Oracle® Communications Service Broker

Installation Guide

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Oracle Communications Service Broker Installation Guide, Release 5.0

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Preface

This document describes how to install Oracle Communications Service Broker and its supported configurations, and includes a quick-start guide for how to continue after completing the installation.

Audience

This document is intended for system administrators, developers, and system integrators who want to run Service Broker.

Related Documents

For more information, see the following documents in the Service Broker Release 5.0 documentation set:

- *Oracle Communications Service Broker Release 5.0 Release Notes*
- *Oracle Communications Service Broker Release 5.0 Concepts Guide*
- *Oracle Communications Service Broker Release 5.0 Configuration Guide*
- *Oracle Communications Service Broker Release 5.0 System Administrator's Guide*
- *Oracle Communications Service Broker Release 5.0 Integration Guide*

1

Installation Overview

This chapter gives an overview of the installation process and things to consider when installing Oracle Communications Service Broker:

- Choosing an Oracle Home
- Choosing an Installation Mode
- Choosing a JDK
- Domain Configuration Considerations
- Installing the Administration Console
- Installing a Production-Level System
- Installing a Test and Evaluation System

Choosing an Oracle Home

An Oracle home is a directory into which Oracle software is installed.

Oracle home is defined in an environment variable. The Oracle Universal Installer supports the installation of several active Oracle home directories on the same host.

Oracle home has a name and a path associated with the name, which you specify during installation:

- The name identifies the program group associated with a particular home and the Oracle services installed on this home. The Oracle home name must be between 1 to 127 characters long, and can include only alphanumeric characters and underscores.
- The path is the full path to an Oracle home directory where products are installed.

  In the Service Broker documentation, the Oracle home directory is referred to as *Oracle_home*.

Oracle recommends that you designate an Oracle home location that is an empty or non-existing directory.

An Oracle home inventory, or local inventory, contains only information relevant to a particular Oracle home. An Oracle home inventory is present in an **`inventory`** directory inside each *Oracle_home* directory.

The Oracle Central Inventory includes installation logs corresponding to all installations performed on a particular host. The installation logs for an installation are identified by the timestamp in the log file names. The location of the Oracle Central Inventory is defined in the following files:

- Linux:

  /etc/oraInst.loc

- Solaris:

  /var/opt/oracle/oraInst.loc

Choosing an Installation Mode

You can install Service Broker by using a graphical user interface (GUI) or by using a command-shell script with response files, known as installing in *silent mode*.

You can use the GUI to walk through the installation by providing information in the dialog boxes when prompted. This method is useful when installing a small number of Processing and Signaling Servers in different setups on a small number of hosts.

If your system does not have a GUI, you must use the installer in silent mode. This method is most useful when installing multiple Processing or Signaling Servers on multiple hosts. By using the response files, you can also automate the installation of a server or an Administration Console.

Choosing a JDK

A JDK must be installed on every host that runs a Processing or Signaling Server, a stand-alone Administration Console, or the Web Administration Console server.

The installation package comes with two JDKs:

- Oracle JRockit
- Sun HotSpot

You can also choose to reuse a supported JDK that is already installed on your server.

See "Software Requirements" for a list of supported JDKs, including details on versions.

Domain Configuration Considerations

All configuration data and OSGi bundles are located in a domain configuration directory for each Processing and Signaling Domain. Each domain configuration directory needs to be accessed by all respective Processing or Signaling Servers, all standalone Administration Consoles, and the Web Administration Console servers.

The Administration Console requires read and write access to the domain configurations. The Processing and Signaling Servers require only read access to the domain configurations.

The Administration Console and the Processing and Signaling Servers can access the domain configuration directory by way of a shared file system or a Web server:

- If you use the shared file-system, set up all servers so that they can access the domain configuration directory.
- If you use a Web server, set up the Web server with read access to the domain configuration directory and map the directory to a URL.

To set up either of these methods, follow the instructions in the documentation for your operating system or your Web server.

Installing the Administration Console

The Administration Console is installed using the Oracle Universal Installer for Service Broker.

The installer installs all components necessary to run the stand-alone Administration Console and the Web Administration Console server.

The Administration Console can be installed and run from any machine that has access to the Processing Servers and Signaling Servers and to the domain configuration directories.

You can have as many Administration Consoles installed as you wish. Run the installer on each server where you want to run the stand-alone Administration Console or the Web Administration Console server. See "Installing Oracle Communications Service Broker" for instructions.

Installing a Production-Level System

A production system should always be deployed as a set of at least two servers per domain. Each server should be installed on a dedicated physical server.

See "System Requirements" for a information about supported platforms for production-level deployments.

A Processing Server or Signaling Server is installed using the Oracle Universal Installer for Service Broker. Run the installer for each server you need to install. See "Installing Oracle Communications Service Broker" for instruction.

Installing a Test and Evaluation System

You can use a test and evaluation system to familiarize yourself with Service Broker, to test integration, and for training purposes. A test and evaluation system does not have the same requirements for redundancy and high-availability as a production-level system.

WARNING: Never use a test and evaluation system in production.

See "System Requirements" for information about supported platforms for test and evaluation systems.

A test and evaluation system can be:

- A single-instance system, where both the Processing and Signaling Domains are set up on a single server.
- A multi-server system, where a set of Processing or Signaling Servers is installed on the same physical machine.

  For this type of system, you run the installer to install a single server. You then add additional servers by copying the server directory that was created by the installer.

The Administration Console may be installed on the same physical machine as the servers. Use the same Oracle home for both the servers and the Administration Console if you install both on the same machine.

See "Installing Oracle Communications Service Broker" for instructions on installing an Administration Console and a server.

See "Installing a Multi-Server System on a Single Physical Server".

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System Requirements

This chapter describes the hardware and software requirements for Oracle Communications Service Broker:

Hardware Requirements

There are different hardware requirements on machines running Processing and Signaling Servers and machines running the Administration Console. See "Servers" and "Administration Console" for details.

Servers

Processing and Signaling Servers can be deployed on the following CPU architectures:

- Intel x86
- Intel 64-bit Xeon
- Sun 64-bit SPARC

Each server should have redundant network interface cards.

The following are the recommendations for each physical server in a production system. These are guidelines only:

- Dual quad core processors with 16 GB of RAM
- 200 MB of free disk space for the installation

In addition, the following are required for specific servers:

- Processing Servers

  Extra disk space is required for Processing Servers if you store Service Detail Records (SDRs) in files on the server. In general, 10 GB is sufficient for handling SDRs. However, the actual disk space you need depends on the server's capacity, the amount of traffic, and how many SDR files are stored on the server.

  See "Configuring SDR Logging" under "Viewing Service Broker SDRs" in *Oracle Communications Service Broker System Administrator's Guide* for more information.

- Signaling Servers

A Dialogic TDM signaling board and Dialogic software are required for Signaling Servers that run in a TDM-based network.

See "Installing Dialogic Hardware and Software for TDM Networks" for more information.

Administration Console

The stand-alone Administration Console can be deployed on the following CPU architectures:

- Intel x86
- Intel 64-bit Xeon
- Sun 64-bit SPARC with 32-bit JVM

The Web Administration Console server can be deployed on the following CPU architectures:

- Intel x86
- Intel 64-bit Xeon
- Sun 64-bit SPARC with 32-bit or 64-bit JVM

The following are the recommendations for each physical server that hosts an Administration Console. These are guidelines only:

- Quad core processors with 8 GB of RAM
- 300 MB of free disk space for the installation

Software Requirements

Service Broker requires the following software:

- Network Time Protocol (NTP) client

  Service Broker requires that all servers accurately synchronize their system clocks to a common time source, to within one or two milliseconds. Oracle recommends using an NTP client or daemon and synchronizing all Service Broker servers to a common NTP server.

Caution: Synchronizing system clocks to within on or two milliseconds is critical for proper functioning of the system. If you do not synchronize server clocks, the system may display unexpected behavior.

Supported Configurations

Service Broker can be used with the following operating systems:

- Oracle Enterprise Linux 5.4
- Red Hat Enterprise Linux 5.0
- Sun Solaris 10

The JDKs are bundled with Service Broker. The Java version used is 1.6.

The Web Administration Console can be use with the following Web Browsers:

- Microsoft Explorer
- Mozilla Firefox

Table 2–1 lists the supported combinations of operating system, CPU type, and JVM for Service Broker, along with the file name of the installer for the combination.

Note: The stand-alone Administration Console is not available on the 64-bit Solaris operating system.

Table 2–1 Supported Platform Configurations and Corresponding Install File Names

Operating System	CPU and JVM	Install File name
Oracle Enterprise Linux 5.4 or Red Hat Enterprise Linux 5.0	CPU: Intel x86 JVM: HotSpot 32 bit and JRockit 32 bit	**ocsb500-linux_x86.zip**
	CPU: Intel Xeon 64 bit JVM: HotSpot 64 bit and JRockit 64 bit	**ocsb500-linux_x64.zip**
Sun Solaris 10	CPU: Sun SPARC 64 bit JVM: HotSpot 32 bit and JRockit 32 bit	**ocsb500-sparc.zip**
	CPU: Sun SPARC 64 bit JMV: HotSpot 64 bit and JRockit 64 bit	**ocsb500-sparc_64.zip**

3

Pre-Installation Tasks

This chapter describes the tasks you need to perform prior to installing Oracle Communications Service Broker:

Installing Dialogic Hardware and Software for TDM Networks

This task is required only if you intend to run Service Broker in a TDM-based network.

To use Service Broker in a TDM-based network, you must install the following components on any Signaling Server that will run a Service Broker SS7 Signaling Server Unit (SSU):

- Dialogic TDM signaling board (with a license button) and the card driver
- Dialogic software

Information about these is on the Dialogic Web site:

`http://www.dialogic.com`

- For information about Dialogic TDM signaling boards, see:

  `http://www.dialogic.com/products/signalingip_ss7components/signaling_boards.htm`

- To download the Dialogic software, see:

  `http://www.dialogic.com/products/signalingip_ss7components/download/dsi-interface-protocol-stacks.htm`

  The required software for a TDM system includes:

  - DSI DevPak
  - DSI MTP3 (needed only if the MTP3 stack is required on the host rather than on the board)
  - DSI SCCP

See the associated installation guides for information on installing and using the board and software.

Downloading the Software

You download the Service Broker software from the Oracle E-Delivery Web site:

http://edelivery.oracle.com

To download the Service Broker software:

1. Use your Web browser to go to the Oracle E-Delivery web site and follow the instructions.
2. When prompted to select a product pack, select **Oracle Communications Applications** and select the platform for your system configuration.

   See "System Requirements" for a description of supported configurations.
3. When selecting the media pack, select **Oracle Communications Service Broker**.
4. Download the installation file for your platform.

The file name of the downloaded installation file reflects the system configuration for which it is intended. See Table 2–1 in "System Requirements" for a list of installation file names.

In this documentation, the installation file is referred to as *install_file*.

Unpacking the Installer

Oracle Universal Installer is delivered as ZIP file. To unpack the installation program:

1. Open a command line shell and navigate to the directory where you downloaded the installation file:

   `cd` *install_directory*
2. Unpack the installation ZIP file: Enter:

   `unzip` *install_file*

   Example on an Intel x86 Linux system:

   ```
   unzip ./ocsb500-linux_x86.zip
   ```

The installer setup file is unpacked to the following directory:

install_directory`/`*OS*`/Disk1/install`

where *OS* is the operating system.

Example of unpacked install directory for Solaris 10 64-bit SPARC:

```
Sparc64/Disk1/install
```

Setting Socket Buffer Sizes

To help minimize packet loss, the operating system socket buffers need to be large enough to handle the garbage collection of incoming network traffic.

By default, Coherence attempts to allocate a socket buffer of 2 MB. If your operating system is not configured to allow for large buffers, Coherence will utilize smaller buffers. Most versions of Unix have a very low default buffer limit, which should be increased to at least 2 MB.

Coherence will display the following warning if the buffer size is not set to at least 2 MB:

```
UnicastUdpSocket failed to set receive buffer size to 1428
packets (2096304 bytes); actual size is 89 packets (131071
bytes). Consult your OS documentation regarding increasing the
maximum socket buffer size. Proceeding with the actual value may
cause sub-optimal performance.
```

It is safe to operate with the smaller socket buffer size, but it is recommended that you increase it to 2 MB.

To change the socket buffer size to 2 MB on a Linux or Solaris system:

1. Log in as root.
2. Open a command shell, if necessary.
3. Execute one of the following commands:
   - Linux:

     `sysctl -w net.core.rmem_max=2096304`
   - Solaris:

     `ndd -set /dev/udp udp_max_buf 2096304`

4

Installing Oracle Communications Service Broker

This chapter describes how to use the Oracle Universal Installer to install Oracle Communications Service Broker:

- Running the Installer in Graphical Installation Mode
- Running the Installer in Silent Mode
- Directory Structure After Installation
- Deinstalling Service Broker

Running the Installer in Graphical Installation Mode

To install an Administration Console or a Processing Server or Signaling Server using the Oracle Universal installer in graphical mode:

1. In a command shell, navigate to the installer directory: *installation_directory*`/`*operating_system*`/Disk1/install`
2. Enter the following command to launch the installer:

   ```
   ./runInstaller
   ```

   The Oracle Universal Installer is launched in graphical mode.
3. The installer displays a series of windows, described in Table 4–1. Follow the instructions as described in the table.

Table 4–1 Windows in Oracle Universal Installer Graphical Mode

In this window	Perform the following action
Welcome	Click **Next** to proceed with the installation. You may cancel the installation at any time by clicking **Cancel**.
Select Installation Type	Click one of the following: ■ **Admin Console** to install an Administration Console ■ **Managed Server** to install a Processing Server or a Signaling Server

Table 4–1 (Cont.) Windows in Oracle Universal Installer Graphical Mode

In this window	Perform the following action
Specify Home Details	Specify the home directory that will serve as the central support directory for all products installed on the target system. In this documentation, the home directory is referred to as *Oracle_home*. See "Choosing an Oracle Home" for details about the home directory. If you already have a home directory on your system, you can select that directory (recommended) or create a new home directory. To select an existing home directory: ■ Select the Oracle home name from the **Name** list. The path to the Oracle home directory is automatically entered in the **Path** field. To create a new home directory: ■ Enter a name for the installation in the **Name** field. ■ Enter the path to home directory in the **Path** field. The installer will create the directory for you. You can alternatively click **Browse** to select a directory from the Choose Directory dialog box. Click **Next** to continue.
Product update registration page	Specify if you want to register your installation with My Oracle Support. By registering, Oracle Support notifies you immediately of any security updates that are specific to your installation. To register your installation: ■ In the **Email** field, enter the email address where you wish to be notified of updates. ■ Select the **I wish to receive security updates via My Oracle Support** check box. ■ In the **My Oracle Support Password** field, enter the password for your Oracle support account. If you have not registered with Oracle Support, go to the My Oracle Support Web site at `https://support.oracle.com/CSP/ui/flash.html` and register to obtain a My Oracle Support account. To decline registration: ■ Deselect **I wish to receive security updates via My Oracle Support**. For more information about the advantages of registering your installation with My Oracle Support, see *Oracle Configuration Manager Installation and Administration Guide*. Click **Next** to continue.

Table 4–1 (Cont.) Windows in Oracle Universal Installer Graphical Mode

In this window	Perform the following action
JVM Installation	Specify whether to install a JDK. If you do not install a JDK, you will be prompted for the path to an existing JDK. In a production system, you should install one of the certified versions of the JDK provided by the installer. For a test and development system, you can use a different, supported JDK. Also for test and development environments, multiple Service Broker installations can share a single JDK if they reside on the same machine. See "System Requirements" for details about supported JDKs. To install a JDK: ■ Click **Yes**. ■ Click **Next**. The JVM Selection window opens. To use an already installed JDK: ■ Click **No**. ■ Click **Next**. The Please Choose The JAVA Home Directory window opens.
JVM Selection	This window is only displayed if you selected to install a JDK. Specify which JVM to install: ■ Click **Sun JDK** to install the Sun HotSpot JDK. ■ Click **Oracle Jrockit** to install the Oracle JRockit JDK. Click **Next** to continue.
Specify the Java Home Directory	This window is only displayed if you selected not to install a JDK. Specify the path to an existing Java installation: ■ In the **Java Home** field, enter the path to the directory where the JDK is installed or click **Browse** to select a directory from the Choose Directory dialog box. The path should be the same as the environment variable `JAVA_HOME` for your Java installation. See "System Requirements" for details about supported JDKs.
Summary	This window displays a summary of the installation, including general information about the installation type, directories, the product components to be installed, the approximate installed size of each component, and the total size of all components to be installed. Click **Install**.
Install	This window is displayed while the components are being installed. Read the information about products and services while the installer is running.
End of Installation	This window describes the outcome of the installation. Click the **Exit** to exit the installation program. Click **Yes** to confirm your choice.

When the installation is completed, the directory structure described in "Directory Structure After Installation" is created on your server.

Running the Installer in Silent Mode

You can install an Administration Console or a Processing or Signaling Server using Oracle Universal Installer in silent mode.

You can specify the necessary installation parameters, such as what to install, the home directory, and so on, in one of two ways:

- By editing the parameters in the **silentInstaller.sh** installer file. Typically, this is the method you will use. The file includes all the mandatory parameters and the most frequently used parameters. Default values are given.

  See "Installing in Silent Mode Without a Response File" for instructions.

- By editing the installation response file. This file includes corresponding parameters that are in the **silentInstaller.sh** file, plus additional parameters that you can set. The response file, along with the **-silent** parameter, is given as input to the **runInstaller** utility.

  See "Installing in Silent Mode With a Response File" for instructions.

Installing in Silent Mode Without a Response File

To install an Administration Console or a Processing or Signaling Server in silent mode without using a response file:

1. Edit the **silentInstaller.sh** file so that it defines your installation. The installer file is located in the directory:

   installation_directory`/`*operating_system*`/Disk1/install`

   Table 4–2 lists the parameters you can edit in the **silentInstaller.sh** file.

Table 4–2 Parameter-value pairs in the silentInstaller.sh file

Parameter	Description
`INSTALL_TYPE`	Specifies whether you want to install an Administration Console or a Processing or Signaling Server. Do not edit this value in the response file. Mandatory Use: ▪ `1` to install an Administration Console (this is the default) ▪ `2` to install a Processing or Signaling Server Example: `INSTALL_TYPE=1`

Table 4–2 (Cont.) Parameter-value pairs in the silentInstaller.sh file

Parameter	Description
INSTALL_JVM	Specifies whether to install one of the bundled JDKs or to use an already installed JDK. Mandatory In a production system, you should install one of the certified versions of the JDK provided by the installer. For test environments, you can use an already installed, supported JDK. Also for test environments, multiple Service Broker installations can share a single JDK if they reside on the same machine. Use: ■ **1** to install the JDK (this is the default) ■ **0** to use an already installed JDK Example: **IS_INSTALL_JVM=1**
JAVA_HOME	The path to the directory of your Java installation. Mandatory if the value of **INSTALL_JVM** is **0**; optional otherwise The path should be the same as the environment variable **JAVA_HOME** for your Java installation. Example: **JAVA_HOME="/usr/local/java"**
INSTALL_PATH	The path to use as your Oracle home directory Mandatory Specify the directory that will serve as the central support directory for all Oracle products installed on the target system. Example: **ORACLE_HOME="/usr/local/oracle_home"** The default path is **~/OHOME1**
ORA_HOME_NAME	The name of the Oracle home Mandatory If you have previously installed an Oracle product using the Oracle Universal Installer, you already have an Oracle home defined. If you want to reuse the existing Oracle home, enter its name here. When you use an existing Oracle home name, the value you specified for ORACLE_HOME is overridden with the existing Oracle home directory path. Example: **ORACLE_HOME_NAME="ORACLE_HOME"** The default Oracle home is **OHOME1**
JVM_TYPE	Specifies which JVM to install. Mandatory if the value of **INSTALL_JVM** is **1**; optional otherwise Use: ■ **1** to install Sun HotSpot JDK ■ **2** to install Oracle JRockit JDK (this is the default) Example: **JVM_TYPE=1**

2. In a command shell, navigate to the **install** directory.
3. Enter the following command to launch the installer:

   `./silentInstaller.sh`

   The installation progress is output to the console.
4. When the installation is complete, press any key to exit the installation program.

   The directory structure described in "Directory Structure After Installation" is created on your server.

Installing in Silent Mode With a Response File

The installer response file includes corresponding parameters that are specified in the **silentInstaller.sh** file, plus additional parameters that you can specify for your installation. The installer response file is used with the **runInstaller** utility.

To install an Administration Console or a Processing or Signaling Server in silent mode using a response file:

1. Edit and save the appropriate installer response file. There are two installer response files. Use the one that corresponds to the component you want to install:
   - **`OCSB.install_type_1.rsp`** for an Administration Console
   - **`OCSB.install_type_2.rsp`** for a Processing or Signaling Server

   The response files are located in the installation directory for your platform:

   installation_directory`/`*operating_system*`/Disk1/stage/Response/`

   Table 4–3 describes the typical parameter-value pairs that you set in the installer response file. For information on additional parameters you can set in the response file, see the content of the response file.

Table 4–3 Parameter-value pairs in the installer response files

Parameter	Description
`ORACLE_HOME`	The path to use as your Oracle home directory Mandatory Specify the directory that will serve as the central support directory for all Oracle products installed on the target system. Example: **`ORACLE_HOME="/usr/local/oracle_home"`**
`ORACLE_HOME_NAME`	The name of the Oracle home Mandatory If you have previously installed an Oracle product using the Oracle Universal Installer, you already have an Oracle home defined. If you want to reuse the existing Oracle home, enter its name here. When you use an existing Oracle home name, the value you specified for ORACLE_HOME is overridden with the existing Oracle home directory path. Example: **`ORACLE_HOME_NAME="ORACLE_HOME"`**

Table 4–3 (Cont.) Parameter-value pairs in the installer response files

Parameter	Description
DECLINE_SECURITY_UPDATES	Specify whether to decline receiving automatic updates via your Oracle support account. Mandatory if you do not wish to receive automatic updates; optional otherwise. Example: **DECLINE_SECURITY_UPDATES="TRUE"**
MYORACLESUPPORT_USERNAME	The e-mail address you use for your Oracle Support account. Mandatory If you have not registered with Oracle Support, go to the My Oracle Support Web site at: https://support.oracle.com/CSP/ui/flash.html and register to obtain a My Oracle Support account. By registering for updates, Oracle Support notifies you immediately of any security updates that are specific to your installation. Example: **MYORACLESUPPORT_USERNAME="john.doe@somecompany.com"**
MYORACLESUPPORT_PASSWORD	The password associated with your Oracle support account Mandatory unless **DECLINE_SECURITY_UPDATES** is set to **"TRUE"**. Used for verification of **MYORACLESUPPORT_USERNAME**.
IS_INSTALL_JVM	Specifies whether to install one of the bundled JDKs or to use an already installed, supported JDK. Mandatory In a production system, you should install one of the certified versions of the JDK provided by the installer. For test environments, you can use an already installed, supported JDK. Also for test environments, multiple Service Broker installations can share a single JDK if they reside on the same machine. Use: ■ **"TRUE"** to install the JDK ■ **"FALSE"** to use an already installed JDK Example: **IS_INSTALL_JVM="TRUE"**
TYPE_OF_JVM	Specifies which JVM to install. Mandatory if the value of **IS_INSTALL_JVM** is **TRUE**; optional otherwise Use: ■ **0** to install Sun HotSpot JDK ■ **1** to install Oracle JRockit JDK Example: **TYPE_OF_JVM=1**

Table 4–3 (Cont.) Parameter-value pairs in the installer response files

Parameter	Description
JAVA_HOME	The path to the directory of your Java installation. Mandatory if the value of **IS_INSTALL_JVM** is **FALSE**; optional otherwise The path should be the same as the environment variable **JAVA_HOME** for your Java installation. Example: **JAVA_HOME="/usr/local/java"**

2. In a command shell, navigate to the installer directory:

   install_directory/*operating_system*/**Disk1/install**

3. Enter the following command to launch the installer:

   ./runInstaller -silent -responseFile *full_path_to_response_file*

   For example, to install an Administration Console on a Linux64 operating system:

   ./runInstaller -silent -responseFile *installation_directory*/**Linux64/Disk1/stage/Response/OCSB.install_type1.rsp**

   The installation progress is output to the console.

4. When the installation is complete, press any key to exit the installation program.

   The directory structure described in "Directory Structure After Installation" is created on your server.

Directory Structure After Installation

Figure 4–1 illustrates the high-level directory structure that is created during installation.

Figure 4–1 Installed Directory Hierarchy

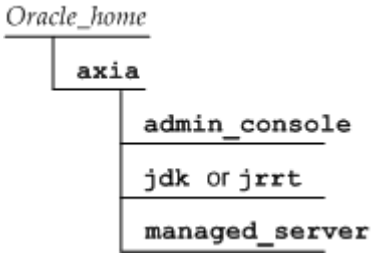

Table 4–4 describes each directory and its contents.

Table 4–4 Installed Directories and Content Descriptions

Directory	Description
Oracle_home/**axia**	Base directory for your installation. *Oracle_home* is specified during the installation.

Table 4–4 (Cont.) Installed Directories and Content Descriptions

Directory	Description
Oracle_home`/axia/admin_console`	Contains binaries for the Administration Console, and the start scripts and modules related to the Administration Console. This directory is created only if you specified to install the Administration Console during the installation.
Oracle_home`/axia/managed_server`	Contains binaries for the Processing Server or Signaling Server, and the start scripts and modules related to the server. This directory is created only if you specified to install a managed server during the installation.
Oracle_home`/axia/jdk`	Contains the Sun HotSpot JDK. This directory is created only if you specified to install the Sun JDK during the installation.
Oracle_home`/axia/jrrt`	Contains the Oracle JRockit JDK. This directory is created only if you specified to install the Oracle JRockit JDK during the installation.

Deinstalling Service Broker

You can deinstall Service Broker or any of its components by running the Oracle Universal Installer. When you deinstall, the installer removes all files and folders that it originally installed, but does not remove any files and folders that you created or modified, such a domain directories and configuration files.

See "Deinstalling Using Graphical Installation Mode" for instructions on deinstalling Service Broker or one of its components using Oracle Universal Installer in graphical mode.

See "Deinstalling Using Silent Mode" for instructions on deinstalling Service Broker or one of its components using Oracle Universal Installer in silent mode.

Deinstalling Using Graphical Installation Mode

To deinstall Service Broker or any of its components using the Oracle Universal Installer in graphical mode:

1. In a command shell, navigate to the installer directory: *install_directory*`/`*operating_system*`/Disk1/install`
2. Enter the following command to launch the installer:

   ```
   ./runInstaller
   ```

   The Oracle Universal Installer is launched in graphical mode.
3. In the Welcome window, click **Deinstall Products**.

   The Inventory window opens.
4. In the **Contents** tab, expand the inventory tree structure and select the components to deinstall. To deinstall all components, select the top-level directory.

Tip: To save a text copy of the inventory tree and selected components before you remove components, click **Save As**. Navigate to a directory where you want to save the tree, enter the file name to use, and click **Save**.

5. Click **Remove**.

   The Confirmation window opens.

6. Click **Yes** to confirm your selection.

   The installer deinstalls the selected components.

Deinstalling Using Silent Mode

To deinstall Service Broker or one of its components in silent mode, you run the **runInstaller** utility from a command line.

The simplest way to specify the components to deinstall is on the command line; however, you can alternatively specify the components to deinstall in an installer response file. The installer response files are located in the installation directory for your platform:

installation_directory`/`*operating_system*`/Disk1/stage/Response/`

See "Installing in Silent Mode With a Response File" for more information about the installer response files.

Table 4–5 describes the parameter-value pairs that you set, either on the command line or in the installer response file.

Table 4–5 Name-value pairs for deinstalling components

Name	Description

`DEINSTALL_LIST`	Specify the component to deinstall.
	Mandatory
	Use the following syntax:
	{"*component*","*version*"}
	where
	■ *component* is one of the following:
	■ **OCSB** for Service Broker
	This deinstalls both the Administration Console and the Processing Server or Signaling Server.
	■ **Falcon_AC** for the Administration Console
	■ **Falcon_MS** for a Processing Server or Signaling Server
	■ *version* is the version of the component
	Examples:
	`DEINSTALL_LIST={"OCSB","5.0.0.0.0"}`
	`DEINSTALL_LIST={"Falcon_AC","1.0.0.0.0"}`

Table 4–5 (Cont.) Name-value pairs for deinstalling components

Name	Description
REMOVE_HOMES	Specify the full path to the Oracle home directory to remove. Optional Use the following syntax: {*path_to_Oracle_home*} Example: **REMOVE_HOMES={/usr/local/oracle_home}**

You can use the **runInstaller** utility to get a list of the installed components and their versions:

1. In a command shell, navigate to the installer directory:

   *install_directory***/***operating_system***/Disk1/install**

2. Enter the following command:

   ./runInstaller -deinstall

   The installed components are listed in the output.

To deinstall Service Broker or one of its components:

1. In a command shell, navigate to the installer directory:

   *install_directory***/***operating_system***/Disk1/install**

2. Enter one of the following commands to launch the installer.

   - To specify the components to deinstall on the command line, enter:

     ./runInstaller -deinstall -silent DEINSTALL_LIST={"*component***","***version***"} REMOVE_HOMES=**{*path_to_Oracle_home*}

     where *component*, *version*, and *path_to_Oracle_home* are specified as described in Table 4–5.

   - To use an installer response file in which the components to deinstall are specified, enter:

     ./runInstaller -deinstall -silent -responseFile *full_path_to_response_file*

3. When deinstallation is complete, press any key to exit the installation program.

5

Next Steps

This chapter provides a quick-step guide for the steps that you need to perform after successfully installing Oracle Communications Service Broker. It also contains information about setting up multiple servers on a single physical server for a test environment:

- Quick Steps: Starting an Administration Console and Setting Up Domains
  - Starting the Stand-Alone Administration Console
- Installing a Multi-Server System on a Single Physical Server

For detailed information on configuring Service Broker, see *Oracle Communications Service Broker Configuration Guide*.

For detailed information on managing Service Broker, see *Oracle Communications Service Broker System Administration User's Guide*.

Quick Steps: Starting an Administration Console and Setting Up Domains

The following are the general steps that you perform after installing Service Broker:

1. If necessary, run the Service Broker installer again for each additional Processing Server and Signaling Server that you need to install.

   See "Installing Oracle Communications Service Broker" for instructions.

2. Create your Processing Domain and Signaling Domain.

   See "Managing Domains" in *Oracle Communications Service Broker System Administrator's Guide* for instructions on creating domains.

3. Map custom names that you assigned to Signaling and Processing Servers to server names required by Service Broker. See "Mapping Custom Server Names to Service Broker Server Names" in *Oracle Communications Service Broker Configuration Guide*.

4. Set a Service Broker domain name. See "Setting a Service Broker Domain Name" in *Oracle Communications Service Broker Configuration Guide*.

5. Join the Processing and Signaling Domains. See "Managing Clusters" in *Oracle Communications Service Broker Administration Guide*.

6. Configure security to provide access privileges and password-enabled access to the Web Administration Console server and the Service Broker servers.

   See "Configuring Security" in *Oracle Communications Service Broker System Administrator's Guide* for instructions.

7. Start the stand-alone Administration Console.

See "Starting the Stand-Alone Administration Console" for instructions.

8. Define your Processing Servers and Signaling Servers by specifying their names and port numbers in the domain configuration. See "Managing Domain Servers" in *Oracle Communications Service Broker Configuration Guide*.
9. Start each Processing Server and Signaling Server. See “Starting and Stopping Processing Servers and Signaling Servers” in *Oracle Communications Service Broker System Administrator’s Guide*.
10. Configure the following components:
    - Interworking Modules (IMs), Signaling server Units (SSUs), and the Orchestration Engine (OE).

      See *Oracle Communications Service Broker Configuration Guide* for instructions.
    - (Optional) The SNMP service for sending SNMP traps to an external management system.

      See “Sending Traps to External Management Systems” in *Oracle Communications Service Broker Integration Guide*.

Starting the Stand-Alone Administration Console

You run the stand-alone Administration Console from the machine on which it is installed.

To start the stand-alone Administration Console:

1. Open a command line shell.
2. Change to the *Oracle_home*`/axia/admin_console` directory.
3. Enter the following command:

   ./start.sh *Domain_configuration_directory*

   where *Domain_configuration_directory* is the path to the domain configuration directory.

See *Oracle Communications Service Broker System Administrator’s Guide* for more information about starting a stand-alone Administration Console and using the Web Administration Console.

Installing a Multi-Server System on a Single Physical Server

WARNING: This type of installation is only supported for non-production systems for test and evaluation.

The steps in this section assume that you have already installed an Administration Console and a single server under the directory *Oracle_home*.

To create a multi-server domain on a single physical server, repeat the instructions below for each additional server:

1. Create a new server directory for each server you want to add.

   Reusing the same directory will cause conflicts.

   It is recommend that you create the directories at the same level as the installed server directory. For example:

Oracle_home`/axia/`*new_server_directory*

2. Copy the contents of the installed server directory to each new server directory that you added.

   The default installed server directory is:

   Oracle_home`/axia/managed_server`

3. Define each server in the domain configuration by specifying its name and port number. See *Oracle Communications Service Broker User's Guide* for more information.

When you start a server, make sure to use a separate command shell for each server.

The following tables show examples of a domain with three servers.

- Table 5–1 outlines the directory structure.
- Table 5–2 outlines the corresponding server configurations for the domain.
- Table 5–3 shows the start command and parameters for each server.

Note how the name of the server in the server configuration for the domain corresponds to the name given as a parameter when starting the server.

Table 5–1 Example Directory Structure for Multiple Servers on a Single Physical Server

Description	Sub-directory under Oracle Home
Administration Console	`axia/admin_console`
Default server installation directory Use as the source when creating the directories for the new servers.	`axia/managed_server`
First added server directory	`axia/srv1`
Second added server directory	`axia/srv2`
Third added server directory	`axia/srv3`
Directory where the domain configuration is located	`axia/domain`

Table 5–2 Example Server Configuration for Multiple Servers on a Single Physical Server

Name	Host	Port	Admin port	JMX Port	JMX Registry
server1	localhost	9001	8901	10003	10103
server2	localhost	9002	8902	10004	10104
server3	localhost	9003	8903	10005	10105

Table 5–3 Example Server Start Commands for Multiple Servers on a Single Physical Server

For the Server In the Directory	Use This Command To Start the Server	
	From the server's directory	When using the Domain Web server

Table 5–3 (Cont.) Example Server Start Commands for Multiple Servers on a Single Physical Server

For the Server In the Directory	Use This Command To Start the Server	
srv1	**start.sh server1 file:../domain/initial.zip**	**start.sh server1 http://***somewebserver***:9001/initial.zip**
srv2	**start.sh server2 file:../domain/initial.zip**	**start.sh server2 http://***somewebserver***:9002/initial.zip**
srv3	**start.sh server3 file:../domain/initial.zip**	**start.sh server3 http://***somewebserver***:9003/initial.zip**