Oracle® Fusion Middleware
Installing and Configuring Oracle WebLogic Server and
Coherence
12c (12.1.3)
E48355-02

July 2014
Documentation for installers and system administrators that
describes how to install and configure Oracle WebLogic
Server and Coherence.
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A Understanding the Oracle WebLogic Server and Coherence Distribution
Preface

This document describes how to install and configure Oracle WebLogic Server and Coherence.

Audience

This document is intended for system administrators or application developers who are installing WebLogic Server. It is assumed that readers are familiar with Web technologies and have a general understanding of Windows and UNIX platforms.

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

For more information, see the following documents in the 12c (12.1.3) documentation library:

- **Upgrading Oracle WebLogic Server**
  
  If you are upgrading your Oracle WebLogic Server installation from an earlier version (for example from a 10.x release in 11g to a 12c release), this document explains how to upgrade the entire WebLogic Server environment, including applications, the WebLogic domains in which they are deployed, and any application data associated with the domain. This may include external resources, such as database servers, firewalls, load balancers, and LDAP servers.

- **Installing and Configuring the Oracle Fusion Middleware Infrastructure**
  
  Oracle WebLogic Server is also available as part of the Oracle Fusion Middleware Infrastructure distribution. Refer to this book if you want to install Oracle WebLogic Server with Infrastructure capabilities.
Conventions

The following text conventions are used in this document:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td><em>italic</em></td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td>monospace</td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
</tbody>
</table>
Planning the Oracle WebLogic Server Installation

This chapter helps to prepare you for installing Oracle WebLogic Server and Coherence.

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.

The following sections are included:

- Section 1.1, "Using this Document"
- Section 1.2, "Understanding the WebLogic Server and Coherence Standard Installation Topology"
- Section 1.3, "Roadmap for Installing and Configuring the Installation Topology"
- Section 1.4, "Roadmap for Verifying Your System Environment"
- Section 1.5, "Understanding and Obtaining the Oracle WebLogic Server and Coherence Distribution"

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 in an Upgrade Scenario"
- Section 1.1.3, "Using this Document to Extend a Domain"
- Section 1.1.4, "Using Installation Documents for Development Environments"

1.1.1 Using the Standard Installation Topology as a Starting Point

This guide will help you create the standard installation topology for Oracle WebLogic Server and Coherence (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 Planning an Installation of Oracle Fusion Middleware.
1.1.2 Using this Document in an Upgrade Scenario

If you are installing Oracle WebLogic Server and Coherence 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.

1.1.3 Using this Document to Extend a 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 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.

1.1.4 Using Installation Documents for Development Environments

This guide describes how to use the Oracle WebLogic Server and Coherence distribution to install and configure a runtime, production environment for Oracle WebLogic Server.

In addition, Oracle provides Oracle WebLogic Server development-only and supplemental installers.

- The development-only installer is a ZIP file that you simply extract to create a WebLogic Server installation. This ZIP file contains a WebLogic Server installation that includes all of the artifacts you need to develop Java applications development. You cannot apply a patch to the development-only installation; the installer does not contain OPatch.

  You must not use this WebLogic Server installation for production. Do not use the ZIP file installation to configure a production environment. For more information, refer to the readme file in the ZIP archive, which also contains up-to-date information about changes for this release.

- The supplemental installer ZIP file is also available to provide additional features, such as server examples, for a development-only installation.

For more information about setting up a development environment, refer to the following resources:

- See "Overview of WebLogic Server Application Development” in Developing Applications for Oracle WebLogic Server for a complete list of considerations to keep in mind when you set up a development environment for Oracle WebLogic Server.

- See Installing Oracle JDeveloper for instructions to install Oracle JDeveloper, which is an integrated development environment (IDE) for building applications using the latest standards for Java, XML, Web services, and SQL.

1.2 Understanding the WebLogic Server and Coherence Standard Installation Topology

The standard installation topology for Oracle WebLogic Server and Coherence is shown in Figure 1–1.
This topology includes a standard WebLogic Server domain that contains two Managed Servers in a cluster and an Administration Server, all configured on a single host.

Each element in this topology illustration is described in Table 1–1.

Table 1–1 Description of the Elements in the Oracle WebLogic Server and Coherence Standard Installation Topology

<table>
<thead>
<tr>
<th>Element</th>
<th>Description and Links to Additional Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPHOST</td>
<td>Standard term used in Oracle documentation referring to the machine that is hosting the application tier.</td>
</tr>
<tr>
<td>WebLogic Domain</td>
<td>A logically related group of Java components (in this case, the Administration Server, Managed Servers, and other related software components). For more information, see &quot;What is an Oracle WebLogic Server Domain&quot; in Understanding Oracle Fusion Middleware.</td>
</tr>
<tr>
<td>Administration Server</td>
<td>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 &quot;What is the Administration Server&quot; in Understanding Oracle Fusion Middleware.</td>
</tr>
<tr>
<td>Cluster</td>
<td>A collection of multiple WebLogic Server instances running simultaneously and working together. For more information, see &quot;Understanding Managed Servers and Managed Server Clusters&quot; in Understanding Oracle Fusion Middleware.</td>
</tr>
<tr>
<td>Machine</td>
<td>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.</td>
</tr>
<tr>
<td>Managed Server</td>
<td>Host for your applications, application components, Web services, and their associated resources. For more information, see &quot;Understanding Managed Servers and Managed Server Clusters&quot; in Understanding Oracle Fusion Middleware.</td>
</tr>
</tbody>
</table>

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 Installation Topology

This guide provides all the steps required to install and configure WebLogic Server. 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 shows the steps required to install and configure Oracle WebLogic Server.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify your system environment</td>
<td>Before beginning the installation, verify that the minimum system and network requirements are met.</td>
<td>Section 1.4.</td>
</tr>
<tr>
<td>Obtain the appropriate distribution</td>
<td>To create the topology described in this section, obtain the Oracle WebLogic Server and Coherence distribution.</td>
<td>Section 1.5.</td>
</tr>
<tr>
<td>Determine your installation directories</td>
<td>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.</td>
<td>“What are the Key Oracle Fusion Middleware Directories?” in Understanding Oracle Fusion Middleware.</td>
</tr>
</tbody>
</table>

Table 1–3 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 WebLogic Server and Coherence.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify certification and system requirements.</td>
<td>Verify that your operating system is certified and properly configured for Oracle Fusion Middleware WebLogic Server and Coherence installation and configuration.</td>
<td>See “Verifying Certification, System Requirements and Interoperability” in Planning an Installation of Oracle Fusion Middleware.</td>
</tr>
<tr>
<td>Identify a proper installation user.</td>
<td>Verify that the installation user has the proper permissions to install and configure the software.</td>
<td>See “Selecting an Installation User” in Planning an Installation of Oracle Fusion Middleware.</td>
</tr>
<tr>
<td>Select the installation and configuration directories on your system.</td>
<td>Verify that you are able to create the necessary directories for installation and configuration, according to the recommended directory structure.</td>
<td>See “Selecting Directories for Installation and Configuration” in Planning an Installation of Oracle Fusion Middleware.</td>
</tr>
<tr>
<td>Install a certified JDK.</td>
<td>The installation program for the distribution requires that your system have a certified JDK.</td>
<td>See &quot;Installing a JDK&quot; in Planning an Installation of Oracle Fusion Middleware.</td>
</tr>
</tbody>
</table>
1.5 Understanding and Obtaining the Oracle WebLogic Server and Coherence Distribution

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

To download the Oracle WebLogic Server and Coherence software for development or evaluation, see the following location on the Oracle Technology Network (OTN):


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

To obtain Oracle WebLogic Server and Coherence, go to Oracle Technology Network and follow these steps:

1. Find fmw_12.1.3.0.0_wls_Disk1_1of1.zip and download this file onto your system.

2. Extract the contents of this .zip file onto your system. One of the files extracted will be fmw_12.1.3.0.0_wls.jar; this file will be used to run the product installer and install the software onto your system (Chapter 2).

The Oracle SOA Suite and Business Process Management distribution contains the products and feature sets described in Appendix A.
This chapter describes how to start the Oracle WebLogic Server and Coherence installation program in graphical mode. It also describes the sequence of screens that appear in the installation process.

The following sections are included:

- Section 2.1, "Starting the Installation Program"
- Section 2.2, "Navigating the Installation Screens"
- Section 2.3, "Understanding the Coherence Installation Type"

### 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. Change to the directory that contains the downloaded installation program.

4. Launch the installation program by invoking `java -jar` from the JDK directory on your system, as shown in the examples below:
   - On UNIX operating systems:
     ```
     /home/Oracle/jdk7_51/jdk1.7.0_51/bin/java -jar fmw_12.1.3.0.0_wls.jar
     ```
   - On Windows operating systems:
     ```
     C:\Program Files\Java\jdk1.7.0_51\bin\java -jar fmw_12.1.3.0.0_wls.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. Each installation screen has a help button that you can click to get more information.
### Table 2–1 Oracle WebLogic Server and Coherence Installation Screens

<table>
<thead>
<tr>
<th>Screen</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation Inventory Setup</td>
<td>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. For more information about the central inventory, see &quot;Understanding the Oracle Central Inventory&quot; in Installing Software with the Oracle Universal Installer. This screen will not appear on Windows operating systems.</td>
</tr>
<tr>
<td>Welcome</td>
<td>This screen introduces you to the product installer.</td>
</tr>
<tr>
<td>Installation Location</td>
<td>Use this screen to specify the location of your Oracle home directory. For more information about Oracle Fusion Middleware directory structure, see &quot;Selecting Directories for Installation and Configuration&quot; in Planning an Installation of Oracle Fusion Middleware.</td>
</tr>
<tr>
<td>Installation Type</td>
<td>Options are Weblogic Server, Coherence, and Complete with Examples. To create the standard installation topology for WebLogic Server and Coherence, select WebLogic Server. NOTE: The topology in this document does not include server examples; Oracle strongly recommends that you do not install the examples into a production environment. See Section 2.3 for more information about the Coherence installation type. See Appendix A, &quot;Understanding the Oracle WebLogic Server and Coherence Distribution&quot; for more information about Oracle WebLogic Server installation types.</td>
</tr>
<tr>
<td>Prerequisite Checks</td>
<td>This screen verifies that your system meets the minimum necessary requirements. If there are any warning or error messages, you can refer to one of the following documents in Section 1.4.</td>
</tr>
<tr>
<td>Specify Security Updates</td>
<td>If you already have an Oracle Support account, use this screen to indicate how you would like to receive security updates. 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.</td>
</tr>
<tr>
<td>Installation Summary</td>
<td>Use this screen to verify the installation options you selected. If you want to save these options to a response file, click Save Response File and provide the location and name of the response file. Response files can be used later in a silent installation mode. For more information about silent or command line installation, see &quot;Using the Oracle Universal Installer in Silent Mode&quot; in Installing Software with the Oracle Universal Installer.</td>
</tr>
<tr>
<td>Installation Progress</td>
<td>This screen shows the progress of the installation.</td>
</tr>
</tbody>
</table>
2.3 Understanding the Coherence Installation Type

For the WebLogic Server and Coherence standard installation topology, select the WebLogic Server installation type. When you select this installation type and use the instructions in this guide, the standard installation topology includes a Coherence cluster that contains storage-enabled Managed Coherence Servers.

The Coherence Installation type is available for users who want to deploy and manage Coherence applications using the WebLogic Management Framework. For more information, see the following:

- "Deploying Coherence Applications" in Administering Oracle Coherence.
- "What is the WebLogic Management Framework?" in Understanding Oracle Fusion Middleware.
This chapter describes the steps required to create the WebLogic Server domain after the Oracle Fusion Middleware WebLogic Server and Coherence software has been successfully installed.

The following topics are covered:

- Section 3.1, "Configuring the WebLogic Domain"
- Section 3.2, "Starting the Servers"
- Section 3.3, "Verifying the Configuration"

### 3.1 Configuring the 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 3.1.1, "Starting the Configuration Wizard"
- Section 3.1.2, "Navigating the Configuration Wizard Screens to Configure the Domain"

#### 3.1.1 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
```

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

Follow the instructions in this section to configure the domain using the Configuration Wizard.
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.

It is recommended that you locate your Domain home in accordance with the directory structure summarized in "What are the Key Oracle Fusion Middleware Directories?" in 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 re-install your software.

Tip: More information about the Domain home directory can be found in "Choosing a Domain Home" in Planning an Installation of Oracle Fusion Middleware.

More information about reinstalling the software can be found in Section 5.7

More information about the other options on this screen can be found in Configuration Type in Creating Domains Using the Configuration Wizard.
Task 2  Selecting the Configuration Templates

On the Templates screen select the following templates for configuration:

- **Basic WebLogic Server Domain** (selected by default)
- **WebLogic Coherence Cluster Extension**

Selecting this template will cause the Managed Servers in the cluster to be managed Coherence servers, and the cluster will be a managed Coherence cluster. This serves as a starting point for setting up your Coherence environment. For more detailed information and next steps, see Table 4–1.

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

Task 3  Configuring the Administrator Account

On the Administrator Account screen, specify the user name and password for the default WebLogic Administrator account for the domain. This account is used to boot and connect to the domain’s Administration Server.

Tip: You must make a note of the user name and password you choose to enter here; you will need this in order to be able to start and access the Administration Server.

Task 4  Specifying the Domain Mode and JDK

On the Domain Mode and JDK screen:

- Select **Production** in the Domain Mode field.
- Select **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.

Task 5  Selecting Advanced Configuration Options

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 6** 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 7** 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 user name and password.

**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 8** 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 `wls_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. Repeat this process to create a second Managed Server named `wls_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 *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.
Task 9  Configure a Cluster
Use the Clusters screen to create a new cluster.

1. Click the Add button.
2. Specify wls_cluster_1 in the Cluster Name field.
3. Leave the cluster Address field blank.

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

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.

Task 10  Assigning Managed Servers to the Cluster
Use the Assign Servers to Clusters screen to assign wls_server_1 and wls_server_2 to the new cluster wls_cluster_1.

1. In the Clusters pane, select the cluster to which you want to assign the servers; in this case, wls_cluster_1.
2. In the Servers pane, assign wls_server_1 to wls_cluster_1 by doing one of the following:
   - Click once on wls_server_1 to select it, then click on the right arrow to move it beneath the selected cluster (wls_cluster_1) in the Clusters pane.
   - Double-click on wls_server_1 to move it beneath the selected cluster (wls_cluster_1) in the clusters pane.
3. Repeat to assign wls_server_2 to wls_cluster_1.

Tip: More information about the options on this screen can be found in Clusters in Creating Domains Using the Configuration Wizard.
Task 11 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.

See Table 4–2 for more information and next steps for configuring Coherence.

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.

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

Task 12 Configuring a New Machine
Use the Machines screen to create a new machine in the domain. A machine is required in order 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 High Availability Guide.

1. Click the Add button to create a new machine.
2. Specify wls_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.
Task 13 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, wls_machine_1.
2. In the Servers pane, assign AdminServer to wls_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 (wls_machine_1) in the Machines pane.
   - Double-click on AdminServer to move it beneath the selected machine (wls_machine_1) in the Machines pane.
3. Repeat to assign both wls_server_1 and wls_server_2 to wls_machine_1.

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

If you plan to create a high availability environment and know the list of machines required for your target topology, you can create all of the machines at this time. For more information, see “Optional Scale Out Procedure” in High Availability Guide.

Task 14 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.

**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.

Tip: More information about the options on this screen can be found in Assign Servers to Machines in Creating Domains Using the Configuration Wizard.
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 15 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

![Oracle Weblogic Server Configuration Succeeded]

You must make a note of both items as you will need them to start the servers and access the Administration Server.

Click **Finish** to dismiss the Configuration Wizard.

### 3.2 Starting the Servers

After configuration is complete, in order to access the tools with which you can manage your domain, Oracle recommends that you take the following steps:

- **Section 3.2.1, "Starting the Node Manager"
- **Section 3.2.2, "Starting the Administration Server"
- **Section 3.2.3, "Starting the Managed Servers"

#### 3.2.1 Starting the Node Manager

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

On UNIX operating systems, start 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
```
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 4, you will be prompted for the login credentials of the Administrator user as provided on the Administrator Account screen in Task 3.

**Tip:** For more information about starting the Administration Server, see "Starting and Stopping Servers" in Administering Server Startup and Shutdown for Oracle WebLogic Server.

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.

Starting the Managed Servers

To start the Managed Servers, go to the \DOMAIN_HOME\bin directory and run the following command:

On UNIX operating systems:

```
./startManagedWebLogic.sh managed_server_name admin_server_url
```

On Windows operating systems:

```
startManagedWebLogic.cmd managed_server_name admin_server_url
```

Replace **managed_server_name** with the names of the Managed Server you want to start. For this topology, the Managed Server names are **wls_server_1** and **wls_server_2**, as defined on the Managed Server screen in Task 8. You need to run this command twice; once for each Managed Server.

Replace **admin_server_url** with the full URL of the Administration Server, as provided on the Configuration Success screen in Task 14.

Below are sample commands used to start **wls_server_1** and **wls_server_2** on UNIX operating systems:

```
./startManagedWebLogic.sh wls_server_1 t3:\examplehost.exampledomain.com:7001 &
./startManagedWebLogic.sh wls_server_2 t3:\examplehost.exampledomain.com:7001 &
```

Note: If you use Windows, Oracle recommends that you install Node Manager to run as a startup service. This allows Node Manager to start up automatically each time the system is restarted. (Node Manager is not required to start servers, Oracle recommends it over other methods.)

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

**Tip:** For more information about starting Managed Servers, see “Starting and Stopping Servers” in Administering Server Startup and Shutdown for Oracle WebLogic Server.
Next Steps After Configuring the WebLogic Server Domain

This chapter describes common tasks you might want to perform on the newly created WebLogic Server domain.

The following sections are included:

- 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>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting familiar with Fusion Middleware administration tools</td>
<td>Get familiar with the various tools available which you can use to manage your environment.</td>
<td>&quot;System Administration&quot; in Understanding Oracle WebLogic Server.</td>
</tr>
<tr>
<td>Starting and stopping products and servers</td>
<td>Learn how to start and stop Oracle Fusion Middleware, including the Administration Server, Managed Servers, and components.</td>
<td>&quot;Starting and Stopping Servers&quot; in Administering Server Startup and Shutdown for Oracle WebLogic Server.</td>
</tr>
<tr>
<td>Configuring Secure Sockets Layer (SSL)</td>
<td>Learn how to set up secure communications among Oracle Fusion Middleware components using SSL.</td>
<td>&quot;Overview of Configuring SSL in WebLogic Server&quot; in Administering Security for Oracle WebLogic Server.</td>
</tr>
<tr>
<td>Understanding diagnostic and troubleshooting procedures</td>
<td>Learn the recommended diagnostic and troubleshooting procedures for Oracle Fusion Middleware.</td>
<td>&quot;Monitoring, Diagnosing, and Troubleshooting&quot; in Understanding Oracle WebLogic Server.</td>
</tr>
</tbody>
</table>

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.
### 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>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuring Node Manager</td>
<td>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.</td>
<td>Administering Node Manager for Oracle WebLogic Server.</td>
</tr>
</tbody>
</table>
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.

"WebLogic Server Clustering" in the Understanding Oracle WebLogic Server.

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 High Availability Guide.

You can use a load balancer to distribute requests across servers more evenly.

"Load Balancing HTTP Sessions with an External Load Balancer" in Administering Clusters for Oracle WebLogic Server.
This chapter describes how to deinstall and reinstall Oracle WebLogic Server and Coherence.

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, "Deinstalling the Software"
- Section 5.4, "Removing the Oracle Home Directory Manually"
- Section 5.5, "Removing the Program Shortcuts on Windows Operating Systems"
- Section 5.6, "Removing Your Domain and Application Data"
- Section 5.7, "Reinstalling Your Software"

### 5.1 Understanding Product Deinstallation

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

<table>
<thead>
<tr>
<th>Task</th>
<th>Description and Documentation</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop Oracle Fusion Middleware</td>
<td>All servers and processes in your domain should be stopped before running the deinstaller.</td>
<td>See Section 5.2.</td>
</tr>
</tbody>
</table>
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 "Starting and Stopping Servers" in Administering Server Startup and Shutdown for Oracle WebLogic Server.

5.3 Deinstalling the Software

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

- Section 5.3.1, "Starting the Deinstallation Program"
- Section 5.3.2, "Navigating the Deinstallation Screens"

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

5.3.1 Starting the Deinstallation Program

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

- 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 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
5.3.2 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 help button on the screen.

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

5.4 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:

```bash
> 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.

5.5 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.

5.6 Removing Your Domain and Application Data

If you will no longer use the domain and application data or if you do not plan to reconfigure a domain for a new WebLogic Server installation, Oracle recommends that you remove the domain and application data.

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.

5.7 Reinstalling Your 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.
This appendix describes the contents of the Oracle WebLogic Server and Coherence distribution (fmw_12.1.3.0.0_wls.jar).

**Note:** Oracle WebLogic Server is also available with the Oracle Fusion Middleware Infrastructure distribution (fmw_12.1.3.0.0_infrastructure.jar). See "Understanding the Oracle Fusion Middleware Infrastructure Distribution" in *Installing and Configuring the Oracle Fusion Middleware Infrastructure*.

Table A–1 describes the products and feature sets included with this distribution.
<table>
<thead>
<tr>
<th>Installation Type</th>
<th>Installed Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WebLogic Server</td>
<td>WebLogic Server</td>
<td>A scalable, enterprise-ready Java Platform, Enterprise Edition (Java EE) application server. The WebLogic Server infrastructure supports the deployment of many types of distributed applications and is an ideal foundation for building applications based on service-oriented architecture (SOA).</td>
</tr>
<tr>
<td></td>
<td>Coherence</td>
<td>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. For more information about Coherence, see Oracle Coherence Getting Started Guide.</td>
</tr>
<tr>
<td>WebLogic Server Clients</td>
<td>Thin-client JARs required for connecting to a WebLogic Server instance. Includes the JARs for the web services, JMS, Store and Forward, WebLogic RMI, JMS .NET, and JMX clients.</td>
<td></td>
</tr>
<tr>
<td>Administration Console</td>
<td>A web application hosted by the Administration Server that is used for managing and monitoring an active domain.</td>
<td></td>
</tr>
<tr>
<td>CIE WLS Config</td>
<td>Provides files used by the Oracle Fusion Middleware Configuration Wizard.</td>
<td></td>
</tr>
<tr>
<td>Third-Party JDBC Drivers</td>
<td>Other JDBC drivers bundled with WebLogic Server that can be used to connect a WebLogic Server environment to an external database. For more information about this feature set, see &quot;Using JDBC Drivers with WebLogic Server&quot; in Administering JDBC Data Sources for Oracle WebLogic Server.</td>
<td></td>
</tr>
<tr>
<td>Third-Party Jackson</td>
<td>Third party open source software for processing JavaScript Object Notation (JSON) data formats.</td>
<td></td>
</tr>
<tr>
<td>Third-Party Jersey</td>
<td>Third party open source software representing the official implementation of the Representational State Transfer (REST) architecture. For more information, see Developing and Securing RESTful Web Services for Oracle WebLogic Server.</td>
<td></td>
</tr>
<tr>
<td>Third-Party Maven Apache</td>
<td>Maven is a build management tool that is central to project build tasks such as compilation, packaging, and artifact management. For more information, see Developing Applications Using Continuous Integration.</td>
<td></td>
</tr>
<tr>
<td>OPatch</td>
<td>The OPatch utility is a tool that allows the application and rollback of interim patches to Oracle products.</td>
<td></td>
</tr>
</tbody>
</table>
### Coherence
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.

For more information about Coherence, see *Oracle Coherence Getting Started Guide*.

### Administration Console
A web application hosted by the Administration Server that is used for managing and monitoring an active domain.

### CIE WLS Config
Provides files used by the Oracle Fusion Middleware Configuration Wizard.

### Third-Party JDBC Drivers
Other JDBC drivers bundled with WebLogic Server that can be used to connect a WebLogic Server environment to an external database.

For more information about this feature set, see “Using JDBC Drivers with WebLogic Server” in *Administering JDBC Data Sources for Oracle WebLogic Server*.

### Third-Party Jackson
Third party open source software for processing JavaScript Object Notation (JSON) data formats.

### Third-Party Jersey
Third party open source software representing the official implementation of the Representational State Transfer (REST) architecture.

For more information, see *Developing and Securing RESTful Web Services for Oracle WebLogic Server*.

### Third-Party Maven Apache
Maven is a build management tool that is central to project build tasks such as compilation, packaging, and artifact management.

For more information, see *Developing Applications Using Continuous Integration*.

### OPatch
The OPatch utility is a tool that allows the application and rollback of interim patches to Oracle products.

### Complete Installation with Examples
A scalable, enterprise-ready Java Platform, Enterprise Edition (Java EE) application server. The WebLogic Server infrastructure supports the deployment of many types of distributed applications and is an ideal foundation for building applications based on service-oriented architecture (SOA).

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.

For more information about Coherence, see *Oracle Coherence Getting Started Guide*. 

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

<table>
<thead>
<tr>
<th>Installation Type</th>
<th>Installed Items</th>
<th>Description</th>
</tr>
</thead>
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<tr>
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<td>WebLogic Server</td>
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<td></td>
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</tr>
</tbody>
</table>

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<table>
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<tr>
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<th>Installed Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thin-client JARs required for connecting to a WebLogic Server instance. Includes the JARs for the web services, JMS, Store and Forward, WebLogic RMI, JMS .NET, and JMX clients.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A web application hosted by the Administration Server that is used for managing and monitoring an active domain.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provides files used by the Oracle Fusion Middleware Configuration Wizard.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other JDBC drivers bundled with WebLogic Server that can be used to connect a WebLogic Server environment to an external database. For more information about this feature set, see &quot;Using JDBC Drivers with WebLogic Server&quot; in Administering JDBC Data Sources for Oracle WebLogic Server.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oracle's distribution of the open source Apache Derby Java database, also called Java DB. Derby is a pure Java relational database management system (RDBMS) provided with Oracle WebLogic Server to allow you to run code examples with a functional database server. Derby is for demonstration (that is, non-production) use only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Third party open source software for processing JavaScript Object Notation (JSON) data formats.</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td></td>
<td>Server Examples are example applications that demonstrate key features of WebLogic Server. For more information, see “Sample Application and Code Examples” in Understanding Oracle WebLogic Server.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>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. Note: Both Server Examples and Coherence Examples are only installed if you select the Fusion Middleware Infrastructure with Examples install type.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The OPatch utility is a tool that allows the application and rollback of interim patches to Oracle products.</td>
<td></td>
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