Oracle® Fusion Middleware

Installing and Configuring Oracle Service Bus

12*c* (12.1.3)

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Documentation for product installers and system administrators that describes how to install and configure Oracle Service Bus.

ORACLE®

Oracle Fusion Middleware Installing and Configuring Oracle Service Bus, 12*c* (12.1.3)

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Preface

This document describes how to install and configure Oracle Service Bus.

Audience

This document is intended for system administrators or application developers who are installing Oracle Service Bus. 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 more information, see the following documents in the 12*c* (12.1.3) documentation set:

- *Planning an Installation of Oracle Fusion Middleware*

- *Installing and Configuring the Oracle Fusion Middleware Infrastructure*

- *Installing and Configuring Oracle SOA Suite Foundation and Business Process Management*

- *Administering Oracle Service Bus*

- *High Availability Guide*

Conventions

The following text conventions are used in this document:

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

1

Planning Your Oracle Service Bus Installation

This chapter helps to prepare you for your Oracle Service Bus installation and domain configuration.

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 contains the following sections:

- Section 1.1, "Using This Document"
- Section 1.2, "Understanding the 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 Product Distributions"
- Section 1.6, "Verifying the Installation Checklist"

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"

1.1.1 Using the Standard Installation Topology as a Starting Point

This guide will help you create the standard installation topology for Oracle Service Bus (Figure 1–1). The 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 Service Bus 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, see *Upgrading Oracle SOA Suite and Business Process Management*.

1.1.3 Using this Document to Extend a Domain

The instructions in this document describe how to create a new domain, and assumes that no other Oracle Fusion Middleware products are installed on your system. All of the instructions for installation and domain creation are based on this assumption.

In the event that you already have other Oracle Fusion Middleware products installed on your system (for example, you already have Oracle Fusion Middleware Infrastructure installed with a domain that is up and running), the same instructions can be used to extend your 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, ensure that you make your selections accordingly and refer to the supporting documentation for additional details.

1.2 Understanding the Standard Installation Topology

This section contains the following topics:

- Section 1.2.1, "Understanding the Oracle Service Bus Standard Installation Topology"
- Section 1.2.2, "Understanding the Elements in the Standard Installation Topology Illustrations"

1.2.1 Understanding the Oracle Service Bus Standard Installation Topology

The standard installation topology for Oracle Service Bus is shown in Figure 1–1.

Figure 1–1   Oracle Service Bus Standard Installation Topology
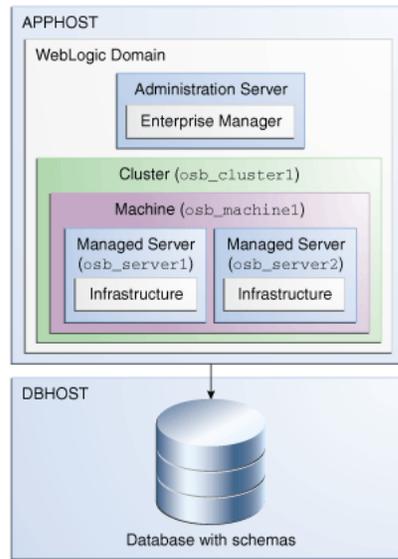
1.2.2 Understanding the Elements in the Standard Installation Topology Illustrations

All elements in this topology illustration are described in Table 1–1.

Table 1–1   Description of the Elements in the Oracle Service Bus Standard Installation Topologies

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 *Understanding Oracle Fusion Middleware*.
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 *Understanding Oracle Fusion Middleware*.
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 *Understanding Oracle Fusion Middleware*.
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 *Understanding Oracle Fusion Middleware*.

Table 1–1   (Cont.) Description of the Elements in the Oracle Service Bus Standard Installation Topologies

Element	Description and Links to Additional Documentation
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 *Understanding Oracle Fusion Middleware*.
Infrastructure	Collection of services that include the following: ■ 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 *Understanding Oracle Fusion Middleware*. ■ Oracle Application Developer Framework (Oracle ADF) ■ Oracle Web Services Manager (OWSM)

1.3 Roadmap for Installing and Configuring the Standard Installation Topology

This guide provides all of the steps required to install and configure the standard installation topology. Within the procedures, the guide also provides references to additional information that 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 Service Bus Installation Roadmap

Task	Description	Documentation
Verify your system environment	Before beginning the installation, verify that the minimum system and network requirements are met.	See Section 1.4.
Obtain the appropriate distribution	Oracle Service Bus requires an existing Oracle Fusion Middleware Infrastructure installation; Oracle Service Bus must be installed in the same Oracle Home as Oracle Fusion Middleware Infrastructure. Obtain both distributions.	See Section 1.5.
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. Oracle Service Bus must be installed into an existing Oracle home directory containing Oracle Fusion Middleware Infrastructure.	See "What are the Key Oracle Fusion Middleware Directories?" in *Understanding Oracle Fusion Middleware*.
Install Oracle Fusion Middleware Infrastructure	Install Oracle Fusion Middleware Infrastructure to create the Oracle home directory for Oracle Service Bus.	See *Installing and Configuring the Oracle Fusion Middleware Infrastructure*

Table 1–2 (Cont.) Oracle Service Bus Installation Roadmap

Task	Description	Documentation
Install the software	Run the Oracle Universal Installer to install Oracle Service Bus. Installing software transfers the software to your system and creates the Oracle home directory.	See Chapter 2.
Create a WebLogic domain	Use the configuration wizard to create and configure the WebLogic domain.	See Chapter 3 if you are creating the topology for Oracle Service Bus.
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 Chapter 4.

1.4 Roadmap for Verifying Your System Environment

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 that you must perform to make sure your environment is properly prepared for installing and configuring Oracle Service Bus.

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 installation and configuration.	See "Verifying Certification and System Requirements" in *Planning an Installation of Oracle Fusion Middleware*.
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 *Planning an Installation of Oracle Fusion Middleware*.
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 *Planning an Installation of Oracle Fusion Middleware*.
Install a certified JDK	The installation program for the distribution requires a certified JDK present on your system.	See "Installing a JDK" in *Planning an Installation of Oracle Fusion Middleware*.
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 Oracle Service Bus.	See "Installing and Configuring a Certified Database" in *Planning an Installation of Oracle Fusion Middleware*.

1.5 Understanding and Obtaining the Product Distributions

The distributions for both Oracle Fusion Middleware Infrastructure and Oracle Service Bus are available as .jar files. You must have a certified JDK already installed on your system in order to install and configure this distribution.

> **Tip:** For more information about distributions, see "Understanding and Obtaining Product Distributions" in *Planning an Installation of Oracle Fusion Middleware*.

For information on how to obtain the distribution, see "Obtaining Product Distributions" in *Planning an Installation of Oracle Fusion Middleware*.

1.6 Verifying the Installation Checklist

Table 1–4 lists important items that you must know before or decide during Oracle Service Bus installation.

Table 1–4   Installation Checklist

Information	Example Value	Description
JAVA_HOME	/home/Oracle/jdk7_55/jdk1.7.0_55	Environment variable that points to the Java JDK 1.7 home directory.
Database hostname	examplehost.exampledomain	Name and domain of the host where the database is running.
Database port	1521	Port number on which the database listens. The default Oracle database listen port is 1521.
Database service name	orcl	Oracle databases require a unique service name. The default service name is orcl.
DBA username	SYS	Name of user with database administration privileges. The default DBA user on Oracle databases is SYS.
DBA password	ExamplePassword1	Password of the user with database administration privileges.
ORACLE_HOME	/home/Oracle/product/Oracle_Home	The directory in which you will install your software. This directory will include Oracle Fusion Middleware Infrastructure, Oracle Service Bus, as well as Oracle SOA Suite and Oracle Business Process Management Suite, as needed.
WebLogic Server hostname	examplehost.exampledomain.com	Hostname for Oracle WebLogic Server and Oracle Service Bus consoles.
Console port	7001	Port for Oracle WebLogic Server and Oracle Service Bus consoles.
DOMAIN_HOME	/home/Oracle/config/domains/osb_domain	Location in which your domain data is stored.
APPLICATION_HOME	/home/Oracle/config/applications/osb_domain	Location in which your application data is stored.
Administrator user name for your WebLogic domain	weblogic	Name of user with Oracle WebLogic Server administration privileges. The default administrator user is weblogic.
Administrator user password	ExamplePassword1	Password of the user with Oracle WebLogic Server administration privileges.
$FTP_ROOT	${ORACLE_HOME}/osb/ftp_root	Embedded FTP server root directory.
FTP Port	7021	Port for embedded FTP server.
RCU utility	ORACLE_HOME/oracle_common/bin	Path to the Repository Creation Utility (RCU).
RCU schema prefix	osb	The prefix for names of database schemas used by Oracle Service Bus.
RCU schema password	ExamplePassword1	The password for database schemas used by Oracle SOA Service Bus.
Config utility	ORACLE_HOME/oracle_common/common/bin	Path to the configuration wizard for domain creation and configuration.

2

Installing the Oracle Service Bus Software

This chapter describes how to install the Oracle Service Bus software.

Before you begin the installation process, ensure that you have already verified your system environment (Section 1.4), and have installed Oracle Fusion Middleware Infrastructure (*Installing and Configuring the Oracle Fusion Middleware Infrastructure*) in an Oracle home.

By the end of this chapter, you would have installed the Oracle Service Bus software in an Oracle home.

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 for future references"

2.1 Starting the Installation Program

To start the installation program, do the following:

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 12*c* (12.1.3) on the *Oracle Fusion Middleware Supported System Configurations* page.

3. Go to the directory in which you have 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_55/jdk1.7.0_55/bin/java -jar fmw_12.1.3.0.0_osb.jar
   ```

   On Windows operating systems:

   ```
   C:\Program Files\Java\jdk1.7.0_55\bin\java -jar fmw_12.1.3.0.0_osb.jar
   ```

   Ensure that you replace the JDK location in these examples with the actual JDK location on your system.

> **Note:** You can also launch the installer in silent mode to ensure that no configuration options are displayed during the installation process. For more information about silent or command line installation, see "Using the Oracle Universal Installer in Silent Mode" in *Installing Software with the Oracle Universal Installer*.

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. You can also click **Help** on the installation screens if you need any additional instructions.

Table 2–1   Oracle Service Bus Install Screens

Screen	Description
Installation Inventory Setup	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 "Understanding the Oracle Central Inventory" in *Installing Software with the Oracle Universal Installer*.
	This screen will not appear on Windows operating systems.
Welcome	This screen introduces you to the product installer.
Installation Location	Use this screen to specify the location of your Oracle home directory.
	You can click **View** to verify and ensure that you are installing Oracle Service Bus in the correct Oracle home. This Oracle home must contain Oracle Fusion Middleware Infrastructure.
	For more information about Oracle Fusion Middleware directory structure, see "Selecting Directories for Installation and Configuration" in *Planning an Installation of Oracle Fusion Middleware*.
Installation Type	Use this screen to select the type of installation and consequently, the products and feature sets you want to install.
	Select **Service Bus**.

Table 2–1   (Cont.) Oracle Service Bus Install Screens

Screen	Description
Prerequisite Checks	This screen verifies that your system meets the minimum necessary requirements.
	If you want to stop the prerequisite checks at any point before it completes, click **Stop**.
	If you want to run the checks again after you have selected **Stop**, click **Rerun**.
	If you want to skip the prerequisite checks and move to the next screen, click **Skip**. However, regardless of whether you skip the checks or not, if your system does not meet the minimum requirements, you will not be able to install the software; an error message is displayed on the Installation Progress screen.
	If you want to view the list of tasks that gets verified, select **View Successful Tasks**. If you want to view the log details, select **View Log**.
	If there are any warning or error messages, you can refer to one of the documents in Section 1.4.
Installation Summary	Use this screen to verify the installation options you have 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 situation.
	For more information about silent or command line installation, see "Using the Oracle Universal Installer in Silent Mode" in *Installing Software with the Oracle Universal Installer*.
	Click **Install** to begin the installation.
Installation Progress	This screen allows you to see the progress of the installation. If you want to view the steps that are executed during the installation, select **View Messages**.
	Click **Next** when the progress bar completes 100%.
Installation Complete	Review the information on this screen and make a note of the Oracle home and Installation Log Files location for future references. You can also take a quick look at your next steps following the installation. Click **Finish** to dismiss the installer.

2.3 Verifying the Installation for future references

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 2.3.2, "Checking the Directory Structure"
- Section 2.3.3, "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. By default, the installer writes logs files to the `Oracle_Inventory_Location/log` (on UNIX operating systems) or `Oracle_Inventory_Location\logs` (on Windows operating systems) directory.

For a description of the log files and where to find them, see "Understanding Installation Log Files" in *Installing Software with the Oracle Universal Installer*.

2.3.2 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 after installation, see "What are the Key Oracle Fusion Middleware Directories?" in *Understanding Oracle Fusion Middleware*.

2.3.3 Viewing the Contents of Your Oracle Home

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

3

Configuring Your Oracle Service Bus Domain

This chapter describes how to create and configure your Oracle Service Bus domain.

Before you begin the configuration process, ensure that you have completed installing the Oracle Service Bus software in the same Oracle home as Oracle Fusion Middleware Infrastructure. For more information, see Chapter 2.

By the end of this chapter, you would have created database schemas for Oracle Service Bus and configured an Oracle WebLogic domain with one cluster and two managed servers on a single host.

This chapter contains the following sections:

- Section 3.1, "Creating the Database Schemas"
- Section 3.2, "Configuring Your Oracle Service Bus WebLogic Domain"
- Section 3.3, "Starting the Servers"
- Section 3.4, "Verifying Your Configuration"

3.1 Creating the Database Schemas

Before you can configure an Oracle Service Bus domain, you must install the required schemas on a certified database for use with this release of Oracle Fusion Middleware.

Follow the instructions in this section to install the 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

Ensure that 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 *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. Make sure that the *JAVA_HOME* environment variable is set to the location of a certified JDK on your system. The location should be up to but not including the `bin` directory. For example, if your JDK is located in in `/home/Oracle/JDK/jdk7_55/jdk1.7.0_55`:

   On UNIX operating systems:

   ```
   setenv JAVA_HOME /home/Oracle/JDK/jdk7_55/jdk1.7.0_55
   ```

   On Windows operating systems:

   ```
   set JAVA_HOME=C:\home\Oracle\JDK\jdk7_55\jdk1.7.0_55
   ```

3. 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

Schema creation involves the following tasks:

- Task 1, "Introducing RCU"

- Task 2, "Selecting a Method of Schema Creation"

- Task 3, "Providing Database Connection Details"

- Task 4, "Specifying a Custom Prefix and Selecting Schemas"

- Task 5, "Specifying Schema Passwords"

- Task 6, "Specifying Custom Variables"

- Task 7, "Completing Schema Creation"

Task 1 Introducing RCU

This is the Welcome screen. 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**. This procedure 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 an SQL script, which can be provided to your database administrator. See "Understanding System Load and Product Load" in *Creating Schemas with the Repository Creation Utility*.

Task 3 Providing Database Connection Details

Provide the database connection details for RCU to connect to your database. You must provide the following information:

- Database Type

- Host Name

- Port

- Service Name

- Username

- Password

- Role

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

Task 4 Specifying a Custom Prefix and Selecting Schemas

Select **Create new prefix**, specify a custom prefix, then select the **SOA Suite** schema. This will automatically select SOA Infrastructure, along with the following schemas as dependencies:

- Metadata Services

- Audit Services

- Audit Services Append

- Audit Services Viewer

- Oracle Platform Security Services

- User Messaging Service

- WebLogic Services

A schema called Common Infrastructure Services is also automatically created; this schema is grayed out and cannot be selected or deselected. This schema enables you to retrieve information from RCU during domain configuration. For more information, see "Understanding the Service Table Schema" in *Creating Schemas with the Repository Creation Utility*.

The custom prefix is used to logically group these schemas together for use in this domain only; you must create a unique set of schemas for each domain as schema sharing across domains is not supported.

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

> **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 Specifying Custom Variables

Specify the custom variables for the SOA Infrastructure schema. For the Oracle Service Bus standard installation topology, accept both default values for the Database Profile (SMALL) and Healthcare Integration (NO).

> **Tip:** For more information about the options on this screen, see "Custom Variables" in *Creating Schemas with the Repository Creation Utility*.

Task 7 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.

3.2 Configuring Your Oracle Service Bus WebLogic Domain

This section provides instructions for creating a WebLogic domain by 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 WebLogic Domains Using the Configuration Wizard*.

Creating and configuring your domain includes the following:

- Section 3.2.1, "Starting the Configuration Wizard"
- Section 3.2.2, "Navigating the Configuration Wizard Screens to Create the Domain"

3.2.1 Starting the Configuration Wizard

To begin the 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
```

3.2.2 Navigating the Configuration Wizard Screens to Create 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.

Domain creation and configuration includes the following tasks:

- Task 1, "Selecting the Domain Type and Domain Home Location"
- Task 2, "Selecting the Configuration Template"
- 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 Database 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"

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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 reinstall your software.

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

Task 2 Selecting the Configuration Template

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

- Oracle Service Bus - 12.1.3.0 [osb]]

  Selecting this template automatically selects the following as dependencies:

  - WebLogic Advanced Web Services for JAX-RPC Extension - 12.1.3 [oracle_common]

  - Oracle Enterprise Manager - 12.1.3.0 [em]

  - Oracle WSM Policy Manager - 12.1.3.0 [oracle_common]

  - Oracle JRF - 12.1.3.0 [oracle_common]

  - WebLogic Coherence Cluster Extension - 12 1.3.0 [wlserver]

  - ODSI XQuery 2004 Components - 12.1.3.0 [oracle_common]
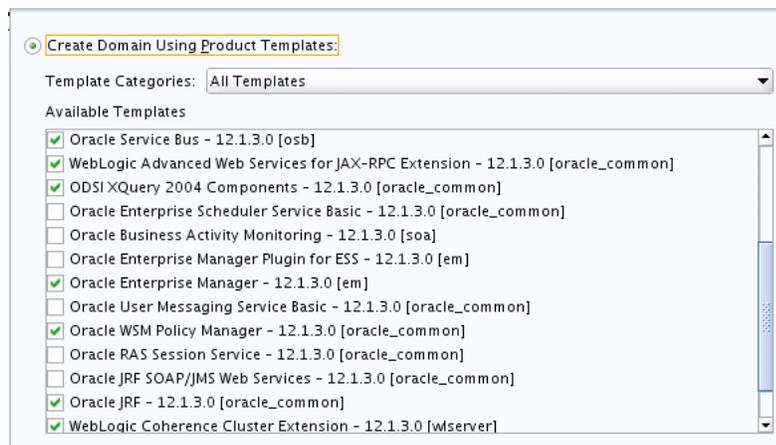
> **Tip:** For more information about the options on this screen, see "Templates" in *Creating WebLogic Domains Using the Configuration Wizard*.

Task 3 Selecting the Application Home Location

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

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

> **Tip:** For more information about the Application home directory, see "Choosing an Application Home" in *Planning an Installation of Oracle Fusion Middleware*.
>
> For more information about the options on this screen, see "Application Location" in *Creating WebLogic 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.

It is recommended 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.

> **Tip:** For more information about the options on this screen, see "Domain Mode and JDK" in *Creating WebLogic Domains Using the Configuration Wizard*.

Task 6 Specifying the Database 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 username and password for connecting to the database's Service Table schema. This is the schema username and password that was specified for the Service Table component on the "Schema Passwords" screen in RCU (see Task 5 in Section 3.1.3). The default username is *prefix*_STB, where *prefix* is the custom prefix that you defined in RCU.
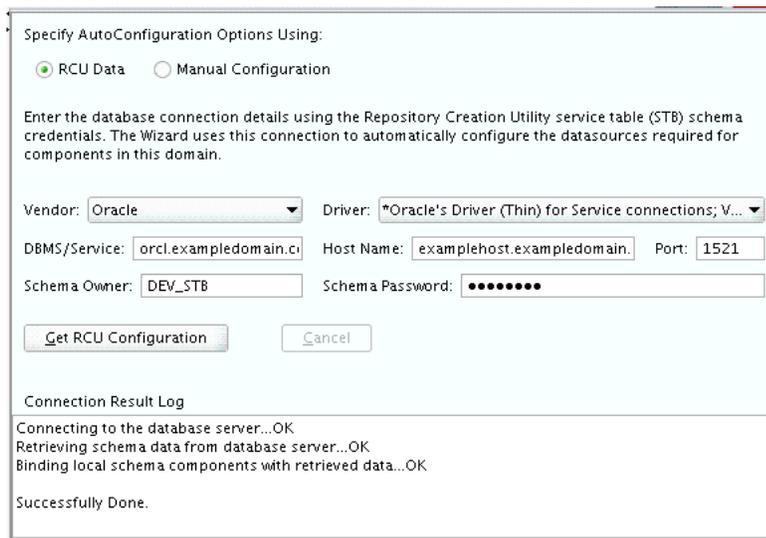
Click **Get RCU Configuration** when you finish specifying the database connection information. The following output in the Connection Result Log indicates that the operating succeeded:

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

Successfully Done.
```

> **Tip:** For more information about the **RCU Data** option, see "Understanding the Service Table Schema" in *Creating Schemas with the Repository Creation Utility*.
>
> For more information about the options on this screen, see "Datasource Defaults" in *Creating WebLogic 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 *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"
>
> For more information about the options on this screen, see "JDBC Component Schema" in *Creating WebLogic 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.

By default, the schema password for each schema component is the password you have specified while creating your schemas. If you want different passwords for different schema components, manually edit them by entering the desired password in the **Schema Password** column, against each row. After specifying the passwords, select the check box corresponding to the schemas that you have changed the password in and test the connection again.

> **Tip:** For more information about the options on this screen, see "Test Component Schema" in *Creating WebLogic 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

  This is required to configure Node Manager.

- Managed Server, Clusters and Coherence

  This is required to configure the Oracle Service Bus Managed 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."

Do not specify any server groups for the Administration Server.

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:** For more information about the options on this screen, see "Node Manager" in *Creating WebLogic Domains Using the Configuration Wizard*.
>
> For more information about the types of Node Manager, see "Node Manager Overview" in *Administering Node Manager for Oracle WebLogic Server*.

Task 12 Configuring Managed Servers

On the Managed Servers screen, a new Managed Server named `osb_server1` is created:

1. 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. Verify that **OSB-MGD-SVRS-COMBINED** is selected in the Server Group.

   If you want to have OWSMPM in a different server from the OSB server, select **OSB-MGD-SVRS-ONLY**. This targets only OSB but not OWSMPM to the server.

2. Click **Add** and repeat this process to create a second Managed Server named `osb_server2`.

   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 be sure to replace them as needed.
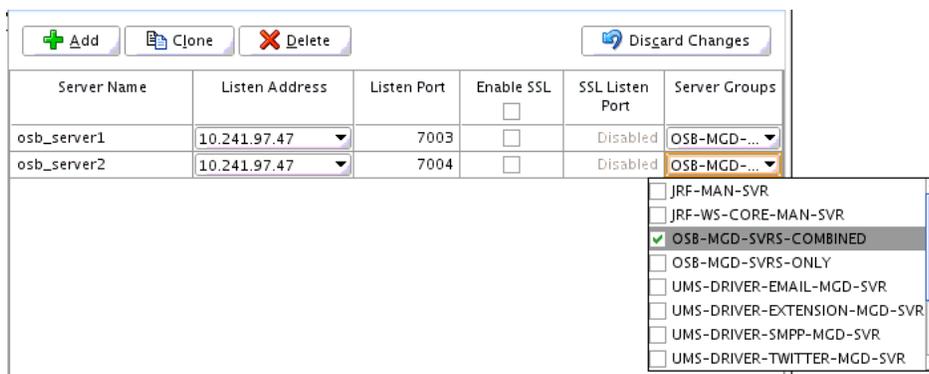
> **Tip:** For more information about the options on this screen, see "Managed Servers" in *Creating WebLogic Domains Using the Configuration Wizard*.

Task 13 Configuring a Cluster

Use the Clusters screen to create a new cluster:

1. Click **Add**.

2. Specify `osb_cluster1` in the Cluster Name field.

3. Leave the Cluster Address field blank.

Cluster Name	Cluster Address	Frontend Host	Frontend HTTP Port	Frontend HTTPS Port
osb_cluster1			0	0

By default, server instances in a cluster communicate with one another using unicast. If you want to change your cluster communications to use multicast, see "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:** For more information about the options on this screen, see "Clusters" in *Creating WebLogic Domains Using the Configuration Wizard*.

Task 14 Assigning Managed Servers to the Cluster

Use the Assign Servers to Clusters screen to assign `osb_server1` and `osb_server2` to the new cluster `osb_cluster1`:

1. In the Clusters pane, select the cluster to which you want to assign the servers; in this case, `osb_cluster1`.

2. In the Servers pane, assign `osb_server1` to `osb_cluster1` by doing one of the following:

- Click once on `osb_server1` to select it, then click on the right arrow to move it beneath the selected cluster (`osb_cluster1`) in the Clusters pane.

- Double-click on `osb_server1` to move it beneath the selected cluster (`osb_cluster1`) in the clusters pane.

3. Repeat to assign `osb_server2` to `osb_cluster1`.

Servers	Clusters
	osb_cluster1
	osb_server1
	osb_server2
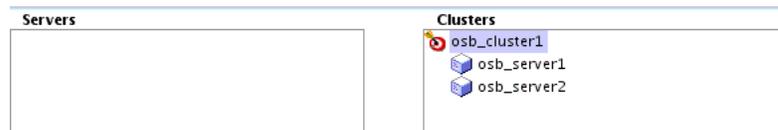
> **Tip:** For more information about the options on this screen, see "Assign Servers to Clusters" in *Creating WebLogic Domains Using the Configuration Wizard*.

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, see "Oracle Coherence" in *Licensing Information*.

Task 16 Creating 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 **Add** to create a new machine.

2. Specify `osb_machine1` 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.

> **Tip:** For more information about the options on this screen, see "Machines" in *Creating WebLogic 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, osb_machine1.

2. In the Servers pane, assign AdminServer to osb_machine1 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 (osb_machine1) in the Machines pane.

    ■ Double-click on AdminServer to move it beneath the selected machine (osb_machine1) in the Machines pane.

3. Repeat to assign both osb_server1 and osb_server2 to osb_machine1.

> **Tip:** For more information about the options on this screen, see "Assign Servers to Machines" in *Creating WebLogic 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:** For more information about the options on this screen, see "Configuration Summary" in *Creating WebLogic 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 the 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 *Administering Oracle Fusion Middleware*.

- 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 > $LOG_DIR/nm.out&
```

In the preceding command, `LOG_DIR` is the location of directory in which you want to store the log files.

On Windows operating systems, run:

```
startNodeManager.cmd
```

> **Note:** On Windows operating systems, it is recommended 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 the `DOMAIN_HOME`/bin directory.

On UNIX operating systems, run:

```
./startWebLogic.sh
```

On Windows operating systems, run:

```
startWebLogic.cmd
```

If you have selected **Production Mode** on the Domain Mode and JDK screen in Task 5 (Section 3.2.2), 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 *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 accessing the Administration Server Console. The URL is provided on the Configuration Success screen in Task 19.

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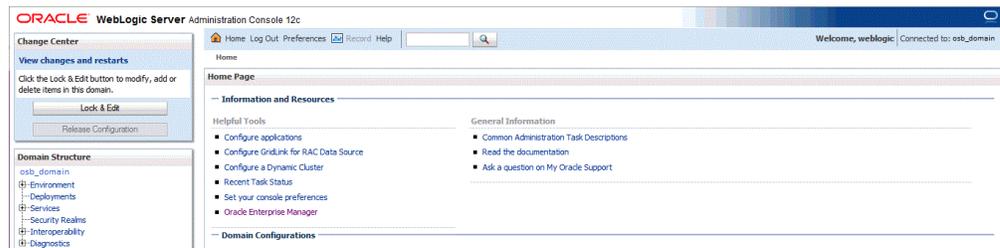
For more information about how to use the Administration Console, see "Getting Started Using Oracle WebLogic Server Administration Console" in *Administering Oracle Fusion Middleware*.

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 (`osb_server1` and `osb_server2`) are visible.
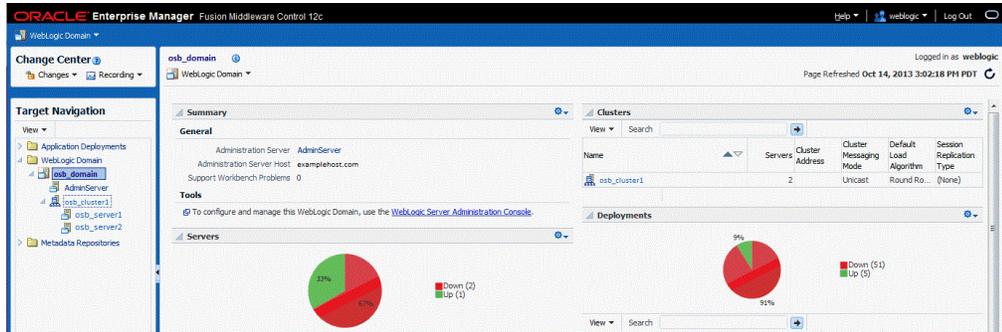
3. Select the first Managed Server (osb_server1).

4. Next to the **WebLogic Server** menu, select **Start Up**.
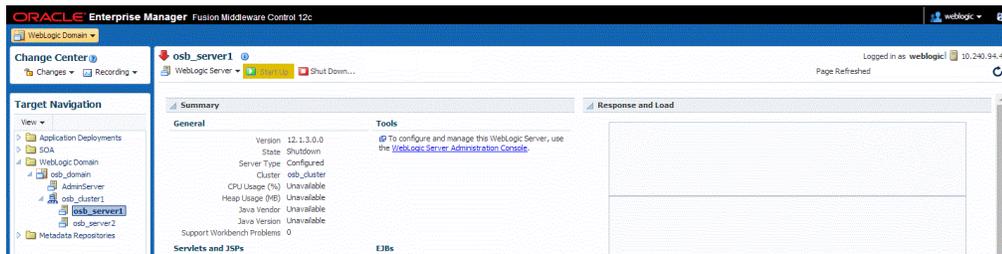
5. Repeat Steps 3 and 4 to start osb_server2.

6. In the Target Navigation page, select your domain name to see that all the servers are up and running.
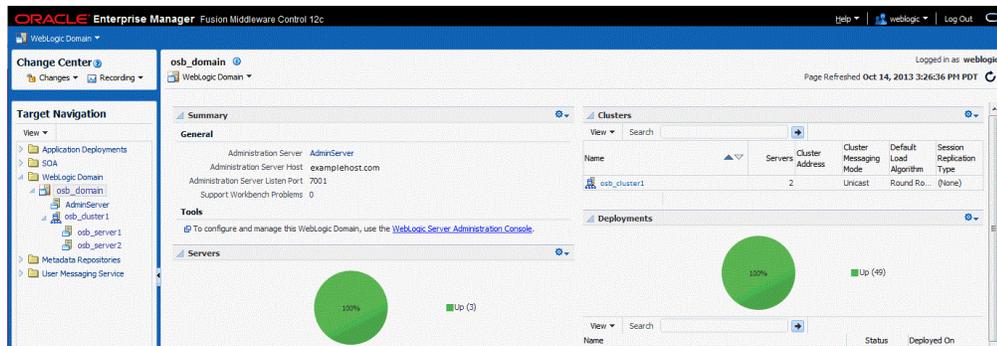
3.4 Verifying Your Configuration

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

4

Next Steps After Configuring Your WebLogic Domain

This chapter describes common tasks you might want to perform on a newly created Oracle Service Bus 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.	See "Overview of Oracle Fusion Middleware Administration Tools" in *Administering Oracle Fusion Middleware*.
Starting and stopping products and servers	Learn how to start and stop Oracle Fusion Middleware, including the Administration Server, Managed Servers, and components.	See "Starting and Stopping Oracle Fusion Middleware" in *Administering Oracle Fusion Middleware*.
Configuring Secure Sockets Layer (SSL)	Learn how to set up secure communications between Oracle Fusion Middleware components using SSL.	See "Configuring SSL in Oracle Fusion Middleware" in *Administering Oracle Fusion Middleware*.
Monitoring Oracle Fusion Middleware	Learn how to keep track of the status of Oracle Fusion Middleware components.	See "Monitoring Oracle Fusion Middleware" in *Administering Oracle Fusion Middleware*.
Understanding Backup and Recovery Procedures	Learn the recommended backup and recovery procedures for Oracle Fusion Middleware.	See "Introducing Backup and Recovery" in *Administering Oracle Fusion Middleware*.

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.	See "Deploying Applications" part in *Administering Oracle Fusion Middleware*.
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 *Installing and Configuring Oracle HTTP Server*. Also refer to "Installing Multiple Products in the Same Domain" in *Planning an Installation of Oracle Fusion Middleware* 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 *Administering Clusters for Oracle WebLogic Server*. For information about tuning Coherence, see *Administering Oracle Coherence*. For information about storing HTTP session data in Coherence, see "Using Coherence*Web with WebLogic Server" in *Administering HTTP Session Management with Oracle Coherence*Web*. For more information about creating and deploying Coherence applications, see *Developing Oracle Coherence Applications for Oracle WebLogic Server*.

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

Task	Description	More Information
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.	See "Scaling Out a Topology (Machine Scaleout)" in *High Availability Guide*.
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.	See "Configuring High Availability for Web Tier Components" in *High Availability Guide*.
Setting up a front-end load balancer	A load balancer can be used to distribute requests across servers more evenly.	See "Server Load Balancing in a High Availability Environment" and "Configure Load Balancer" in *High Availability Guide.*
Configuring Node Manager	Node Manager enables you to start, shut down, and restart the Administration Server and Managed Server instances from a remote location. This document assumes you have configured a per-domain Node Manager. Review the Node Manager documentation for information on advanced Node Manager configuration options and features.	See *Administering Node Manager for Oracle WebLogic Server*.

5

Deinstalling Oracle Service Bus

This chapter describes how to deinstall or reinstall Oracle Service Bus.

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 contains 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 Your Domain and Application Data"
- Section 5.7, "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 Product Deinstallation

Task	Description	Documentation
Stop Oracle Fusion Middleware	All servers and processes in your domain should be stopped before running the deinstaller.	See Section 5.2.
Remove your database schemas	Run Repository Creation Utility to remove your database schemas.	See Section 5.3.

Table 5–1   (Cont.) Roadmap for Product Deinstallation

Task	Description	Documentation
Remove the software	Run the product deinstaller to remove Oracle Service Bus.	See Section 5.4.
	Note that if your Oracle home contains multiple products, you will need to run the deinstaller multiple times; once for each product.	
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 Section 5.5.
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. You must remove these directories manually.	See Section 5.6.

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 *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 *Creating Schemas with the Repository Creation Utility*). This set of schemas cannot be shared with any other domain (see "Planning Your Schema Creation" in *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 that you are removing.

For schema removal instructions, see "Dropping Schemas" in *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, "Selecting the Product to Deinstall"

- Section 5.4.3, "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*.

5.4.1 Starting the Deinstallation Program

To start the deinstaller:

- **On Unix**

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

```
./deinstall.sh
```

- **On Windows**

  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 **OracleHome**, and then select **Uninstall Oracle Middleware**.

5.4.2 Selecting the Product to Deinstall

Because multiple products exist in the Oracle home, ensure that you are deinstalling the correct Oracle home. After you run the deinstaller, the Distribution to Uninstall screen is displayed. From the drop-down list, select **ServiceBus 12.1.3.0.0** and click **Uninstall**. The deinstallation program displays the screens listed in Table 5–2.

> **Note:** You can deinstall Oracle Fusion Middleware Infrastructure once the Oracle Service Bus software is deinstalled, by running the deinstallation wizard again. You will not run into the Distribution to Uninstall screen if no other software is dependent on Oracle Fusion Middleware Infrastructure.

5.4.3 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 or click **Help** at the bottom left of each screen for more detailed information.

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.
	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 deinstallation situation.For more information about silent or command line deinstallation, see "Running the Oracle Universal Installer for Silent Deinstallation" in Installing Software with the Oracle Universal Installer.
	Click **Deinstall** 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 **Finish** 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/product/Oracle_Home` on a UNIX operating system:

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

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

5.6 Removing Your 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/osb_domain` on a UNIX operating system:

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

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

2. Manually remove your Application home directory.

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

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

    On a Windows operating system, if your Application home directory was `C:\Oracle\Config\applications\osb_domain`, use a file manager window and navigate to the `C:\Oracle\Config\applications` directory, then right-click on the `osb_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 `osb_domain`, find the following line and remove it:

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

    Save and exit the file when you are finished.

5.7 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.

A

Secondary Topology for Oracle Service Bus

This appendix provides an alternate topology for Oracle Service Bus.

This appendix contains the following sections:

- Section A.1, "Understanding the Oracle Service Bus and Oracle Enterprise Scheduler Topology"

- Section A.2, "Roadmap for Installing and Configuring the Oracle Service Bus and Oracle Enterprise Scheduler Topology"

A.1 Understanding the Oracle Service Bus and Oracle Enterprise Scheduler Topology

Figure A–1 shows the Oracle Service Bus and Enterprise Schedule Services (ESS) topology.

Use this topology to integrate the capabilities of Oracle Enterprise Scheduler with Oracle Service Bus.

The topology is similar to the Oracle Service Bus standard installation topology, described in Section 1.2; however, in this topology, the Oracle Enterprise Scheduler software is targeted to the Oracle WebLogic Server cluster, in addition to the Oracle Fusion Middleware Infrastructure and Oracle Service Bus software.

Figure A–1   Oracle Service Bus and Enterprise Schedule Services Topology
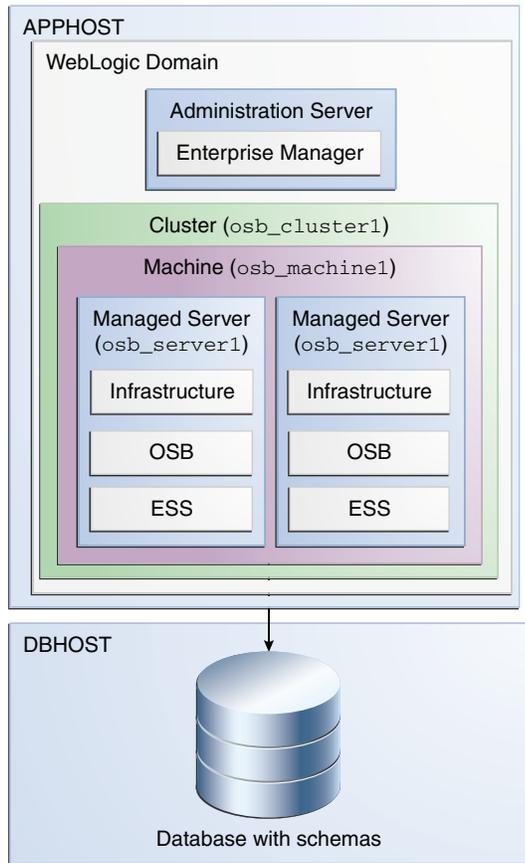
A.2 Roadmap for Installing and Configuring the Oracle Service Bus and Oracle Enterprise Scheduler Topology

Table A–1 describes the roadmap needed to configure this topology on your system.

Table A–1   Installation and Configuration Steps for Oracle Service Bus and Oracle Enterprise Scheduler

Task	Description	More Information	Special Instructions
Verify your system environment	Before beginning the installation, verify that the minimum system and network requirements are met.	See Section 1.4.	None.
Obtain the appropriate distribution	Both Oracle Service Bus and Enterprise Schedule Services require an existing Oracle Fusion Middleware Infrastructure installation; when you install Oracle Service Bus, Enterprise Schedule Services gets installed, too, and Oracle Service Bus must be installed in the same Oracle Home as Oracle Fusion Middleware Infrastructure.	See Section 1.5.	You must obtain both Oracle Fusion Middleware Infrastructure and Oracle Service Bus distributions.
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 *Understanding Oracle Fusion Middleware*.	None.
Install Oracle Fusion Middleware Infrastructure	Install Oracle Fusion Middleware Infrastructure to create the Oracle home directory for Oracle Service Bus.	See *Installing and Configuring the Oracle Fusion Middleware Infrastructure*.	None.
Install the software	Install the Oracle Service Bus software into the existing Infrastructure Oracle home. When you install Oracle Service Bus, Enterprise Schedule Services gets installed too.	See Chapter 2.	None.
Create a WebLogic domain	Use the configuration wizard to create and configure the WebLogic domain. Ensure that you select the appropriate options on the configuration screens.	See Chapter 3.	Follow the instructions provided for specific screens in Section A.2.1.
Start the servers	Once you complete the domain creation, start the Administration and Managed Servers.	See Section 3.3.	Start the Managed server on which wsm-pm is targeted before you start the Managed Server on which Oracle Enterprise Scheduler is deployed.
Verify the configuration	Verify to ensure that the domain is configured properly.	See Section 3.4.	None.
Next steps after installing and configuring Oracle Service Bus and Enterprise Schedule Services	You can perform administrative as well as management tasks for the domain that you have just configured.	See Chapter 4.	None.

A.2.1 Configuration Options to Select for the Oracle Service Bus and Oracle Enterprise Scheduler

Almost all of the screens and options that you must select while configuring Oracle Service Bus and Enterprise Schedule Services are identical to the ones provided in

Chapter 3. However, there are a couple of screens on which you must select different options and Table A–2 lists the key screens and options. Ensure that you select the configuration options as provided on this table.

Table A–2   Key Screens and Configuration Options for Oracle Service Bus and Enterprise Schedule Services Topology

Screen	Description
Select Components	This screen appears when you run RCU to create schemas.
	In addition to the schema list provided in Task 4, select **Oracle Enterprise Scheduler**.
Templates	This screen appears after you start the configuration wizard to create your domain.
	In addition to the templates listed in Task 2, select the following templates:
	■ Oracle Enterprise Scheduler Services Basic - 12.1.3.0 [oracle_common]
	■ Oracle Enterprise Manager Plugin for ESS - 12.1.3.0 [em]
Managed Servers	On the Managed Servers screen (Task 12), two managed servers, osb_server1 and ess_server1, are created. Delete ess_server1 and create osb_server2. Ensure that in the Listen Address drop-down list, you select the IP address of the host on which the Managed Server will reside. Do not use "All Local Addresses."
	In the Server Groups drop-down list, ensure that osb_server1 and osb_server2 are targeted to **OSB-MGD-SVRS_ COMBINED** and **ESS_MGD_SVRS**.
Assign Servers to Clusters	On this screen (Task 14), assign both osb_server1 and osb_server2 to osb_cluster1.
Assign Servers to Machine	On this screen (Task 17), assign the AdminServer, osb_server1 and osb_server2 to osb_machine1.