

Oracle® Communications Services Gatekeeper

Installation Guide

Release 5.1

E37539-02

April 2014

Oracle Communications Services Gatekeeper Installation Guide, Release 5.1

E37539-02

Copyright © 2007, 2014, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Contents

Preface	vii
Audience	vii
Documentation Accessibility	vii
Related Documents	vii
1 Task Overview	
Planning the Network/Hardware Setup	1-1
IPv6 Support	1-2
Installing the Database Software	1-2
Installing Services Gatekeeper Software	1-2
Installing Services Gatekeeper Portal and Reporting Support	1-3
Configuring the WebLogic Server Domain for Services Gatekeeper	1-4
Completing Post-Installation Tasks	1-5
Installing SOA Facades	1-5
Upgrading from a Previous Services Gatekeeper Release	1-5
For Further Information about WebLogic Server	1-5
2 Supported Configurations	
Common Configuration Requirements	2-1
Supported Platforms Matrix	2-1
Supported Databases	2-2
Virtualization	2-3
Load Balancer and Tier 3 Switches	2-3
Firewall	2-3
Disc Storage	2-3
Parlay X	2-3
SNMP	2-3
3 Installing the Database	
Installation Overview	3-1
Install with Oracle RAC or Oracle Single Instance Database Software	3-1
Oracle RAC	3-1
Installing the Database Software	3-1
Define a Services Gatekeeper Database User for the Oracle Database	3-2
Install an Oracle Database Express Edition (XE)	3-2

Installing Oracle XE on Windows.....	3-2
Installing Oracle XE on Linux	3-3
Configuring Oracle XE for Services Gatekeeper	3-4
Install a MySQL Database	3-5
Installing MySQL on Linux	3-5
Installing MySQL on Windows.....	3-6
Configuring MySQL for Services Gatekeeper	3-6

4 Installing Oracle Communications Services Gatekeeper

Installation Platforms and Modes	4-1
Creating an Installation Log	4-1
The GUI Mode Installer	4-2
Running the GUI Installer on Windows	4-2
Running the GUI Installer on UNIX/Linux.....	4-4
Running the Generic GUI Installer	4-6
The Console Installer	4-8
Running the Console Installer on Windows	4-9
Running the Console Installer on UNIX/Linux	4-10
Running the Generic Console Installer	4-12
The Silent Mode Installer	4-15
About the silent.xml File	4-15
Returning Exit Codes to the Console	4-15
Running the Silent-Mode Installer on All Platforms	4-16
Where to Go From Here	4-17

5 Installing Services Gatekeeper Reporting and Portal Support

Installation Prerequisites	5-1
Installing and Configuring OBI	5-1
Creating an Analytics Repository Database and User.....	5-2
Configuring the Services Gatekeeper RPD File	5-2
Gathering Required OBI System Information	5-3
Installing and Configuring OWP	5-3
Gathering Required OWP System Information.....	5-3
Installation Platforms and Modes	5-3
Creating an Installation Log	5-4
Installing Services Gatekeeper Reporting Support	5-4
Installing Reporting Support.....	5-4
Modifying OBI Behavior Settings.....	5-6
Enabling OBI Write-back and Iframe Support	5-7
Configuring the Services Gatekeeper Domain	5-7
Configure the Analytics Data Source.....	5-8
Deploy the Analytics EAR File	5-9
Connect Services Gatekeeper to the Analytics Data Source	5-10
Accessing Services Gatekeeper Reports.....	5-11
API Related Reports	5-11
API Others Reports.....	5-11
Application Related Reports	5-11

Subscriber Related Reports.....	5-11
Installing Services Gatekeeper Portal Support	5-11
Extending the OWP Domain for a Custom Portal	5-11
Installing Portal Support.....	5-12
Accessing Services Gatekeeper Portals	5-13

6 Configuring the Domain for Oracle Communications Services Gatekeeper

Understanding Service Gatekeeper Domain Configuration	6-1
Configuring a Domain With the Graphical Mode Configuration Wizard	6-3
IPv6 Considerations.....	6-3
Configuring a Domain with the GUI Configuration Wizard - Windows.....	6-3
Configuring a Domain with the GUI Configuration Wizard - UNIX/Linux.....	6-4
Configuring Domain Settings.....	6-4
Welcome Screen - Create or Update a WebLogic Domain	6-5
Select Domain Source Screen	6-5
Specify Domain Name and Location Screen.....	6-6
Configure Administrator User Name and Password Screen	6-6
Configure Server Startup Mode and JDK Screen	6-6
Configure JDBC Data Sources Screen.....	6-6
(As Needed) Configure Oracle RAC Multi-Data Sources.....	6-7
Select Optional Configuration Screen.....	6-8
Configuration Summary Screen	6-8
Optional Configuration Screens.....	6-8
Configure the Administration Server (Administration Server Screen)	6-8
JMS Distribution Destination (Select JMS Distributed Destination Type Screen)	6-9
Managed Servers, Clusters and Machines (Configure Managed Servers Screen)	6-9
Deployments and Services (Target Deployments to Clusters or Server Screen)	6-9
RDBMS Security Store (Configure RDBMS Security Store Database Screen).....	6-10
Using the Console Configuration Wizard	6-10
Launch the Console Configuration Wizard - Windows.....	6-10
Launch the Console Configuration Wizard - UNIX/Linux.....	6-11
Create Your Domain	6-11
Configuring a Domain with Oracle WebLogic Scripting Tool Scripts	6-11
Set Up Your Environment.....	6-12
Choose from the Provided Scripts.....	6-12
Edit the Scripts.....	6-12
Configure Multi-cluster Settings	6-13
Adding Servers to a Multi-cluster Configuration	6-14
Keep Unused Communication Services From Being Deployed	6-16
Run the Script	6-16
Where to Go From Here	6-16

7 Completing Post-Installation

Complete Post-Install Tasks	7-1
Create a Portal Manager Account.....	7-1
Create JMS Servers for Any Additional NT Servers	7-1

Install Orbacus	7-2
(Optional) Add a Custom Password Validator	7-3
(Optional) Adding Java Cryptography Extensions.....	7-4
Configure Services Gatekeeper	7-4
For Further Information	7-4

8 Installing SOA Facades

Introduction.....	8-1
Task Overview	8-1
Install Services Gatekeeper.....	8-2
Install Oracle Service Bus.....	8-2
Configure the Domain.....	8-2
Configure the Domain Using the Graphical Domain Configuration Wizard.....	8-2
Configure Oracle Service Bus Domain Using the Console Configuration Wizard	8-2
Edit and Verify the Domain Configuration Settings	8-3
Configuring Domain Settings: Windows	8-3
Configuring Domain Settings: Linux/UNIX	8-3
Verify the Domain Configuration Settings.....	8-3
Configure the SOA Facades	8-4

9 Upgrading Oracle Communications Services Gatekeeper

About Upgrading Services Gatekeeper	9-1
Limitations.....	9-2
Variable Names Used in this Chapter.....	9-2
Upgrading Server to New Version.....	9-2
Upgrading PRM and Deploying Communication Services.....	9-6
Upgrading PRM to Enable PasswordDigest	9-7
5.0 to 5.1 Communication Services Deployments	9-8
5.0.0.1 to 5.1 Communication Services Deployments	9-9
Upgrade Troubleshooting	9-9
A Network Tier Server Cannot Rejoin Its Coherence Cluster	9-9
A Network Tier Server Cannot Rejoin Its Services Gatekeeper Cluster	9-10
Reference: Database Schema Changes.....	9-10
Reference: Added Alarms.....	9-11
Reference: Added EDRs.....	9-12
Application Tier EDRs.....	9-12
Network Tier EDRs.....	9-12
Reference: Added CDRs	9-13

Preface

This book explains how to install Oracle Communications Services Gatekeeper. It includes instructions for WebLogic Server domain configuration and post-installation tasks.

Audience

This document is for support engineers and system administrators.

Documentation Accessibility

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

Access to Oracle Support

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

Related Documents

For more information, see the following documents in the Oracle Communications Services Gatekeeper set:

- *Oracle Communications Services Gatekeeper Accounts and SLAs Guide*
- *Oracle Communications Services Gatekeeper Alarm Handling Guide*
- *Oracle Communications Services Gatekeeper Application Developer's Guide*
- *Oracle Communications Services Gatekeeper Communication Service Guide*
- *Oracle Communications Services Gatekeeper Concepts Guide*
- *Oracle Communications Services Gatekeeper Deployment Guide*
- *Oracle Communications Services Gatekeeper Licensing Guide*
- *Oracle Communications Services Gatekeeper OAuth Guide*
- *Oracle Communications Services Gatekeeper Partner Relationship Management Guide*
- *Oracle Communications Services Gatekeeper Platform Development Studio Developer's Guide*

- *Oracle Communications Services Gatekeeper Platform Test Environment Guide*
- *Oracle Communications Services Gatekeeper RESTful Application Developer's Guide*
- *Oracle Communications Services Gatekeeper SDK User's Guide*
- *Oracle Communications Services Gatekeeper Security Guide*
- *Oracle Communications Services Gatekeeper Statement of Compliance*
- *Oracle Communications Services Gatekeeper System Administrator's Guide*
- *Oracle Communications Services Gatekeeper System Backup and Restore Guide*

In addition, many documents in the Oracle WebLogic Server documentation set are of interest to users of Oracle Communications Services Gatekeeper:

- *Oracle Fusion Middleware Introduction to Oracle WebLogic Server* at: http://download.oracle.com/docs/cd/E15523_01/web.1111/e13752/toc.htm
- *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* at: http://download.oracle.com/docs/cd/E15523_01/doc.1111/e14142/title.htm
- *Oracle Fusion Middleware Managing Server Startup and Shutdown for Oracle WebLogic Server* at: http://download.oracle.com/docs/cd/E15523_01/web.1111/e13708/overview.htm
- *Oracle Fusion Middleware Getting Started With JAX-WS Web Services for Oracle WebLogic Server* at: http://download.oracle.com/docs/cd/E15523_01/web.1111/e13758/title.htm
- *Oracle Fusion Middleware Developing Manageable Applications With JMX for Oracle WebLogic Server* at: http://download.oracle.com/docs/cd/E15523_01/web.1111/e13729/title.htm
- *Oracle Fusion Middleware Configuring and Using the Diagnostics Framework for Oracle WebLogic Server* at: http://download.oracle.com/docs/cd/E15523_01/web.1111/e13714/title.htm
- *Oracle Fusion Middleware Using Clusters for Oracle WebLogic Server* at: http://download.oracle.com/docs/cd/E15523_01/web.1111/e13709/toc.htm
- *Oracle Fusion Middleware Securing Oracle WebLogic Server* at: http://download.oracle.com/docs/cd/E15523_01/web.1111/e13707/toc.htm

Task Overview

This chapter provides a high level description of the process of installing and configuring Oracle Communications Services Gatekeeper. Subsequent chapters describe the steps in detail.

Setting up Services Gatekeeper is a multi-step process that includes planning the hardware and network setup, installing the database software, installing the Services Gatekeeper software which includes WebLogic Server and can include a Java Development Kit (JDK), configuring the WebLogic domain, optional portal and reporting support, and some other post-installation tasks.

If you are integrating Services Gatekeeper with Service Oriented Architecture (SOA), you need to install the SOA facades.

If you are upgrading from a previous version of Services Gatekeeper, you need to perform the upgrade tasks.

Planning the Network/Hardware Setup

Before you can install Services Gatekeeper, you must gather some information about your system and decide on the directories in which to install for the software. You need to know:

- The network names or IP addresses of the machines on which you are going to install.
- The directory on each machine which will serve as your *Middleware_Home* directory. This directory serves as a repository for common files that are used by Oracle Communications Service delivery products installed on the same machine, such as Services Gatekeeper, WebLogic Server, and Java Development Kit.

The files in the *Middleware_Home* directory are essential to ensuring that software operates correctly on your system. They:

- Facilitate checking of cross-product dependencies during installation
- Facilitate Service Pack installation
- The directories on each machine which will serve as your product installation directories. You will need to provide directories in which to install Services Gatekeeper and WebLogic Server software. By default, these are subdirectories of *Middleware_Home*. We refer to these directories as *WebLogic_Home* and *Services_Gatekeeper_Home*.
- If you are going to install the Oracle Communications Services Gatekeeper Platform Development Studio, the Eclipse Plug-in directory.

- A password for the Administrative User. The password must have a minimum of eight characters, at least one of which is non-alphabetic.
- If you going to install support for Services Gatekeeper partner portals and reporting, you'll need to have additional servers to host Oracle Business Intelligence and Oracle WebCenter Portal.

Oracle Communications Services Gatekeeper has been tested to run on specific hardware and software platforms. [Table 2–1, "Oracle Communications Services Gatekeeper Supported Platform Matrix"](#) in ["Supported Configurations"](#) outlines the supported Services Gatekeeper configurations in detail. Unless your installation has been specified differently in cooperation with Oracle, only those configurations are supported.

IPv6 Support

Services Gatekeeper supports IPv6 networking configurations. The following communication services have been tested and are fully compatible:

- Parlay X 2.1 SMS
- Parlay X 2.1 SMPP
- Parlay X 2.1 MMS
- Parlay X 2.1 Terminal Location
- Native SMPP

Other Services Gatekeeper communication services are not guaranteed to be fully functional in an IPv6 environment.

Note: Due to software limitations, you will need make additional configuration changes when configuring Services Gatekeeper domains in an IPv6 environment. For more information, see ["IPv6 Considerations"](#) in [Chapter 6, "Configuring the Domain for Oracle Communications Services Gatekeeper."](#)

Installing the Database Software

You need to install the database software for the database used by Service Gatekeeper. See ["Installing the Database"](#) for information on installing the database software. Implementation of Business Intelligence and WebCenter Portal requires additional databases as well. See the appropriate product installation documentation for these products if needed.

Installing Services Gatekeeper Software

Installing Services Gatekeeper generally copies these separate components to your hardware:

- The platform container, Oracle WebLogic Server
- The Oracle Communications Services Gatekeeper software, including container services and communication services applications
- [optional] The Oracle Communications Services Gatekeeper Platform Development Studio software

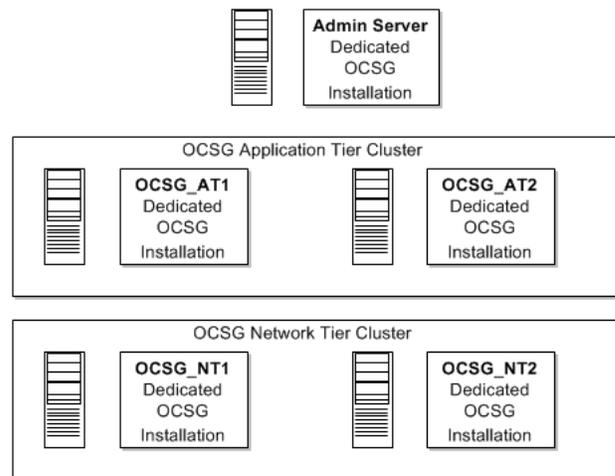
Each of these components is copied to its appropriate places when you run the Services Gatekeeper installer. There are three installer modes available:

- Graphical-mode (GUI-based)
- Console (interactive text-based)
- Silent mode (uses an XML file instead of user-entered responses)

You need to perform an installation on each machine in your Services Gatekeeper configuration.

Figure 1–1 shows a recommended Services Gatekeeper installation.

Figure 1–1 Recommended Services Gatekeeper Installation



See "[Installing Oracle Communications Services Gatekeeper](#)" for detailed installation instructions.

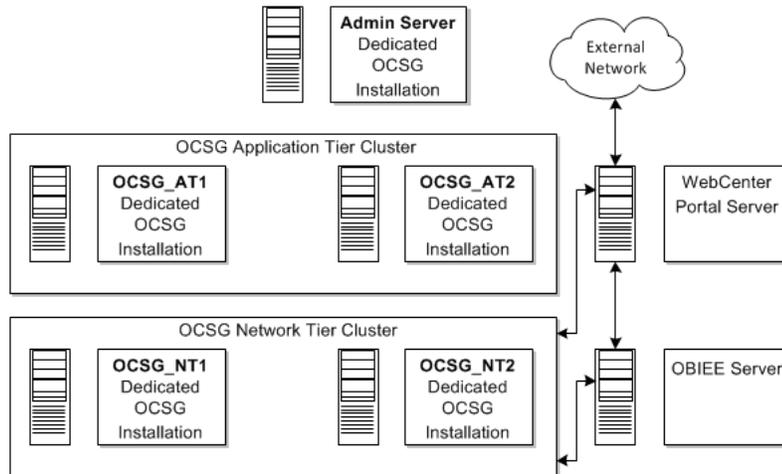
Installing Services Gatekeeper Portal and Reporting Support

Services Gatekeeper portal and reporting support is configured using a separate installer. Before you can configure the portal and reporting functionality, you must have the following products installed and running:

- Oracle Business Intelligence. Oracle Business Intelligence handles the preparation and rendering of the Services Gatekeeper reporting.
- Oracle WebCenter Portal. Oracle WebCenter Portal serves the Services Gatekeeper portal applications.

Each of those products requires a dedicated server. In addition, you may want to consider an additional Oracle database to serve as a staging location for the reporting data.

Figure 1–2 shows a recommended Services Gatekeeper installation including dedicated servers for WebCenter Portal and Oracle Business Intelligence.

Figure 1–2 Recommended Services Gatekeeper Installation with Portal and Reporting

See "Installing Services Gatekeeper Reporting and Portal Support" for detailed installation instructions.

Note: A core Services Gatekeeper installation must be configured and running before you can install portal and reporting support.

Configuring the WebLogic Server Domain for Services Gatekeeper

There are two tools available to configure the domain for your WebLogic Server for use in Services Gatekeeper installations:

- The Configuration Wizard, either the GUI-based version or the interactive console version.

If you want to run graphical-mode configuration, the console attached to the machine on which you are configuring the domain must support a Java-based GUI. All consoles for Windows systems support Java-based GUIs, but not all consoles for UNIX/Linux systems do. If you attempt to start the installation program in graphical mode on a system that cannot support a graphical display, the installation program automatically starts console-mode installation.

- The command-line scripting tool (WebLogic Scripting Tool) and provided scripts.

The command-line does not support SOA features however.

The WebLogic Scripting Tool (WLST) is a command-line scripting interface that system administrators and operators use to monitor and manage WebLogic Server instances and domains. The WLST scripting environment is based on the Java scripting interpreter, Jython. For more information on WLST, see *Oracle Fusion Middleware Oracle WebLogic Scripting Tool* at:

http://download.oracle.com/docs/cd/E15523_01/web.1111/e13715/toc.htm

Services Gatekeeper ships with five default configuration templates:

- Basic Oracle Communications Services Gatekeeper Domain
- OCSG Basic HA configuration
- OCSG Domain with Access and Network Clusters

- OCSG Domain with Access and Network Clusters with Oracle RAC Configuration
- OCSG OSB Integration Configuration

These templates contain the basic information for setting up various common installation selections. However, in all cases, some aspects of the domain may need to be adjusted during the domain configuration process.

For information about configuring the domain, see "[Configuring the Domain for Oracle Communications Services Gatekeeper](#)".

Completing Post-Installation Tasks

After installation is complete and your domain has been set up, there are a few post-installation tasks that may be required depending on your requirements. These include creating JMS servers for additional Network Tier servers, installing the Java Cryptography Extension (JCE), installing Orbacus, and adding a custom password validator.

For information about the post-installation tasks, see "[Completing Post-Installation](#)".

You will also need to configuring Services Gatekeeper. For detailed information, see the *Oracle Communications Services Gatekeeper System Administrator's Guide*, another document in this set.

Installing SOA Facades

If you are integrating Services Gatekeeper with Service Oriented Architecture (SOA) environments, you need to install the SOA facades.

For information, see "[Installing SOA Facades](#)".

Upgrading from a Previous Services Gatekeeper Release

If you are upgrading from Services Gatekeeper from an earlier release, see "[Upgrading Oracle Communications Services Gatekeeper](#)" for the upgrade instructions.

For Further Information about WebLogic Server

To learn more about installing WebLogic Server products in general, and about the installer program in particular in regard to WebLogic Server, see the *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* at:

http://download.oracle.com/docs/cd/E14571_01/doc.1111/e14142/toc.htm

Supported Configurations

This chapter summarizes the supported configurations for the Oracle Communications Services Gatekeeper platform.

Common Configuration Requirements

All servers in a Services Gatekeeper cluster must be dedicated servers.

The directory in which the software is installed must reside on the server's local file system.

There must be at least 1.5 GB of disk space available under `/usr/local`.

Supported Platforms Matrix

Table 2-1 shows the Services Gatekeeper supported platforms matrix, which describes specific requirements on the supported software/hardware platforms.

Table 2-1 Oracle Communications Services Gatekeeper Supported Platform Matrix

Tier	OS Version	OS 32/64 bit	Processor	JDK Version	JDK 32/64 bit	RAM	Disk
Access & Network	Oracle Linux 4 (UL7+)	32	x86	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	32	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Oracle Linux 4 (UL7+)	64	x64	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	64	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Oracle Linux 5 (UL3+)	32	x86	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	32	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Oracle Linux 5 (UL3+)	64	x64	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	64	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Oracle Linux 6	32	x86	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	32	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Oracle Linux 6	64	x64	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	64	1 GB required; 2 GB recommended	2 x 36 GB

Table 2–1 (Cont.) Oracle Communications Services Gatekeeper Supported Platform Matrix

Tier	OS Version	OS 32/64 bit	Processor	JDK Version	JDK 32/64 bit	RAM	Disk
Access & Network	Solaris 2.9 Update 9+	64	SPARC	Sun 1.6.0_18-b07	32	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Solaris 2.9 Update 9+	64	SPARC	Sun 1.6.0_29-b11	64	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Solaris 10 Update 4+	64	SPARC	Sun 1.6.0_18-b07	32	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Solaris 10 Update 4+	64	SPARC	Sun 1.6.0_29-b11	64	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Solaris 11	64	SPARC	Sun 1.6.0_29-b11	64	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Red Hat EL 4 (UL7+)	32	x86	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	32	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Red Hat EL 4 (UL7+)	64	x64	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	64	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Red Hat EL 5 (UL3+)	32	x86	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	32	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Red Hat EL 5 (UL3+)	64	x64	Sun 1.6.0_29-b11 JRockit 1.6.0_29_D1.2.0-10	64	1 GB required; 2 GB recommended	2 x 36 GB
Access & Network	Windows 7 ¹ Windows XP Professional with SP2+ Windows Vista with SP1+	64	x64	Sun 1.6.0_29-b11	64	1 GB required; 2 GB recommended	2 x 36 GB

¹ Windows is only supported as a development environment and is not recommended for production deployment.

Supported Databases

Table 2–2 shows the databases supported for Services Gatekeeper.

Table 2–2 Supported Databases

Database	Characteristic
Oracle 10g and 11g Oracle RAC	Full DB Failover and Fault Tolerance
Oracle 10g and 11g Single Instance	No Failover and Fault Tolerance
Oracle Database Express Edition 10g and 11g	No Failover and Fault Tolerance

Table 2–2 (Cont.) Supported Databases

Database	Characteristic
MySQL 5.x Single Instance	No Failover and Fault Tolerance

Minimum RAM required for the database is 2 GB; 6 GB are recommended.

Disk space required for the database is 2 X 36 GB.

Virtualization

Services Gatekeeper is deployable and certified on Solaris Zones virtualized environment. For information about Solaris virtualization, see:

<http://www.oracle.com/us/products/servers-storage/solaris/virtualization-066073.html>

Services Gatekeeper is also deployable and certified on Oracle VM. For information about Oracle virtualization, see:

<http://www.oracle.com/us/technologies/virtualization/oraclevm/061976.html>

Load Balancer and Tier 3 Switches

Per customer preference.

Firewall

Required for a secure production deployment. See *Oracle Communications Services Gatekeeper Deployment Guide* for examples showing where to place firewalls and *Oracle Communications Services Gatekeeper Security Guide* for a discussion of when to use firewalls.

Disc Storage

While disc storage can be an ordinary disk system, for performance and high availability reasons, a RAID system should be used.

Parlay X

Services Gatekeeper supports Parlay X Version 2.1 and Parlay X Version 3.0. For details, see the descriptions of the individual communications service in *Oracle Communications Services Gatekeeper Communication Services Guide*, another document in this set.

SNMP

Services Gatekeeper supports SNMPv1 and SNMPv2.

Installing the Database

This chapter provides an overview of the process of installing the database for use with Oracle Communications Services Gatekeeper.

Installation Overview

Although there are substantial differences among the installation procedures for each type of database, all installation types include the following basic steps:

1. Installing the base software.
2. Setting up a user account that Services Gatekeeper will use to access the database.
3. Granting the user account appropriate privileges on the database.

Install with Oracle RAC or Oracle Single Instance Database Software

Follow these instructions if you are using Oracle 10g or Oracle 11g with Real Application Clusters (Oracle RAC) or Oracle 10g or Oracle 11g Single Instance database software for your database.

The database must be installed on dedicated servers running outside the Oracle Communications Services Gatekeeper cluster.

This section covers the following topics:

- [Oracle RAC](#)
- [Installing the Database Software](#)
- [Define a Services Gatekeeper Database User for the Oracle Database](#)

Oracle RAC

Oracle RAC is the only database configuration for supported production environments that require high availability.

For information on using Oracle WebLogic Server (OWLS) with a multi data source configuration, see the discussion on using WebLogic Server with Oracle RAC in *Oracle Fusion Middleware Configuring and Managing JDBC for Oracle WebLogic Server* at:

http://download.oracle.com/docs/cd/E15523_01/web.1111/e13737/toc.htm

Installing the Database Software

To install the database software:

1. Install the Oracle database software using the instructions provided by Oracle.

During the installation process, choose these recommended configuration options:

- Create the database using the **Transaction Processing** template.
 - Use the **Dedicated Server Mode** for the database.
 - Change the **processes** parameter as follows:
Define the number or of processes to be equal to $(wlng.datasource\ MaximumCapacity + wlng.localTX.datasource\ MaximumCapacity)$ times the number of Services Gatekeeper servers in the cluster. *MaximumCapacity* is defined as a parameter in the connection pool settings for the JDBC datasources. Normally this value is 150 for both data sources.
2. Download and install the latest patch set.
 3. Continue to "[Define a Services Gatekeeper Database User for the Oracle Database](#)".

Define a Services Gatekeeper Database User for the Oracle Database

To define a Services Gatekeeper for the Oracle database, do the following:

1. Create a database user for Services Gatekeeper with an allowed (unlimited) quota on its default tablespace, (the **users** tablespace). The user name and password for the user are later copied to each Services Gatekeeper Server.
2. Grant the user the following privileges to the Services Gatekeeper database user:
 - CREATE SESSION
 - CREATE TABLE
3. Continue to "[Installing Oracle Communications Services Gatekeeper](#)".

Install an Oracle Database Express Edition (XE)

Follow the instructions in this section if you are using Oracle XE as your database.

Oracle XE can be installed either on a server in the Services Gatekeeper cluster or on a separate server. If it is installed in the cluster, it should be in the same server as the Network Tier.

Note: Oracle XE is recommended over MySQL for Services Gatekeeper development installations since it is schema-compatible with enterprise Oracle databases. Neither Oracle XE nor MySQL is recommended for production deployment.

This section covers the following topics:

- [Installing Oracle XE on Windows](#)
- [Installing Oracle XE on Linux](#)
- [Configuring Oracle XE for Services Gatekeeper](#)

Installing Oracle XE on Windows

To install Oracle XE on Windows, do the following:

1. Log on to Windows with Administrative privileges.

You must be part of the Administrators group on Windows to install Oracle Database XE. If you are logged in as a domain user, ensure that you are connected to the network.

2. If the `ORACLE_HOME` environment variable has been set, then use **System** in the Control Panel to delete it.
3. Go to the following Web site:
<http://www.oracle.com/technetwork/database/express-edition/downloads/index.html>
4. Click **Free Download** and follow the instructions to select and download the Microsoft Windows version of Oracle Database XE.
5. After downloading the Oracle Database XE installation executable, `setup.exe`, double-click it.
6. In the Oracle Database 11g Express Edition - Install Wizard welcome window, click **Next**.
7. In the License Agreement window, select **I accept the terms in the license agreement** and then click **Next**.
8. In the Choose Destination Location window, either accept the default or click **Browse** to select a different installation directory. (Do not select a directory that has spaces in its name.) Then click **Next**.
9. If you are prompted for a port number, then specify one.
The following port numbers are the default values:
 - **1521**: Oracle database listener
 - **8080**: HTTP port for the Oracle Database XE graphical user interface
 If these port numbers are not currently used, then the installation uses them automatically without prompting you. If they are in use, then you will be prompted to enter an available port number.
10. In the Specify Database Passwords window, enter and confirm the password to use for the `SYS` and `SYSTEM` database accounts. Then click **Next**.
11. In the Summary window, review the installation settings, and if you are satisfied, click **Install**. Otherwise, click **Back** and modify the settings as necessary.
12. In the InstallShield Wizard Complete window, click **Finish**.
13. Continue to "[Configuring Oracle XE for Services Gatekeeper](#)".

Installing Oracle XE on Linux

To install Oracle Database XE on Linux, do the following:

1. Log on to your computer with root permissions.
2. Go to the following Web site:
<http://www.oracle.com/technetwork/database/express-edition/downloads/index.html>
3. Click **Free Download** and follow the instructions to select and download the Linux version of Oracle Database XE.
4. Run the Oracle Database XE executable `oracle-xe-11.2.0-1.0.x86_64.rpm` to install Oracle Database XE.

```
# rpm -ivh downloads/oracle-xe-11.2.0-1.0.x86_64.rpm
```

The installation displays a status of its progress.

5. When prompted, run the following command:

```
# /etc/init.d/oracle-xe configure
```

6. Enter the following configuration information:

- A valid HTTP port for the Oracle Application Express (the default is 8080)
- A valid port for the Oracle database listener (the default is 1521)
- A password for the SYS and SYSTEM administrative user accounts
- Confirm password for SYS and SYSTEM administrative user accounts
- Whether you want the database to start automatically when the computer starts (next reboot)

7. Restart the computer.

8. Continue to "[Configuring Oracle XE for Services Gatekeeper](#)".

Configuring Oracle XE for Services Gatekeeper

To configure Oracle XE for Services Gatekeeper, do the following:

1. Open a terminal session (Linux) or a command window (Windows).
2. (Linux only) If the required environment variables are not already set, do the following:

For Bash, Bourne or Korn shells, enter the following command:

```
source ORACLE_HOME/bin/oracle_env.sh
```

For C shell, enter the following command:

```
source ORACLE_HOME/bin/oracle_env.csh
```

3. Enter the following command at the operating system prompt:

```
sqlplus /nolog
```

4. Connect to the database (on Windows you will be prompted for the username and password):

```
SQL> connect SYSTEM/<SYSTEM user password>@XE
```

5. Run the following command to increase the number of allowable JDBC connections:

```
SQL> alter system set processes=300 scope=spfile;
```

6. Create a Services Gatekeeper user using the following command:

```
SQL> create user <Services Gatekeeper database user name> identified by  
<Services Gatekeeper database user password>;
```

7. Grant the newly created user proper privileges using the following command:

```
SQL> grant create session, create table, resource to <Services Gatekeeper  
database user name>;
```

8. Exit SQL*Plus:

```
SQL> exit
```
9. Restart the computer for the changes to take effect.
10. Continue to "[Installing Oracle Communications Services Gatekeeper](#)"

Install a MySQL Database

Follow the instructions in this section if you are using MySQL as your database.

MySQL can be installed either on a server in the Services Gatekeeper cluster or on a separate server. If it is installed in the cluster, it should be in the same server as the Network Tier.

Note: Oracle XE is recommended over MySQL for Services Gatekeeper development installations since it is schema-compatible with enterprise Oracle databases. Neither Oracle XE nor MySQL is recommended for production deployment.

This section covers the following topics:

- [Installing MySQL on Linux](#)
- [Installing MySQL on Windows](#)
- [Configuring MySQL for Services Gatekeeper](#)

Installing MySQL on Linux

For most Linux distributions, MySQL can be installed by way of a package manager such as dpkg or YUM. Please check the instructions for your particular distribution.

Once MySQL is installed, you will need to configure it. The following is a summary of the commands required to configure MySQL on most versions of Linux. Command locations may differ between Linux distributions.

To configure MySQL on Linux:

1. As root, start the MySQL database:

```
/etc/rc.d/init.d/mysqld start
```

2. Edit the file, `/etc/my.cnf`, and set the following connection variable, so that `max_connections` is equal to `(wlng.datasource MaximumCapacity + wlng.localTX.datasource MaximumCapacity)` times the number of Oracle Communications Services Gatekeeper servers in the cluster. `MaximumCapacity` is defined as a parameter in the connection pool settings for the JDBC datasources. Normally this value is 150 for both datasources, but you may need to increase it. For example:

```
[mysqld]
max_connections=400
```

You should also add settings for default character set.

The recommended character set is Latin1.

```
default-character-set=latin1
```

3. Restart MySQL:

```
/etc/rc.d/init.d/mysqld stop  
/etc/rc.d/init.d/mysqld start
```

4. Continue to "Configuring MySQL for Services Gatekeeper".

Installing MySQL on Windows

You can download the latest MySQL Windows installer from:

<http://www.mysql.com/downloads/>. Detailed instructions on using the installer are available at the MySQL web site. Unless you have additional special requirements, you can select **Developer Default**.

To configure MySQL on Windows:

1. Open `my.ini` in a plain text editor such as notepad.exe. Depending upon your version of Windows, it may be located on one of two places:

Windows XP:

```
C:\Documents and Settings\All Users\Application Data\my.ini
```

Windows 7 or Windows Vista:

```
C:\ProgramData\MySQL\MySQL Server 5.6\my.ini
```

2. Set the following connection variable, so that `max_connections` is equal to (`wlng.datasource MaximumCapacity` + `wlng.localTX.datasource MaximumCapacity`) times the number of Oracle Communications Services Gatekeeper servers in the cluster. `MaximumCapacity` is defined as a parameter in the connection pool settings for the JDBC datasources. Normally this value is 150 for both datasources, but you may need to increase it. For example:

```
[mysqld]  
max_connections=400
```

You should also add settings for default character set.

The recommended character set is Latin1.

```
default-character-set=latin1
```

3. Select your default character set. The recommended character set is **Latin1.****4. Continue to "Configuring MySQL for Services Gatekeeper".**

Configuring MySQL for Services Gatekeeper

To configure MySQL for Services Gatekeeper, do the following:

1. Create the Services Gatekeeper database user and password and give it access privileges using the SQL command. You will need this user name and password for the domain configuration stage of the installation. For information on the various command level modes of accessing the MySQL server, see the documentation on the MySQL website.

```
GRANT ALL ON *.* TO <Services Gatekeeper database user>@'<ip-address>'  
IDENTIFIED BY '<Services Gatekeeper database user password>'
```

You must do this for every IP address in the cluster.

2. Create the database for Services Gatekeeper. This name will be used in the Domain Configuration stage of the installation. The standard way to do this is to issue the following SQL command.

```
CREATE DATABASE <database name>
```

3. Continue to "[Installing Oracle Communications Services Gatekeeper](#)".

Installing Oracle Communications Services Gatekeeper

This chapter describes how to use the Oracle Communications Services Gatekeeper installers. You must perform the installation on every server in the system.

Installation Platforms and Modes

You can install Services Gatekeeper using the following platform-specific installers for the specified 32-bit platforms:

- `ocsg510_linux.bin`
- `ocsg510_solaris_sparc.bin`
- `ocsg510_win.exe`

These installers bundle the JRockit SDK and Sun JDK for Linux and Windows and the Sun JDK for Solaris.

A generic installer is provided, primarily for 64-bit platforms. There is also a version of the generic installer for 32-bit platforms. Unlike the platform-specific installers listed above, the generic installer does not include a bundled JDK. The JDK must already be installed when you use the generic installer.

The generic installer is contained in:

- `ocsg510_generic.jar`

You can run all the installers in GUI, console, or silent mode.

Silent mode is for creating duplicate installations on multiple machines without responding to prompts.

Creating an Installation Log

To create an installation log, add the following option to any of the commands that invoke the installer:

`-log=logfilename`

where *logfilename* is a name that you assign to the log file.

For example, the following command runs the console Linux32 Services Gatekeeper installer and creates a log file named **install_log** containing the installation's output.

```
ocsg510_linux.bin -mode=console -log=install_log
```

The GUI Mode Installer

This section contains instructions for using the GUI-based installer to install Services Gatekeeper.

If you want to use the GUI-based installer, the console attached to the machine on which you are installing the software must support a Java-based GUI. All consoles for Windows systems support Java-based GUIs, but not all consoles for UNIX/Linux systems do. If you attempt to start the installation program in GUI mode on a system that cannot support a graphical display, the installation program automatically starts console-mode installation.

GUI mode is the default mode, so it is not necessary to specify the mode on the command line to install in this mode.

Running the GUI Installer on Windows

The Windows version of Services Gatekeeper is supported only for development and test environments. It is not supported for production.

To run the GUI-based Windows installer:

1. Log in to the Windows system.

If you are going to use this machine as an Administration Server and you wish to install the Node Manager as a Windows service, you must log in as an administrator. Node Manager is used to monitor, start, and stop server instances in a domain.

2. Change to the directory where you have copied the installation program.

You acquire this program from the Oracle Software Delivery Cloud.

3. To start the Windows installer, double-click **ocsg510_win.exe** or enter the following in a command window:

```
ocsg510_win.exe [-log=logfilename]
```

After the installer starts, the Welcome window appears.

You can cancel the installation at any time by clicking **Exit**.

4. In the Welcome window, click **Next** to proceed with the installation.

The Choose Middleware Home Directory window appears.

The Middleware Home directory is the central support directory for all Oracle middleware products installed on the target system.

5. Do one of the following:

- To install into an existing Middleware home:
 - a. Select **Use an existing Middleware Home**.
 - b. From the list of existing Middleware home directories, select a directory.

Caution: Make sure that the Middleware home installation you select is running WebLogic Server version 10.3.6.

- c. Click **Next**.

The Choose Products and Components window appears.

- To create a new Middleware home:
 - a. Select **Create a new Middleware Home**.
 - b. In the **Middleware Home Directory** field, enter the path for the new Middleware home directory.
 - c. Click **Next**.

The Choose Products and Components window appears.

6. In the Choose Products and Components window, clear the checkbox for any component you do not wish to install.

Note that you cannot install the Platform Development Studio without WebLogic Server and Services Gatekeeper.

7. Click **Next**.

The JDK Selection window appears.

8. In the JDK Selection window, do one of the following:

- To install a bundled JDK:
 - a. Select the check box next to the bundled JDK that you want Services Gatekeeper to use.
 - b. Click **Next**.
- To use a local JDK already installed on the system:
 - a. Click **Browse**.
 - b. Navigate to the home directory of your local JDK.
 - c. Select the local JDK directory.

The selected directory appears checked in the **Local JDK** field.

- d. Click **Next**.

9. If you are including the Platform Development Studio in the installation, the Platform Development Studio Eclipse Plugin Path window appears.

In the **Eclipse Plug-ins Directory** field, enter the full path to the directory of your Eclipse installation **plugins** directory or use the **Browse** button to locate the directory.

10. Click **Next**.

The Choose Product Installation Directories window appears.

11. In the **Product Installation Directories** fields, enter the directories in which you want to install the Services Gatekeeper and WebLogic Server software.

12. Click **Next**.

If you are installing on Windows, the Install Windows Service window appears.

13. In the Install Windows Service window, do one of the following:

- To install the Node Manager as a Windows Service:
 - a. Choose **Yes**.
 - b. In the **Node Manager Listen Port** field, enter a Node Manager listen port.
- To skip installing the Node Manager as a Windows Service, choose **No**.

The Node Manager Service allows you to stop and start Managed Servers remotely. On Windows, the Node Manager can be installed as a Windows Service.

14. Click Next.

If you are installing on Windows, the Choose Shortcut Location window appears.

This window lets you specify the Start menu folder for the Services Gatekeeper Start menu shortcuts.

15. Do one of the following:

- To provide all Windows system users with access to the installed software, choose **All Users Start Menu folder**.

Only users with Administrator privileges can create shortcuts in the All Users folder. Therefore, if a user without Administrator privileges uses the Configuration Wizard to create domains, Start menu shortcuts to the domains are not created. In this case, users can manually create shortcuts in their local Start menu folders, if desired.

- To ensure that other users registered on this machine will not have access to the Start menu entries for this installation, choose **Local user's Start Menu folder**.

16. Click Next.

The Installation Summary window appears.

17. Make sure that the Installation Summary reflects all the products and JDKs that you have chosen to install.

If the list is not correct, you can use the **Previous** button to navigate back so you can make corrections.

18. Click Next to start the installation.

A progress bar indicates the status of the installation process.

19. When the Installation Complete window appears, do one of the following:

- On Windows, you have the option of running QuickStart now to configure domains. If you want to do this:

- a. Check the **Run Quickstart** checkbox.

The installer exits.

The QuickStart menu appears.

- b. Choose an action from the QuickStart menu. For information on configuring domains, see "[Configuring the Domain for Oracle Communications Services Gatekeeper](#)"

- If do not want to run QuickStart now:

- a. Clear the **Run Quickstart** checkbox.

- b. Click **Done**.

The installer exits.

Running the GUI Installer on UNIX/Linux

To use the GUI-based platform-specific UNIX/Linux installer:

1. Access the UNIX system with a shell connection.
2. Change to the directory where you have copied the installation program.
You acquire this program either from the Oracle Software Delivery Cloud.
3. Change the mode of the installation program file to executable if it is not already set.
4. To start the UNIX installer, do one of the following:
 - To start the Linux32 installer, enter:
`ocsg510_linux.bin [-log=logfilename]`
 - To start the Solaris_Sparc32 installer, enter:
`ocsg510_solaris_sparc.bin [-log=logfilename]`

After the installer starts, the Welcome window appears.

You can cancel the installation at any time by clicking **Exit**.

5. In the Welcome window, click **Next** to proceed with the installation.
The Choose Middleware Home Directory window appears.
The Middleware Home directory is the central support directory for all Oracle middleware products installed on the target system.
6. Do one of the following:
 - To install into an existing Middleware home:
 - a. Select **Use an existing Middleware Home**.
 - b. From the list of existing Middleware home directories, select a directory.

Caution: Make sure that the Middleware home installation you select is running WebLogic Server version 10.3.6.

- c. Click **Next**.
The Choose Products and Components window appears.
 - To create a new Middleware home:
 - a. Select **Create a new Middleware Home**.
 - b. In the **Middleware Home Directory** field, enter the path for the new Middleware home directory.
 - c. Click **Next**.

The Choose Products and Components window appears.

7. In the Choose Products and Components window, clear the checkbox for any component you do not wish to install.

Note that you cannot install the Platform Development Studio without WebLogic Server and Oracle Communications Services Gatekeeper.

8. Click **Next**.
The JDK Selection window appears.
9. In the JDK Selection window, do one of the following:

- To install a bundled JDK:
 - a. Select the check box next to the bundled JDK that you want Services Gatekeeper to use.
 - b. Click **Next**.
 - To use an existing JDK already installed on the system:
 - a. Click **Browse**.
 - b. Navigate to the home directory of your local JDK.
 - c. Select the local JDK directory.
The selected directory appears checked in the **Local JDK** field.
 - d. Click **Next**.
10. If you are including the Platform Development Studio in the installation, the Platform Development Studio Eclipse Plugin Path window appears.
In the **Eclipse Plug-ins Directory** field, enter the full path to the **plugins** directory of your Eclipse installation or use the **Browse** button to locate the directory.
11. Click **Next**.
The Choose Product Installation Directories window appears.
12. In the **Product Installation Directories** fields, enter the directories in which you want to install the Services Gatekeeper and WebLogic Server software.
13. Click **Next**.
The Installation Summary window appears.
14. Make sure that the Installation Summary reflects all the products and JDKs that you have chosen to install.
If the list is not correct, you can use the **Previous** button to navigate back so you can make corrections.
15. Click **Next** to start the installation.
A progress bar indicates the status of the installation process.
16. When the Installation Complete window appears, click **Done**.
The installer exits.

Running the Generic GUI Installer

To run the generic GUI-based installer:

1. Log into the target system.
2. If you are installing on a 64-bit system, ensure that a 64-bit JDK, or a hybrid 32/64-bit JDK, is installed on the target machine.
If it is not installed, install one. See "[Supported Configurations](#)" for information about supported JDK versions.
3. Run the `java -version` command, or `java -d64 -version` command on platforms using a 32/64-bit hybrid JDK to ensure that the `JAVA_HOME` variable is set to a 64-bit JDK.
If the `JAVA_HOME` environment variable is not correctly set, set it to point to the correct JDK.

4. Add the **bin** directory of the appropriate JDK (which you have installed separately) to the beginning of the PATH variable definition on the target system. For example:

```
PATH=$JAVA_HOME/bin:$PATH
export PATH
```

Here JAVA_HOME represents the full path to the JDK directory.

5. Change to the directory where you downloaded the installation program.
6. To start the generic installer, do one of the following:

- To start the generic installer on a system that uses a 32/64-bit hybrid JDK, such as the HP-PA, HPIA, and Solaris64 platforms, enter:

```
java -d64 -jar ocs510_generic.jar [-log=logfilename]
```

- To start the generic installer on a system that uses the Solaris_SPARC 64-bit JDK, enter:

```
java -d64 -Xms256m -Xmx2048m -XX:PermSize=512m -XX:MaxNewSize=256m -jar
ocs510_generic.jar [-log=logfilename]
```

- To start the generic installer on a 32-bit system, enter:

```
java -jar ocs510_generic.jar [-log=logfilename]
```

After the installer starts, the Welcome window appears.

Note: You can cancel the installation at any time by clicking **Exit**.

7. In the Welcome window, click **Next** to proceed with the installation.

The Choose Middleware Home Directory window appears.

The Middleware Home directory is the central support directory for all Oracle middleware products installed on the target system.

8. Do one of the following:
 - To install into an existing Middleware home:
 - a. Select **Use an existing Middleware Home**.
 - b. From the list of existing Middleware home directories, select a directory.

Caution: Make sure that the Middleware home installation you select is running WebLogic Server version 10.3.6.

- c. Click **Next**.

The Choose Products and Components window appears.

- To create a new Middleware home:
 - a. Select **Create a new Middleware Home**.
 - b. In the **Middleware Home Directory** field, enter the path for the new Middleware home directory.
 - c. Click **Next**.

The Choose Products and Components window appears.

9. In the Choose Products and Components window, clear the checkbox for any component you do not wish to install.

Note that you cannot install the Platform Development Studio without WebLogic Server and Services Gatekeeper.

10. Click **Next**.

The JDK Selection window appears.

11. In the JDK Selection window, click **Browse** to navigate to a local JDK that is already installed on your system.

12. Select the local JDK directory.

The selected directory appears checked in the **Local JDK** field.

13. Click **Next**.

14. If you are including the Platform Development Studio in the installation, the Platform Development Studio Eclipse Plugin Path window appears.

In the **Eclipse Plug-ins Directory** field, enter the full path to the **plugins** directory of your Eclipse installation or use the **Browse** button to locate the directory. The Eclipse directory must be created prior to the installation of Service Gatekeeper.

15. Click **Next**.

The Choose Product Installation Directories window appears.

16. In the **Product Installation Directories** fields, enter the directories in which you want to install the Services Gatekeeper and WebLogic Server software.

17. Click **Next**.

The Installation Summary window appears.

18. Make sure that the Installation Summary reflects all the products that you have chosen to install.

If the list is not correct, you can use the **Previous** button to navigate back so you can make corrections.

19. Click **Next** to start the installation.

A progress bar indicates the status of the installation process.

20. When the Installation Complete window appears, click **Done**.

The installer exits.

21. After installation is complete, set the **WL_HOME** environment variable to the product installation directory you indicated for WebLogic Server in step 16.

22. Export **WL_HOME**. For example:

```
export WL_HOME=your_installation_directory/wlserver_10.3
cd $WL_HOME/server/native/hpux11/IPF32/
```

The Console Installer

This section contains instructions for using the console installer to install Services Gatekeeper.

Running the Console Installer on Windows

To run the console-based Windows installer:

1. Log in to the target Windows system.
2. Change to the directory where you have copied the installation program. You acquire this program from the Oracle Software Delivery Cloud.

3. To start the Windows installer in console mode, enter:

```
ocsg510_win.exe -mode=console [-log=logfilename]
```

The Welcome screen appears in the console.

4. Enter `Next` to continue with the installation.
5. In the Middleware Home Directory screen any existing Middleware home directories are displayed. Do one of the following:
 - To use an existing Middleware Home directory:
 - a. Enter the number associated with the directory in the console display.

Caution: Make sure that the Middleware home installation you select is running WebLogic Server version 10.3.6.

- b. Press `Enter`.
 - To create a new Middleware Home directory:
 - a. Enter `1`.
 - b. Press `Enter`.
 - c. Enter the full path of the new Middleware Home directory or `Next` to accept the default.
 - d. When prompted to confirm your choice, press `Enter` to confirm or `Previous` to change your selection.
6. In the Release screen, specify the components that you wish to install:
 - a. To remove components from the planned installation, enter the number in brackets following any components that you do not wish to install.
The screen refreshes, and the check mark next to that component is removed.
Note that you cannot install the Platform Development Studio without WebLogic Server and Services Gatekeeper.
 - b. Enter `Next` to continue.
7. In the JDK Selection screen do one of the following:
 - Select the number of the JDK you wish to install.
 - Enter `1` to add the path to an existing local JDK on your system.
8. Enter `Next` to continue.
9. If you are including the Platform Development Studio in the installation, the Platform Development Studio Eclipse Plugin Path screen appears.
In the Platform Development Studio Eclipse Plugin Path screen, enter `1`.
10. Enter the full path of the Eclipse **plugins** directory.

The screen refreshes, and the path is displayed.

11. Enter `Next` to continue.
12. In the Choose Product Directories screen, specify the directories in which you want to install the Services Gatekeeper and WebLogic software. Do one of the following:
 - To accept the default product directories, enter `Next`.
 - To create one or more new product directories:
 - a. Enter the product index number to specify the product to be installed in the directory.
 - b. Enter the full path to the directory you are creating.
 - c. Enter `Next`.
 - d. When prompted, confirm your choice.
13. Enter `Next`.
14. In the Install Node Manager as a Windows Service screen, do one of the following:
 - To install the Node Manager as a Windows Service:
 - a. Enter `Yes`.
 - b. Enter a Node Manager listen port at the prompt.
 - To skip installing the Node Manager as a Windows Service, enter `No`.
15. The Windows installer displays the Choose Shortcut Location screen if you have Administrator privileges and are performing an initial Services Gatekeeper installation. This screen is used to specify the Start menu folder for the Services Gatekeeper Start menu shortcuts.

Do one of the following:

 - Enter 1 to select the All Users Start menu folder.

Only users with Administrator privileges can create shortcuts in the All Users folder. Therefore, if a user without Administrator privileges uses the Configuration Wizard to create domains, Start menu shortcuts to the domains are not created. In this case, users can manually create shortcuts in their local Start menu folders, if desired
 - Enter 2 to select the Local user's Start menu folder.

This option ensures that other users registered on this machine will not have access to the Start menu entries for this installation.
16. When prompted, confirm your choice.
17. Enter `Next` to continue.
18. In the Installation Summary window, make sure the list reflects all the products and JDKs you have chosen to install.
19. Enter `Next` to begin the installation.
20. When the installation is complete, press `Enter` to exit the installer.

Running the Console Installer on UNIX/Linux

To run the platform-specific console-based UNIX/Linux installer:

1. Log into the target system.
2. Change to the directory where you have copied the installation program.
You acquire this program either from the Oracle Software Delivery Cloud.
3. To start the installer in console mode, do one of the following:

- To start the Linux32 installer, enter:

```
ocsg510_linux.bin -mode=console [-log=logfilename]
```

- To start the Solaris_Sparc32 installer, enter:

```
ocsg510_solaris_sparc.bin -mode=console [-log=logfilename]
```

The Welcome screen appears in the console.

4. Enter `Next` to continue with the installation.
5. In the Middleware Home Directory screen, if you have any existing Middleware home directories they are displayed. Do one of the following:
 - To use an existing Middleware Home directory:
 - a. Enter the number associated with the directory in the console display.

Caution: Make sure that the Middleware home installation you select is running WebLogic Server version 10.3.6.

- b. Press `Enter`.
 - To create a new Middleware Home directory:
 - a. Enter 1.
 - b. Press `Enter`.
 - c. Enter the full path of the new Middleware Home directory or `Next` to accept the default.
 - d. When prompted to confirm your choice, press `Enter` to confirm or `Previous` to change your selection.
6. In the Release screen, specify the components that you wish to install:
 - a. To remove components from the planned installation, enter the number in brackets following any components that you do not wish to install.
The screen refreshes, and the check mark next to that component is removed.
Note that you cannot install the Platform Development Studio without WebLogic Server and Services Gatekeeper.
 - b. Enter `Next` to continue.
7. In the JDK Selection screen do one of the following:
 - Select the number of the JDK you wish to install.
 - Enter 1 to add the path an existing local JDK on your system.
8. Enter `Next` to continue.
9. If you are including the Platform Development Studio in the installation, the Platform Development Studio Eclipse Plugin Path screen appears.

- In the Platform Development Studio Eclipse Plugin Path screen, enter 1.
10. Enter the full path of the Eclipse **plugins** directory.
The screen refreshes, and the path is displayed.
 11. Enter `Next` to continue.
 12. In the Choose Product Directories screen, specify the directories in which you want to install the Services Gatekeeper and WebLogic software. Do one of the following:
 - To accept the default product directories, enter `Next`.
 - To create one or more new product directories:
 - a. Enter the product index number to specify the product to be installed in the directory.
 - b. Enter the full path to the directory you are creating.
 - c. Enter `Next`.
 - d. When prompted, confirm your choice.
 13. Enter `Next`.
 14. In the Installation Summary window, make sure the list reflects all the products and JDKs you have chosen to install.
 15. Enter `Next` to begin the installation.
 16. When the installation is complete, press `Enter` to exit the installer.

Running the Generic Console Installer

To run the generic console installer:

1. Log into the target system.
2. If you are installing on a 64-bit system, ensure that a 64-bit JDK, or a hybrid 32/64-bit hybrid JDK, is installed on the target machine.
If it is not installed, install one. See the certification matrix in "[Supported Configurations](#)" for information about supported JDK versions.
3. Run the `java -version` command, or `java -d64 -version` command on platforms using a 32/64-bit hybrid JDK to ensure that the `JAVA_HOME` environment variable is set to a 64-bit JDK.
If `JAVA_HOME` is not correctly set, set it to point to the correct JDK.
4. Add the **bin** directory of the appropriate JDK (which you have installed separately) to the beginning of the `PATH` variable definition on the target system. For example:

```
PATH=$1.5 GB1.5 GBJAVA_HOME/bin:$PATH
export PATH
```

Here `JAVA_HOME` represents the full path to the JDK directory.

5. Change to the directory where you downloaded the installation program.
6. To start the generic installer in console mode, do one of the following:
 - To start the 32-bit generic installer, enter:

```
java -jar ocsG510_generic.jar -mode=console [-log=logfilename]
```

- To start the 32/64-bit hybrid generic installer, enter:

```
java -d64 -jar ocs510_generic.jar -mode=console [-log=logfilename]
```
- To start the 64-bit hybrid generic installer on Solaris-SPARC, enter:

```
java -Xmx1024m -jar ocs510_generic.jar -mode=console [-log=logfilename]
```

The Welcome screen appears in the console.

7. Enter `Next` to continue with the installation.
8. In the Middleware Home Directory screen, if you have any existing Middleware home directories they are displayed. Do one of the following:
 - To use an existing Middleware Home directory:
 - a. Enter the number associated with the directory in the console display.

Caution: Make sure that the Middleware home installation you select is running WebLogic Server version 10.3.6.

- b. Press `Enter`.
 - To create a new Middleware Home directory:
 - a. Enter 1.
 - b. Press `Enter`.
 - c. Enter the full path of the new Middleware Home directory or `Next` to accept the default.
 - d. When prompted to confirm your choice, press `Enter` to confirm or `Previous` to change your selection.
9. In the Release screen, specify the components that you wish to install:
 - a. To remove components from the planned installation, enter the number in brackets following any components that you do not wish to install.
 The screen refreshes, and the check mark next to that component is removed.
 Note that you cannot install the Platform Development Studio without WebLogic Server and Oracle Communications Services Gatekeeper.
 - b. Enter `Next` to continue.
10. In the JDK Selection screen, add the path to your local JDK.
11. Enter `Next` to continue.
12. If you are including the Platform Development Studio in the installation, the Platform Development Studio Eclipse Plugin Path screen appears.
 In the Platform Development Studio Eclipse Plugin Path screen, enter 1.
13. Enter the full path of the Eclipse **plugins** directory.
 The screen refreshes, and the path is displayed.
14. Enter `Next` to continue.

15. In the Choose Product Directories screen, specify the directories in which you want to install the Services Gatekeeper and WebLogic software. Do one of the following:
 - To accept the default product directories, enter `Next`.
 - To create one or more new product directories:
 - a. Enter the product index number to specify the product to be installed in the directory.
 - b. Enter the full path to the directory you are creating.
 - c. Enter `Next`.
 - d. When prompted, confirm your choice.
16. Enter `Next`.
17. If you are using the generic installer on Windows, the Install Node Manager as a Windows Service appears.

Do one of the following:

 - If you are not installing on Windows, skip to step 20.
 - If you are installing on Windows, in the Install Node Manager as a Windows Service screen, do one of the following:
 - To install the Node Manager as a Windows Service, enter `Yes` and then the Node Manager listen port at the prompt.
 - To skip installing the Node Manager as a Windows Service, enter `No`.
18. The Windows installer displays the Choose Shortcut Location screen if you have Administrator privileges and are performing an initial Services Gatekeeper installation. This screen is used to specify the Start menu folder for the Services Gatekeeper Start menu shortcuts.

Do one of the following:

 - Enter 1 to select the All Users Start menu folder.

Only users with Administrator privileges can create shortcuts in the All Users folder. Therefore, if a user without Administrator privileges uses the Configuration Wizard to create domains, Start menu shortcuts to the domains are not created. In this case, users can manually create shortcuts in their local Start menu folders, if desired
 - Enter 2 to select the Local user's Start menu folder.

This option ensures that other users registered on this machine will not have access to the Start menu entries for this installation.
19. When prompted, confirm your choice.
20. Enter `Next` to continue.
21. In the Installation Summary window, make sure the list reflects all the products and JDKs you have chosen to install.
22. Enter `Next` to begin the installation.
23. When the installation is complete, press `Enter` to exit the installer.
24. After installation is complete, set the `WL_HOME` environment variable to the product installation directory that you designated for WebLogic Server.

25. Export WL_HOME. For example:

```
export WL_HOME=your_installation_directory/wlserver_10.3
cd $WL_HOME/server/native/hpux11/IPF32/
```

The Silent Mode Installer

Silent-mode installation is a way of choosing installation settings once and then using those settings to duplicate the installation on many machines. During installation in silent mode, the installation program reads your settings from an XML file that you create prior to beginning the installation. The installation program does not display any options during the installation process. Silent-mode installation works on both Windows and UNIX/Linux systems.

For general information on silent-mode installation on WebLogic Server see the discussion on running the installation program in silent mode in *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server* at:

http://download.oracle.com/docs/cd/E15523_01/doc.1111/e14142/silent.htm

About the silent.xml File

The entries in the **silent.xml** file correspond to the prompts that you would see if you used one of the interactive modes.

Incorrect entries in the **silent.xml** file can cause installation failures. To help you determine the cause of a failure, we recommend that you create a log file when you start the installation

The following is a sample version of a **silent.xml** file. Your input may be slightly different, depending on your installation.

```
<?xml version="1.0" encoding="UTF-8" ?>
<bea-installer>
<input-fields>
  <data-value name="BEAHOME" value="d:/ocsg" />
  <data-value name="INSTALL_NODE_MANAGER_SERVICE" value="no" />
  <data-value name="WLNGEclipseConfig.dir" value="d:/eclipse/plugin"/>
  <data-value name="LOCAL_JVMS" value="C:\oracle\java\jdk160_18">
</input-fields>
</bea-installer>
```

The following error can be ignored:

```
com.bea.plateng.domain.script.ScriptException: The template to read must be a jar
file containing a valid domain configuration
```

See *Oracle WebLogic Server Installation Guide* for more information on using silent installation.

Returning Exit Codes to the Console

When run in silent mode, the installation program generates exit codes that indicate the success or failure of the installation. [Table 4-1](#) describes these exit codes:

Table 4-1 *Installation Program Exit Codes*

Code	Description
0	Installation completed successfully.

Table 4–1 (Cont.) Installation Program Exit Codes

Code	Description
-1	Installation failed due to a fatal error.
-2	Installation failed due to an internal XML parsing error.

If you are launching the silent-mode installation process from a script, you can choose to have these exit codes displayed to the console. The following is a sample command file that invokes the WebLogic Platform installation in silent mode and echoes the exit codes to the console from which the script is executed.

Example 4–1 Return exit codes

```
rem Execute the installer in silent mode
@echo off
ocsg510_win.exe -mode=silent -silent_xml=silent.xml -log=logfilename

@rem Return an exit code to indicate success or failure of installation
set exit_code=%ERRORLEVEL%

@echo.
@echo Exitcode=%exit_code%
@echo.
@echo Exit Code Key
@echo -----
@echo 0=Installation completed successfully
@echo -1=Installation failed due to a fatal error
@echo -2=Installation failed due to an internal XML parsing error
@echo.
```

Running the Silent-Mode Installer on All Platforms

To run the silent mode installer:

1. Create a **silent.xml** file, as described in ["About the silent.xml File"](#).
2. To run the silent installer, do one of the following:
 - To start the platform-specific Windows32 installer in silent mode, enter:

```
ocsg510_win.exe -mode=silent -silent_xml=silent.xml [-log=logfilename]
```
 - To start the platform-specific Linux32 installer in silent mode, enter:

```
ocsg510_linux.bin -mode=silent -silent_xml=silent.xml [-log=logfilename]
```
 - To start the platform-specific Solaris-Sparc32 installer in silent mode, enter:

```
ocsg510_solaris_sparc.bin -mode=silent -silent_xml=silent.xml
[-log=logfilename]
```
 - To start the generic 32-bit installer in silent mode, enter:

```
java -jar ocsg510_generic.jar -mode=silent -silent_xml=silent.xml
[-log=logfilename]
```
 - To start the generic 32/64 -bit hybrid installer in silent mode, enter:

```
java -d64 -jar ocsg510_generic.jar -mode=silent -silent_xml=silent.xml
[-log=logfilename]
```

- To start the generic /64 -bit hybrid installer in silent mode, enter:

```
java -Xmx1024m -jar ocs510_generic.jar -mode=silent -silent_xml=silent.xml  
[-log=logfilename]
```

The installation proceeds with no prompts.

Where to Go From Here

If you wish to configure support for Services Gatekeeper portal and reporting functionality, see "[Installing Services Gatekeeper Reporting and Portal Support](#)".

After installing Services Gatekeeper, you must configure the Services Gatekeeper's Administrative Domain. See "[Configuring the Domain for Oracle Communications Services Gatekeeper](#)".

If you wish to be able to start and stop servers remotely, for example by using the Administration Console, you must set up Node Manager on each server. If you installed in Windows, the installer provided an option to install the Node Manager as a Windows service. For information on setting up and configuring the Node Manager on other platforms, see *Oracle Fusion Middleware Node Manager Administrator's Guide for Oracle WebLogic Server* at:

http://download.oracle.com/docs/cd/E15523_01/web.1111/e13740/toc.htm

Installing Services Gatekeeper Reporting and Portal Support

This chapter describes how to use the Oracle Communications Services Gatekeeper extension installer to install Services Gatekeeper reporting and portals support.

Installation Prerequisites

Before installing Services Gatekeeper reporting and portal support, you must first install Oracle Business Intelligence (OBI) to host the reporting functionality and Oracle WebCenter Portal (OWP) 11.1.1.6 to host the portal functionality. In addition, you must install a separate database to serve as the analytics staging repository.

See the following sections for a general overview on installing OBI and OWP:

- [Installing and Configuring OBI](#)
- [Installing and Configuring OWP](#)

Note: Detailed installation instructions are *not* provided for OBI and OWP since those platforms require planning and setup that may be specific to your environment.

Installing and Configuring OBI

A general procedure for installing OBI involves:

1. Completing installation planning requirements to ensure that your system environment is capable of hosting OBI.
2. Installing a database and populating that database with the required schemas using the Repository Creation Utility (RCU) tool.
3. Downloading and running the OBI installer.
4. Completing configuration of OBI.

For comprehensive installation instructions, see *Oracle Fusion Middleware Installation Guide for Oracle Business Intelligence 11g Release 1*.

Note: After you have installed OBI, use the OBI administration console to set the following configuration permissions to **Denied**:

- See **privileged errors**
- See **SQL issued errors**

To set these permissions:

1. Access the Oracle BI Presentation Services console using a supported web browser.
 2. Select **Administration**.
 3. In the Security section, select **Manage Privileges**.
 4. In **Admin: General**, select the **BI Administrator Role** permissions link for each permission listed above.
 5. Set the permission to **Denied**.
 6. Click **OK**.
-
-

Creating an Analytics Repository Database and User

Once you have installed and configured OBI, you must create a database user with access to the analytics staging data. You can use the same database that supports OBI, or, depending upon your requirements, you can use a separate database instance. The database user should have the following permissions:

- connect
- resource
- create any table
- create job

Refer to your database documentation for information on creating database users and granting permissions.

Configuring the Services Gatekeeper RPD File

You must configure a binary format OBI repository (RPD) file containing the data storage schema for Services Gatekeeper using the Oracle BI Administration Tool (**admintool.exe**).

An RPD file for Services Gatekeeper is installed with Services Gatekeeper in the following location: *Middleware_Home/ocsg_5.1/ext/analytics/edr.rpd*. The default password of the included file is **Orcl123456**. For security reasons, use the Oracle BI Administration Tool to change the password.

You must also edit the database connection information in the Services Gatekeeper RPD file before transferring that file to the machine hosting your OBI installation. Use the Oracle BI Administration Tool to edit both the **orcl** and **blockInit** database connection, username and password properties in the RPD file to reference your database.

For instructions on configuring RPD files, including changing the password and setting database connection information, see "Importing Metadata and Working with Data Sources" in *Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition*.

Gathering Required OBI System Information

Gather the following information from your OBI installation required when running the Services Gatekeeper analytics installer file (**ocsg510_generic_ext.jar**):

- The OBI admin console URL
- The OBI admin console login name
- The OBI admin console login name password
- The analytics database hostname
- The analytics database port
- The analytics DBMS/Service
- The analytics database username
- The analytics database username password
- The file path to the configured Services Gatekeeper RPD file
- The password for the Services Gatekeeper RPD
- The OBI ORACLE_INSTANCE path from your OBI installation

Installing and Configuring OWP

A general procedure for installing OWP involves:

1. Verifying your environment meets the OWP system requirements.
2. Installing and configuring a supported database.
3. Using the RCU tool to create the necessary OWP schemas.
4. Installing Oracle WebLogic Server.
5. Downloading and installing OWP.
6. Configuring an OWP domain.

For comprehensive installation instructions, see *Oracle Fusion Middleware Installation Guide for Oracle WebCenter Portal 11g Release 1*.

Gathering Required OWP System Information

Gather the following information from your OWP installation, which will be required when running the Services Gatekeeper portal installer file (**ocsg510_generic_ext.jar**):

- The OWP admin console URL
- The OWP admin console login name
- The OWP admin console login name password
- The OWP managed server name
- The OWP home path from your OWP installation

Installation Platforms and Modes

You install Services Gatekeeper reporting and portal support using the following generic installer:

- **ocsg510_generic_ext.jar**

The generic installer only supports GUI mode.

Creating an Installation Log

To create an installation log, add the following option to any of the commands that invoke the installer:

-log=logfilename

where *logfilename* is a name that you assign to the log file.

For example, the following command runs the Linux 32-bit Services Gatekeeper extension installer and creates a log file named **install_log** containing the installation's output.

```
java -jar ocs510_generic_ext.jar -log=install_log
```

Installing Services Gatekeeper Reporting Support

This section contains instructions for installing Services Gatekeeper reporting support. You must complete the following procedures:

- [Installing Reporting Support](#)
- [Modifying OBI Behavior Settings](#)
- [Configuring the Services Gatekeeper Domain](#)
- [Accessing Services Gatekeeper Reports](#)

Caution: Before continuing, make sure that all of the components of both your OBI installation are up and running. That includes administration servers, database servers, and any associated domains.

Installing Reporting Support

To run the installer:

1. Copy the installer, **ocs510_generic_ext.jar**, to the system that is hosting OBI.
2. If you are installing on a 64-bit system, ensure that a 64-bit JDK, or a hybrid 32/64-bit JDK, is installed on the target machine.

If it is not installed, install one. See "[Supported Configurations](#)" for information about supported JDK versions.

3. Run the `java -version` command, or `java -d64 -version` command on platforms using a 32/64-bit hybrid JDK to ensure that the **JAVA_HOME** environment variable is set to a 64-bit JDK.

If **JAVA_HOME** is not correctly set, set it to point to the correct JDK.

4. Add the **bin** directory of the appropriate JDK (which you have installed separately) to the beginning of the **PATH** variable definition on the target system. For example:

```
PATH=$JAVA_HOME/bin:$PATH
export PATH
```

Here, **JAVA_HOME** represents the full path to the JDK directory.

5. Change to the directory where you downloaded the installation program.

6. To start the generic installer, do one of the following:
 - To start the generic installer on a system that uses a 32/64-bit hybrid JDK, such as the HP-PA, HPIA, and Solaris64 platforms, enter:

```
java -d64 -jar ocs510_generic_ext.jar [-log=logfilename]
```
 - To start the generic installer on a system that uses the Solaris_SPARC 64-bit JDK, enter:

```
java -Xmx1024m -jar ocs510_generic_ext.jar [-log=logfilename]
```
 - To start the generic installer on a 32-bit system, enter:

```
java -jar ocs510_generic_ext.jar [-log=logfilename]
```

After the installer starts, the Welcome window appears.

You can cancel the installation at any time by clicking **Exit**.
7. In the Welcome window, click **Next** to proceed with the installation.

The Choose Middleware Home Directory window appears.
8. Select **Use an existing Middleware Home** and choose the Middleware home where your OBI domain is located.
9. Click **Next**.

The Choose Products and Components window appears.
10. In the Choose Products and Components window, select only the **Analytics** checkbox.
11. Click **Next**.

The OBIEE Admin Console Parameters window appears.
12. In the OBIEE Admin Console Parameters window, enter the following information:
 - **URL:** The **Listen Address** and **Listen Port** of the administration console for your OBI installation. For example, `127.0.0.1:7001`.
 - **Login Name:** The OBIEE WebLogic domain administrator account name.
 - **Password:** The password for the OBIEE WebLogic domain administrator.
13. Click **Next**.

The Analytics Database Parameters window appears.
14. In the Analytics Database Parameters window, enter the following information:
 - **Host Name:** The host name of the database server to be used for analytics data.
 - **Port:** The numeric port on which the database host is listening.
 - **DBMS/Service:** The name of the database or service hosting the analytics data.
 - **Username:** The username that will access the analytics database.
 - **Password:** The password for the database user.
15. Click **Next**.

The Analytics Parameters window appears.

16. In the Analytics Parameters window, enter the following information:
 - **RPD File Path:** The local path to the updated Services Gatekeeper RPD file including the name of the RPD file. For example:

```
/export/home/oracle/edr.rpd
```

See "[Configuring the Services Gatekeeper RPD File](#)" for information on configuring the included RPD file.
 - **RPD File Password:** The password used to access the analytics repository. The default Services Gatekeeper RPD file password is **Orcl123456**. Use the Oracle BI Administration Tool to change this password for security reasons.
 - **OBIEE ORACLE_INSTANCE Path:** The Oracle instance location, defined when OBIEE is installed. For example:

```
Middleware_Home/instances/instance1
```

where *Middleware_Home* is the WebLogic home directory of the OBI installation.
17. Click **Next**.

The Product Installation Directories window appears.
18. In the **Product Installation Directories** fields, enter the directory in which you want to install the Services Gatekeeper extension software.
19. Click **Next**.

The Installation Summary window appears.
20. Make sure that the Installation Summary reflects that you are installing the Analytics package. You can click the **Previous** button to navigate back so you can make changes.
21. Click **Next** to start the installation.

A progress bar indicates the status of the installation process.
22. When the Installation Complete window appears, click **Done**.

The installer exits.
23. Check the WebLogic administration console log for errors.
24. Restart your OBI instance for the changes to take effect.
25. Complete the procedures in "[Modifying OBI Behavior Settings](#)" and "[Configuring the Services Gatekeeper Domain](#)".

Modifying OBI Behavior Settings

Once you have installed Services Gatekeeper reporting support, you must make the following modifications to your OBI installation:

- Enable OBI write-back support for parameter/value-related reports.
- Enable OBI Iframe support to support portal integration.

Note: These configuration changes must be made on every OBI server in a clustered environment.

You will also have to make the following updates to your Services Gatekeeper configuration:

- Configure the analytics staging database.

Enabling OBI Write-back and Iframe Support

To enable OBI write-back support:

1. Copy the write-back template located in your Services Gatekeeper installation at *Services_Gatekeeper_Home/ext/analytics/write_back.xml*, where *Services_Gatekeeper_Home* is the Services Gatekeeper installation directory, to the following location:

```
ORACLE_
INSTANCE/bifoundation/OracleBIPresentationServicesComponent/coreapplica
tion_obipsn/analyticsRes/customMessages
```

where *ORACLE_INSTANCE* is the OBI instance path and *n* is replaced by the OBI instance number. For example:

```
/export/u01/home/obi/instances/instance1
```

2. Open the file, **instanceconfig.xml**, located at *ORACLE_INSTANCE/config/OracleBIPresentationServicesComponent/coreapplication_obipsn* where *ORACLE_INSTANCE* is the OBI instance path and *n* is replaced by the OBI instance number.
3. Locate the `ServerInstance` element within which you must add the `LightWriteback` element.
4. Include the element and its ancestor elements as appropriate, as shown in the following example:

```
<WebConfig>
  <ServerInstance>
    <LightWriteback>true</LightWriteback>
  </ServerInstance>
</WebConfig>
```

5. Next, within the security element, add the `InIFrameRenderingMode` element:

```
<Security>
  <InIFrameRenderingMode>allow</InIFrameRenderingMode>
  <!--This Configuration setting.-->
  <ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>
</Security>
```

6. Save your changes and close the file.
7. Restart OBI.
8. Access the Oracle BI Presentation Services web console using a supported browser. The default address is `http://OBI_domain_server:9704` where *OBI_domain_server* is the OBI host.
9. In the Oracle BI Presentation Services console, go to **Settings** then **Administration** then **Manage Privileges**.
10. Grant the privilege **Write Back to database** to the appropriate group.

Configuring the Services Gatekeeper Domain

You must complete the following tasks in your Services Gatekeeper domain after installing reporting support:

1. [Configure the Analytics Data Source](#)
2. [Deploy the Analytics EAR File](#)
3. [Connect Services Gatekeeper to the Analytics Data Source](#)

Configure the Analytics Data Source

Before you begin, make sure you have the following information for your analytics database.

- Database Name
- Host Name
- Database Server Port
- Database User Name
- Database User's Password

To configure the analytics staging data source:

1. Make sure that the Services Gatekeeper administration server is running.
2. Open the following URL in your web browser:

`http://hostname:port/console`

Where *hostname* is the DNS name or IP address of the Services Gatekeeper administration server and *port* is the address of the port on which the administration server is listening for requests (8001 by default).

3. When the login page appears, enter the user name and the password you used to start the administration server (you may have specified this user name and password during the Services Gatekeeper installation process), or enter a user name that has been granted one of the default global security roles.
4. In the Change Center of the Administration Console, click **Lock & Edit**.
5. In the **Domain Structure** tree, select your Services Gatekeeper domain and expand **Services** then **JDBC**, then select **Data Sources**.
6. On the **Summary of Data Sources** page, click **New** and choose **Generic Data Source** from the drop down list.
7. On the **JDBC Data Sources Properties** page, enter or select the following information:
 - **Name:** Enter the following name for the JDBC data source:
analytic.datasource
 - **JNDI Name:** Enter the following path to the JDBC data source:
oracle.ocsg.edr.analytic
 - **Database Type:** Select the DBMS type of the database you're using as your analytics staging database. If your DBMS is not listed, select **Other**.

Click **Next** to continue.

8. Select the JDBC driver you want to use to connect to the database.

Note: You must install JDBC drivers before you can use them to create database connections. Some JDBC drivers are installed with WebLogic Server, but many are not installed.

Click **Next** to continue.

9. On the **Connection Properties** page, enter values for the following properties:
 - **Database Name:** Enter the name of your analytics database.
 - **Host Name:** Enter the DNS name or IP address of the server hosting the analytics database.
 - **Port:** Enter the port on which the database server listens for connections requests.
 - **Database User Name:** Enter the analytics database username.
 - **Password/Confirm Password:** Enter the password for the analytics database user.

Click **Next** to continue.

10. On the **Test Database Connection** page, review the connection parameters and click **Test Configuration**.

Services Gatekeeper attempts to create a connection from the administration server to the database. Results from the connection test are displayed at the top of the page. If the test is unsuccessful, you should correct any configuration errors and retry the test.

Click **Next** to continue.

11. On the **Select Targets** page, select all of your Services Gatekeeper network tier servers or clusters.
12. Click **Finish** to save the JDBC data source configuration and deploy the data source to the targets that you selected.
13. To activate your changes, in the **Change Center** of the Administration Console, click **Activate Changes**.

Deploy the Analytics EAR File

To deploy the analytics EAR file, do the following:

1. Make sure that the Services Gatekeeper administration server is running.
2. Open the following URL in your web browser:

`http://hostname:port/console`

Where *hostname* is the DNS name or IP address of the Services Gatekeeper administration server and *port* is the address of the port on which the administration server is listening for requests (8001 by default).

3. When the login page appears, enter the user name and the password you used to start the administration server (you may have specified this user name and password during the Services Gatekeeper installation process), or enter a user name that has been granted one of the default global security roles.
4. If you have not already done so, in the Change Center of the Administration Console, click **Lock & Edit**.
5. In the left pane of the Console, select **Deployments**.
6. In the right pane, click **Install**.
7. On the **Locate deployment to install and prepare for deployment** page, enter to the following path:

Middleware_Home/ocsg_5.1/applications

where *Middleware_Home* is the home directory of your Services Gatekeeper installation. Press Enter to update the **Current Location**.

8. For standalone single-server environments, select **edr_to_analytic-single.ear**; for cluster environments, select **edr_to_analytic.ear**.
Click **Next** to continue.
9. On the **Choose targeting style** page, select **Install this deployment as an application**.
Click **Next** to continue.
10. On the **Select deployment targets** page, select the network tier servers or clusters that comprise your Services Gatekeeper installation.
Click **Next** to continue.
11. Do not modify any of the settings on the **Optional Settings** page and click **Next** to continue.
12. Click **Finish**.
13. In the Change Center click **Activate Changes**.
14. Select your Services Gatekeeper domain and choose **Deployments**.
15. In the **Deployments** table, select **edr_to_analytic** and then click **Start** and choose **Servicing all requests**.
16. Click **Yes** on the **Start Deployments** page.
17. For clustered environments, ensure that the deployed application is started on all of the network tier instances in your installation.

Connect Services Gatekeeper to the Analytics Data Source

To connect Services Gatekeeper to the analytics data source, do the following:

1. Make sure that the Services Gatekeeper administration server is running.
2. Open the following URL in your web browser:

`http://hostname:port/console`

Where *hostname* is the DNS name or IP address of the Services Gatekeeper administration server and *port* is the address of the port on which the administration server is listening for requests (8001 by default).

3. When the login page appears, enter the user name and the password you used to start the administration server (you may have specified this user name and password during the Services Gatekeeper installation process), or enter a user name that has been granted one of the default global security roles.
4. In the **Domain Structure** tree, expand **OCSG** and select any one of your network tier nodes.
5. On the **Oracle Communications Services Gatekeeper** page, expand **Container Services** and select **EdrToAnalytic**.
6. In the lower panel, select the **Operations** tab and then choose **connectToDatasource** from the **Select An Operation** drop down list box.
7. Click **Invoke**.

8. Ensure that the operation returns a successful connection.

Accessing Services Gatekeeper Reports

After completing the installation procedures for Services Gatekeeper reporting the following reports can be found in your OBI dashboard in the **EDR Analysis Home Page**:

API Related Reports

- API Usage and Trend
- API Response Time and Trend
- API Failure Rate and Trend

API Others Reports

- API Application Adoption
- API Parameter Based

Application Related Reports

- Application Usage and Trend
- Application Response Time and Trend
- Application Failure Rate and Trend

Subscriber Related Reports

- Subscriber Application Usage

Installing Services Gatekeeper Portal Support

This section contains instructions for installing Services Gatekeeper reporting support. You must complete the following procedures:

- [Extending the OWP Domain for a Custom Portal](#)
- [Installing Portal Support](#)
- [Accessing Services Gatekeeper Portals](#)

Caution: Before continuing, make sure that all of the components of both your OWP installation is up and running. That includes administration servers, database servers, and any associated domains.

Extending the OWP Domain for a Custom Portal

The installation of Services Gatekeeper portal support requires extending your OWP domain with the **WC_CustomPortal** managed server. The OWP installation provides the **oracle.wc_custom_portal_template_11.1.1.jar** template file for extending your OWP domain.

See "Creating a Custom Managed Server for Framework Applications" in the *Oracle Fusion Middleware Installation Guide for Oracle WebCenter Portal* for information on extending your OWP domain with the custom portal managed server.

Installing Portal Support

To run the installer:

1. Copy the installer, `ocsg510_generic_ext.jar`, to the system that is hosting OWP.
2. If you are installing on a 64-bit system, ensure that a 64-bit JDK, or a hybrid 32/64-bit JDK, is installed on the target machine.

If it is not installed, install one. See "[Supported Configurations](#)" for information about supported JDK versions.

3. Run the `java -version` command, or `java -d64 -version` command on platforms using a 32/64-bit hybrid JDK to ensure that the `JAVA_HOME` environment variable is set to a 64-bit JDK.

If `JAVA_HOME` is not correctly set, set it to point to the correct JDK.

4. Add the `bin` directory of the appropriate JDK (which you have installed separately) to the beginning of the `PATH` variable definition on the target system. For example:

```
PATH=$JAVA_HOME/bin:$PATH
export PATH
```

Here, `JAVA_HOME` represents the full path to the JDK directory.

5. Change to the directory where you downloaded the installation program.
6. To start the generic installer, do one of the following:

- To start the generic installer on a system that uses a 32/64-bit hybrid JDK, such as the HP-PA, HPIA, and Solaris64 platforms, enter:

```
java -d64 -jar ocsg510_generic_ext.jar [-log=logfilename]
```

- To start the generic installer on a system that uses the Solaris_SPARC 64-bit JDK, enter:

```
java -Xmx1024m -jar ocsg510_generic_ext.jar [-log=logfilename]
```

- To start the generic installer on a 32-bit system, enter:

```
java -jar ocsg510_generic_ext.jar [-log=logfilename]
```

After the installer starts, the Welcome window appears.

You can cancel the installation at any time by clicking **Exit**.

7. In the Welcome window, click **Next** to proceed with the installation.
The Choose Middleware Home Directory window appears.
8. Select **Use an existing Middleware Home** and choose the Middleware Home directory where your OWP domain is located.
9. Click **Next**.
The Choose Products and Components window appears.
10. In the Choose Products and Components window, ensure the **Portal** checkbox is selected.
11. Click **Next**.
The WebCenter Administration Console window appears.

12. In the WebCenter Administration Console window, enter the following information:
 - **URL:** The **Listen Address** and **Listen Port** of the administration console for your OWP installation. For example, 127.0.0.1:7001.
 - **Login Name:** The OWP domain administration server login name.
 - **Password:** The password for the OWP domain administration server user.
13. Click **Next**.
The Portal Parameters window appears.
14. In the Portal Parameters window, enter the following information:
 - **WebCenter Portal Managed Server:** The custom portal server created after extending the OWP domain. See "[Extending the OWP Domain for a Custom Portal](#)" for more information on extending the OWP domain.
 - **PRM Endpoint:** A URL representing your Services Gatekeeper web service endpoint including the host name and port. For example, **http://server:port** where *server* is the name or IP address of your Services Gatekeeper host and *port* is your Services Gatekeeper web service endpoint port number.
 - **WebCenter Home Path:** The local installation path for OWP. By default this is *Middleware_Home/Oracle_WC1* where *Middleware_Home* is the WebLogic domain home directory used for the OWP installation.
15. Click **Next**.
The Product Installation Directories window appears.
16. In the **Product Installation Directories** fields, enter the directory in which you want to install the Services Gatekeeper extension software.
17. Click **Next**.
The Installation Summary window appears.
18. Make sure that the Installation Summary reflects that you have chosen to install the Portals. You can click the **Previous** button to navigate back so you can make changes.
19. Click **Next** to start the installation.
A progress bar indicates the status of the installation process.
20. When the Installation Complete window appears, click **Done**.
The installer exits.
21. Restart your OWP instance for the changes to take effect.

Accessing Services Gatekeeper Portals

Once you have configured a domain, and your installation is up and running, you must create a portal manager user using the Services Gatekeeper console. See "[Create a Portal Manager Account](#)" for more details.

After installation and configuration, you can access the portals at the following default URLs:

- **Partner Manager Portal:** `http://OWP_hostname:port/portal/faces/managerHome`
- **Partner Portal:** `http://OWP_hostname:port/portal/faces/partnerHome`

where *OWP_hostname* and *port* are the connection host and port (default **9704**) for your OWP installation.

Configuring the Domain for Oracle Communications Services Gatekeeper

This chapter describes how to use domain configuration tools to set up Oracle WebLogic Server for use with Oracle Communications Services Gatekeeper. This chapter covers the following topics:

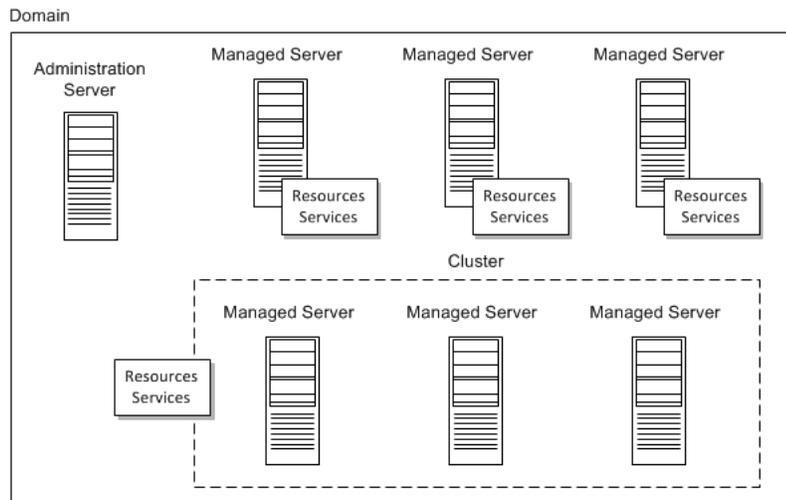
- [Understanding Service Gatekeeper Domain Configuration](#)
- [Configuring a Domain With the Graphical Mode Configuration Wizard](#)
- [Using the Console Configuration Wizard](#)
- [Configuring a Domain with Oracle WebLogic Scripting Tool Scripts](#)
- [Where to Go From Here](#)

Before you follow the instructions in this chapter to configure a domain, you should have:

- Read "[Task Overview](#)" for an overview of the entire process.
- Read "[Installing the Database](#)" and "[Installing Oracle Communications Services Gatekeeper](#)" and have the database administrator username and password available.

Understanding Service Gatekeeper Domain Configuration

In order to run Services Gatekeeper, its container, WebLogic Server, must be given basic information about the various parts of the system. This is called configuring the domain. A domain is the basic administrative unit in WebLogic Server. It consists of an administration server and, usually, one or more *Managed Servers*, which may be associated into *clusters*, as illustrated in [Figure 6-1](#).

Figure 6–1 WebLogic Domain

The administration server provides a central point for managing the domain and providing access to the WebLogic Server administration tools.

A single WebLogic Server instance can function as both the administration server and a managed server, depending on the needs of the installation. For example, developers creating communication service extensions using the Platform Development Studio commonly might run both the administration server and managed servers on a single machine.

Managed servers are often grouped together into clusters. Clusters are groups of server instances that work together to provide scalability and high availability. Clusters improve performance and provide failover should a server instance become unavailable. The servers within a cluster can run on the same machine, or they can reside on different machines. To the client, a cluster appears as a single WebLogic Server instance.

Managed servers, or the clusters into which they are linked, host application components—in this case, the communication services—and resources, which are also deployed and managed as part of the domain.

Each server instance is also assigned to a machine, a logical representation of actual hardware. The machine representation is used by the administration server to start and stop remote servers using the Node Manager. Multiple server instances can run in a single machine.

For more information on WebLogic Server domains, see the introduction and the following sections in *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard* at:

http://download.oracle.com/docs/cd/E15523_01/web.1111/e14140/toc.htm

All servers must have their domains configured. You can either use one of the methods below to manually configure each server in your installation, or you can configure the domain on your administration server and then use the **pack** and **unpack** commands provided by WLS to package the configuration data for copying to all the other servers. For more information on pack and unpack, see the discussion on overview of the pack and unpack commands in *Oracle Fusion Middleware Creating Templates and Domains Using the Pack and Unpack Commands* at:

http://download.oracle.com/docs/cd/E15523_01/web.1111/e14144/intro.htm

The scripts are located in the **common/bin** directory. In the default installation, this would be *Services_Gatekeeper_Home\wlserver_10.3\common\bin* where *Services_Gatekeeper_Home* is the home directory of your Services Gatekeeper installation.

Configuring a Domain With the Graphical Mode Configuration Wizard

Use the following instructions explain how to use the Services Gatekeeper GUI-based Configuration Wizard to configure WebLogic Server for Services Gatekeeper.

To do so, the console attached to the domain configuration system must support a Java-based GUI. All consoles for Windows systems support Java-based GUIs, but not all consoles for UNIX/Linux systems do. If you attempt to start the configuration program in graphical mode on a system that cannot support a graphical display, the configuration program automatically starts console-mode installation.

IPv6 Considerations

If you are running Services Gatekeeper on an IPv6 network, and you intend to use the Graphical Mode Domain Configuration Wizard, you will need to map host names to your IPv6 addresses to your *etc/hosts* (Linux or Solaris) file or *\Windows\System32\drivers\etc\hosts* (Windows), since the Wizard cannot accept IPv6 addresses.

To map IPv6 addresses to host names, do the following:

1. Open the file */etc/hosts* (Linux or Solaris) or *\Windows\System32\drivers\etc\hosts* (Windows) in a plain text editor.
2. Add your IPv6 address to hostname mappings to the file in the format:

```
<IPv6 Address>      <host name>      ## Optional comment
```

Once added, your mappings should look similar to the following example:

```
2001:db8:0:f101::1    host-admin.example.com    ## Admin Server
2001:db8:0:f101::1    host-at1.example.com      ## Application Tier 1
2001:db8:0:f101::2    host-at2.example.com      ## Application Tier 2
2001:db8:0:f101::1    host-nt1.example.com      ## Network Tier 1
2001:db8:0:f101::2    host-nt2.example.com      ## Network Tier 2
```

3. Save the file and restart the machine for the settings to take effect.

When using the Graphical Domain Wizard, you should then use the host names in place of the IPv6 addresses.

Configuring a Domain with the GUI Configuration Wizard - Windows

You can start the Configuration Wizard in graphical mode from either the Windows Start menu or from the command line.

- To start the GUI Configuration Wizard from the Windows Start menu, choose the Configuration Wizard option from the Oracle program group in the Windows Start Menu:

```
Start->Programs->Oracle Communications Services Gatekeeper 5.1-> OCSG
5.1->Tools->Configuration Wizard
```

Note: If you have used the GUI-based installer, and the Run Quickstart box is checked in the Installation Complete window, the Quickstart window opens automatically. Simply click **Start Domain Configuration Wizard** to launch the Wizard.

See "[Configuring Domain Settings](#)" for details on how to fill in the domain settings.

- To start the GUI Configuration Wizard from the command line:
 1. Log in to the target system.
 2. Open a command prompt window.
 3. Go to the *Middleware_Home*\common\bin subdirectory. For example:

```
cd c:\Middleware_Home\wlserver_10.3\common\bin
```
 4. At the prompt, type **config** and press **Enter**.
 5. The Configuration Wizard starts in graphical mode and the **Welcome** screen appears. See "[Configuring Domain Settings](#)" for details on how to fill in the domain settings.

Note: You can also use Explorer to find the **config.cmd** file in *c:\Middleware_Home\wlserver_10.3\common\bin*, and simply double-click it.

Configuring a Domain with the GUI Configuration Wizard - UNIX/Linux

To start the GUI Configuration Wizard on a UNIX/Linux system:

1. Log in to the target system.
2. Open a command shell window.
3. Go to the */common/bin* subdirectory. For example:

```
cd Services_Gatekeeper_Home/wlserver_10.3/common/bin
```
4. Invoke the following script:

```
sh config.sh
```
5. The Configuration Wizard starts in graphical mode and the Welcome screen appears. See "[Configuring Domain Settings](#)" for details on how to fill in the domain settings.

Configuring Domain Settings

This section assumes that you have followed the instruction in either "[Configuring a Domain with the GUI Configuration Wizard - Windows](#)" or "[Configuring a Domain with the GUI Configuration Wizard - UNIX/Linux](#)" and launched the GUI Configuration Wizard and have the Welcome screen. The GUI Configuration Wizard screens prompt you to enter specific information about your system and configuration. For instructions on responding to the prompts during installation, see the following sections.

To complete this section you need the name of the database host, the database instance name, any listening port numbers, and the name and password of a database user to use. Services Gatekeeper domains require this connection information.

The following sections describe the configuration options in each Configuration Wizard screen.

Note: If you are going to be using any CORBA-based functionality that in one way or another connects to a machine other than your own, you should not use the value "localhost" in any of your configuration choices.

Welcome Screen - Create or Update a WebLogic Domain

1. Do one of the following:
 - Select **Create a new WebLogic domain** to create a new domain.
 - Select **Extend an existing WebLogic domain** to extend an existing domain with additional components.

2. Click **Next** to proceed with the installation.

You may cancel the installation at any time by clicking **Exit** and you may go back to a previous window by clicking **Previous**.

Select Domain Source Screen

1. Select **Generate a domain configured automatically to support the following products**. This option offers you these standard options for pre-configured domains based on popular products and options:

Select the appropriate template depending on your needs:

- **Basic Oracle Communications Services Gatekeeper Domain**

Creates an all-in-one domain, with the Access and Network Tier and the administration server all on a single machine. This configuration is common for development machines.

- **OCSG Basic HA configuration**

Creates a basic domain with two servers, each with an Access Tier (AT) and an Network Tier (NT) instance and a database. This configuration can be expanded later in the process.

- **OCSG Domain with Access and Network Clusters**

Creates a basic distributed domain, with a two instance Access cluster and a two instance Network cluster. This configuration can be expanded later in the process.

- **OCSG Domain with Access and Network Clusters with Oracle RAC Configuration**

Creates a basic distributed domain, with a two instance Access cluster and a two instance Network cluster. This configuration can be expanded later in the process. It also creates the additional data sources required for use with an Oracle RAC based installation.

- **OCSG OSB Integration Configuration**

Creates a domain for integration with Oracle Service Bus (OSB), using the Service Oriented Architecture (SOA) Facade. If you are using this template, you need additional special information. See "[Installing SOA Facades](#)" for more information.

Specify Domain Name and Location Screen

1. Accept the default domain name or create a new name in the **Domain Name** text box.
2. Accept the default domain location or click the **Browse** button to change the location.
3. Click **Next** to save your changes and continue.

Configure Administrator User Name and Password Screen

1. Specify the main administrative user in the **Name** text box.

This name is used to boot the administration server and connect to it. For setup and testing, Oracle suggests that you use `weblogic`. User names are case sensitive. Do not use commas or any characters in the following comma-separated list:

```
\t, < >, #, |, &, ?, ( ), { }
```
2. Specify the password for the administrative user in the **User password** text box.

The password must contain a minimum of eight case-sensitive characters, at least one of which is not alphabetic.
3. Re-enter the password in the **Confirm user password** text box.
4. (Optional) Enter an informal description for this username in the **Description** text box.
5. Click **Next** to save your changes and continue.

Configure Server Startup Mode and JDK Screen

1. On the left side of the window, select the appropriate startup mode for your installation:
 - **Development Mode**
 - **Production Mode** (This is the only supported mode for 64-bit Solaris environments.)

Note: If you select **Production Mode**, you should not enable SSL unless you have a trusted key. For more information on startup modes, see the discussion on development vs. production mode default tuning values in *Oracle Fusion Middleware Performance and Tuning for Oracle WebLogic Server* at:

http://download.oracle.com/docs/cd/E15523_01/web.1111/e13814/wls_tuning.htm
2. On the right side of the window, select **Available JDKs**.
3. Highlight the appropriate JDK you wish to use.
4. Click **Next** to save your changes and continue.

Configure JDBC Data Sources Screen

This screen appears if you are installing a non-Oracle RAC based Services Gatekeeper configuration.

Use this screen to specify connection information between Services Gatekeeper and the JDBC data sources (databases). A JDBC data source contains a pool of database connections that are created when the data source instance is created - when it is deployed or targeted, or at server startup. Applications look up a data source on the JNDI tree, and then request a connection.

1. Configure **wlng.datasource**, **wlng.localTX.datasource**, and **wlng.localTX.datasource**.

Select the **wlng.datasource**, **wlng.localTX.datasources**, and (for SOA domains) **wlng.localTX.datasource** check boxes to configure these data sources simultaneously. To configure these data sources separately, make adjustments in the data source for the transactional data source.

Typically, fields you may need to edit include:

- **Vendor:** Select the database vendor from the list; the default is **Oracle**.
 - **Driver:** Select the driver for your database type from the list; the default is Oracle's Driver (Thin) for Instance connections. Non-Oracle RAC domains need to use the **non-XA** thin driver for **wlng.localTX.datasource**, and the **XA** driver for **wlng.datasource**.
 - **Username:** The Services Gatekeeper user name you created when you installed the database. The default is **SETME_DBUSER**.
 - **Password:** The Services Gatekeeper password you created when you installed the database (it is not be echoed on the screen).
 - **DBMS/Service:** Enter name of the database you created in ["Installing the Database"](#) The default database name is **SLEE_DB**.
 - **Host Name:** Where the database is located; the default is **localhost**.
 - **Port:** Enter the port number for contacting the database. For Oracle, the default is **1521**. For MySQL, the default is **3306**.
 - **Configure selected data sources as RAC multi data sources in the next panel.** Check this check box if you are using Real Application Cluster features.
2. Click **Next** to save your changes and continue.
 3. The Test JDBC Data Sources screen appears and automatically tests your data source configurations.

A green check displayed in the **Status** column indicates that the configuration is valid. A red circle and slash indicates a problem. To correct any problems, click **Previous** to return to the Configure JDBC Data Sources screen and make the necessary changes and Click **Next**. When the Test JDBC Data Sources screen reappears, click **Test Connections** to retest the configurations.

(As Needed) Configure Oracle RAC Multi-Data Sources

If you checked the **Configure selected data sources as RAC multi data sources in the next panel** box in the Configure JDBC Data Sources screen, this screen appears next. Follow these steps to configure JDBC data sources:

1. Check the boxes next to **wlng.datasource**, **wlng.TX.datasources** and (if applicable) **wlng.localTX.datasource** to configure them all at the same time.
2. Enter the service name of a database to connect to in the **Service Name** text box.
3. Enter a database user account name in the **Username** text box.
4. Enter the password for the user account password in the **Password** text box.

5. Enter the IP address or DNS name of the server that hosts the database in the **Host Name** field.
6. Enter the database name in the **Instance Name** text box. Naming schemes vary by database.
7. Enter a port on which the database listens for connection requests in the **Port** text field.
8. Click **Add** to add the data source.
9. Add as many data sources as you need. Typically only one is configured per database.
10. Click **Next** to save your changes and continue to the next screen.

Select Optional Configuration Screen

Leave these boxes unchecked to accept the default values for these options. These settings are described in "[Optional Configuration Screens](#)".

Oracle RAC domains require that you at least configure an administration server using "[Configure the Administration Server \(Administration Server Screen\)](#)".

Configuration Summary Screen

Displays the domain details. Use the **Summary View** drop-down list to choose a category view to use. The options vary with your configuration and may include:

- Deployment
- Application
- Service
- Cluster
- Machine
- JDBC Multi Data Source
- JMS Server

Click **Create** to accept the domain details and start creating the domain.

Optional Configuration Screens

The following sections explain how to configure options for the **Optional Configuration** screens. A few of these settings are required for certain domain configurations.

Configure the Administration Server (Administration Server Screen)

1. Replace **AdminServer** with the name of your administration server in the **Name** text box.
2. Replace **host-admin.bea.com** with the IP address or DNS name of your administration server in the **Listen address** text box.
3. Replace **7001** with an available port number on your administration server to use as a listening port in the **Listen Port** text box.
4. (Optional) Enter an available port number to use as an SSL listening port in the **SSL listen port** text box.
5. (Optional) check the **SSL enabled** check box to use SSL.

Do not enable SSL unless you have a trusted key.

6. Click **Next** to save your changes and continue.

JMS Distribution Destination (Select JMS Distributed Destination Type Screen)

1. Select Uniform distribution Destination (**UDD**) or Weighted Distributed Destination (**WDD**) settings for each of your JSM system resources.

See the screen text for more information.

2. Click **Next** to save your changes and continue.

Managed Servers, Clusters and Machines (Configure Managed Servers Screen)

Use this window to add or change connection information for managed servers. Each managed server is an instance of WebLogic Server. Some information may already be filled in.

1. Change the **Listen address** of each of your servers, based on your installation values. You can add managed server instances at this time. (You can also do this using the Administration Console at any time.)

Note: The **Listen address** and **Listen port** per server combination must be unique. The values for the listen address can include alphanumeric characters, dots [.], and dashes [-] only.

2. Replace **7001** with a port number on your administration server to use as a listening port. in the **Listen Port** text box.
3. (Optional) Enter a port number to use as an SSL listening port in the SSL listen port text box.
4. (Optional) check the **SSL enabled** check box to use SSL.

Do not enable SSL unless you have a trusted key

5. Click **Next** to save your changes and continue.
6. When finished, configure the new system by returning to the **Select Optional Configuration** screen, checking the **Deployments and Services** checkbox, and then clicking **Next**.

The Target Deployments to Clusters or Server screen appears. See "[Deployments and Services \(Target Deployments to Clusters or Server Screen\)](#)" for details.

Deployments and Services (Target Deployments to Clusters or Server Screen)

1. **Assign services to servers or clusters**

This window does not appear if you selected Create Oracle Communications Services Gatekeeper Basic Domain.

Use this window to add any additional managed servers you listed in the Configure Managed Servers window to clusters configured in the Configure Clusters window. Select the appropriate cluster in the right pane, the appropriate managed server in the left pane, and assign them to each other by clicking the **right arrow button**.

2. **Configure Machines/Configure Unix Machines**

Use this window to add or change information about machines. In the context of WebLogic Server, a machine is the logical representation of the system that hosts one or more WebLogic Server instances, for the purposes of starting and stopping remote servers using the Node Manager. In a domain, machine definitions identify

a particular, physical piece of hardware and are used to associate a computer with the managed servers it hosts.

For more information about the various fields, see the discussion on configuring machines in *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard* at:

http://download.oracle.com/docs/cd/E15523_01/web.1111/e14140/custom.htm

Click **Next** to continue.

3. Assign Servers to Machines

This window does not appear if you selected Create Oracle Communications Services Gatekeeper Basic Domain

Use this window to assign servers (either administration or managed) to their appropriate machines, if necessary. Select the appropriate machine in the right pane and the server(s) in the left pane and assign them to each other by clicking the **right arrow button**.

Click **Next** to continue.

RDBMS Security Store (Configure RDBMS Security Store Database Screen)

1. Select a **Database Type** from the drop-down list.
2. A driver is automatically entered in the **Driver** text box. If necessary, select another driver from the drop-down list.

The correct **Class Name** for the driver is automatically filled in.

3. Enter a database session identifier in the **DBMS SID** text box.
4. Enter a database name in the **DBMS Host** text box.
5. (As needed) Replace the default port number in the **DBMS Port** text box.
6. Enter a DBMS administrator user name in the **User Name** text box.
7. Enter a password for the DBMS administrator in the **User Password** text box.
8. Confirm the password.
9. Add any required items to the **Additional Properties** text box.
10. Click **Next** to save your changes and continue.

Using the Console Configuration Wizard

Use the following instructions if you wish to use the Console-based Configuration Wizard to configure WebLogic Server for Services Gatekeeper.

Launch the Console Configuration Wizard - Windows

To start the Console Configuration Wizard:

1. Log in to the target system.
2. Open a command prompt window.
3. Go to the *Services_Gatekeeper_Home*\common\bin subdirectory where *Services_Gatekeeper_Home* is the home directory of your Services Gatekeeper installation. For example:

```
cd c:\Services_Gatekeeper_Home\wlserver_10.3\common\bin
```

4. At the prompt, type `config -mode=console` and press Enter.
5. The Configuration Wizard starts in console mode.

Launch the Console Configuration Wizard - UNIX/Linux

To start the console Configuration Wizard:

1. Log in to the target system.
2. Open a command shell window.
3. Go to the `Services_Gatekeeper_Home/common/bin` subdirectory where `Services_Gatekeeper_Home` is the home directory of your Services Gatekeeper installation. For example:

```
cd c:\Services_Gatekeeper_Home\wlserver_10.3\common\bin
```

4. Invoke the following script:


```
sh config.sh -mode=console
```
5. The Configuration Wizard starts in console mode.

Create Your Domain

To create your domain, respond to the prompts in each section by entering the number associated with your choice, pressing Enter, or typing `Next` (or `n`) to accept the current selection. See "[Configuring Domain Settings](#)" for more information. The screen names are the same for both the graphical and console Domain Configuration Wizards.

Note: If you are going to be using any CORBA based functionality that in one way or another connects to a machine other than your own, you should not use the value "localhost" in any of your configuration choices.

The right arrow (`->`) indicates the value currently selected. To quit the Configuration Wizard, enter `Exit` in response to any prompt. To review or change your selection, enter `Previous` at the prompt.

Instead of typing complete words when you want to enter `[Exit]`, `[Previous]`, and `[Next]`, you can use the following one-letter shortcuts: `x`, `p`, and `n`, respectively.

Configuring a Domain with Oracle WebLogic Scripting Tool Scripts

This section explains how to monitor and manage WebLogic Server instances and domains using the WebLogic Scripting Tool (WLST) instead of the Configuration Wizard GUI.

The WLST scripting environment is based on the Java scripting interpreter, Jython. For more general information on WLST, see the discussion on introduction and road map in *Oracle Fusion Middleware Oracle WebLogic Scripting Tool* at:

http://download.oracle.com/docs/cd/E12839_01/web.1111/e13715/intro.htm

Caution: WLST is a powerful, flexible tool, and has a significant learning curve. If you do not know how to use WLST and do not wish to spend the time to become familiar with it, consider using one of the Configuration Wizards to set up your domains instead.

Set Up Your Environment

You must set a number of environment variables for WLST to run properly. To simplify this, the Services Gatekeeper installer provides shell/cmd scripts that must be run before WLST is invoked. The scripts are located in *Services_Gatekeeper_Home/wlserver_10.3/server/bin* where *Services_Gatekeeper_Home* is the home directory of your Services Gatekeeper installation.

Services Gatekeeper provides both **setWLSEnv.sh** and **setWLSEnv.cmd** versions for use with UNIX/Linux and Windows. It is usually enough simply to run the appropriate script, but some shells may require using source, as in:

```
source Services_Gatekeeper_Home/wlserver10.3/server/bin/setWLSEnv.sh
```

If this still does not work, you may need to change shells. There have been some issues reported with bash, particularly on HP-UX machines. If you are having problems with your shell, change to an **sh** shell before running the script.

Choose from the Provided Scripts

Services Gatekeeper provides five WLST scripts to set up your environment. The scripts are located in *Services_Gatekeeper_Home/wlserver10.3/common/templates/scripts/wlst/* directory, and the templates are located in *Services_Gatekeeper_Home/wlserver10.3/common/templates/domains* where *Services_Gatekeeper_Home* is the home directory of your Services Gatekeeper installation. The following scripts are provided:

- **basic-ocsg-ha.py** uses the domain template **basic-ocsg-ha-domain.jar** for its basic setup. This creates a domain with two servers, each with an AT and an NT instance and a database. Database replication must be set up separately.
- **ocsg-cluster.py** uses the domain template **ocsg-domain.jar** for its basic setup. This creates an all-in-one domain typical of development environments.
- **access-network-cluster.py** uses the domain template **ocsg-access-network-domain.jar** for its basic setup. This creates a domain with separate Access and Network clusters.
- **access-network-rac-cluster.py** uses the domain template **ocsg-access-network-rac-domain.jar** for its basic setup. This creates a domain with separate Access and Network clusters with the additional data sources that an Oracle RAC installation requires.
- **ocsg-osb-integ.py** uses the domain template **ocsg-osb-integ-domain.jar** for its basic setup. This creates a domain for integration of Oracle Communications Services Gatekeeper with Oracle Service Bus.

If you are configuring an HP-UX installation, you must run the script using the `-Djava.security.egd` flag. For example, you would invoke the **basic-ocsg-ha.py** script by typing:

```
java -Djava.security.egd=/dev/random weblogic.WLST basic-ocsg-ha.py
```

Edit the Scripts

- The **wlmg-cluster.py** script sets up a development machine, use this script as is.
- If you are using one of the other four scripts, you must set a few variables found at the top of the script, and, in some situations, edit a few other values. See ["Configure Multi-cluster Settings"](#) for details.

- If you are using one of the two other scripts **and** you also wish to create additional servers, you must make more complex edits. See ["Adding Servers to a Multi-cluster Configuration"](#) for details.
- If you wish to prevent communication services from ever being deployed, you may edit whichever script you are using. See ["Keep Unused Communication Services From Being Deployed"](#) for details.

It is also possible to remove communication services after the initial deployment. See the *Oracle Services Gatekeeper System Administrator's Guide* for information on accomplishing this.

Configure Multi-cluster Settings

If you are setting up the standard version of one of the multi-cluster domains, only a few variables need to be set at the top of the script, in the section called **Configuration (INPUT) Parameters**.

Example 6–1 The Configuration (INPUT) Parameters Section from Access-Network-rac.py

```

=====
# Configuration (INPUT) Parameters
=====

# listen address input parameters
# example: hostname can be DNSName or IPAddress

AdminServerListenAddress = "host-admin.bea.com"
AdminServerListenPort    = 7001
NT1ServerListenAddress   = "host-nt1.bea.com"
NT1ListenPort            = 8001
NT2ServerListenAddress   = "host-nt2.bea.com"
NT2ListenPort            = 8001
AT1ServerListenAddress   = "host-at1.bea.com"
AT1ListenPort            = 8001
AT2ServerListenAddress   = "host-at2.bea.com"
AT2ListenPort            = 8001

NTClusterAddress         = "host-nt1.bea.com:8001,host-nt2.bea.com:8001"
ATClusterAddress         = "host-at1.bea.com:8001,host-at2.bea.com:8001"

NTClusterMultiCastAddress = '237.0.0.101'
NTClusterMultiCastPort    = 8050
ATClusterMultiCastAddress = '237.0.0.102'
ATClusterMultiCastPort    = 8050

# DataSource Settings

# RAC Node-1 Settings

RACNode1URL              = "SETME_URL"

# RAC Node-2 Settings

RACNode2URL              = "SETME_URL"

# Database settings

OracleXADriver           = "SETME_XADRIVER"

```

```
OracleNonXADriver = "SETME_nonXADRIVER"
DBUser            = "SETME_USER"
DBPassword        = "SETME_PASSWORD"
```

Make these edits to Configure a Multi-cluster Domain

1. Set the **Listen Address** and **Listen Port** for the administration server, the two Access Tier servers, and the two Network Tier servers.
 - Replace the **host*.bea.com** values with either the DNS name or the IP Address of the appropriate servers.
 - Replace the **Listen Port** values as necessary. The **Listen Address:Port** combinations must be unique.
1. Fill in the appropriate **Listen Address:Port** combinations to assign the servers to the appropriate clusters. The entry should be comma delimited, with no spaces.
2. Fill in the appropriate Multicast Addresses per cluster.
3. Set the appropriate URLs for each of the Oracle RAC instances (only in Oracle RAC scripts)
4. Set the appropriate values for the transactional (XA) and localTX(nonXA) datasources (in Oracle RAC scripts).
Set the appropriate values for the **wlmg.datasource** (in non-Oracle RAC scripts)
5. Set the appropriate values for the **wlmg.localTX.datasource**. The values should be non-XA (only in non-Oracle RAC scripts).
The following change may also need to be made:
 6. If you want to be able to use the Administration Console and Node Manager to start remote servers, you must change the **NodeManager ListenAddress** values in the **Configure Managed Servers** section. To do so edit the following line for each managed server


```
set('ListenAddress', 'localhost')
```

 to change localhost to the correct **ListenAddress**.
7. The default domain user (weblogic) and password. You can modify these values in the script.

Adding Servers to a Multi-cluster Configuration

If you want to use the WLST script to set up a multi-cluster domain and, at the same time, to add additional servers, first make the edits in "[Configure Multi-cluster Settings](#)" section. Then make the following additional edits listed in this section. The specific edits depends on how your particular installation is set up.

WLST in offline mode, which is the mode that Services Gatekeeper scripts use, can access and update only those configuration objects that have been previously persisted to a configuration file. All the provided WLST scripts create this configuration file automatically as they run, but each adds only those objects that are specified in the domain templates. If you need to add more configuration objects, such as additional managed servers or machines, you must add statements to the script to create them before you can configure them.

You can also add servers and machines using the Administration Console after you set up your core domain. This is a simpler way of accomplishing the same goal.

The following sections describe script actions and their related edits.

Create Machines

For example, if you need to add additional machines, you must create them in the script *before* you assign managed servers to them.

Table 6–1 Code to Create Additional Machines

Comment Section	Code to add	Value
Configure managed servers	<pre>cd('/') create('new_Machine_5', 'Machine') cd('Machine/new_Machine_5') create('new_Machine_5', 'NodeManager')</pre>	Add as many of these statements as you need, replacing new_Machine_5 with whatever value is appropriate

Create Managed Servers

After you create the machine, you can assign managed servers to them. You can also add new managed servers. In the code below, the new managed server WLNG_NT3 is created and then assigned to new_Machine_5, created above.

Table 6–2 Code to Create Additional Managed Servers

Comment Section	Statement to edit	Value
Configure managed servers	<pre>cd('/') create('WLNG_NT3', 'Server') cd('Server/WLNG_NT3') set('ListenPort', 8001) set('ListenAddress', 'myserver5') set('Machine', 'new_Machine_5')</pre>	Create new servers as needed, and set the ListenAddress

Set NodeManager Listen Address

You must also add a section to configure any new machine (and its Node Manager) being added.

Table 6–3 Setting Listen Address for Node Manager

Comment Section	Statement to add	Value
Configure managed servers	<pre>cd('/') cd('Machine/new_Machine_5') set('Name', 'new_Machine_5') set('Address', 'new_Machine_5') cd('NodeManager/new_Machine_5') set('ListenAddress', 'myserver5') set('ListenPort', 5556)</pre>	One section per added Machine.

Assign New Managed Servers to the appropriate cluster

You must assign any newly-created managed servers to their appropriate cluster by adding an `assign server` line.

Table 6–4 Assigning New Managed Servers

Comment Section	Statement to add	Value
Configure a cluster and assign the Managed Servers to that cluster.	<pre>cd('/') [standard] assign('Server', 'WLNG_NT3','Cluster','WLNG_ NT_Cluster')</pre>	One line per added Managed Server.

Keep Unused Communication Services From Being Deployed

You can remove communication services after the initial deployment of Services Gatekeeper. If you know that your installation is not using one or more communication services and you prefer that they not be deployed at all in your system, you can add the following information to your configuration script.

Remember that all communication services consist of two EAR files, an Access Tier version and a Network Tier version. You will need to address both files to completely remove the communication service.

For example, to keep the PX 3.0 Third Party Call communication service from being deployed, add the following to your script:

```
#####
# Unassign applications to target
#####
cd('/')
unassign('Application', 'wlng_at_third_party_call_px30#4.0 ', 'Target', 'WLNG_AT_
Cluster')
unassign('Application', 'wlng_nt_third_party_call_px30#4.0 ', 'Target', 'WLNG_NT_
Cluster')
```

Run the Script

Once you have made all necessary changes to the script, run it using the following command:

```
java weblogic.WLST <appropriate-version>.py
```

Where to Go From Here

You must now complete Services Gatekeeper post installation tasks. See ["Completing Post-Installation"](#) for more information.

Completing Post-Installation

This chapter describes the tasks you may have to complete after installing Oracle Communications Services Gatekeeper and configuring the Oracle WebLogic Server domain for use with it.

Complete Post-Install Tasks

You may not need to do all of the following tasks depending on your installation requirements.

Create a Portal Manager Account

If you have installed the optional reporting support described in [Chapter 5, "Installing Services Gatekeeper Reporting and Portal Support,"](#) use the **ManagementUserMBean** MBean to create a Services Gatekeeper user with the following attributes:

- Type: **1** (Partner Relationship Manager operator)
- User Level: **666** (read/write access)

See "*Managing Management Users and Management User Groups*" in *Oracle Services Gatekeeper System Administrator's Guide*, a separate document in this set, for details.

Create JMS Servers for Any Additional NT Servers

If you have added any Network Tier (NT) servers to those provided by the domain template you used, you must edit each NT server's configuration to add support for the EDR Service. Each server in the NT requires its own JMS server in order for the EDR Service to work correctly.

For the following task, you must start the administrative server in your Services Gatekeeper installation so that you can use the Administration Console to make the necessary adjustments. Unless you are setting up an all in one domain, you will also need to start at least one NT server (this prevents a null pointer error in initializing the console). For more information on using the console, see *Oracle Services Gatekeeper System Administrator's Guide*, a separate document in this set.

To create additional NT servers:

1. Start Services Gatekeeper on the administrative server.

In a command prompt window, go to the `Services_Gatekeeper_Home/domain/bin` directory where `Services_Gatekeeper_Home` is the home directory of your Services Gatekeeper installation. In the default installation, this would be `Services_Gatekeeper_Home/user_projects/domains/ocsg-domain/bin`.

Run the **startWebLogic.sh** script.

The administrative server starts.

2. Watch the command prompt window as the server loads. Wait until the prompt indicates that the server is in state **RUNNING**.
3. Start a Network Tier server.

In a separate command prompt window, go to the **domain/bin** directory and enter the following:

```
startManagedWebLogic networknode0-0 t3://adminhost:7001
```

replacing the first parameter with the name of the NT server and the second with the URL of the administration server.

Note: You can also log in to the NT server, and run the `startManagedWebLogic.sh` script from there.

If you are running Services Gatekeeper on Solaris, you will need to add the following line to `startManagedWebLogic.sh`:

```
JAVA_OPTIONS="{JAVA_OPTIONS} -Dweblogic.ThreadPoolSize=100  
-Dweblogic.ThreadPoolPercentSocketReaders=50"
```

4. Watch the command prompt window as the NT server loads. Wait until the prompt indicates that the server is in state **RUNNING**.
5. Once both servers are in state **RUNNING**, bring up the Administrative Console.

In your browser, enter the following address:

```
http://hostname:port/console
```

where *hostname* is the hostname of the administrative server and *port* is the administration port assigned during domain configuration.

6. Log in using credentials for an administrative user.
7. Before you can make any changes using the Administration Console, you must click **Lock & Edit** in the **Change Center** on the left side of the window.

(In the example below, assume that the additional server `WLNG_NT3` was created.)

In the Administration Console:

1. Select **Home** then **Services** then **Messaging** then **JMS Servers** then **New**.
2. In the **Name** text box, enter the name of the JMS Server. In our example, this would be `JMSServer-NT3`.
3. In the **Target** dropdown menu, select the appropriate server. In our example, this would be `WLNG_NT3`.
4. Click **Finish**.
5. Click **Activate Changes**.

Install Orbacus

The Orbacus ORB is not provided in the standard Services Gatekeeper installation.

The communication services that rely on Orbacus do not function without the Orbacus ORB, so you need to perform a set of tasks to use these communication services. The communications services that need the Orbacus ORB are:

- Parlay X 3.0 Third Party Call/Parlay MultiParty Call Control
- Parlay X 3.0 Call Notification/Parlay MultiParty Call Control
- Parlay X 3.0 Audio Call/Parlay MultiParty Call Control and Call User Interaction

To install Orbacus ORB:

1. Get Orbacus 4.3.2 from Progress Software.
2. Copy the following JAR files to a temporary directory (*Orbacus_temp*):
 - OB.jar
 - OBBiDir.jar
 - OBEvent.jar
 - OBNaming.jar
 - OBUtil.jar
3. Change directory to *Services_Gatekeeper_Home/ocsg_5.1/patch_others/ob*, where *Services_Gatekeeper_Home* is the installation directory for Services Gatekeeper.
4. Unzip the **ob_patch.zip** file to a temporary directory (*Ob_patch*).
5. Change directory to *Ob_patch*.
6. If you are using Unix or Linux, run the install script:


```
ob_patch.sh Orbacus_temp Services_Gatekeeper_home
```

 If you are using Windows, run the install script:


```
ob_patch.bat Orbacus_temp Services_Gatekeeper_home
```

 Replace *Services_Gatekeeper_Home* with the installation directory for Services Gatekeeper.

(Optional) Add a Custom Password Validator

Using features available through WebLogic Server, you can create and configure a **Password Validation Provider**. This allows you to enforce rules concerning the composition of passwords used with Services Gatekeeper. In general, the rules include:

- Whether the password may contain the user's name, or the reverse of that name
- A minimum or maximum password length (composition rules may specify both a minimum and maximum length)
- Whether and how many of the following characters must be in the password:
 - Numeric characters
 - Lowercase alphabetic characters
 - Uppercase alphabetic characters
 - Non-alphanumeric characters (e.g., parentheses or asterisks)

For more information, see the discussion on configuring authentication providers in *Oracle Fusion Middleware Securing Oracle WebLogic Server* at:

http://download.oracle.com/docs/cd/E12839_01/web.1111/e13707/atn.htm

You will need to use WLST to create and configure your Password Validation Provider.

(Optional) Adding Java Cryptography Extensions

Services Gatekeeper does *not* require JCE features to run, but you can install them if you wish. For more information, see the discussion on using the nCipher JCE Provider with WebLogic Server in *Oracle Fusion Middleware Securing Oracle WebLogic Server* at:

http://download.oracle.com/docs/cd/E12839_01/web.1111/e13707/ssl.htm

Configure Services Gatekeeper

After you have installed the software, configured the domain, and completed any necessary post-installation steps, you can proceed to configuring Services Gatekeeper itself. The specifics for doing these tasks are presented in the *Oracle Communications Services Gatekeeper System Administrator's Guide* and *Accounts and SLAs Guide*. The following list gives a general outline of the initial tasks you must perform:

- Create administrative user accounts
- Configure Services Gatekeeper Container Services
- Configure communication services
- Configure connections with OSA/Parlay gateways, as necessary
- Set up and configure Web Services Security and OAM (JMX) Security
- Configure the Partner Relationship Management interfaces, as necessary
- Configure geo-redundancy, if necessary
- Create service provider and application accounts
- Create service provider and application SLAs
- Create network SLAs

For Further Information

To learn more about installing WebLogic Server products in general, see the WebLogic documentation set page at:

<http://www.oracle.com/technetwork/middleware/weblogic/documentation/index.html>

Installing SOA Facades

This chapter describes the tasks necessary to install the Service Oriented Architecture (SOA) Facades for Oracle Communications Services Gatekeeper. It also describes the different deployment types related to SOA.

Introduction

The Services Gatekeeper SOA Facades integrate Services Gatekeeper with SOA environments. The SOA Facades are deployed in Oracle Service Bus (OSB) and expose an interface identical to the SOAP interfaces in the Web Services SOAP Facades. From an application point of view, there is no difference between interacting with a SOA Facade or a SOAP Facade. The SOA product must be installed in addition to Services Gatekeeper to interact with SOA environments.

If you use clustering, each SOA Facade must be co-located with an Access Tier but nothing else. Network Tiers must be in a separate cluster.

Both Services Gatekeeper core and communication services are deployed in OSB servers. You use these Service Bus servers *instead* of Access Tier and Network Tier servers.

Task Overview

To install the Services Gatekeeper SOA Facades:

1. Install Services Gatekeeper on all servers, see "[Install Services Gatekeeper](#)" for details.
2. Install OSB on all servers, see "[Install Oracle Service Bus](#)" for details.
3. Configure the domain for the SOA Facades. There are different ways to do this:
 - a. [Configure the Domain Using the Graphical Domain Configuration Wizard](#).
 - b. [Configure Oracle Service Bus Domain Using the Console Configuration Wizard](#).
4. Add OSB settings to the domain configuration script. See "[Edit and Verify the Domain Configuration Settings](#)" for details.
5. Make sure that the WebLogic Server installation directory is set in the domain configuration file. See "[Verify the Domain Configuration Settings](#)" for details.
6. (As needed) Upgrade your existing SOA facade projects to Services Gatekeeper 5.1 with the instructions in "Managing and Configuring SOA Facades" in the *Oracle Communications Services Gatekeeper System Administration Guide*, another document in this set.

Install Services Gatekeeper

Install Services Gatekeeper normally. See "[Installing Oracle Communications Services Gatekeeper](#)" for details. Do not configure a domain yet.

Install Oracle Service Bus

Install Oracle Service Bus 11gR1 (11.1.1.6.0) on all Services Gatekeeper AT servers. Do not use an OSB version later than 11.1.1.6.0. if you are installing on Services Gatekeeper 5.1.

For information about installing OSB, see *Oracle Fusion Middleware Installation Guide for Oracle Service Bus 11g Release 1 (11.1.1.6.0)* at:

http://docs.oracle.com/cd/E23943_01/doc.1111/e15017/overview.htm#OSBIN1010

Use the same Oracle Middleware home directory for OSB and Services Gatekeeper.

Configure the Domain

Follow the domain configuration in the section below that matches your implementation.

Configure the Domain Using the Graphical Domain Configuration Wizard

OSB domain configuration is similar to Services Gatekeeper domain configuration. See "[Configuring a Domain With the Graphical Mode Configuration Wizard](#)" for details.

For information on how to start and use the Oracle Service Bus Domain Configuration Wizards, see *Oracle Fusion Middleware Installation Guide for Oracle SOA Suite 11g Release 1* at

http://docs.oracle.com/cd/E23943_01/doc.1111/e15017/configure_osb.htm#OSBIN1566

Always use this configuration template during installation:

OCSG OSB Integration configuration

This configuration template is very similar to the template **OCSG Domain with Access and Network Clusters**. It contains a few specialized configuration settings which are described in "[Configuring Domain Settings](#)".

Configure Oracle Service Bus Domain Using the Console Configuration Wizard

The Console Configuration Wizard is a text-based version of the Graphical Console Configuration Wizard.

For information on how to start and use the Oracle Service Bus Domain Configuration Wizards, see *Oracle Fusion Middleware Installation Guide for Oracle Service Bus 11g Release 1 (11.1.1.6.0)* at

http://docs.oracle.com/cd/E23943_01/doc.1111/e15017/configure_osb.htm#BGBJCGIJ

For details, see "[Using the Console Configuration Wizard](#)" for details.

Edit and Verify the Domain Configuration Settings

Add the Oracle Service Bus definitions to the set domain script (**setDomainEnv.cmd** or **setDomainEnv.sh**). The **StartWeblogic.bat** script uses these scripts to configure domains. Use either the Windows or Linux/UNIX instructions.

Configuring Domain Settings: Windows

Edit the *Domain_Home*\bin\setDomainEnv.cmd script file as follows where *Domain_Home* is the home directory of your Oracle Service Bus domain:

At the top of the script, add the following OSB information, where *Service_Bus_Home* is the installation directory for Oracle Service Bus on your system; for example

```
c:\oracle\gatekeeper5.1\bin

set COMMON_COMPONENTS_HOME=Services_Gatekeeper_home\oracle_common
set ALSB_HOME=Service_Bus_Home
for %%i in ("%ALSB_HOME%") do set ALSB_HOME=%%~fsi
set ALSB_DEBUG_FLAG=true
set ALSB_DEBUG_PORT=7453
```

Configuring Domain Settings: Linux/UNIX

Edit the *Domain_Home*/bin/setDomainEnv.sh script file as follows where *Domain_Home* is the home directory of your Oracle Service Bus domain:

At the top of the script, add the following OSB information. Note that *Service_Bus_Home* is the installation directory for Oracle Service Bus on your system; for example */var/oracle/gatekeeper5.1/bin*

```
set COMMON_COMPONENTS_HOME=Services_Gatekeeper_home/oracle_common
ALSB__HOME="Services_Gatekeeper_home/Service_Bus_Home"
export ALSB_HOME
ALSB_DEBUG_FLAG="true"
export ALSB_DEBUG_FLAG
ALSB_DEBUG_PORT="7453"
export ALSB_DEBUG_PORT
```

Verify the Domain Configuration Settings

Follow these steps to make sure that your settings are now correct:

1. Verify that the Service Bus installation directory is defined in the domain configuration file:
 - a. Open *Domain_Home*/config/config.xml where *Domain_Home* is the home directory of your Oracle Service Bus domain
 - b. Verify that **ALSB_INSTALL_DIR** refers to the installation directory for Oracle Service bus, for example */var/oracle/osb_11.1*.
2. (Windows only) Verify that your classpath matches the classpath in "[Configuring Domain Settings: Windows](#)". To view the classpath:
 - a. Right click **My Computer**.
 - b. Select **Properties** -> **Advanced** -> **Environment Variables**.

Configure the SOA Facades

In addition to configuring the domain and changing to the environment script, you must also configure the SOA Facades themselves. To do so, follow the information in “Managing and Configuring SOA Facades” in *Oracle Communications Services Gatekeeper System Administrator’s Guide*, another document in this set.

Upgrading Oracle Communications Services Gatekeeper

This chapter describes upgrading Oracle Communications Services Gatekeeper 5.0 and 5.0.0.1 to Services Gatekeeper 5.1. It also has reference sections for updated database schemas and new CDRs, EDRs, and alarms.

About Upgrading Services Gatekeeper

A Services Gatekeeper 5.0 or 5.0.0.1 installation can be upgraded to Services Gatekeeper 5.1 without shutting down the entire cluster or domain. Applications can use Services Gatekeeper with minimal service interruption during the upgrade. The process is known as a **Rolling Upgrade** and is a Oracle WebLogic Server feature.

After the upgrade, the security identity of Services Gatekeeper is the same as it was before the upgrade.

The process is based on a rolling scheme, where each server in the domain, one at the time, is stopped, upgraded to the new version, and then started. This process upgrades the WebLogic Server and the Services Gatekeeper Core services, but leaves all communication services as before the upgrade.

After all servers have been upgraded, the communication services in use need to be upgraded. This is done using in-production redeployment, which is a WebLogic Server feature that enables the communication services to be upgraded without any traffic interruption.

The high-level upgrade workflow is:

1. Upgrade each server using a rolling upgrade scheme. See "[Upgrading Server to New Version](#)" for details.
2. Upgrading PRM and deploying communication services. See "[Upgrading PRM and Deploying Communication Services](#)" for details.
3. Verify that new traffic is processed.

You should always upgrade the servers in this order:

1. Administration server
2. Access tier servers
3. Network tier server.

It is strongly recommended that you back up configuration data prior to the upgrade. See *Oracle Communications Services Gatekeeper System Backup and Restore Guide*, another document in this set, for more information on backing up Services Gatekeeper.

Limitations

The following limitations apply for the upgrade:

- Do not make configuration changes during the upgrade process until all the servers in the cluster have been upgraded. This is especially important for new configuration options. Servers will silently ignore settings that are not understood, and the local configuration file may not be updated properly. Using new configuration options may remove the capability of un-installing a maintenance upgrade in a rolling fashion.
- For a minor release, during the rolling upgrade, there must be two entirely separate installation directories. That is, the location of the old installation and the location of the new installation must be two different directories.
- After the upgrade it is possible that the panes in the Administration Console will not display properly. If this occurs, delete the browser's cache and cookies and restart your browser.

Variable Names Used in this Chapter

The following general variable names are referenced throughout this chapter:

- *Middleware_Home*—the top level directory of the original Services Gatekeeper version, either 5.0 or 5.0.0.1.
- *New_Middleware_Home*—the top level directory of the new Services Gatekeeper version, 5.1.
- *Services_Gatekeeper_Home*—the top level directory of the original Services Gatekeeper version, either 5.0 or 5.0.0.1.
- *New_Services_Gatekeeper_Home*—the top level directory of the new Services Gatekeeper version, 5.1.
- *Domain_Name*—the domain name directory of the WebLogic instance, located in the appropriate [*New_*]*Middleware_Home* directory at **user_projects/domains**.

Upgrading Server to New Version

To upgrade a server:

1. Stop the server gracefully so all in-flight requests are processed before the shutdown starts.

For information on how to stop a server using the administration console, see the discussion on shutdown servers in a cluster in *Oracle Fusion Middleware Oracle WebLogic Server Administration Console Online Help* at:

http://download.oracle.com/docs/cd/E15523_01/apirefs.1111/e13952/taskhelp/clusters/ServerShutdownCluster.html

Note: In high-volume traffic situations, you may encounter an excessively long shutdown period. Set a **Graceful Shutdown Timeout** or set the parameter **Ignore Sessions During Shutdown** to true to remedy that behavior.

For information about controlling the Graceful Shutdown command, see the discussion on graceful shutdown in *Oracle Fusion Middleware Oracle WebLogic Server Administration Console Online Help* at:

http://docs.oracle.com/cd/E25054_01/apirefs.1111/e13952/taskhelp/startstop/ControlGracefulShutdowns.html

2. Install the new version of Services Gatekeeper. See ["Installing Oracle Communications Services Gatekeeper"](#) for details.

Install it under a directory different from *Middleware_Home* directory used for the old version. Do not configure a domain.

3. Set up necessary environment variables.

On Windows: run the script *New_Middleware_Home\wlservice_10.3\server\bin\commEnv.cmd*

On UNIX: source the script *New_Middleware_Home/wlservice_10.3/server/bin/commEnv.sh*

4. Change directory to *New_Middleware_Home/wlservice_10.3/common/templates/scripts/upgrade*.
5. The upgrade script assumes that the JDK was installed in *New_Middleware_Home/jdk160_29b11* (Oracle SUN) or *New_Middleware_Home/jrockit_160_29_D1.2.0-10* (JRockit).

If you are using the generic installer, update the **JAVA_HOME** variable in the file *New_Middleware_Home/wlservice_10.3/common/templates/scripts/upgrade/build.xml*:

Set **JAVA_HOME** to the directory in which the JDK is installed.

6. Run the upgrade ant script. The script executes different ant targets for different server types. The script takes a set of arguments. See [Table 9–1, "Arguments to the Upgrade Script"](#).

To upgrade

- the administration server, execute the target **upgrade.admin**.
- an access tier server, execute the target **upgrade.at**.
- a network tier server, execute the target **upgrade.nt**.

See [Example 9–1, "Upgrading the Administration Server"](#), [Example 9–2, "Upgrading an Access Tier Server"](#), and [Example 9–3, "Upgrading a Network Tier Server"](#).

Table 9–1 Arguments to the Upgrade Script

Argument	Description	Required
-Ddomain50.home	Domain configuration directory used in the old version	Yes

Table 9–1 (Cont.) Arguments to the Upgrade Script

Argument	Description	Required
-Dbea50.home	Installation directory for the old installation	Yes
-Dbea51.home	Installation directory for the new installation	Yes
-Dserver.name	Name of the server to upgrade	Yes
-Dwlsold.home	Installation directory used for WebLogic Server in the old installation	No
-Dwlsnew.home	Directory used for WebLogic Server used in the new installation	No
-Docsg.home	Directory used for Services Gatekeeper in the new installation	No
-Dwl.server.name	The name of the AT or NT server to upgrade	No
-Ddomain50.name	Name of the domain in the existing installation	No
-Dadmin.host	Host name or IP address of the administration server	No
-Dadmin.port	Administration port number for the administration server	No
-Dproduction.mode	True if the server is in production mode. False otherwise.	No
-Dnt.server.home	Directory of the network tier server to upgrade. Used only when upgrading an network tier server.	No

Example 9–1 Upgrading the Administration Server

```
ant upgrade.admin
-Ddomain50.home=C:\temp\bea\ocsg500\user_
projects\domains\ocsg-access-network-domain
-Dbea50.home=C:\temp\bea\ocsg500
-Dbea51.home=C:\temp\bea\ocsg510
-Dwlsold.home=C:\temp\bea\ocsg500\wlserver_10.3
-Dwlsnew.home=C:\temp\bea\ocsg510\wlserver_10.3
-Docsg.home=C:\temp\bea\ocsg510\ocsg_5.0
-Ddomain50.name=ocsg-domain
-Dadmin.host=10.182.100.111
-Dadmin.port=7001
-Dproduction.mode=true
-Dserver.name=AdminServer
```

Example 9–2 Upgrading an Access Tier Server

```
ant upgrade
-Ddomain50.home=C:\temp\bea\ocsg500\user_projects\domains\ocsg-domain-at1
-Dbea50.home=C:\temp\bea\ocsg500
-Dbea51.home=C:\temp\bea\ocsg510
-Dwlsold.home=C:\temp\bea\ocsg500\wlserver_10.3
-Dwlsnew.home=C:\temp\bea\ocsg510\wlserver_10.3
-Docsg.home=C:\temp\bea\ocsg510\ocsg_5.0
-Ddomain50.name=ocsg-domain
-Dadmin.host=10.182.100.111
```

```
-Dadmin.port=7001
-Dproduction.mode=true
-Dwl.server.name=WLNG_AT1
```

Example 9-3 Upgrading a Network Tier Server

```
ant upgrade.nt
-Ddomain50.home=C:\temp\bea\ocsg500\user_
projects\domains\ocsg-access-network-domain
-Dbea50.home=C:\temp\bea\ocsg500
-Dbea51.home=C:\temp\bea\ocsg510
-Dwlsold.home=C:\temp\bea\ocsg410\wlserver_10.3
-Dwlsnew.home=C:\temp\bea\ocsg510\wlserver_10.3
-Docsg.home=C:\temp\bea\ocsg510\ocsg_5.0
-Ddomain50.name=ocsg-domain
-Dadmin.host=10.182.100.111
-Dadmin.port=7001
-Dnt.server.home=C:\temp\bea\ocsg410\user_
projects\domains\ocsg-access-network-domain\servers\WLNG_NT1
-DProduction.mode=true
-Dwl.server.name=WLNG_NT1
```

7. If you are upgrading the administration server, you must enable SSL for all servers and create a new webservice-credential-provider. To do that, edit the script *New_Services_Gatekeeper_Home/wlserver_10.3/common/templates/scripts/upgrade/configSSLWsPolicy.py* and update the following variables:

- **ADMIN_USER_NAME:** The WebLogic administrator user name.
- **ADMIN_PASSWORD:** The WebLogic administrator password.
- **ADMIN_URL:** The WebLogic administration console URL.
- **AT_SERVERS:** A comma separated list of application tier server names bounded by single quotes and enclosed in square brackets, for example: ['WLNG_AT1','WLNG_AT2'].
- **ADMIN_DOMAIN_NAME:** The Services Gatekeeper network domain name.

Run the script using the following command

```
# . ../../../../bin/wlst.sh configSSLWsPolicy.py
```

8. If you are upgrading a version 5.0 administration server, you will need to add a flag to your domain's **config.xml** file that disables the enforcement of HTTP basic authentication requests. Services Gatekeeper handles such requests itself via OAuth 2.0 rather than the WebLogic Server.

To add the necessary flag, open the file *Middleware_home/user_projects/domains/Domain_Name/config/config.xml* in an editor and add the line following line to the **<security-configuration>** element:

```
<domain ...>
...
<security-configuration>
  <name>ocsg-domain</name>
  <realm>
    ... ..
  </realm>
  <default-realm>myrealm</default-realm>
  <credential-encrypted> {AES}...</credential-encrypted>
  <node-manager-username>weblogic</node-manager-username>
```

```

<node-manager-password-encrypted>{AES}...</node-manager-password-encrypted>
<!-- ADDED: Disable Basic HTTP Authentication -->
<enforce-valid-basic-auth-credentials>>false</enforce-valid-basic-auth-credentials>
<!-- ADDED: END -->
</security-configuration>

```

9. If you are upgrading an administration server, unpack the file *New_Middleware_home/wlserver_10.3/common/templates/scripts/migration.zip*.
Two directories are created, 5.0 and 5.0.0.1.
10. If you are upgrading an administration server, set the environment variable, **OCSG51_INSTALL_HOME** to point to *New_Services_Gatekeeper_Home*, or directly modify the `${OCSG51_INSTALL_HOME}` value in the **runConfigurationMigration** script.
11. If you are upgrading an administration server, run the configuration update script. The syntax is:

```
runConfigurationMigration.Extension DB_type DB_Host DB_Port DB_Name DB_User Password
```

Where:

- *Extension* is the filename extension. Use **sh** for UNIX and **bat** for Windows.
 - *DB_type* is the database type. Use **oracle** for an Oracle Database or **mysql** for MySQL.
 - *DB_Host* is the host name, or IP address, of the server running the database.
 - *DB_Port* is the port number used by the database.
 - *DB_Name* is the database name for a MySQL database or the service name for an Oracle database.
 - *DB_User* is the user ID used to connect to the database.
 - *Password* is the password associated with *DB_User*.
12. Change to the *Middleware_Home/user_projects/domains/Domain_Name/bin* directory.
 13. Change the permissions to read/write/execute on all files, by entering:

```
chmod 755 *
```
 14. Shutdown and restart the server.

Upgrading PRM and Deploying Communication Services

After the upgraded Services Gatekeeper domain has been started, Partner Relationship Management (PRM) needs to be upgraded to enable PasswordDigest and deploy new and upgraded communication services. This is done using a hitless upgrade procedure.

See the discussion on hitless upgrade using production redeployment in *Oracle Communications Services Gatekeeper System Administrator's Guide* and "Redeploying Applications in a Production Environment" in *Oracle Fusion Middleware Deploying Applications to Oracle WebLogic Server*.

Upgrading PRM to Enable PasswordDigest

To upgrade PRM to support PasswordDigest, do the following:

1. Edit the script `New_Services_Gatekeeper_Home/wlserver_10.3/common/templates/scripts/upgrade/configPRM.py` and update the following variables:
 - **ADMIN_USER_NAME**: The WebLogic administrator user name.
 - **ADMIN_PASSWORD**: The WebLogic administrator password.
 - **ADMIN_URL**: The WebLogic administration console URL.
 - **AT_SERVERS**: A comma separated list of application tier server names bounded by single quotes and enclosed in square brackets, for example: `['WLNK_AT1','WLNK_AT2']`.
 - **ADMIN_DOMAIN_NAME**: The Services Gatekeeper network domain name.

2. Run the script using the following command:

```
# . ../../../../bin/wlst.sh configPRM.py
```

3. Redeploy `New_Services_Gatekeeper_Home/applications/rest.jar` using the WebLogic server Administration Console or the `weblogic.Deployer` command line application. For detailed information on WebLogic deployment strategies, see *Oracle Fusion Middleware Deploying Applications to Oracle WebLogic Server*.
4. Configure the new Services Gatekeeper JMS module by making the following modifications to each WebLogic server's `New_Middleware_Home/user_projects/domains/Domain_Name/config/config.xml`:

```
<?xml version='1.0' encoding='UTF-8'?>
<domain>
  <name>ocsg-access-network-domain</name>
  ...
  ...
  <!-- BEGIN: REMOVE OCSG5.0/OCSG5.0.0.1 JMS MODULES -->
  <!--
  <jms-system-resource>
    <name>WLNKJMSResource</name>
    <target>WLNK_NT_Cluster</target>
    <descriptor-file-name>jms/wlnk-jms.xml</descriptor-file-name>
  </jms-system-resource>
  -->
  <!-- END: REMOVE -->
  <!-- BEGIN: ADD OCSG5.1 JMS MODULES -->
  <jms-system-resource>
    <name>WLNKEDRResource</name>
    <target>WLNK_NT_Cluster</target>
    <sub-deployment>
      <name>WLNK_JMS_CLUSTER</name>
      <target>JMSServer-NT1, JMSServer-NT2</target>
    </sub-deployment>
    <descriptor-file-name>jms/wlnk-edr-jms.xml</descriptor-file-name>
  </jms-system-resource>
  <jms-system-resource>
    <name>WLNKJMSResource</name>
    <target>WLNK_NT_Cluster</target>
    <descriptor-file-name>jms/wlnk-cluster-jms.xml</descriptor-file-name>
  </jms-system-resource>
  <!-- END: ADD -->
```

```
<jms-system-resource>
  <name>WLNJ_ATJMSResource</name>
  <target>WLNJ_AT_Cluster</target>
  <descriptor-file-name>jms/wlnj_at-jms.xml</descriptor-file-name>
</jms-system-resource>
...
```

5. Restart all servers sequentially.
6. Once all the servers are running, redeploy *New_Services_Gatekeeper_Home/applications/wlnj_prm.ear*.

5.0 to 5.1 Communication Services Deployments

If you are upgrading from Services Gatekeeper 5.0 to 5.1, deploy the following new communication services, located in *New_Services_Gatekeeper_Home/applications/*:

- *wlnj_at_acr_parlay_rest.ear*
- *wlnj_at_address_list_px30.ear*
- *wlnj_at_addresslist_parlay_rest.ear*
- *wlnj_at_app_subscription_rest.ear*
- *wlnj_at_multimedia_messaging_parlay_rest.ear*
- *wlnj_at_oauth2.ear*
- *wlnj_at_payment_parlay_rest.ear*
- *wlnj_at_terminallocation_parlay_rest.ear*
- *wlnj_at_qos_rest.ear*
- *wlnj_at_sms_parlay_rest.ear*
- *wlnj_at_portal_service.ear*
- *wlnj_at_sms_parlay_rest.ear*
- *wlnj_nt_acr_px21.ear*
- *wlnj_nt_address_list_px30.ear*
- *wlnj_nt_oauth2.ear*
- *wlnj_nt_portal.ear*
- *wlnj_nt_qos.ear*

Redeploy the following 5.1 communication services located in *New_Services_Gatekeeper_Home/applications/*:

- *wlnj_at_sms_px21.ear*
- *wlnj_at_multimedia_messaging_px21.ear*
- *wlnj_at_payment_px30.ear*
- *wlnj_at_terminal_location_px21.ear*
- *wlnj_nt_payment_px30.ear*
- *wlnj_nt_sms_px21.ear*
- *wlnj_nt_multimedia_messaging_px21.ear*
- *wlnj_nt_terminal_location_px21.ear*

5.0.0.1 to 5.1 Communication Services Deployments

If you are upgrading from Services Gatekeeper 5.0.0.1 to 5.1, deploy the following new communication services, located in *New_Services_Gatekeeper_Home/applications/*:

- wlng_at_acr_parlay_rest.ear
- wlng_at_app_subscription_rest.ear
- wlng_at_qos_rest.ear
- wlng_at_portal_service.ear
- wlng_nt_acr_px21.ear
- wlng_nt_address_list_px30.ear
- wlng_nt_qos.ear

Redeploy the following 5.1 communication services located in *New_Services_Gatekeeper_Home/applications/*:

- wlng_at_sms_px21.ear
- wlng_at_multimedia_messaging_px21.ear
- wlng_at_payment_px30.ear
- wlng_at_terminal_location_px21.ear
- wlng_at_multimedia_messaging_parlay_rest.ear
- wlng_at_address_list_px30.ear
- wlng_at_addresslist_parlay_rest.ear
- wlng_at_oauth2.ear
- wlng_at_payment_parlay_rest.ear
- wlng_at_terminallocation_parlay_rest.ear
- wlng_at_sms_parlay_rest.ear
- wlng_nt_oauth2.ear
- wlng_nt_payment_px30.ear
- wlng_nt_sms_px21.ear
- wlng_nt_multimedia_messaging_px21.ear
- wlng_nt_terminal_location_px21.ear
- wlng_nt_address_list_px30.ear

Upgrade Troubleshooting

The following sections provide remedies for common problems that occur after a Services Gatekeeper upgrade.

A Network Tier Server Cannot Rejoin Its Coherence Cluster

Services Gatekeeper 5.1 upgrades the Coherence version from 3.5.3 to 3.7.1. Because of that, sometimes the upgraded server cannot join servers running the earlier version because of the version mismatch. To fix that issue, do the following:

1. Edit the script `New_Services_Gatekeeper_Home/wlserver_10.3/common/templates/scripts/upgrade/configCoherence.py` and update the following variables:
 - **ADMIN_USER_NAME**: The WebLogic administrator user name.
 - **ADMIN_PASSWORD**: The WebLogic administrator password.
 - **ADMIN_URL**: The WebLogic administration console URL.
 - **FIRST_TIME**: Set this to **true** if this is the first NT server you are upgrading, **false** otherwise.
2. Run the script using the following command:


```
# . ../../bin/wlst.sh configCoherence.py
```

A Network Tier Server Cannot Rejoin Its Services Gatekeeper Cluster

Sometimes an upgraded Services Gatekeeper will have a different OAuth 2.0 EBJ home instance from other Network Tier servers and will not be able to join the cluster. To fix this issue, do the following:

1. Launch the Network Tier server's WebLogic Administration Console:
<http://<Server Address>:<port>/console>.

Note: The default Administration Console port is 7001.

2. In the **Change Center** panel, click **Lock & Edit**.
3. In the **Domain Structure** panel select your Services Gatekeeper domain and then select **Deployments**.
4. In the **Summary of Deployments** pane, select **wlmg_nt_outh2** and then select the **Targets** tab.
5. Select **wlmg_nt_outh2**, and click **Change Targets**.
6. Under **Clusters**, select **Part of the cluster**, and deselect the server that cannot join the cluster. Click **Yes**.
7. In the **Change Center**, click **Activate Changes**.
8. Restart the other Network Tier servers in the cluster.
9. Following the same procedure above, reset the **wlmg_nt_outh2** targets to **All servers in the cluster**, and click **Yes**.
10. Restart the final server.

Reference: Database Schema Changes

Table 9–2 lists database schema changes from Services Gatekeeper versions 5.0 and 5.0.0.1 to 5.1.

Table 9–2 5.0 to 5.1 Database Schema Changes

Table Name	New Column	Type
pl_sms_smpp_mt_sms	CLIENTCORRELATOR	VARCHAR2(30)
pl_sms_online_notif	CLIENTCORRELATOR	VARCHAR2(255)

Table 9–2 (Cont.) 5.0 to 5.1 Database Schema Changes

Table Name	New Column	Type
	CALLBACKDATA	VARCHAR2(255)
	NOTIFICATIONFORMAT	VARCHAR2(20)
	SERVICETYPE	NUMBER
pl_payment_reservation_data	REFERENCESEQUENCE	NUMBER
pl_mms_online_notif	NORTHBOUNDTYPE	VARCHAR2(30)
	CLIENTCORRELATOR	VARCHAR2(255)
	CALLBACKDATA	VARCHAR2(255)
	NOTIFICATIONFORMAT	VARCHAR2(20)
pl_mms_offline_notif	NORTHBOUNDTYPE	VARCHAR2(30)
	NOTIFICATIONFORMAT	VARCHAR2(20)
pl_mms_mt_dr_mms	NORTHBOUNDTYPE	VARCHAR2(30)
	SENDERADDRESS	VARCHAR2(30)

Table 9–3 lists changes from Services Gatekeeper version 5.0.0.1 to 5.1.

Table 9–3 5.0.0.1 to 5.1 Database Schema Changes

Table Name	New Column	Type
oauth2_resource_owner	FROMRESOURCERULE	VARCHAR2(1)
oauth2_access_token	RESOURCE_OWNER	VARCHAR2(128)
	CLIENT_ID	VARCHAR2(32)
	APPINSTANCEID	VARCHAR2(64)
	INVOKE_COUNT	NUMBER
	MAC_ALGORITHM	VARCHAR2(40)
oauth2_refresh_token	RESOURCE_OWNER	VARCHAR2(128)
	CLIENT_ID	VARCHAR2(32)

Reference: Added Alarms

Table 9–4 outlines the added alarms.

Table 9–4 Added Alarms

Service	Added Range
Address List Management	88800001 to 88800003
Reporting	900001 to 900006
Email	981001 to 981004 981007 to 981011
Payment	114203 to 114209
Portals	390001 to 390006
QoS API	98000001 to 98000009
SLA	115001 to 115002

Reference: Added EDRs

The following sections list EDRs added to Application and Network Tiers for Services Gatekeeper 5.1

Application Tier EDRs

Table 9–5 outlines the added Application Tier EDRs.

Table 9–5 Added Application Tier EDRs

Communication Service	Added Range
Address List Management	91701 to 91703 29101 to 29119
Application Subscription Management	409101 to 409107
Audio Call	91501 92001 to 92002 26401 to 26405
Call Notification	91901 to 91902
Device Capabilities	91601 26501
MMS	90201 to 90210 91201 to 91205 26101 to 26108
Payment	91301 to 91304 26201 to 26207
Presence	91641 to 91646 26801 to 268011
SMS	90101 to 90109 91101 to 91105 26001 to 26007
Subscriber Profile	27001
Terminal Location	91401 to 91404 26301 to 26307
Terminal Status	91631 to 91634 26701 to 26705
Third Party Call	91611 91621 26601 to 26604

Network Tier EDRs

Table 9–6 outlines the added Network Tier EDRs.

Table 9–6 Added Network Tier EDRs

Communication Service	Added Range
Anonymous Customer Reference	408001 to 408003 409201 to 409203
Address List Management	28001 to 28019 29001 to 29019
Application Subscription Management	409001 to 409009
Audio Call	405003 to 405005
Device Capabilities	403003 to 403004
Email	8120 to 8122
Native SMPP	404001 to 404007 404101 to 404106
Native UCP	402020 to 402023 402030 to 402033
OAuth	20001 to 20006
Payment	15101 to 15107
QoS API	91801 to 91812 91819 to 91825
SMS	7021 to 2025 410101 to 410108 410001 to 410010
Terminal Location	9005 to 9007 9031 to 9033

Reference: Added CDRs

[Table 9–7](#) outlines the added CDRs.

Table 9–7 Added CDRs

Module	Method	Description
Email	sendMessage	MT MMS to Email
	receiveEmail	MO Email to MMS
MMS	sendMessage	MT OneApi MMS
SMS	createOutboundMessage	MT OneApi SMS
Terminal Location	getLocation	MT OneApi Terminal Location

