

## **Oracle® Fusion Middleware**

Installing and Configuring the Oracle Fusion Middleware  
Infrastructure

12c (12.1.3)

**E48354-02**

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Documentation for installers and system administrators that describes how to install and configure Oracle Fusion Middleware Infrastructure for Oracle Application Development Framework.

Oracle Fusion Middleware Installing and Configuring the Oracle Fusion Middleware Infrastructure, 12c (12.1.3)

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Primary Author: Christine Ford

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## **A Understanding the Oracle Fusion Middleware Infrastructure Distribution**

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# Preface

This document describes how to use the Oracle Fusion Middleware Infrastructure installation program to install and configure a WebLogic domain.

## Audience

This document is intended for system administrators or application developers who are installing the Oracle Fusion Middleware Infrastructure for Oracle Application Development Framework (ADF). It is assumed that readers are familiar with Web technologies and have a general understanding of Windows and UNIX platforms.

## Documentation Accessibility

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## Related Documents

For important information about Oracle Fusion Middleware products, see the following manuals:

- *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*  
This book contains useful information you should read before installing any Oracle Fusion Middleware product.
- *Oracle Fusion Middleware Understanding Oracle Fusion Middleware*  
This book introduces the common terms and concepts in an Oracle Fusion Middleware environment.
- *Oracle Fusion Middleware Administering Oracle Fusion Middleware*  
This book contains information for managing your Oracle Fusion Middleware environment after installation and configuration is complete.

## Conventions

The following text conventions are used in this document:

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	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.

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# Planning the Oracle Fusion Middleware Infrastructure Installation

This chapter helps to prepare you for installing the Oracle Fusion Middleware Infrastructure.

Various topics are covered that should be reviewed thoroughly to help ensure that you do not encounter any problems either during or after the product installation and domain configuration.

This chapter includes the following sections:

- [Section 1.1, "Using This Document"](#)
- [Section 1.2, "Understanding the Oracle Fusion Middleware Infrastructure Standard Installation Topology"](#)
- [Section 1.3, "Roadmap for Installing and Configuring the Standard Installation Topology"](#)
- [Section 1.4, "Roadmap for Verifying Your System Environment"](#)
- [Section 1.5, "Understanding and Obtaining the Oracle Fusion Middleware Infrastructure Distribution"](#)
- [Section 1.6, "About Installing Oracle User Messaging Service \(UMS\)"](#)

## 1.1 Using This Document

This section contains the following topics:

- [Section 1.1.1, "Using the Standard Installation Topology as a Starting Point"](#)
- [Section 1.1.2, "Using this Document to Extend an Existing Domain"](#)
- [Section 1.1.3, "Using this Document in an Upgrade Scenario"](#)
- [Section 1.1.4, "About Installing a Development Environment"](#)

### 1.1.1 Using the Standard Installation Topology as a Starting Point

This guide will help you create the standard installation topology for Oracle Fusion Middleware Infrastructure ([Figure 1-1](#)). This topology can be extended to be highly available and secure, making it suitable for a production system.

The standard installation topology represents a sample topology for this product; it is not the only topology that is supported. For more information, see "Understanding the Standard Installation Topology" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*.

## 1.1.2 Using this Document to Extend an Existing Domain

The instructions in this document describe how to create a new domain; the same instructions can be used to extend an existing domain. If you choose to do this, be sure to read "Installing Multiple Products in the Same Domain" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware* for important information.

If you are creating a new domain but your needs do not match the instructions given in the procedure, be sure to make your selections accordingly and refer to the supporting documentation for additional details.

## 1.1.3 Using this Document in an Upgrade Scenario

If you are installing Oracle Fusion Middleware Infrastructure as part of an upgrade procedure, follow the instructions in this book to install the software, but do not run the Configuration Wizard to create a WebLogic domain.

After the software is installed, refer to *Upgrading Oracle WebLogic Server*.

## 1.1.4 About Installing a Development Environment

This guide describes how to use the Oracle Fusion Middleware Infrastructure distribution to install and configure a standard installation topology as a starting point for a production environment.

To install an Oracle Fusion Middleware Infrastructure development environment, Oracle recommends that you download and install Oracle JDeveloper, which provides an integrated development environment (IDE), preconfigured with the design-time software develop Java and Oracle Application Development (Oracle ADF) applications.

With Oracle JDeveloper, you can test your applications from within JDeveloper, using the integrated Oracle WebLogic Server.

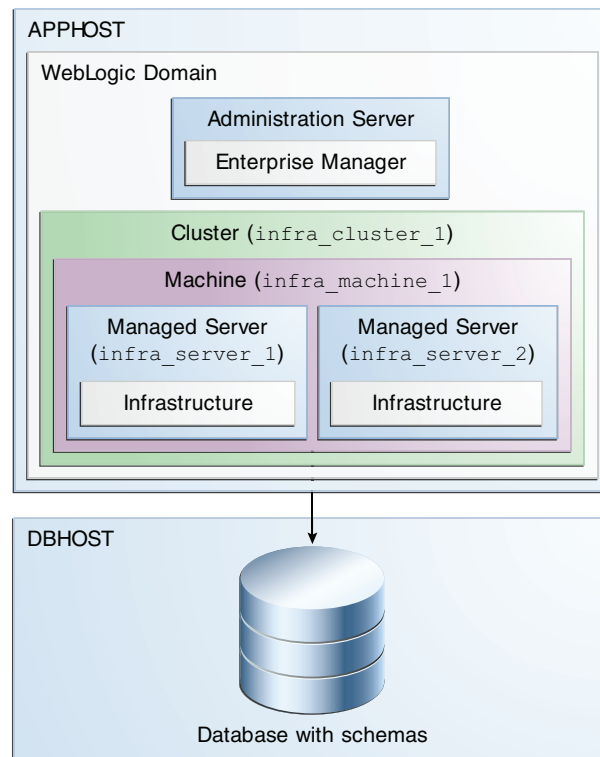
Alternatively, you can use this guide to configure an Oracle Fusion Middleware Infrastructure domain to use as a runtime environment for your Java and Oracle ADF applications. You can then deploy your applications directly from JDeveloper to the Infrastructure domain.

For more information, see *Installing Oracle JDeveloper*.

## 1.2 Understanding the Oracle Fusion Middleware Infrastructure Standard Installation Topology

The standard installation topology for Oracle Fusion Middleware Infrastructure is shown in [Figure 1-1](#).



**Figure 1–1 Oracle Fusion Middleware Infrastructure Standard Installation Topology**

This topology represents a standard WebLogic Server domain that contains an Administration Server and a cluster containing two Managed Servers. The libraries and additional software required for deploying and managing Oracle ADF applications is installed and available on the Managed Servers. The domain is configured on a single host and requires a supported database where the required Fusion Middleware schemas are installed.

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**Note:** For 12c (12.1.3), only a certified Oracle database can be used for the Oracle Fusion Middleware Infrastructure standard installation topology. The Oracle Platform Security Services (OPSS) schema is not supported on third-party databases for this release.

Additionally, this database represents the Infrastructure database, which is accessed by Fusion Middleware products. This is not to be confused with the internal application database which is used by applications deployed in your environment. For examples, see the "Additional DB" tab in the certification document for your release on the *Oracle Fusion Middleware Supported System Configurations* page.

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This standard installation topology is also used as a starting point for other documents; for example, Oracle Fusion Middleware Installing and Configuring Oracle HTTP Server extends this domain to include Oracle HTTP Server, and the *Oracle Fusion Middleware High Availability Guide* uses the Oracle HTTP Server and Infrastructure as a starting point for configuring the standard installation topology for high availability. For more information about the documentation roadmap and related topologies for high availability, see "Planning for a Production Environment" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*.

All elements in this topology illustration are described in [Table 1-1](#).

**Table 1-1 Description of the Elements in the Oracle Fusion Middleware Infrastructure Standard Installation Topology**

Element	Description and Links to Additional Documentation
APPHOST	Standard term used in Oracle documentation referring to the machine that is hosting the application tier.
DBHOST	Standard term used in Oracle documentation referring to the machine that is hosting the database.
WebLogic Domain	A logically related group of Java components (in this case, the administration Server, Managed Servers, and other related software components).  For more information, see "What is an Oracle WebLogic Server Domain" in <i>Oracle Fusion Middleware Understanding Oracle Fusion Middleware</i> .
Administration Server	The central control entity of a domain which maintains the domain's configuration objects and distributes configuration changes to Managed Servers.  For more information, see "What is the Administration Server" in <i>Oracle Fusion Middleware Understanding Oracle Fusion Middleware</i> .
Enterprise Manager	Oracle Enterprise Manager Fusion Middleware Control. This is the main tool that can be used to manage your domain.  For more information, see "Oracle Enterprise Manager Fusion Middleware Control" in <i>Oracle Fusion Middleware Understanding Oracle Fusion Middleware</i> .
Cluster	A collection of multiple WebLogic Server instances running simultaneously and working together.  For more information, see "Understanding Managed Servers and Managed Server Clusters" in <i>Oracle Fusion Middleware Understanding Oracle Fusion Middleware</i> .
Machine	Logical representation of the computer that hosts one or more WebLogic Server instances (servers). Machines are also the logical glue between WebLogic Managed Servers and the Node Manager; in order to start or stop a Managed Server with Node Manager, the Managed Server must be associated with a machine.
Managed Server	Host for your applications, application components, Web services, and their associated resources.  For more information, see "Understanding Managed Servers and Managed Server Clusters" in <i>Oracle Fusion Middleware Understanding Oracle Fusion Middleware</i> .
Infrastructure	Collection of services that include the following: <ul style="list-style-type: none"> <li>■ Metadata repository (MDS) This contains metadata for Oracle Fusion Middleware components, such as the Oracle Application Developer Framework. For more information, see "What is the Metadata Repository" in <i>Oracle Fusion Middleware Understanding Oracle Fusion Middleware</i>.</li> <li>■ Oracle Application Developer Framework (Oracle ADF)</li> <li>■ Oracle Web Services Manager (OWSM)</li> </ul>

A roadmap describing the necessary steps to arriving at this topology can be found in [Section 1.3](#).

## 1.3 Roadmap for Installing and Configuring the Standard Installation Topology

This guide provides all the steps required to install and configure the standard Fusion Middleware Infrastructure topology. Within the procedures, the guide also provides references to additional information you can use if you want to create a modified version of this topology.

[Table 1–2](#) show the steps required to install and configure the topology.

**Table 1–2 Oracle Fusion Middleware Infrastructure Installation Roadmap**

Task	Description	Documentation
Verify your system environment	Before beginning the installation, verify that the minimum system and network requirements are met.	See <a href="#">Section 1.4</a> .
Obtain the appropriate distribution	To create the topology described in this guide, obtain the Oracle Fusion Middleware Infrastructure distribution.	See <a href="#">Section 1.5</a> .
Determine your installation directories	Verify that the directories that will need to be created can be created or accessed by the installer, and exist on systems that meet the minimum requirements.	See "What are the Key Oracle Fusion Middleware Directories?" in <i>Oracle Fusion Middleware Understanding Oracle Fusion Middleware</i> .
Install the software	Run the installation program to install the software. This transfers the software to your system and creates the Oracle home directory.	See <a href="#">Chapter 2</a> .
Create a WebLogic domain	Use the configuration wizard to create and configure the WebLogic domain.	See <a href="#">Chapter 3</a> .
Administer and prepare your domain for high availability	Discover additional tools and resources to administer your domain and configure your domain to be highly available.	See <a href="#">Chapter 4</a> .

## 1.4 Roadmap for Verifying Your System Environment

This section ([Table 1–3](#)) contains important information that you must read and understand prior to beginning the installation and configuration process. It identifies important tasks and checks to perform to make sure your environment is properly prepared for installing and configuring Oracle Fusion Middleware Infrastructure.

**Table 1–3 Roadmap for Verifying Your System Environment**

Task	Description	Documentation
Verify certification and system requirements.	Verify that your operating system is certified and properly configured for Oracle Fusion Middleware Infrastructure installation and configuration.	See "Verifying Certification and System Requirements" in <i>Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware</i> .
Identify a proper installation user.	Verify that the installation user has the proper permissions to install and configure the software.	See "Selecting an Installation User" in <i>Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware</i> .
Select the installation and configuration directories on your system.	Verify that you are able to create the necessary directories for installation and configuration, according to the recommended directory structure.	See "Selecting Directories for Installation and Configuration" in <i>Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware</i> .
Install a certified JDK.	The installation program for the distribution requires a certified JDK present on your system.	See "Installing a JDK" in <i>Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware</i> .
Install and configure an Oracle database.	To configure your WebLogic domain, you must have access to a certified database that is properly configured for schemas required by the Oracle Fusion Middleware Infrastructure.  For 12c (12.1.3), only a certified Oracle database can be used.	See "Installing and Configuring a Certified Database" in <i>Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware</i> .

## 1.5 Understanding and Obtaining the Oracle Fusion Middleware Infrastructure Distribution

For complete information about how to obtain Oracle Fusion Middleware software, see "Understanding and Obtaining Product Distributions" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*.

To download the Oracle Fusion Middleware Infrastructure software for development or evaluation, see the following location on the Oracle Technology Network (OTN):

<http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html>

For more information about locating and downloading Oracle Fusion Middleware products, see the *Oracle Fusion Middleware Download, Installation, and Configuration Readme Files* on OTN.

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**Note:** Before you obtain any product distributions and run any installers, make sure that you have a certified JDK already installed on your system.

For more information, see "Installing a JDK" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*.

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To obtain Oracle Fusion Middleware Infrastructure:

1. Go to <http://www.oracle.com/technetwork/developer-tools/adf/downloa>

ds/index.html. In the Oracle ADF Downloads section, select **12.1.3.0** from the Application Development Runtime field. Click **Download File**.

2. When your browser asks if you want to download the file `fmw_12.1.3.0.0_infrastructure_Disk1_1of1.zip`, download this file onto your system.
3. Extract the contents of this .zip file onto your system. One of the files extracted will be `fmw_12.1.3.0.0_infrastructure.jar`; this file will be used to run the product installer and install the software onto your system ("Installing the Oracle Fusion Middleware Infrastructure Software" in *Oracle Fusion Middleware Installing and Configuring the Oracle Fusion Middleware Infrastructure*).

## 1.6 About Installing Oracle User Messaging Service (UMS)

Oracle User Messaging Service is a software technology that enables two-way communication between users and deployed applications. For more information, see "Introduction to Oracle User Messaging Service" in *Administering Oracle User Messaging Service*

UMS is distributed as part of the Oracle Fusion Middleware Infrastructure distribution. It is installed as part of the Oracle Fusion Middleware Infrastructure standard installation topology.

UMS runtime components consist of an Oracle Fusion Middleware Configuration Wizard template and an Oracle Fusion Middleware schema, which is installed into a supported database using the Repository Creation Utility.

For development, you can install and use Oracle JDeveloper 12c to develop applications that can take advantage of UMS features. For more information, see *Installing Oracle JDeveloper*.



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# Installing the Oracle Fusion Middleware Infrastructure Software

This chapter describes how to install the Oracle Fusion Middleware Infrastructure software.

This chapter contains the following sections:

- [Section 2.1, "Starting the Installation Program"](#)
- [Section 2.2, "Navigating the Installation Screens"](#)
- [Section 2.3, "Verifying the Installation"](#)

## 2.1 Starting the Installation Program

To start the installation program, perform the following steps.

1. Log in to the target system.
2. The installer requires that a certified JDK already exists on your system. For more information, see the appropriate certification document for 12c (12.1.3) on the *Oracle Fusion Middleware Supported System Configurations* page.
3. Go to the directory where you downloaded the installation program.
4. Launch the installation program by invoking the `java` executable from the JDK directory on your system, as shown in the examples below.

On UNIX operating systems:

```
/home/Oracle/jdk7_15/jdk1.7.0_15/bin/java -jar fmw_12.1.3.0.0_infrastructure.jar
```

On Windows operating systems:

```
C:\Program Files\Java\jdk1.7.0_15\bin\java -jar fmw_12.1.3.0.0_infrastructure.jar
```

Be sure to replace JDK location in these examples with the actual JDK location on your system.

When the installation program appears, you are ready to begin the installation. See [Section 2.2](#) for a description of each installation program screen.

## 2.2 Navigating the Installation Screens

The installation program displays a series of screens, in the order listed in [Table 2-1](#).

If you need additional help with any of the installation screens, click the screen name.

**Table 2–1 Oracle Fusion Middleware Infrastructure Install Screens**

Screen	Description
Installation Inventory Setup	<p>On UNIX operating systems, this screen will appear if this is the first time you are installing any Oracle product on this host. Specify the location where you want to create your central inventory. Make sure that the operating system group name selected on this screen has write permissions to the central inventory location.</p> <p>For more information about the central inventory, see "Understanding the Oracle Central Inventory" in <i>Oracle Fusion Middleware Installing Software with the Oracle Universal Installer</i>.</p> <p>This screen will not appear on Windows operating systems.</p>
Welcome	This screen introduces you to the product installer.
Installation Location	<p>Use this screen to specify the location of your Oracle home directory.</p> <p>For more information about Oracle Fusion Middleware directory structure, see "Selecting Directories for Installation and Configuration" in <i>Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware</i>.</p>
Installation Type	<p>Use this screen to select the type of installation and consequently, the products and feature sets you want to install.</p> <p>For this topology, select <b>Fusion Middleware Infrastructure</b>.</p> <p><b>NOTE:</b> The topology in this document does not include server examples, Oracle strongly recommends that you do not install the examples into a production environment.</p>
Prerequisite Checks	<p>This screen verifies that your system meets the minimum necessary requirements.</p> <p>If there are any warning or error messages, you can refer to one of the following documents in <a href="#">Section 1.4</a>.</p>
Specify Security Updates	<p>If you already have an Oracle Support account, use this screen to indicate how you would like to receive security updates.</p> <p>If you do not have one and are sure you want to skip this step, clear the check box and verify your selection in the follow-up dialog box.</p>
Installation Summary	<p>Use this screen to verify the installation options you selected. If you want to save these options to a response file, click <b>Save</b> and provide the location and name of the response file. Response files can be used later in a silent installation situation.</p> <p>For more information about silent or command line installation, see "Using the Oracle Universal Installer in Silent Mode" in <i>Oracle Fusion Middleware Installing Software with the Oracle Universal Installer</i>.</p>
Installation Progress	This screen allows you to see the progress of the installation.
Installation Complete	This screen appears when the installation is complete. Review the information on this screen, then click <b>Finish</b> to dismiss the installer.

## 2.3 Verifying the Installation

After you complete the installation, you can verify it by successfully completing the following tasks:



- [Section 2.3.1, "Reviewing the Installation Log Files"](#)
- [Section 2.3.1.1, "Checking the directory Structure"](#)
- [Section 2.3.2, "Viewing the Contents of Your Oracle Home"](#)

## 2.3.1 Reviewing the Installation Log Files

Review the contents of the installation log files to make sure that no problems were encountered. For a description of the log files and where to find them, see in "Understanding the Installation Log Files" in *Installing Software with the Oracle Universal Installer*.

### 2.3.1.1 Checking the directory Structure

The contents of your installation vary based on the options you selected during the installation.

For more information about the directory structure you should see after installation, see "What are the Key Oracle Fusion Middleware directories?" in *Understanding Oracle Fusion Middleware*.

## 2.3.2 Viewing the Contents of Your Oracle Home

You can also view the contents of your Oracle home using the `viewInventory` script. For more information, see "Viewing the contents of an Oracle home" in *Oracle Fusion Middleware Installing Software with the Oracle Universal Installer*.



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# Configuring the Oracle Fusion Middleware Infrastructure Domain

This chapter describes how to create and configure the WebLogic Server domain for Oracle Fusion Middleware Infrastructure.

The following topics are covered:

- [Section 3.1, "Creating the Database Schemas"](#)
- [Section 3.2, "Configuring Your WebLogic Domain"](#)
- [Section 3.3, "Starting the Servers"](#)
- [Section 3.4, "Verifying Your Configuration"](#)

## 3.1 Creating the Database Schemas

Before you can configure a Fusion Middleware Infrastructure domain, you must install the following schemas on a certified database for use with this release of Oracle Fusion Middleware:

- Metadata Services (MDS)
- Audit Services (IAU)
- Audit Services Append (IAU\_APPEND)
- Audit Services Viewer (IAU\_VIEWER)
- Oracle Platform Security Services (OPSS)
- User Messaging Service (UMS)
- WebLogic Services (WLS)
- Call Control (UCSCC)
- Service Table (STB)

Follow the instructions in this section to install these schemas:

- [Section 3.1.1, "Installing and Configuring a Certified Database"](#)
- [Section 3.1.2, "Starting the Repository Creation Utility \(RCU\)"](#)
- [Section 3.1.3, "Navigating the RCU Screens to Create the Schemas"](#)

### 3.1.1 Installing and Configuring a Certified Database

Make sure you have installed and configured a certified database, and that the database is up and running.

For more information, see "Installing a Database and Database Schemas" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*.

### 3.1.2 Starting the Repository Creation Utility (RCU)

To start the Repository Creation Utility (RCU):

1. Navigate to the `ORACLE_HOME/oracle_common/bin` directory on your system.
2. Start RCU:

On UNIX operating systems:

```
./rcu
```

On Microsoft Windows operating systems:

```
rcu.bat
```

### 3.1.3 Navigating the RCU Screens to Create the Schemas

Follow the instructions in this section to create the schemas for the Oracle Fusion Middleware Infrastructure domain:

- [Task 1, "Introducing RCU"](#)
- [Task 2, "Selecting a Method of Schema Creation"](#)
- [Task 3, "Providing Database Credentials"](#)
- [Task 4, "Specifying a Custom Prefix and Selecting Schemas"](#)
- [Task 5, "Specifying Schema Passwords"](#)
- [Task 6, "Completing Schema Creation"](#)

#### Task 1 Introducing RCU

Click **Next**.

#### Task 2 Selecting a Method of Schema Creation

If you have the necessary permission and privileges to perform DBA activities on your database, select **System Load and Product Load Concurrently** on the Create Repository screen. The procedure in this document assumes that you have the necessary privileges.

If you do not have the necessary permission or privileges to perform DBA activities in the database, you must select **Prepare Scripts for System Load** on this screen. This option will generate a SQL script, which can be provided to your database administrator. See "Understanding System Load and Product Load" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*.

**Tip:** For more information about the options on this screen, see "Create repository" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*.

### Task 3 Providing Database Credentials

On the Database Connection Details screen, provide the database connection details for RCU to connect to your database.

Click **Next** to proceed, then click **OK** on the dialog window confirming that connection to the database was successful.

**Tip:** For more information about the options on this screen, see "Database Connection Details" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*.

### Task 4 Specifying a Custom Prefix and Selecting Schemas

Specify the custom prefix you want to use for your schemas, then select **AS Common Schemas**. All of the schemas in this section are automatically selected.

The custom prefix is used to logically group these schemas together for use in this domain.

**Tip:** For more information about custom prefixes, see "Understanding Custom Prefixes" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*.

For more information about how to organize your schemas in a multi-domain environment, see "Planning Your Schema Creation" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*.

Specify a unique prefix for all schemas created in this session, so you can easily locate, reference, and manage the schemas later.

Select existing prefix:

Create new prefix:

Alpha numeric only. Cannot start with a number. No special characters.

Component	Schema Owner
<input checked="" type="checkbox"/> Oracle AS Repository Components	
<input checked="" type="checkbox"/> AS Common Schemas	
<input checked="" type="checkbox"/> Metadata Services	DEV24_MDS
<input checked="" type="checkbox"/> Audit Services	DEV24_IAU
<input checked="" type="checkbox"/> Audit Services Append	DEV24_IAU_APPEND
<input checked="" type="checkbox"/> Audit Services Viewer	DEV24_IAU_VIEWER
<input checked="" type="checkbox"/> Oracle Platform Security Services	DEV24_OPSS
<input checked="" type="checkbox"/> User Messaging Service	DEV24_UMS
<input checked="" type="checkbox"/> WebLogic Services	DEV24_WLS
<input type="checkbox"/> Common Infrastructure Services	DEV24_STB
<input type="checkbox"/> SOA Suite	
<input type="checkbox"/> Oracle Data Integrator	
<input type="checkbox"/> Oracle GoldenGate	

**Tip:** You must make a note of the custom prefix you choose to enter here; you will need this later on during the domain creation process.

Click **Next** to proceed, then click **OK** on the dialog window confirming that prerequisite checking for schema creation was successful.

### Task 5 Specifying Schema Passwords

Specify how you want to set the schema passwords on your database, then specify and confirm your passwords.

**Tip:** You must make a note of the passwords you set on this screen; you will need them later on during the domain creation process.

**Task 6 Completing Schema Creation**

Navigate through the remainder of the RCU screens to complete schema creation. When you reach the Completion Summary screen, click **Close** to dismiss RCU.

For more information about RCU and its features and concepts, see *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*

## 3.2 Configuring Your WebLogic Domain

This section provides instructions for creating a WebLogic domain using the configuration wizard. For more information on other methods available for domain creation, see "Additional Tools for Creating, Extending, and Managing WebLogic Domains" in *Creating Domains Using the Configuration Wizard*.

The following topics are covered in this section:

- [Section 3.2.1, "Starting the Configuration Wizard"](#)
- [Section 3.2.2, "Navigating the Configuration Wizard Screens to Configure the Domain"](#)

### 3.2.1 Starting the Configuration Wizard

To begin domain configuration, navigate to the `ORACLE_HOME/oracle_common/common/bin` directory and start the WebLogic Server Configuration Wizard.

On UNIX operating systems:

```
./config.sh
```

On Microsoft Windows operating systems:

```
config.cmd
```

On Windows operating systems, you can also start the Configuration Wizard from the **Start** menu by selecting **All Programs**, then selecting **Oracle**, then selecting **OracleHome**, then selecting **WebLogic Server 12c (12.1.3)**, then selecting **Tools**, then selecting **Configuration Wizard**.

### 3.2.2 Navigating the Configuration Wizard Screens to Configure the Domain

Follow the instructions in this section to create and configure the domain for the topology.

---

---

**Note:** You can use the same procedure described in this section to extend an existing domain. If your needs do not match the instructions given in the procedure, be sure to make your selections accordingly, or refer to the supporting documentation for additional details.

If you need to configure multiple products in a single domain, refer to "Installing Multiple Products in the Same Domain" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware* for important information.

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- [Task 1, "Selecting the Domain Type and Domain Home Location"](#)
- [Task 2, "Selecting the Configuration Templates"](#)

- Task 3, "Selecting the Application Home Location"
- Task 4, "Configuring the Administrator Account"
- Task 5, "Specifying the Domain Mode and JDK"
- Task 6, "Specifying the Datasource Configuration Type"
- Task 7, "Specifying JDBC Component Schema Information"
- Task 8, "Testing the JDBC Connections"
- Task 9, "Selecting Advanced Configuration"
- Task 10, "Configuring the Administration Server Listen Address"
- Task 11, "Configuring Node Manager"
- Task 12, "Configuring Managed Servers"
- Task 13, "Configuring a Cluster"
- Task 14, "Assigning Managed Servers to the Cluster"
- Task 15, "Configuring Coherence Clusters"
- Task 16, "Creating a New Machine"
- Task 17, "Assigning Servers to Machines"
- Task 18, "Reviewing Your Configuration Specifications and Configuring the Domain"
- Task 19, "Writing Down Your Domain Home and Administration Server URL"

### Task 1 Selecting the Domain Type and Domain Home Location

On the Configuration Type screen, select **Create a New Domain**.

In the Domain Location field, specify your Domain home directory.

Oracle recommends that you locate your Domain home in accordance with the directory structure summarized in "What are the Key Oracle Fusion Middleware Directories?" in *Oracle Fusion Middleware Understanding Oracle Fusion Middleware*, where the Domain home is located outside the Oracle home directory. This directory structure will help you avoid issues when you need to upgrade or reinstall your software.

**Tip:** For more information about the Domain home directory, see "Choosing a Domain Home" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*.

For more information about reinstalling the software, see [Section 5.8](#).

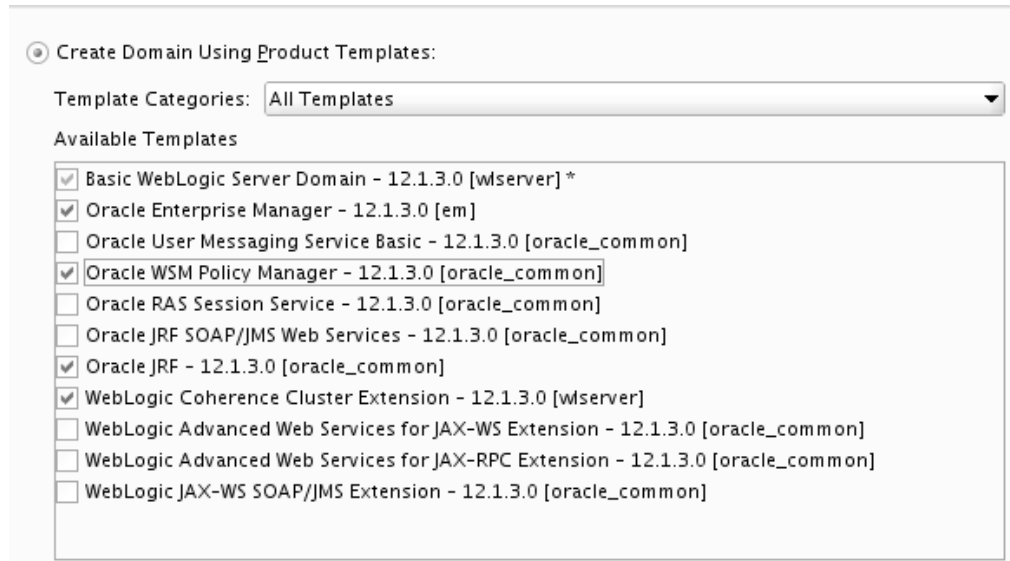
For more information about the other options on this screen, see "Configuration Type" in *Creating Domains Using the Configuration Wizard*.

### Task 2 Selecting the Configuration Templates

On the Templates screen, make sure **Create Domain Using Product Templates** is selected, then select the following templates:

- Oracle Enterprise Manager - 12.1.3.0 [em]]
  - Selecting this template automatically selects the following dependencies:
    - Oracle JRF - 12.1.3.0 [oracle\_common]

- WebLogic Coherence Cluster Extension - 12.1.3.0 [wlserver]
- Oracle WSM Policy Manager - 12.1.3.0 [oracle\_common]



Create Domain Using Product Templates:

Template Categories: All Templates

Available Templates

- Basic WebLogic Server Domain - 12.1.3.0 [wlserver] \*
- Oracle Enterprise Manager - 12.1.3.0 [em]
- Oracle User Messaging Service Basic - 12.1.3.0 [oracle\_common]
- Oracle WSM Policy Manager - 12.1.3.0 [oracle\_common]
- Oracle RAS Session Service - 12.1.3.0 [oracle\_common]
- Oracle JRF SOAP/JMS Web Services - 12.1.3.0 [oracle\_common]
- Oracle JRF - 12.1.3.0 [oracle\_common]
- WebLogic Coherence Cluster Extension - 12.1.3.0 [wlserver]
- WebLogic Advanced Web Services for JAX-WS Extension - 12.1.3.0 [oracle\_common]
- WebLogic Advanced Web Services for JAX-RPC Extension - 12.1.3.0 [oracle\_common]
- WebLogic JAX-WS SOAP/JMS Extension - 12.1.3.0 [oracle\_common]

**Tip:** For more information about the options on this screen, see "Templates" in *Creating Domains Using the Configuration Wizard*.

### Task 3 Selecting the Application Home Location

On the Application Location screen, select the location where you want to store your applications associated with your domain. This location is also referred to as the Application home directory.

Oracle recommends that you locate your Application home in accordance with the directory structure summarized in "What are the Key Oracle Fusion Middleware Directories?" in *Oracle Fusion Middleware Understanding Oracle Fusion Middleware*, where the Application home is located outside the Oracle home directory. This directory structure will help you avoid issues when you need to upgrade or reinstall your software.

**Tip:** For more information about the Application home directory, see "Choosing an Application Home" in *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*.

For more information about reinstalling the software, see [Section 5.8](#).

For more information about the options on this screen, see "Application Location" in *Creating Domains Using the Configuration Wizard*.

### Task 4 Configuring the Administrator Account

On the Administrator Account screen, specify the user name and password for the default WebLogic Administrator account for the domain.

Oracle recommends that you make a note of the user name and password specified on this screen; you will need these credentials later to boot and connect to the domain's Administration Server.



### Task 5 Specifying the Domain Mode and JDK

On the Domain Mode and JDK screen:

- Select **Production** in the Domain Mode field.
- Select the **Oracle Hotspot JDK** in the JDK field.

Selecting **Production Mode** on this screen gives your environment a higher degree of security, requiring a user name and password to deploy applications and to start the Administration Server.

**Tip:** More information about the options on this screen, including the differences between development mode and production mode, can be found in Domain Mode and JDK in *Creating Domains Using the Configuration Wizard*.

In production mode, a boot identity file can be created to bypass the need to provide a user name and password when starting the Administration Server. For more information, see "Creating a Boot Identity File for an Administration Server" in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.

### Task 6 Specifying the Datasource Configuration Type

Select **RCU Data** to activate the fields on this screen. The **RCU Data** option instructs the Configuration Wizard to connect to the database and Service Table (STB) schema to automatically retrieve schema information for the schemas needed to configure the domain.

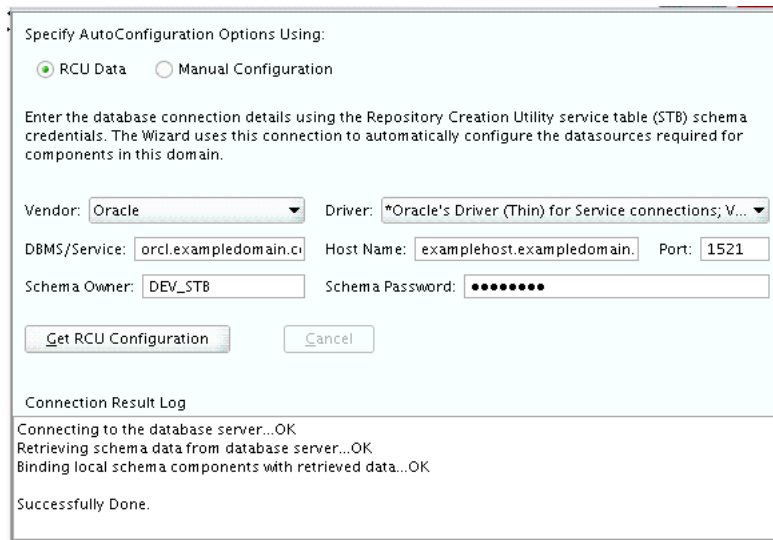
---

**Note:** If you choose to select **Manual Configuration** on this screen, you will have to manually fill in the parameters for your schema on the JDBC Component Schema screen.

---

After selecting **RCU Data**, fill in the following fields:

Field	Description
DBMS/Service	Enter the database DBMS name, or service name if you selected a service type driver.
Host Name	Enter the name of the server hosting the database.
Port	Enter the port number on which the database listens.
Schema Owner Schema Password	Enter the user name and password for connecting to the database's Service Table schema. This is the schema user name and password that was specified for the Service Table component on the "Schema Passwords" screen in RCU (see <a href="#">Section 3.1, "Creating the Database Schemas"</a> ).  The default user name is <i>prefix_STB</i> , where <i>prefix</i> is the custom prefix that you defined in RCU.



Specify AutoConfiguration Options Using:

RCU Data  Manual Configuration

Enter the database connection details using the Repository Creation Utility service table (STB) schema credentials. The Wizard uses this connection to automatically configure the datasources required for components in this domain.

Vendor:  Driver:

DBMS/Service:  Host Name:  Port:

Schema Owner:  Schema Password:

Connection Result Log

Connecting to the database server...OK  
 Retrieving schema data from database server...OK  
 Binding local schema components with retrieved data...OK  
 Successfully Done.

Click **Get RCU Configuration** when you are finished specifying the database connection information. The following output in the Connection Result Log indicates that the operating succeeded:

```
Connecting to the database server...OK
Retrieving schema data from database server...OK
Binding local schema components with retrieved data...OK

Successfully Done.
```

**Tip:** More information about the **RCU Data** option can be found in "Understanding the Service Table Schema" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*.

More information about the other options on this screen can be found in Datasource Defaults in *Creating Domains Using the Configuration Wizard*

### Task 7 Specifying JDBC Component Schema Information

Verify that the values on the JDBC Component Schema screen are correct for all schemas. If you selected **RCU Data** on the previous screen, the schema table should already be populated appropriately.

**Tip:** For high availability environments, see the following sections in *Oracle Fusion Middleware High Availability Guide* for additional information on configuring data sources for Oracle RAC databases:

- "Configuring GridLink Data Sources with Oracle RAC"
- "Configuring Multi Data Sources"

More information about the other options on this screen can be found in JDBC Component Schema in *Creating Domains Using the Configuration Wizard*.

### Task 8 Testing the JDBC Connections

Use the JDBC Component Schema Test screen to test the datasource connections you have just configured.

A green check mark in the Status column indicates a successful test. If you encounter any issues, see the error message in the Connection Result Log section of the screen, fix the problem, then try to test the connection again.

**Tip:** More information about the other options on this screen can be found in Test Component Schema in *Creating Domains Using the Configuration Wizard*

### Task 9 Selecting Advanced Configuration

To complete domain configuration for the topology, select the following options on the Advanced Configuration screen:

- Administration Server  
This is required to properly configure the listen address of the Administration Server.
- Node Manager
- Managed Servers, Clusters and Coherence  
This is required to configure the Managed Servers and cluster, and also for configuring the machine and targeting the Managed Servers to the machine.

**Tip:** If you want to configure dynamic clusters, see the following:

- "Overview of Dynamic Clusters" in *Understanding Oracle WebLogic Server*.
- "Creating Dynamic Clusters" in *Administering Clusters for Oracle WebLogic Server*.

### Task 10 Configuring the Administration Server Listen Address

On the Administration Server screen, select the drop-down list next to Listen Address and select the IP address on the host where the Administration Server will reside. Do not use "All Local Addresses."

### Task 11 Configuring Node Manager

The Node Manager screen can be used to select the type of Node Manager you want to configure, along with the Node Manager credentials.

Select **Per-Domain Default Location** as the Node Manager type, then specify the Node Manager credentials.

**Tip:** More information about the options on this screen can be found in Node Manager in *Creating Domains Using the Configuration Wizard*.

More information about the types of Node Manager can be found in "Node Manager Overview" in *Administering Node Manager for Oracle WebLogic Server*.

### Task 12 Configuring Managed Servers

Use the Managed Servers screen to create two new Managed Servers:

1. Click the **Add** button to create a new Managed Server.
2. Specify `infra_server_1` in the Server name column.
3. In the Listen Address drop-down list, select the IP address of the host on which the Managed Server will reside. Do not use "All Local Addresses."

4. In the Server Groups drop-down list, select both **JRF-MAN-SVR** and **WSMPM-MAN-SVR**. These two server groups ensure that the Oracle JRF and Oracle Web Services Manager (OWSM) services are targeted to the Managed Servers you are creating.

Server groups target Fusion Middleware applications and services to one or more servers by mapping defined application service groups to each defined server group. Any application services that are mapped to a given server group are automatically targeted to all servers that are assigned to that group. For more information, see "Application Service Groups, Server Groups, and Application Service Mappings" in *Domain Template Reference*.

---

**A Note About the WSM-CACHE-SVR Server Group:** Nonce caching for Oracle Web Services is configured automatically by the WSM-CACHE-SVR server group and is suitable for most applications. Nonce is a unique number that can be used only once in a SOAP request and is used to prevent replay attacks. Nonce caching will naturally scale with the number of added Managed Servers running Web service applications.

For advanced caching configurations, see "Caching the Nonce with Oracle Coherence" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*, which provides additional guidance for the use of nonce caching and the WSM-CACHE-SVR server-group.

---

5. Repeat this process to create a second Managed Server named `infra_server_2`.

Configuring a second Managed Server is one of the steps needed to configure the standard topology for high availability. If you are not creating a highly available environment, then this step is optional.

For more information about the high availability standard topology, see "Understanding the Fusion Middleware Standard HA Topology" in *Oracle Fusion Middleware High Availability Guide*.

For more information about the next steps to prepare for high availability after your domain is configured, see [Section 4.3](#).

These server names will be referenced throughout this document; if you choose different names then be sure to replace them as needed.

**Tip:** More information about the options on this screen can be found in Managed Servers in *Creating Domains Using the Configuration Wizard*.

### Task 13 Configuring a Cluster

Use the Clusters screen to create a new cluster:

1. Click the **Add** button.
2. Specify `infra_cluster_1` in the Cluster Name field.
3. Leave the cluster Address field blank.



By default, server instances in a cluster communicate with one another using unicast. If you want to change your cluster communications to use multicast, refer to "Considerations for Choosing Unicast or Multicast" in *Administering Clusters for Oracle WebLogic Server*.

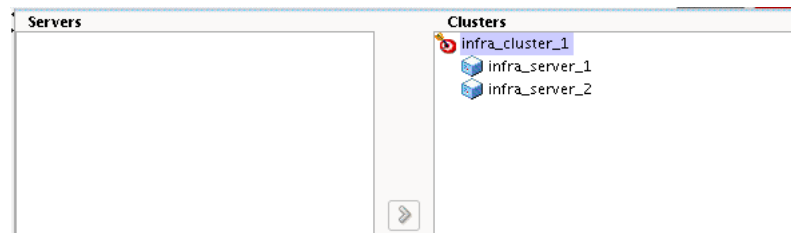
New clusters can also be created using Fusion Middleware Control. In such cases, cluster communication (unicast or multicast) can be configured when the new cluster is created. For more information, see "Create and configure clusters" in *Oracle WebLogic Server Administration Console Online Help*

**Tip:** More information about the options on this screen can be found in Clusters in *Creating Domains Using the Configuration Wizard*.

### Task 14 Assigning Managed Servers to the Cluster

Use the Assign Servers to Clusters screen to assign `infra_server_1` and `infra_server_2` to the new cluster `infra_cluster_1`:

1. In the Clusters pane, select the cluster to which you want to assign the servers; in this case, `infra_cluster_1`.
2. In the Servers pane, assign `infra_server_1` to `infra_cluster_1` by doing one of the following:
  - Click once on `infra_server_1` to select it, then click on the right arrow to move it beneath the selected cluster (`infra_cluster_1`) in the Clusters pane.
  - Double-click on `infra_server_1` to move it beneath the selected cluster (`infra_cluster_1`) in the clusters pane.
3. Repeat to assign `infra_server_2` to `infra_cluster_1`.



**Tip:** More information about the options on this screen can be found in Assign Servers to Clusters in *Creating Domains Using the Configuration Wizard*.

### Task 15 Configuring Coherence Clusters

Use the Coherence Clusters screen to configure the Coherence cluster that is automatically added to the domain. Leave the default port number 0 as the Coherence cluster listen port.

---

**Note:** Setting the unicast listen port to 0 creates an offset for the Managed Server port numbers. The offset is 5000, meaning the maximum allowed value that can be assigned to a Managed Server port number is 60535, instead of 65535.

---

See [Table 4-2](#) for more information and next steps for configuring Coherence.

---

---

**Note:** For Coherence licensing information, refer to "Oracle Coherence" in *Licensing Information*.

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### Task 16 Creating a New Machine

Use the Machines screen to create a new machine in the domain. A machine is required for the Node Manager to be able to start and stop the servers.

**Tip:** If you plan to create a high availability environment and know the list of machines required for your target topology, you can follow the directions in this section to create all of the machines at this time. For more information, see "Optional Scale Out Procedure" in *Oracle Fusion Middleware High Availability Guide*.

1. Click the **Add** button to create a new machine.
2. Specify `infra_machine_1` in the Name field.
3. In the Node Manager Listen Address field, select the IP address of the machine where the Managed Servers are being configured.

You must select a specific interface and not "localhost." This allows Coherence cluster addresses to be dynamically calculated.

4. Verify the port in the Node Manager Listen Port field.

The port number 5556, shown in this example, may be referenced by other examples in the documentation. Replace this port number with your own port number as needed.

---

---

**Note:** If you are extending an existing domain, you can assign servers to any existing machine. It is not necessary to create a new machine unless your situation requires it.

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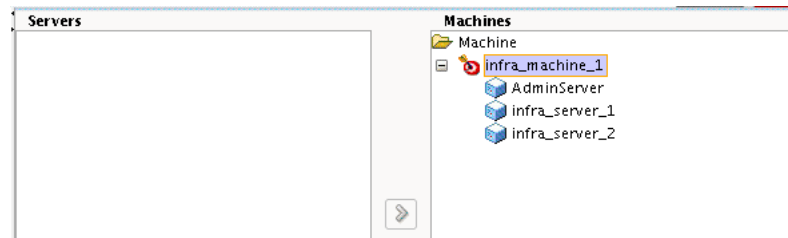
---

**Tip:** More information about the options on this screen can be found in Machines in *Creating Domains Using the Configuration Wizard*.

### Task 17 Assigning Servers to Machines

Use the Assign Servers to Machines screen to assign the Administration Server and Managed Servers to the new machine you just created:

1. In the Machines pane, select the machine to which you want to assign the servers; in this case, `infra_machine_1`.
2. In the Servers pane, assign `AdminServer` to `infra_machine_1` by doing one of the following:
  - Click once on `AdminServer` to select it, then click on the right arrow to move it beneath the selected machine (`infra_machine_1`) in the Machines pane.
  - Double-click on `AdminServer` to move it beneath the selected machine (`infra_machine_1`) in the Machines pane.
3. Repeat to assign both `infra_server_1` and `infra_server_2` to `infra_machine_1`.



**Tip:** More information about the options on this screen can be found in Assign Servers to Machines in *Creating Domains Using the Configuration Wizard*.

### Task 18 Reviewing Your Configuration Specifications and Configuring the Domain

The Configuration Summary screen contains the detailed configuration information for the domain you are about to create. Review the details of each item on the screen and verify that the information is correct.

You can go back to any previous screen if you need to make any changes, either by using the **Back** button or by selecting the screen in the navigation pane.

Domain creation will not begin until you click **Create**.

**Tip:** More information about the options on this screen can be found in Configuration Summary in *Creating Domains Using the Configuration Wizard*.

### Task 19 Writing Down Your Domain Home and Administration Server URL

The Configuration Success screen will show the following items about the domain you just configured:

- Domain Location
- Administration Server URL



You must make a note of both items as you will need them later; the domain location is needed to access the scripts used to start the Node Manager and Administration Server, and the URL is needed to access the Administration Server.

Click **Finish** to dismiss the configuration wizard.

## 3.3 Starting the Servers

After configuration is complete, do the following to access the tools with which you can manage your domain:

---

---

**Note:** For more information on additional tools you can use to manage your domain, see "Overview of Oracle Fusion Middleware Administration Tools" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.

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- [Section 3.3.1, "Starting the Node Manager"](#)
- [Section 3.3.2, "Starting the Administration Server"](#)
- [Section 3.3.3, "Starting the Managed Servers"](#)

### 3.3.1 Starting the Node Manager

To start your per-domain Node Manager, go to the `DOMAIN_HOME/bin` directory.

On UNIX operating systems, start the Node Manager as shown below, using `nohup` and `nm.out` as an example output file:

```
nohup ./startNodeManager.sh > nm.out&
```

On Windows operating systems, run:

```
startNodeManager.cmd
```

---

---

**Note:** On Windows operating systems, Oracle recommends that you configure Node Manager to run as a startup service. This allows Node Manager to start up automatically each time the system is restarted.

For more information, see "Running Node Manager as a Startup Service" in *Administering Node Manager for Oracle WebLogic Server*.

---

---

For more information about additional Node Manager configuration options, see *Administering Node Manager for Oracle WebLogic Server*.

### 3.3.2 Starting the Administration Server

To start the Administration Server, go to the `DOMAIN_HOME/bin` directory.

On UNIX operating systems, run:

```
./startWebLogic.sh
```

On Windows operating systems, run:

```
startWebLogic.cmd
```

If you selected **Production Mode** on the Domain Mode and JDK screen in [Task 5](#), you will be prompted for the login credentials of the Administrator user as provided on the Administrator Account screen in [Task 4](#).



**Tip:** For more information about starting the Administration Server, see "Starting and Stopping Administration Servers" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.

In production mode, a boot identity file can be created to bypass the need to provide a user name and password when starting the Administration Server. For more information, see "Creating a Boot Identity File for an Administration Server" in *Administering Server Startup and Shutdown for Oracle WebLogic Server*.

You can verify that the Administration Server is up and running by access the Administration Server Console. The URL is provided on the Configuration Success screen in [Task 19](#).

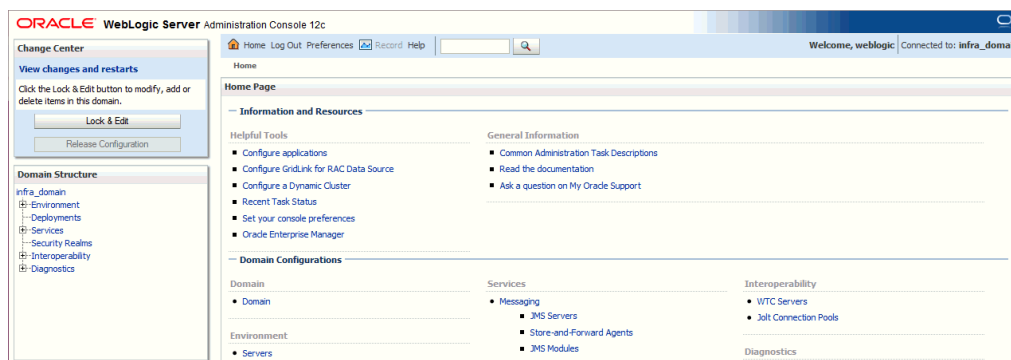
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**Note:** Make sure that the database hosting your product schemas is up and running and accessible by the Administration Server.

---

`http://administration_server_host:administration_server_port/console`

The default Administration Server port number is 7001.



For more information about how to use the Administration Console, see "Getting Started Using Oracle WebLogic Server Administration Console" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.

### 3.3.3 Starting the Managed Servers

To start the Managed Servers:

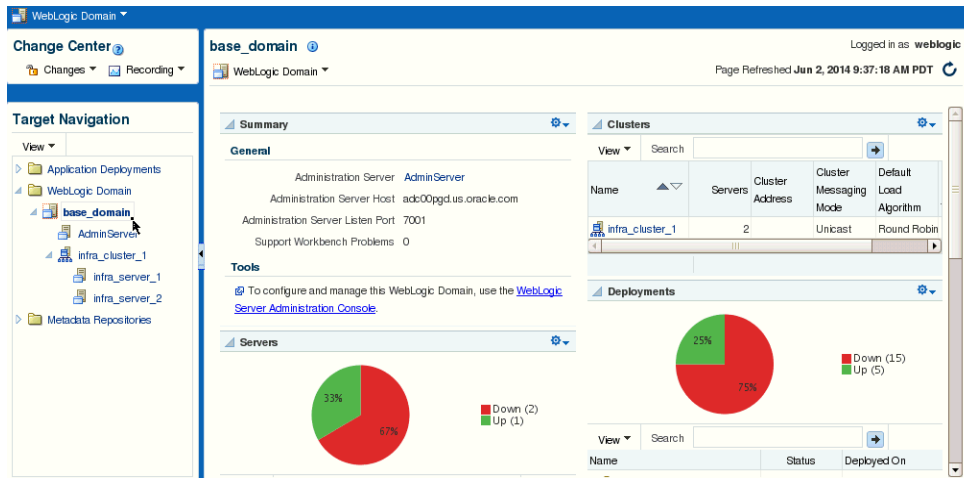
1. Log in to Oracle Fusion Middleware Control:

`http://administration_server_host:administration_server_port/em`

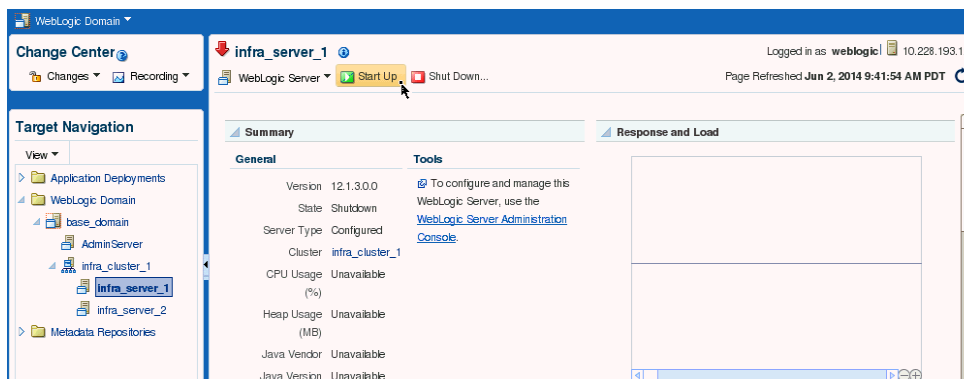
The Administration Server host and port number were in the URL on the Configuration Success screen ([Task 19](#)). The default Administration Server port number is 7001.

The login credentials were provided on the Administrator Account screen ([Task 4](#)).

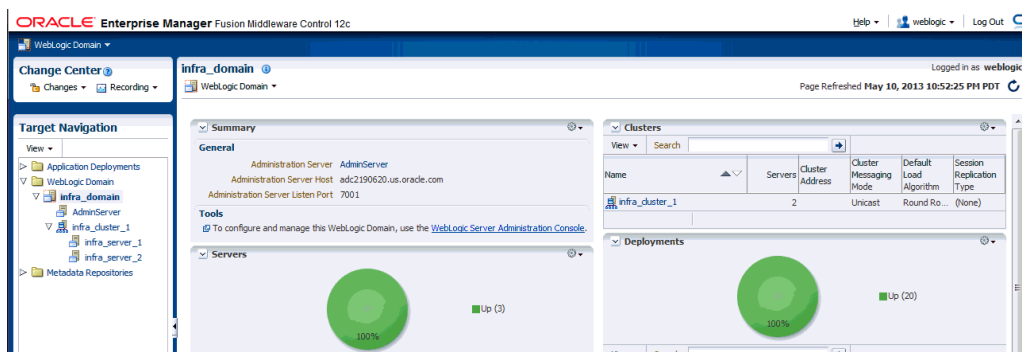
2. From the "Target Navigation" pane, click the arrows to expand the domain until the Managed Servers (`infra_server_1` and `infra_server_2`) are visible.



3. Select the first Managed Server (infra\_server\_1).
4. Next to the **WebLogic Server** menu, select **Start Up**.



5. Repeat Steps 3 and 4 to start infra\_server\_2.
6. In the Target Navigation page, select your domain name to see that all the servers are up and running.



**Tip:** More information about managing Oracle Fusion Middleware using Oracle Enterprise Manager Fusion Middleware Control can be found in *Oracle Fusion Middleware Administering Oracle Fusion Middleware with Fusion Middleware Control*.

## 3.4 Verifying Your Configuration

To verify that your domain is configured properly, see [Section 4.1](#). You should familiarize yourself with the tasks described in this section and perform them to verify that your domain is properly configured.



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## Next Steps After Configuring the Infrastructure Domain

This chapter describes common tasks you might want to perform on a newly created Oracle Fusion Middleware Infrastructure domain.

The following sections are included in this chapter:

- [Section 4.1, "Performing Basic Administrative Tasks"](#)
- [Section 4.2, "Performing Additional Domain Configuration Tasks"](#)
- [Section 4.3, "Preparing Your Environment For High Availability"](#)

### 4.1 Performing Basic Administrative Tasks

[Table 4–1](#) lists some common administration tasks you will likely want to perform on your newly created domain.

**Table 4–1 Basic Administration Tasks for a New Domain**

Task	Description	More Information
Getting familiar with Fusion Middleware administration tools	Get familiar with the various tools available which you can use to manage your environment.	"Overview of Oracle Fusion Middleware Administration Tools" in <i>Oracle Fusion Middleware Administering Oracle Fusion Middleware</i> .
Starting and stopping products and servers	Learn how to start and stop Oracle Fusion Middleware, including the Administration Server, Managed Servers, and components.	"Starting and Stopping Oracle Fusion Middleware" in <i>Oracle Fusion Middleware Administering Oracle Fusion Middleware</i> .
Configuring Secure Sockets Layer (SSL)	Learn how to set up secure communications among Oracle Fusion Middleware components using SSL.	"Configuring SSL in Oracle Fusion Middleware" in <i>Oracle Fusion Middleware Administering Oracle Fusion Middleware</i> .
Monitoring Oracle Fusion Middleware	Learn how to keep track of the status of Oracle Fusion Middleware components.	"Monitoring Oracle Fusion Middleware" in <i>Oracle Fusion Middleware Administering Oracle Fusion Middleware</i> .
Understanding Backup and Recovery Procedures	Learn the recommended backup and recovery procedures for Oracle Fusion Middleware.	"Introducing Backup and Recovery" in <i>Oracle Fusion Middleware Administering Oracle Fusion Middleware</i> .

## 4.2 Performing Additional Domain Configuration Tasks

Table 4–2 lists some additional tasks you will likely want to perform on your newly created domain.

**Table 4–2 Additional Domain Configuration Tasks**

Task	Description	More Information
Deploying Applications	Learn how to deploy your applications to Oracle Fusion Middleware.	"Deploying Applications" part in <i>Oracle Fusion Middleware Administering Oracle Fusion Middleware</i> .
Adding a Web Tier front-end to your domain	Oracle Web Tier hosts Web pages (static and dynamic), provides security and high performance along with built-in clustering, load balancing, and failover features. In particular, the Web Tier contains Oracle HTTP Server.	Follow the instructions to install and configure Oracle HTTP Server in the WebLogic Server domain in <i>Oracle Fusion Middleware Installing and Configuring Oracle HTTP Server</i> .  Also refer to "Installing Multiple Products in the Same Domain" in <i>Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware</i> for important information.
Tuning and configuring Coherence for your topology	The standard installation topology includes a Coherence cluster that contains storage-enabled Managed Coherence Servers. This configuration is a good starting point for using Coherence, but depending upon your specific requirements, consider tuning and reconfiguring Coherence to improve performance in a production environment.	For information about Coherence clusters, see "Configuring and Managing Coherence Clusters" in <i>Administering Clusters for Oracle WebLogic Server</i> .  For information about tuning Coherence, see <i>Administering Oracle Coherence</i> .  For information about storing HTTP session data in Coherence, see "Using Coherence*Web with WebLogic Server" in <i>Administering HTTP Session Management with Oracle Coherence*Web</i> .  For more information about creating and deploying Coherence applications, see <i>Developing Oracle Coherence Applications for Oracle WebLogic Server</i> .

## 4.3 Preparing Your Environment For High Availability

Table 4–3 provides a list of tasks to perform if you want to scale out your standard installation environment for high availability.

**Table 4–3 Tasks Required to Prepare Your Environment for High Availability**

<b>Task</b>	<b>Description</b>	<b>More Information</b>
Configuring Node Manager	Node Manager enables you to start, shut down, and restart the Administration Server and Managed Server instances from a remote location, making this an essential utility for any high availability environment.	<i>Administering Node Manager for Oracle WebLogic Server.</i>
Scaling out to multiple host computers	To enable high availability, it is important to provide failover capabilities to another host computer. That way, if one computer goes down, your environment can continue to serve the consumers of your deployed applications.	"Scaling Out a Topology (Machine Scaleout)" in the <i>Oracle Fusion Middleware High Availability Guide</i> .
Configuring high availability for your Web Tier components.	If you have added a Web tier front-end, then you must configure the Web Tier for high availability, as well as the WebLogic Server software.	"Configuring High Availability for Web Tier Components" in <i>Oracle Fusion Middleware High Availability Guide</i> .
Setting up a front-end load balancer	A load balancer can be used to distribute requests across servers more evenly.	"Server Load Balancing in a High Availability Environment" and "Configure Load Balancer" in <i>Oracle Fusion Middleware High Availability Guide</i> .





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# Deinstalling Oracle Fusion Middleware Infrastructure

This chapter describes how to deinstall or reinstall Oracle Fusion Middleware Infrastructure.

You should always use the instructions provided in this chapter for removing the software. If you try to remove the software manually, you may experience problems when you try to reinstall the software again at a later time. Following the procedures in this chapter will ensure that the software is properly removed.

This chapter includes the following sections:

- [Section 5.1, "Understanding Product Deinstallation"](#)
- [Section 5.2, "Stopping Oracle Fusion Middleware"](#)
- [Section 5.3, "Removing Your Database Schemas"](#)
- [Section 5.4, "Deinstalling the Software"](#)
- [Section 5.5, "Removing the Oracle Home Directory Manually"](#)
- [Section 5.6, "Removing the Program Shortcuts on Windows Operating Systems"](#)
- [Section 5.7, "Removing Your Domain and Application Data"](#)
- [Section 5.8, "Reinstalling the Software"](#)

## 5.1 Understanding Product Deinstallation

The Oracle Fusion Middleware deinstaller removes the software from the Oracle home directory from which it is started. [Table 5–1](#) summarizes the procedure and provides links to supporting documentation.

**Table 5–1 Roadmap for Deinstalling Oracle Fusion Middleware Infrastructure**

Task	Description	Documentation
Stop Oracle Fusion Middleware.	All servers and processes in your domain should be stopped before running the deinstaller.	See <a href="#">Section 5.2</a> .
Remove your database schemas.	Run Repository Creation Utility to remove your database schemas.	See <a href="#">Section 5.3</a> .
Remove the software.	Run the product deinstaller to remove Oracle Fusion Middleware Infrastructure.	See <a href="#">Section 5.4</a> .

**Table 5–1 (Cont.) Roadmap for Deinstalling Oracle Fusion Middleware Infrastructure**

Task	Description	Documentation
Remove the Oracle home directory.	The deinstaller does not remove all files and folders from the Oracle home directory. After the deinstaller is finished, you must manually remove the Oracle home to complete your product removal.	See <a href="#">Section 5.5</a> .
Remove the program shortcuts on Windows operating systems.	The deinstaller does not remove the program shortcuts on your Windows operating system.	See <a href="#">Section 5.6</a> .
Remove your domain and application data.	The deinstaller does not remove data contained in your Domain home or Application home directories, even if they are located inside the Oracle home. If necessary, you must remove these directories manually.	See <a href="#">Section 5.7</a> .

## 5.2 Stopping Oracle Fusion Middleware

Before running the deinstaller, you should stop all servers and processes associated with the Oracle home you are going to remove.

For more information, see "Stopping an Oracle Fusion Middleware Environment" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.

## 5.3 Removing Your Database Schemas

Before your Oracle home is removed, you should run Repository Creation Utility to remove the database schemas associated with this domain. Each domain has its own set of schemas, uniquely identified by a custom prefix (see "Understanding Custom Prefixes" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*). This set of schemas cannot be shared with any other domain (see "Planning Your Schema Creation" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*).

If there are multiple sets of schemas on your database, be sure to identify the schema prefix associated with the domain you are removing.

For schema removal instructions, see "Dropping Schemas" in *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*.

## 5.4 Deinstalling the Software

Follow the instructions in this section to start the product deinstaller and remove the software.

- [Section 5.4.1, "Starting the Deinstallation Program"](#)
- [Section 5.4.2, "Navigating the Deinstallation Screens"](#)

If you want to perform a silent (command-line) deinstallation, see "Running the Oracle Universal Installer for Silent Deinstallation" in *Oracle Fusion Middleware Installing Software with the Oracle Universal Installer*.

### 5.4.1 Starting the Deinstallation Program

To start the deinstaller on a Windows operating system, do one of the following:

1. Use a file manager window to go to the `ORACLE_HOME\oui\bin` directory and double click on `deinstall.cmd`.

- From the command line, go to the `ORACLE_HOME\oui\bin` and enter the following command:

```
deinstall.cmd
```

- From the **Start** menu, select **All Programs**, then select **Oracle**, then select **OracleHome**, then select **Uninstall Oracle Middleware**.

To start the deinstaller on a UNIX operating system, go to the `ORACLE_HOME/oui/bin` directory and enter the following command:

```
./deinstall.sh
```

## 5.4.2 Navigating the Deinstallation Screens

The deinstallation program displays a series of screens, in the order listed in [Table 5–2](#).

If you need additional help with any of the deinstallation screens, click the screen name.

**Table 5–2 Deinstall Screens and Descriptions**

Screen	Description
Welcome	This screen introduces you to the product deinstaller.
Deinstallation Summary	This screen shows the Oracle home directory and its contents that will be deinstalled. Verify that this is the correct directory. Click <b>Deinstall</b> to begin removing the software.
Deinstallation Progress	This screen shows the progress of the deinstallation.
Deinstallation Complete	This screen appears when the deinstallation is complete. Review the information on this screen, then click <b>Finish</b> to dismiss the deinstaller.

## 5.5 Removing the Oracle Home Directory Manually

After the deinstaller is finished, you must manually remove your Oracle home directory and any existing sub-directories that were not removed by the deinstaller. For example, if your Oracle home directory was `/home/Oracle/Products/Oracle_Home` on a UNIX operating system:

```
> cd /home/Oracle/Products
> rm -rf Oracle_Home
```

On a Windows operating system, if your Oracle home directory was `C:\Oracle\Products\Oracle_Home`, use a file manager window and navigate to the `C:\Oracle\Products` directory, then right-click on the `Oracle_Home` folder and select **Delete**.

## 5.6 Removing the Program Shortcuts on Windows Operating Systems

On Windows operating systems, you must also manually remove the program shortcuts; the deinstaller does not remove them for you.

Go to the `C:\Program Data\Microsoft\Windows\Start Menu\Programs\Oracle\Oracle Home\Product` directory. If you only have one product installed in your Oracle home, you can remove the `Oracle Home` directory. If you have multiple products installed in your Oracle home, you must remove all products before removing the `Oracle Home`.

## 5.7 Removing Your Domain and Application Data

If you are no longer going to use the domain and application files, use the following procedure to remove them.

To remove your domain and application data:

1. Manually remove your Domain home directory.

For example, if your Domain home directory was `/home/Oracle/config/domains/infra_domain` on a UNIX operating system:

```
> cd /home/Oracle/config/domains
> rm -rf infra_domain
```

On a Windows operating system, if your Domain home directory was `C:\Oracle\Config\domains\infra_domain`, use a file manager window and navigate to the `C:\Oracle\Config\domains` directory, then right-click on the `infra_domain` folder and select **Delete**.

2. Manually remove your Application home directory.

For example, if your Application home directory was `/home/Oracle/config/applications/infra_domain` on a UNIX operating system:

```
> cd /home/Oracle/config/applications
> rm -rf infra_domain
```

On a Windows operating system, if your Application home directory was `C:\Oracle\Config\applications\infra_domain`, use a file manager window and navigate to the `C:\Oracle\Config\applications` directory, then right-click on the `infra_domain` folder and select **Delete**.

3. Backup the `domain_registry.xml` file in your Oracle home, then edit the file and remove the line associated with the domain you are removing. For example, to remove the `infra_domain`, find the following line and remove it:

```
<domain location="/home/Oracle/config/domains/infra_domain"/>
```

Save and exit the file when you are finished.

## 5.8 Reinstalling the Software

You can reinstall your software into the same Oracle home as a previous installation only if you have deinstalled the software according to the instructions in this chapter, including manually removing the Oracle home directory. When you reinstall, you can then specify the same Oracle home as your previous installation.

Consider the following cases where the Oracle home is not empty:

- Installing in an existing Oracle home that contains the same feature sets.

The installer will warn you that the Oracle home you specified during the installation already contains the same software you are trying to install. Your options are to:

- a. Select a different installation type. In this case, only the feature sets that do not already exist in the Oracle home directory will be installed.
- b. Select a different Oracle home directory.

- Installing in an existing, non-empty Oracle home.

For example, suppose that you have chosen to create your Domain home or Application home somewhere inside your existing Oracle home. This data is not removed during the deinstallation process, so if you attempt to reinstall into the same Oracle home, the installer will not allow it. Your options are to:

- a. Deinstall your software from the Oracle home as described in this chapter, and then remove the Oracle home directory. After this is complete, you can reinstall and reuse the same Oracle home location, using the instructions in [Chapter 2](#). Any domain or application data that was in the Oracle home will have to be re-created.
- b. Select a different Oracle home directory.



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## Understanding the Oracle Fusion Middleware Infrastructure Distribution

This appendix describes the products and feature sets available in the Oracle Fusion Middleware Infrastructure distribution.

See [Table A-1](#) for details.

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**Table A–1 Oracle Fusion Middleware Infrastructure Products and Feature Sets**

Product	Feature Set	Description
Core Server	<b>Core Application Server</b>	<p>A complete application server that implements Java Enterprise Edition 6 (Java EE 6) technologies, Web Services, and other leading Internet standards to provide a reliable framework for highly available, scalable, and secure applications and services. Includes the full set of components that comprise the essential WebLogic Server run time with full Java EE 6 support.</p> <p>This feature set does not include administration tools and add-on technologies, such as the Administration Console, Web Server plug-ins, Beehive run-time framework, JDBC drivers, and so on.</p>
	<b>Coherence Product Files</b>	<p>Coherence provides replicated and distributed (partitioned) data management and caching services on top of a reliable, highly scalable peer-to-peer clustering protocol. Coherence has no single points of failure; it automatically and transparently fails over and redistributes its clustered data management services when a server becomes inoperative or is disconnected from the network. When a new server is added, or when a failed server is restarted, it automatically joins the cluster and Coherence fails back services to it, transparently redistributing the cluster load. Coherence includes network-level fault tolerance features and transparent soft re-start capability to enable servers to self-heal.</p> <p>For more information about Coherence, see <i>Oracle Coherence Getting Started Guide</i>.</p>
	<b>Web 2.0 HTTP Pub-Sub Server</b>	<p>A channels based publish-subscribe mechanism for Web-based clients to send and receive asynchronous messages over HTTP. The HTTP Publish-Subscribe server can be used by Web clients to subscribe to channels (a representation in Bayeux for destinations) and publish messages to the channels. Developers are recommended to install the pub-sub sample, available by selecting the <b>Server Examples</b> product component.</p> <p>If this component is not installed, you will not be able to take advantage of Web 2.0 HTTP Publish-Subscribe functionality.</p> <p>For more information, see "Using the HTTP Publish-Subscribe Server" in <i>Developing Web Applications, Servlets, and JSPs for Oracle WebLogic Server</i>.</p>
	<b>WebLogic SCA</b>	<p>This is a Spring container for Java applications that use SCA semantics to expose services and invoke references. The container is included as an optional library in WebLogic Server.</p>
	<b>WebLogic Client Jars</b>	<p>These are client-side WebLogic applications.</p>
	<b>Oracle WebLogic Communication Services</b>	<p>Oracle WebLogic Communication Services (OWLCS) is a platform designed to integrate communication services with enterprise services and applications.</p>
Administrative Tools	<b>Administration Console Additional Language Help Files</b>	<p>The WebLogic Server Web application for configuring, administering, and monitoring WebLogic domains.</p> <p>If you do not install the Administration Console, the console will not be available when you start the Administration Server.</p> <p>For information, see "About the Administration Console" in <i>Understanding Oracle WebLogic Server</i>.</p>
	<b>CIE WLS Config</b>	<p>Provides files used by the Oracle Fusion Middleware Configuration Wizard.</p>
	<b>Enterprise Manager</b>	<p>Oracle Enterprise Manager Fusion Middleware Control is a Web browser-based, graphical user interface that you can use to monitor and administer your domain.</p> <p>For more information, see "Getting Started Using Oracle Enterprise Manager Fusion Middleware Control" in <i>Oracle Fusion Middleware Administering Oracle Fusion Middleware</i>.</p>

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**Table A–1 (Cont.) Oracle Fusion Middleware Infrastructure Products and Feature Sets**

<b>Product</b>	<b>Feature Set</b>	<b>Description</b>
<b>Database Support</b>	<b>Third-Party JDBC Drivers</b>	<p>Other JDBC drivers bundled with WebLogic Server that can be used to connect a WebLogic Server environment to an external database.</p> <p>For more information about this feature set, see "Using JDBC Drivers with WebLogic Server" in <i>Administering JDBC Data Sources for Oracle WebLogic Server</i>.</p>
	<b>WebLogic Evaluation Database</b>	<p>Installs an evaluation database, which is used by the Server Examples, into the <code>ORACLE_HOME/wlserver/common/derby</code> directory.</p> <p>If you do not choose the <b>Fusion Middleware Infrastructure with Examples</b> install type, this evaluation database is still installed.</p>
<b>Open Source Components</b>	<b>Third Party Jackson</b>	<p>Third party open source software for processing JavaScript Object Notation (JSON) data formats.</p>
	<b>Third Party Jersey</b>	<p>Third party open source software representing the official implementation of the Representational State Transfer (REST) architecture.</p> <p>For more information, see <i>Developing and Securing RESTful Web Services for Oracle WebLogic Server</i>.</p>
	<b>Third Party Maven Apache</b>	<p>Maven is a build management tool that is central to project build tasks such as compilation, packaging, and artifact management.</p> <p>For more information, see <i>Oracle Fusion Middleware Developing Applications Using Continuous Integration</i>.</p>
<b>Examples</b>	<b>Server Examples</b>	<p>Server Examples are example applications that demonstrate key features of WebLogic Server.</p> <p>For more information, see "Sample Application and Code Examples" in <i>Understanding Oracle WebLogic Server</i>.</p>
	<b>Coherence Examples</b>	<p>Coherence Examples demonstrate how to use the features of Coherence in all supported languages (Java, .NET, and C++). The examples are organized collections of code that show how to use one or more features, and provide a single common way (per language) to build and run all examples. Source code for the examples is included.</p> <p><b>Note:</b> Both Server Examples and Coherence Examples are only installed if you select the <b>Fusion Middleware Infrastructure with Examples</b> install type.</p>

**Table A–1 (Cont.) Oracle Fusion Middleware Infrastructure Products and Feature Sets**

Product	Feature Set	Description
JRF and Enterprise Manager	WLS for FMW	<p>Installing this component creates the <code>oracle_common</code> directory inside the specified Oracle home. This directory contains:</p> <ul style="list-style-type: none"> <li> <p>■ Repository Creation Utility</p> <p>Location: <code>ORACLE_HOME/oracle_common/bin</code></p> <p>This is the tool used to create database schemas for Fusion Middleware products. For more information, see <i>Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility</i>.</p> </li> <li> <p>■ Configuration Wizard</p> <p>Location: <code>ORACLE_HOME/oracle_common/common/bin</code></p> <p>The Configuration Wizard guides you through the process of creating a domain for your target environment and selecting the configuration options you want to include. To manage this domain and the servers that are created, you can use the Administration Console or Fusion Middleware Control.</p> <p><b>Note:</b> The WebLogic Scripting Tool (WLST) has a dependency on the Configuration Wizard. WLST is available only if you select this component for installation.</p> <p>For information about the Configuration Wizard, see <i>Creating Domains Using the Configuration Wizard</i>.</p> </li> <li> <p>■ Upgrade Assistant</p> <p>Location: <code>ORACLE_HOME/oracle_common/upgrade/bin</code></p> <p>The Upgrade Assistant convert a domain configuration from previous WebLogic Server release to the current release. For information about the upgrade tools, see <i>Upgrading Oracle WebLogic Server</i>.</p> </li> <li> <p>■ Oracle Application Development Framework (ADF)</p> <p>This is a Java framework for building enterprise applications, providing visual and declarative approaches to Java EE development.</p> </li> </ul>
	OPatch	The OPatch utility is a tool that allows the application and rollback of interim patches to Oracle products.
Oracle Automatic Diagnostic Repository Feature Set Group	TopLink Developer	Oracle TopLink builds high-performance applications that store persistent object-oriented data in a relational database. It successfully transforms object-oriented data into either relational data or Extensible Markup Language (XML) elements.