmanaged ASInstances

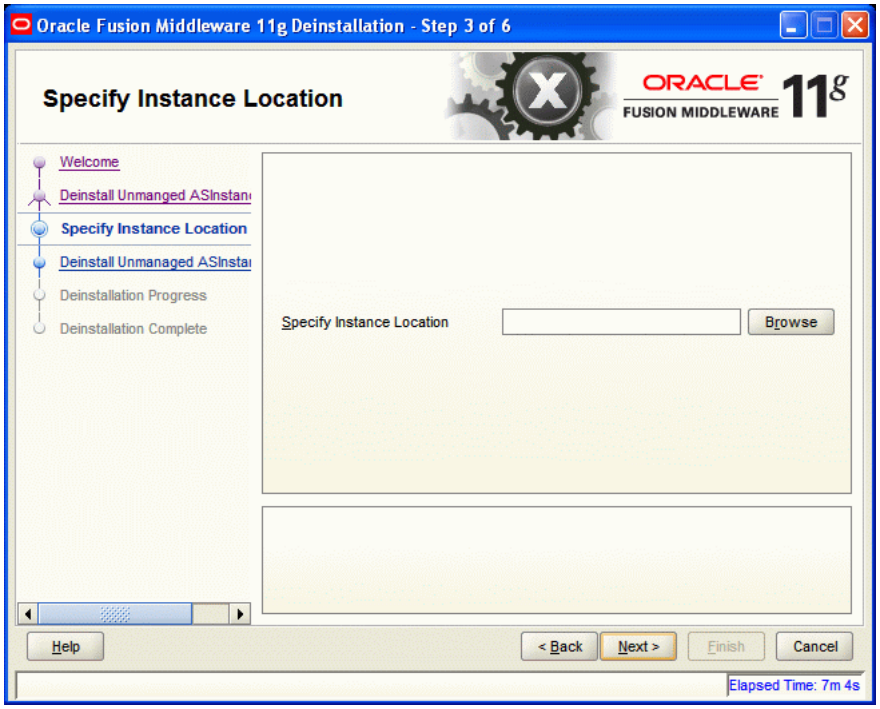
If you selected **Deinstall Unmanaged ASInstances** on the Select Deinstallation Type screen, the following screen appears:

- Specify Instance Location
- Deinstallation Summary (Unmanaged ASInstance)

K.2.3.1 Specify Instance Location

Specify the full path to your Oracle Instance directory. If you are unsure, click **Browse** to find this directory on your system.

Figure K–7 Specify Instance Location Screen

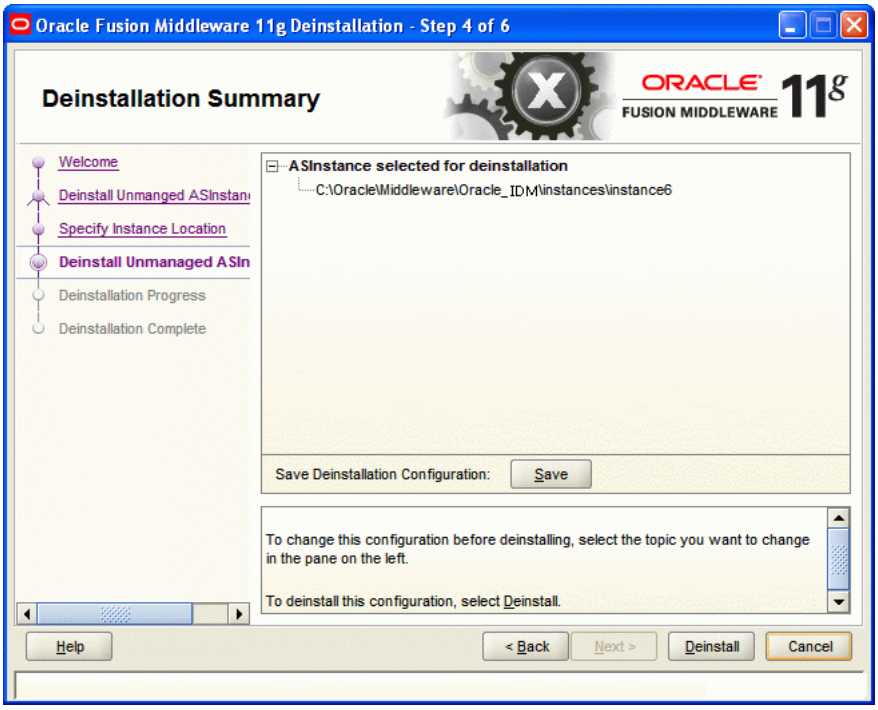


Click **Next** to continue.

K.2.3.2 Deinstallation Summary (Unmanaged ASInstance)

Verify that the specified instance is the one you want to deinstall.

Figure K–8 Deinstallation Summary Screen

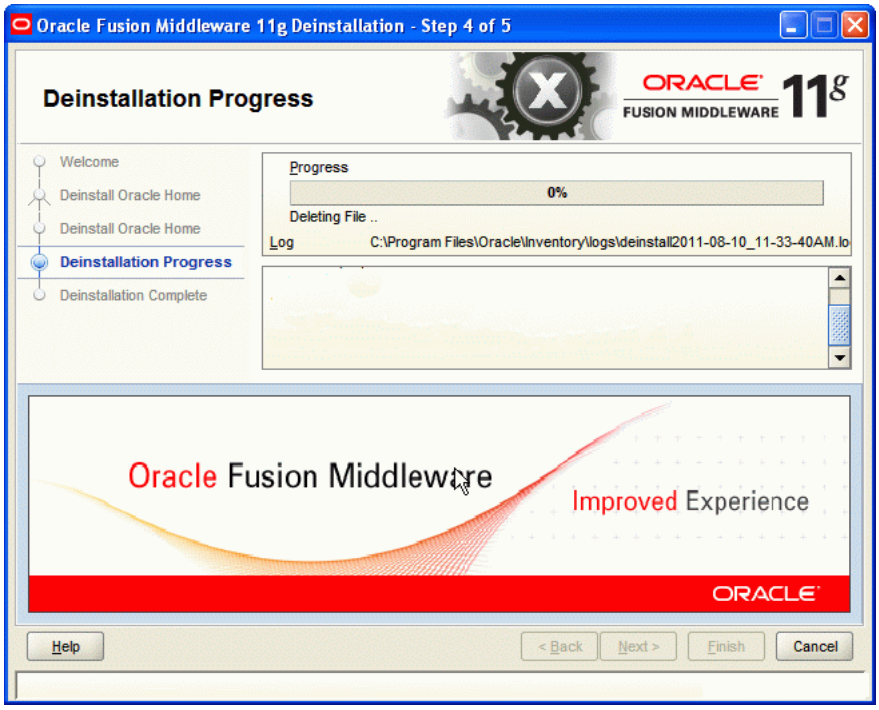


Click **Deinstall** to start the deinstallation process.

K.3 Deinstallation Progress

This screen shows you the progress of the deinstallation.

Figure K–9 Deinstallation Progress Screen



If you want to quit before the deinstallation is completed, click **Cancel**.

K.4 Deinstallation Complete

This screen summarizes the deinstallation that was just completed.

Figure K–10 Deinstallation Complete Screen

Click **Finish** to dismiss the deinstaller.