

Oracle® Fusion Middleware

Administering Oracle Fusion Middleware with Fusion Middleware Control

12c (12.2.1.2.0)

E78279-01

October 2016

Oracle Fusion Middleware Administering Oracle Fusion Middleware with Fusion Middleware Control, 12c (12.2.1.2.0)

E78279-01

Copyright © 2014, 2016, Oracle and/or its affiliates. All rights reserved.

Primary Author: Peter LaQuerre

Contributing Authors: Sumit Jeloka, Rosemary Marano

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, then 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 about 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 unless otherwise set forth in an applicable agreement between you and Oracle. 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, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface	xi
Audience	xi
Documentation Accessibility	xi
Related Documents	xi
Conventions	xi
1 Manage Oracle Fusion Middleware Infrastructure Components	
1.1 Get Help When Managing Oracle Fusion Middleware	1-1
1.2 View Oracle Fusion Middleware Log Files	1-2
1.3 Configure Oracle Fusion Middleware Log Files	1-2
1.4 Add Managed Servers to the Domain	1-2
1.5 Create a Cluster in the Domain	1-3
1.6 Get Information About Performance Metrics	1-3
2 Manage Oracle ADF Applications	
2.1 View ADF Performance Information	2-1
2.2 Modify ADF Configurations and Parameters	2-1
3 Manage Oracle Metadata Services (MDS)	
3.1 Configure and Use Oracle Metadata Services Repository	3-1
3.2 Develop a Customizable Application that Requires MDS	3-1
3.3 Create and Register an MDS Repository	3-1
3.4 Manage an MDS Repository for an ADF Application	3-2
3.5 Metadata Repositories Page	3-2
3.6 MDS Repository Home Page	3-2
4 Manage Oracle WebLogic Server	
4.1 Manage Oracle WebLogic Server with Fusion Middleware Control	4-1
4.2 Manage Oracle WebLogic Server with the Administration Console	4-2
4.3 Manage WebLogic Server Domains	4-2
4.4 Configure and Control WebLogic Server Instances	4-2
4.5 Manage WebLogic Server Clusters	4-3
4.6 Deploy Applications Using Fusion Middleware Control	4-3
4.7 Redeploy Applications Using Fusion Middleware Control	4-4

4.8	Undeploy an Application Using Fusion Middleware Control.....	4-4
4.9	Manage Application Deployments	4-5
4.10	Monitor Managed Servers and the Applications Deployed on Managed Servers.....	4-5
4.11	Monitor Clusters and the Applications Deployed on Clusters.....	4-6
4.12	Manage WebLogic Server Domain Partitions.....	4-6
4.13	Create and Manage JDBC Data Sources	4-6
4.14	Manage WebLogic Server Messaging.....	4-7
4.15	Manage WebLogic Server Users and Groups.....	4-7
4.16	View the JNDI Tree.....	4-8

5 Manage Security and Audit Settings

5.1	Manage Audit Policies with Fusion Middleware Control	5-1
5.2	Configure the Audit Store with Fusion Middleware Control	5-1
5.3	Manage Application Policies with Fusion Middleware Control	5-2
5.4	Manage Application Roles with Fusion Middleware Control	5-2
5.5	Manage System Policies with Fusion Middleware Control.....	5-3
5.6	Manage Credentials with Fusion Middleware Control	5-3
5.7	Manage Keystores with the Keystore Service.....	5-4
5.8	Manage Certificates with the Keystore Service	5-4

6 Manage Oracle Fusion Middleware Web Services

6.1	Creating a New Policy.....	6-1
6.2	Editing a Policy	6-2
6.3	Deleting a Policy	6-2
6.4	Changing the Current Version of a Policy	6-2
6.5	Attaching a Policy to a Web Service.....	6-3
6.6	Testing a Web Service Endpoint.....	6-3
6.7	Configuring a Web Service Client	6-4
6.8	Managing OWSM Domain Configuration	6-4
6.9	Viewing a Policy Set	6-5
6.10	Creating a New Policy Set	6-5
6.11	Editing a Policy Set	6-6
6.12	Overriding the Policy Configuration in a Policy Set	6-6
6.13	Deleting a Policy Set	6-6

7 Manage Oracle User Messaging Service

7.1	Configuring Messaging Server	7-1
7.2	Deploy Oracle User Messaging Service Drivers.....	7-1
7.3	Configure Oracle User Messaging Service Drivers.....	7-1
7.4	View Registered Client Applications.....	7-2
7.5	Search for a Message	7-2

8 Manage Oracle Enterprise Scheduler

8.1	Search Job Requests	8-1
8.2	Submit a Job Request.....	8-1
8.3	Create a Job Definition	8-2

8.4	Create a Work Assignment.....	8-2
8.5	Configure a Purge Policy.....	8-3
8.6	Configure Web Service Policies.....	8-3
9 Manage Oracle HTTP Server		
9.1	Configure Oracle HTTP Server.....	9-1
9.2	Configure the mod_wl_ohs Module.....	9-1
10 Manage the SOA Infrastructure		
10.1	Monitor SOA Infrastructure Request Processing.....	10-1
10.2	Configure the SOA Infrastructure Common Properties.....	10-2
10.3	Monitor the Service and Reference Binding Components.....	10-2
10.4	Monitor Overall Status of the SOA Infrastructure.....	10-2
10.5	Manage the Partitions in the SOA Infrastructure.....	10-2
10.6	Manage a Partition from the Dashboard Page.....	10-3
10.7	Configure Global Token Variables.....	10-3
10.8	Delete Large Numbers of Instances Automatically.....	10-3
10.9	Manage Error Notification Rules.....	10-3
10.10	Manage Work Manager Groups.....	10-3
10.11	Track Business Flow Instances in the SOA Infrastructure.....	10-4
10.12	Manage Faults in the Error Hospital of the SOA Infrastructure.....	10-4
10.13	Monitor Deployed SOA Composite Applications in the SOA Infrastructure.....	10-4
10.14	Manage Deployed Composites in the Partition.....	10-4
10.15	Track Business Flow Instances in the Partition.....	10-5
10.16	Manage Faults in the Error Hospital in the Partition.....	10-5
11 Manage a SOA Composite Application		
11.1	Monitor the SOA Composite Application Dashboard.....	11-1
11.2	View the SOA Composite Application Diagram.....	11-1
11.3	Tracking Business Flow Instances of the SOA Composite Application.....	11-2
11.4	Automate SOA Composite Application Tests.....	11-2
11.5	Manage SOA Composite Application Policies.....	11-2
11.6	Manage Instance Audit Trails and Flows.....	11-2
11.7	Export the Contents of a Running SOA Composite Application.....	11-3
12 Manage Service Components		
12.1	Manage Oracle BPEL Process Manager.....	12-1
12.1.1	Configure BPEL Process Service Engine Properties.....	12-1
12.1.2	Monitor Deployments in the BPEL Process Service Engine.....	12-2
12.1.3	Monitor BPEL Process Service Engine Pending and Active Requests and Thread Performance Statistics	12-2
12.1.4	Recover from BPEL Process Service Engine Message Failure.....	12-2
12.1.5	Monitor BPEL Process Service Component Dashboard.....	12-2
12.1.6	Manage BPEL Process Service Component Policies.....	12-2
12.2	Manage Oracle Mediator.....	12-3

12.2.1	Monitor Mediator Service Component Recent Instances and Faults.....	12-3
12.2.2	Monitor Mediator Service Component Instances	12-3
12.2.3	Monitor Mediator Service Component Faults.....	12-4
12.2.4	Recover From Mediator Service Component Faults.....	12-4
12.2.5	Manage Mediator Service Component Policies	12-4
12.2.6	Recover and Abort Faults	12-4
12.2.7	Monitor Mediator Routing Statistics.....	12-5
12.2.8	Monitor Request Breakdown Statistics.....	12-5
12.2.9	Delete Cross Reference Values.....	12-5
12.2.10	Configure Mediator Service Engine Properties.....	12-5
12.2.11	Monitor Mediator Service Engine Instances	12-5
12.2.12	Monitor Deployments in the Mediator Service Engine	12-6
12.2.13	Recover from Mediator Service Engine Faults	12-6
12.2.14	Monitor Mediator Service Engine Recent Instances and Faults	12-6
12.3	Manage Decision Service Component (Business Rules)	12-6
12.3.1	Manage Decision Service Components	12-7
12.3.2	Monitor Business Rules Service Engine Statistics.....	12-7
12.3.3	Monitor Deployed Decision Service Components.....	12-7
12.4	Manage Human Workflow.....	12-7
12.4.1	Configure Workflow Notification Properties.....	12-8
12.4.2	Configure Workflow Task Service Properties	12-8
12.4.3	Monitor Deployments in the Human Workflow Service Engine	12-8
12.4.4	Monitor Human Workflow Service Engine Active Requests and Operation Statistics	12-9
12.4.5	Manage Human Workflow Service Engine Incoming and Outgoing Notifications	12-9
12.4.6	Manage Human Task Service Component Policies.....	12-9
12.4.7	Manage the URI of the Human Task Service Component Task Details Application.....	12-10

13 Manage Binding Components, Oracle B2B, and Oracle Business Activity Monitoring

13.1	Manage Binding Components	13-1
13.1.1	Monitor Services and References Binding Component Instances and Faults	13-1
13.1.2	Manage Service and Reference Binding Component Policies.....	13-1
13.1.3	Configure Service and Reference Binding Component Properties	13-2
13.1.4	View Adapter Reports	13-2
13.1.5	Schedule Adapter Endpoint Activation and Deactivation	13-2
13.2	Manage Oracle B2B.....	13-3
13.2.1	Monitor B2B Infrastructure-SOA Binding.....	13-3
13.3	Manage Oracle Business Activity Monitoring.....	13-3

14 Manage Business Events

14.1	Subscribe to Business Events.....	14-1
14.2	Manage Business Event Subscribers	14-1

15 Manage Oracle Service Bus

15.1	Monitor Service Bus SLA Alerts	15-1
15.2	Monitor Service Bus Pipeline Alerts	15-2
15.3	Monitor Service Bus Services with Errors	15-2
15.4	Configure Operational Settings for a Single Service.....	15-2
15.5	Configure Operational Settings for Multiple Services Across the Domain.....	15-2
15.6	Configure Operational Settings for Multiple Services in a Project.....	15-3
15.7	Configure Service Bus Global Operational Settings	15-3
15.8	Monitor Service Health Across a Service Bus Domain.....	15-3
15.9	Monitor Service Health for a Service Bus Project.....	15-3
15.10	Monitor Health for a Service Bus Service.....	15-4
15.11	Monitor Service Bus Resequencing Groups.....	15-4
15.12	Skip Resequencing Messages or Recover from Faults.....	15-4
15.13	View and Update Security Policies	15-4
15.14	View Service Bus Log Files	15-4
15.15	View Service Bus Message Reports	15-5
15.16	Import Service Bus Projects and Resources	15-5
15.17	Export Service Bus Projects and Resources.....	15-5

16 Manage Oracle Business Process Management Suite

16.1	Configure BPMN Process Service Engine Properties	16-1
16.2	Monitor BPMN Process Service Engine Performance Statistics.....	16-1
16.3	Monitor Deployments in the BPMN Process Service Engine.....	16-1
16.4	Manage BPMN Process Service Component Policies.....	16-2
16.5	Recover from BPMN Process Service Engine Message Failure	16-2

17 Manage Oracle Data Integrator

17.1	Configure Oracle Data Integrator.....	17-1
17.2	Manage Oracle Data Integrator	17-1
17.3	Start and Stop Oracle Data Integrator Console	17-2
17.4	Start and Stop ODI Agents	17-2
17.5	View Log Messages	17-2

18 Manage Oracle Business Intelligence

18.1	Business Intelligence Instance Page	18-1
18.2	Perform General Management Tasks.....	18-2
18.3	Manage the Availability of Oracle Business Intelligence.....	18-2
18.4	Configure Oracle Business Intelligence	18-2
18.5	Diagnose and Resolve Issues in Oracle Business Intelligence.....	18-2
18.6	Manage Security for Oracle Business Intelligence	18-3

19 Manage Oracle WebCenter Enterprise Capture

19.1	Check the Status of Oracle WebCenter Enterprise Capture	19-1
19.2	Start and Stop Oracle WebCenter Enterprise Capture	19-1
19.3	Modify Oracle WebCenter Enterprise Capture Configuration.....	19-2

19.4	Configure Oracle WebCenter Enterprise Capture Bundle Manager.....	19-2
19.5	Assign Oracle WebCenter Enterprise Capture Roles	19-2
19.6	View and Set MBean Values for Oracle WebCenter Enterprise Capture	19-2
19.7	View Oracle WebCenter Enterprise Capture Performance Metrics	19-2
19.8	Monitor Oracle WebCenter Enterprise Capture Logs.....	19-2

20 Manage Oracle Inbound Refinery

20.1	Start and Stop a WebCenter Inbound Refinery Instance	20-1
20.2	Monitor WebCenter Inbound Refinery Performance	20-1

21 Manage Oracle WebCenter Content

21.1	Manage a WebCenter Content Server Instance	21-1
21.2	Modify WebCenter Content Server General Configuration.....	21-2
21.3	Modify WebCenter Content Server Internet Configuration.....	21-2
21.4	Modify WebCenter Content: Records Configuration.....	21-2
21.5	Monitor WebCenter Content Server Performance.....	21-2
21.6	Manage WebCenter Content Server Components.....	21-3
21.7	Manage WebCenter Content Server Components: Advanced.....	21-3

22 Manage Oracle WebCenter Portal

22.1	WebCenter Portal Home Page	22-1
22.2	WebCenter Portal Service Configuration Page.....	22-2
22.3	Add New Portlet Producer Page	22-3
22.4	Edit Selected Portlet Producer Page.....	22-3
22.5	Application Settings	22-3
22.6	Portlet Producer Page.....	22-3
22.7	Analytics Page	22-4
22.8	Discussions Page	22-4

A Task-Summary Topics for Selected Fusion Middleware Control Pages

A.1	Fusion Middleware Components Page	A-2
A.2	Ports Configuration and SSL Configuration Pages.....	A-2
A.3	Create Port or Edit Port Page	A-2
A.4	Oracle WebLogic Server Domain Home Page.....	A-2
A.5	Oracle WebLogic Server Cluster Home Page	A-3
A.6	Server Home Page.....	A-3
A.7	Java EE Application Home Page	A-3
A.8	Cluster Application Home Page	A-4
A.9	Deployment Settings Page.....	A-4
A.10	Deployment/Redeployment Wizard.....	A-4
A.11	Wallets Page.....	A-4
A.12	Keystores Page	A-5
A.13	Manage Certificates (for Oracle Wallets) Page	A-5
A.14	Manage Certificates (for JKS Keystores) Page	A-5
A.15	Oracle HTTP Server Home Page	A-5
A.16	Oracle SOA Suite.....	A-6

A.16.1	SOA Infrastructure	A-6
A.16.1.1	Manage the SOA Infrastructure	A-6
A.16.2	SOA Partitions.....	A-6
A.16.3	SOA Composite Application.....	A-7
A.16.3.1	Oracle SOA Composite Page	A-7
A.16.4	Oracle BPEL Process Manager.....	A-7
A.16.4.1	BPEL Component Page.....	A-7
A.16.4.2	BPEL Engine Page	A-7
A.16.5	Decision Service Component	A-7
A.16.5.1	Decision Service Component Page	A-7
A.16.5.2	Business Rules Engine Page.....	A-8
A.16.6	Human Workflow.....	A-8
A.16.6.1	Human Workflow Engine Page	A-8
A.16.6.2	Human Task Component Page.....	A-8
A.16.7	Oracle Mediator	A-8
A.16.7.1	Oracle MediatorService Component Page.....	A-8
A.16.7.2	Oracle MediatorService Engine Page	A-8
A.16.8	Binding Components	A-9
A.16.8.1	Services and References Binding Components Page	A-9
A.16.9	Business Events.....	A-9
A.16.9.1	Business Events Page	A-9
A.16.10	Oracle BAM	A-9
A.16.10.1	Oracle BAM Server Page	A-9
A.16.10.2	Oracle BAM Web Applications Page.....	A-9
A.17	Oracle Business Process Management Suite	A-10
A.17.1	BPMN Component Page.....	A-10
A.17.2	BPMN Engine Page	A-10
A.18	Oracle Data Integrator Console Home Page.....	A-10
A.18.1	Agent Home Page.....	A-10
A.18.2	Master Repository Home Page	A-10
A.19	Oracle Service Bus.....	A-10
A.19.1	Manage an Oracle Service Bus Domain.....	A-11
A.19.2	Manage an Oracle Service Bus Project.....	A-11
A.19.3	Manage an Oracle Service Bus Service Without OWSM Policies.....	A-11
A.19.4	Manage an Oracle Service Bus Service with OWSM Policies	A-11

Preface

This guide provides a reference for each of Oracle Fusion Middleware management pages in Oracle Enterprise Manager Fusion Middleware Control.

Audience

This document is intended for administrators responsible for using Fusion Middleware Control to manage their Oracle Fusion Middleware.

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 that have purchased support 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 Oracle Fusion Middleware documentation library.

Conventions

The following text conventions are used in this document:

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

Part I

Manage Oracle Fusion Middleware Infrastructure

This part describes the set of typical tasks you need to perform when managing the Oracle Fusion Middleware Infrastructure components.

This part includes the following chapters:

- [Chapter 1, "Manage Oracle Fusion Middleware Infrastructure Components"](#)
- [Chapter 2, "Manage Oracle ADF Applications"](#)
- [Chapter 3, "Manage Oracle Metadata Services \(MDS\)"](#)
- [Chapter 4, "Manage Oracle WebLogic Server"](#)
- [Chapter 5, "Manage Security and Audit Settings"](#)
- [Chapter 6, "Manage Oracle Fusion Middleware Web Services"](#)
- [Chapter 7, "Manage Oracle User Messaging Service"](#)
- [Chapter 8, "Manage Oracle Enterprise Scheduler"](#)

Manage Oracle Fusion Middleware Infrastructure Components

This chapter describes the typical or core tasks associated with managing an Oracle Fusion Middleware Infrastructure components.

It contains the following topics:

- [Get Help When Managing Oracle Fusion Middleware](#)
- [View Oracle Fusion Middleware Log Files](#)
- [Configure Oracle Fusion Middleware Log Files](#)
- [Add Managed Servers to the Domain](#)
- [Create a Cluster in the Domain](#)
- [Get Information About Performance Metrics](#)

For more information, see:

- *Administering Oracle WebLogic Server with Fusion Middleware Control*
- *Administering Oracle Fusion Middleware*

1.1 Get Help When Managing Oracle Fusion Middleware

To get to the online help while you are using Fusion Middleware Control:

- Select **Help Contents** from the Fusion Middleware Control **Help** menu to display the table of contents for the local online help system.

From the Online Help Table of Contents, you can click links that connect you directly to the Fusion Middleware Control common tasks page in the Oracle Fusion Middleware documentation library on the Oracle Technology Network (OTN).

You can also link directly to specific Oracle Fusion Middleware books from the Table of Contents.

- When available, select **Page Reference** from the **Help** menu to display a help topic that describes detailed information about the specific options available on the page.

Not all pages support the Page Reference command; it is available in most cases for pages that contain configuration fields or elements that need further explanation in reference format.

- Select **How Do I?** from the **Help** menu to learn how to perform the common tasks associated with the current page.

This command displays specific topics in the Oracle Fusion Middleware documentation library that can help with common administrative or monitoring tasks associated with the current page.

For information about using Fusion Middleware Control to manage your Oracle Fusion Middleware environment, see the Use Fusion Middleware Control Common Tasks page.

1.2 View Oracle Fusion Middleware Log Files

Oracle Fusion Middleware components generate log files containing messages that record all types of events. You can use log files to troubleshoot common problems.

The steps for this process are:

1. Understand the Oracle Diagnostic Logging (ODL) format used by Oracle Fusion Middleware components. [More](#)
2. View and search the contents of log files in the farm. [How?](#)
3. Correlate messages in log files across components. [How?](#)

For more information about viewing log files, see [Section 1.3, "Configure Oracle Fusion Middleware Log Files."](#)

1.3 Configure Oracle Fusion Middleware Log Files

The log files generated by Oracle Fusion Middleware components can be configured in several ways.

The steps for this process are:

1. Set the level of messages that are saved to your log files. [How?](#)
2. Modify the format of your log files. [How?](#)
3. Change the location of log files. [How?](#)
4. Modify the log file rotation policies. [How?](#)
5. Configure and use a QuickTrace handler. [How?](#)
6. Configure and use Selective Tracing. [How?](#)

For more information about viewing log files, see [Section 1.2, "View Oracle Fusion Middleware Log Files."](#)

1.4 Add Managed Servers to the Domain

The steps for adding a Managed Server to the current domain:

1. Understand the concept of Oracle WebLogic Server domains and the role of Managed Servers in the domain. [More](#)
2. Consider the different ways you can scale your Oracle WebLogic Server environment to meet new computing requirements. [More](#)
3. Learn about Oracle WebLogic Server Node Managers and machines. [More](#)
4. Add a Managed Server to the domain. [How?](#)

For more information, see the following:

- "Advanced Administration: Expanding Your Environment" in *Administering Oracle Fusion Middleware*
- "Scaling Out a Topology (Machine Scale Out)" in the *High Availability Guide*

1.5 Create a Cluster in the Domain

The steps for creating a cluster are:

1. Understand the capabilities and features of Oracle WebLogic Server Clusters. [More](#)
2. Understand multicast and unicast messaging. [More](#)
3. Use Fusion Middleware Control to create the cluster. [More](#)

For more information about creating clusters, see:

- "Configuration Roadmap" in *Using WebLogic Server Clusters*
- *Administering Clusters for Oracle WebLogic Server*

1.6 Get Information About Performance Metrics

When you manage or monitor an Oracle Fusion Middleware component or application with Fusion Middleware Control, you will often see performance metrics that provide insight into the current performance of the component or application.

In many cases, these metrics are shown in interactive charts; other times they are presented in tabular format.

The best way to use and correlate the performance metrics is from the Performance Summary page for the component or application you are monitoring.

For more information about monitoring your environment using the Performance Summary pages, see "Viewing the Performance of Oracle Fusion Middleware" in the *Administering Oracle Fusion Middleware*.

To obtain a definition of a specific performance metric, refer to the *Oracle Enterprise Manager Oracle Fusion Middleware Metric Reference Manual*.

Manage Oracle ADF Applications

The Oracle Application Development Framework (Oracle ADF) is used to build a Fusion web application that may include Oracle ADF Business Components, Oracle ADF Model, Oracle ADF Controller, and Oracle ADF Faces Rich Client.

This section describes the set of typical tasks you perform to manage Oracle ADF applications:

- [View ADF Performance Information](#)
- [Modify ADF Configurations and Parameters](#)

2.1 View ADF Performance Information

You can view performance information about application module pools and ADF task flows. Application module components can be used to support a unit of work which spans multiple browser pages.

The steps for this process are:

1. View performance information about ADF applications. How?
2. View application module pool performance. How?
3. View task flow performance. How?

2.2 Modify ADF Configurations and Parameters

You can view the current settings of ADF Connection configurations and parameter.

The steps for this process are:

1. Modify configuration parameters for Business Components. How?
2. Modify connection configurations. How?
3. Modify Business Components using System MBean Browser. How?
4. Modify connection configurations using System MBean Browser. How?
5. Modify MDS using System MBean Browser. How?
6. Modify ADF application configurations using System MBean Browser. How?
7. Modify Active Data Service configuration using System MBean Browser. How?
8. Finding versions of ADF runtime JARs. How?

Manage Oracle Metadata Services (MDS)

This chapter describes the set of typical tasks you need to manage Oracle Metadata Services (MDS).

It contains the following topics:

- [Configure and Use Oracle Metadata Services Repository](#)
- [Develop a Customizable Application that Requires MDS](#)
- [Create and Register an MDS Repository](#)
- [Manage an MDS Repository for an ADF Application](#)
- [Metadata Repositories Page](#)
- [MDS Repository Home Page](#)

3.1 Configure and Use Oracle Metadata Services Repository

This section describes the set of typical tasks you need to perform to configure and use an MDS Repository:

1. Develop a customizable application. How?
2. Create and register an MDS repository. How?
3. Deploy the application. How?
4. Manage an application's MDS repository. How?

3.2 Develop a Customizable Application that Requires MDS

To get started with using Oracle Metadata Services (MDS), perform the following tasks:

1. Understand the concepts of customizable applications and MDS. More
2. Develop a customizable application that requires MDS. How?

For more information, see "Managing the Metadata Repository" in *Administering Oracle Fusion Middleware*.

3.3 Create and Register an MDS Repository

The following instructions describe how to register an Oracle Metadata Services (MDS) repository so you can deploy customizable applications that use the repository:

1. Decide whether you need a file-based or database-based MDS Repository.

In general, file-based repositories are used in the development environment and database-based repositories are used in your production environment.

2. Create and register the file-based MDS repository. How?

OR

Create and register a database-based MDS repository:

- a. Use the Repository Creation Utility (RCU) to create the MDS schema in the database. [More](#)
- b. Register the MDS repository with Fusion Middleware Control. How?

Note: You must register the MDS repository with the Oracle WebLogic Server domain before you can deploy an application that uses this MDS repository.

For more information, see "Managing the Metadata Repository" in *Administering Oracle Fusion Middleware*.

3.4 Manage an MDS Repository for an ADF Application

After you deploy an application, there are a number of administration tasks you can perform on the application and its metadata.

The steps for this application-management process are:

1. Change the MDS configuration of an application. How?
2. Configure an application to use a different metadata repository. How?
3. Convert from a file to a DB metadata repository. How?
4. Migrate application metadata from test to production. How?
5. Backup and recover application metadata. How?

For more information, see *Developing Fusion Web Applications with Oracle Application Development Framework*.

3.5 Metadata Repositories Page

Use this page to register and de-register the metadata repositories used by the current domain.

The steps for using an MDS Repository are:

1. Understand the MDS Repository. [More](#)
2. Create and register an MDS Repository. How?

For more information, see "Managing the Metadata Repository" in *Administering Oracle Fusion Middleware*.

3.6 MDS Repository Home Page

Use this page to manage a selected MDS Repository and the partitions within the repository.

Typically, a partition is created when an application is deployed. Therefore, MDS repository management is performed in the context of an application's lifecycle.

The steps for the MDS application lifecycle are:

1. Develop a customizable application that requires MDS. How?

2. Create and register an MDS Repository. How?
3. Deploy the application. How?
4. Manage the MDS repository. How?
5. Manage metadata labels. How?

For more information, see "Managing the Metadata Repository" in *Administering Oracle Fusion Middleware*.

Manage Oracle WebLogic Server

This chapter describes the typical tasks associated with managing Oracle WebLogic Server and WebLogic Server Domains:

This chapter includes the following sections:

- [Manage Oracle WebLogic Server with Fusion Middleware Control](#)
- [Manage Oracle WebLogic Server with the Administration Console](#)
- [Manage WebLogic Server Domains](#)
- [Configure and Control WebLogic Server Instances](#)
- [Manage WebLogic Server Clusters](#)
- [Deploy Applications Using Fusion Middleware Control](#)
- [Redeploy Applications Using Fusion Middleware Control](#)
- [Undeploy an Application Using Fusion Middleware Control](#)
- [Manage Application Deployments](#)
- [Monitor Managed Servers and the Applications Deployed on Managed Servers](#)
- [Monitor Clusters and the Applications Deployed on Clusters](#)
- [Manage WebLogic Server Domain Partitions](#)
- [Create and Manage JDBC Data Sources](#)
- [Manage WebLogic Server Messaging](#)
- [Manage WebLogic Server Users and Groups](#)
- [View the JNDI Tree](#)

4.1 Manage Oracle WebLogic Server with Fusion Middleware Control

The following describes the steps you can take to manage the WebLogic Domain from Fusion Middleware Control:

1. View the Administration Server and the Managed Server instances in the domain. How?
2. Make any necessary configuration changes to the domain, using the Oracle WebLogic Server Administration Console. How?
3. Use the Change Center and set user preferences in Fusion Middleware Control. How?
4. Monitor the system components and applications deployed to the domain. How?

5. Deploy additional applications to the domain. How?

For more information about managing Oracle WebLogic Server, see:

- *Administering Oracle WebLogic Server with Fusion Middleware Control*
- "Overview of WebLogic Server System Administration" in *Understanding Oracle WebLogic Server*.

4.2 Manage Oracle WebLogic Server with the Administration Console

The following describes the steps you can take to manage the WebLogic Domain from the Oracle WebLogic Server Administration Console:

1. Learn how to view the Oracle WebLogic Server Administration Console. How?
Alternatively, you can access the Administration Console from Fusion Middleware Control by selecting the **WebLogic Server Administration Console** hyperlink or Dynamic Target menu choice.

2. Refer to the Oracle WebLogic Server online help for more information. More

For more information about managing Oracle WebLogic Server, see "Overview of WebLogic Server System Administration" in *Understanding Oracle WebLogic Server*.

4.3 Manage WebLogic Server Domains

An Oracle WebLogic Server administration domain is a logically related group of Oracle WebLogic Server resources. Domains include a special Oracle WebLogic Server instance called the Administration Server, which is the central point from which you configure and manage all resources in the domain. Usually, you configure a domain to include additional Oracle WebLogic Server instances called Managed Servers. You deploy Web applications, EJBs, Web services, and other resources onto the Managed Servers and use the Administration Server for configuration and management purposes only.

The following describes the steps you can take to manage Oracle WebLogic Server domains:

1. Understand WebLogic Server domains and domain configuration. More
2. Monitor WebLogic domains. How?
3. Control WebLogic domains. How?
4. Configure WebLogic domains. How?

For more information about creating and configuring Oracle WebLogic Server domains, see:

- "Creating WebLogic Domains Using WLST Offline" in *Understanding the WebLogic Scripting Tool*
- *Creating WebLogic Domains Using the Configuration Wizard*

4.4 Configure and Control WebLogic Server Instances

When you create a domain, you also create an Administration Server, which runs the WebLogic Server Administration Console and distributes configuration changes to other servers in the domain. In a typical production environment, you create one or more Managed Servers in the domain to host business applications and use the Administration Server only to configure and monitor the Managed Servers.

The following describes the steps you can take to manage WebLogic Server instances:

1. Understand WebLogic Server system administration. [More](#)
2. Monitor server instances. [How?](#)
3. Control server instances. [How?](#)
4. Configure server instances. [How?](#)
5. Configure server templates. [How?](#)

For more information on controlling and configuring Oracle WebLogic Server instances, see:

- *Administering Server Startup and Shutdown for Oracle WebLogic Server*
- "Using WLST and Node Manager to Manage Servers" in *Understanding the WebLogic Scripting Tool*
- "Using Node Manager to Control Servers" in *Administering Node Manager for Oracle WebLogic Server*
- *Administering Server Environments for Oracle WebLogic Server*

4.5 Manage WebLogic Server Clusters

A WebLogic Server cluster consists of multiple WebLogic Server instances running simultaneously and working together to provide increased scalability and reliability. A cluster appears to clients to be a single WebLogic Server instance. The server instances that constitute a cluster can run on the same machine, or be located on different machines. You can increase a cluster's capacity by adding additional server instances to the cluster on an existing machine, or you can add machines to the cluster to host the incremental server instances.

The following describes the steps you can take to manage WebLogic Server clusters:

1. Understand WebLogic Server clusters and cluster configuration. [More](#)
2. Monitor WebLogic Server clusters. [How?](#)
3. Control server instances in a cluster. [How?](#)
4. Configure WebLogic Server clusters. [How?](#)

For more information, see these topics in *Administering Clusters for Oracle WebLogic Server*:

- "Communications In a Cluster"
- "Setting up WebLogic Clusters"
- "Clustering Best Practices"
- "Troubleshooting Common Problems"

4.6 Deploy Applications Using Fusion Middleware Control

The following describes the steps to deploy your applications on Oracle WebLogic Server:

1. Understand the application deployment process. [More](#)
2. Understand the difference between deploying, redeploying, and undeploying your applications. [More](#)

3. Understand the types of applications you can deploy and the different administration tools you can use to deploy those applications. [More](#)
4. Based on the type of application you are deploying, refer to the appropriate procedure:
 - Deploy a Java EE application using Fusion Middleware Control. [How?](#)
 - Deploy an ADF application using Fusion Middleware Control. [How?](#)
 - Deploy a SOA Composite application using Fusion Middleware Control. [How?](#)

For more information on monitoring and controlling application and module deployments in a WebLogic Server domain, see:

- "Application Deployments" in *Administering Oracle WebLogic Server with Fusion Middleware Control*
- *Deploying Applications to Oracle WebLogic Server*

4.7 Redeploy Applications Using Fusion Middleware Control

Before you redeploy an application, see [Restrictions When Redeploying an Application with Fusion Middleware Control](#).

The following describes the steps to redeploy your applications on Oracle WebLogic Server:

1. Understand the application deployment process. [More](#)
2. Understand the difference between deploying, redeploying, and undeploying your applications. [More](#)
3. Based on the type of application you are redeploying, refer to the appropriate procedure for instructions on how to redeploy an application:
 - Redeploy a Java EE application using Fusion Middleware Control. [How?](#)
 - Redeploy an ADF application using Fusion Middleware Control. [How?](#)
 - Redeploy a SOA Composite application using Fusion Middleware Control. [How?](#)

Restrictions When Redeploying an Application with Fusion Middleware Control

If you are redeploying an application, note the following:

- The file name and path for the archive you are redeploying must be identical to the file name and path you used when you initially deployed the application.

For example, if the file name and path of the original application was `/dua0/staging/myApp.ear`, then the revised application must be `/dua0/staging/myApp.ear`.
- If you initially deployed the application using another management tool, such as the Oracle WebLogic Server Administration Console or the WebLogic Scripting Tool (WLST), then you cannot redeploy the application using Fusion Middleware Control.

4.8 Undeploy an Application Using Fusion Middleware Control

The following describes the steps to undeploy your applications on Oracle WebLogic Server:

1. Understand the application deployment process. [More](#)
2. Understand the difference between deploying, redeploying, and undeploying your applications. [More](#)
3. Based on the type of application you are undeploying, refer to the appropriate procedure for instructions on how to undeploy an application:
 - Undeploy a Java EE application using Fusion Middleware Control. [How?](#)
 - Undeploy an ADF application using Fusion Middleware Control. [How?](#)
 - Undeploy a SOA Composite application using Fusion Middleware Control. [How?](#)

4.9 Manage Application Deployments

The following describes the steps you can take to manage the applications deployed on your Oracle WebLogic Server domain:

1. Understand WebLogic Server application deployment. [More](#)
2. Monitor application deployments.
3. Control application deployments.
4. Configure application deployment.

For information about monitoring, controlling, and configuring application deployments, see "Application Deployments" in *Administering Oracle WebLogic Server with Fusion Middleware Control*.

For more information about developing and deploying applications for Oracle WebLogic Server, see:

- *Developing Applications for Oracle WebLogic Server*
- *Deploying Applications to Oracle WebLogic Server*

4.10 Monitor Managed Servers and the Applications Deployed on Managed Servers

The following describes how to monitor an Oracle WebLogic Server Managed Server and the applications deployed to the server:

1. Understand Oracle WebLogic Server Managed Servers and clusters. [More](#)
2. Monitor Managed Servers. [How?](#)
3. Determine the types of applications you have deployed. [More](#)

Depending upon the type of applications you have deployed, do one of the following:

- Monitor a Java EE Application. [How?](#)
- Monitor an application that takes advantage of Oracle ADF. [How?](#)
- Monitor an Oracle SOA Suite composite application. [How?](#)

For more information about monitoring Managed Servers, see "Monitor servers" in *Administering Oracle WebLogic Server with Fusion Middleware Control*.

For more information about monitoring application deployments, see "Application Deployments" in *Administering Oracle WebLogic Server with Fusion Middleware Control*.

4.11 Monitor Clusters and the Applications Deployed on Clusters

The following describes how to monitor a cluster and the applications you deploy on the cluster:

1. Understand Oracle WebLogic Server Managed Servers and clusters. [More](#)
2. Monitor the cluster. [How?](#)
3. Monitor an application deployed to a cluster. [How?](#)

For more information about monitoring clusters, see "Monitor clusters" in *Administering Oracle WebLogic Server with Fusion Middleware Control*.

For more information about deploying to a cluster, see "Application Deployment for Clustered Configurations" in *Administering Clusters for Oracle WebLogic Server*.

4.12 Manage WebLogic Server Domain Partitions

Domain partitions are an administrative and runtime slice of a WebLogic domain and the building blocks of WebLogic Server Multitenancy (WLS MT). Multitenancy permits multiple client organizations to share a domain, improving efficiency and reducing operation costs.

The following describes the steps you can take to manage domain partitions using Fusion Middleware Control:

1. Understand WebLogic Server MT. [More](#)
2. Configure WebLogic Server MT. [How?](#)
3. Manage domain partitions. [How?](#)
4. Configure Resource Managers. [How?](#)

To learn more about WebLogic Server MT, see *Using WebLogic Server MT*.

4.13 Create and Manage JDBC Data Sources

Java Database Connectivity (JDBC) enables you to configure database connectivity through JDBC data sources in your WebLogic domain. WebLogic JDBC data sources provide database access and database connection management.

The following describes how to create and manage JDBC data sources using Fusion Middleware Control:

1. Understand the purpose and types of Oracle Fusion Middleware JDBC data sources. [More](#)
2. Understand the capabilities of GridLink data sources. [More](#)
3. Create a generic data source. [How?](#)
OR
Create a GridLink data source. [How?](#)
OR
Create a multi data source. [How?](#)
4. Monitor a data source. [How?](#)
5. Control a data source. [How?](#)
6. Configure a data source. [How?](#)

For more information about creating and managing JDBC data sources, see:

- "WebLogic JDBC Data Sources" in *Administering Oracle WebLogic Server with Fusion Middleware Control*.
- *Administering JDBC Data Sources for Oracle WebLogic Server*

4.14 Manage WebLogic Server Messaging

The WebLogic Server implementation of JMS is an enterprise-class messaging system that is tightly integrated into WebLogic Server. It fully supports the JMS specification, and also provides numerous WebLogic JMS extensions that go beyond the standard JMS APIs.

The following describes the steps you can take to manage WebLogic Server messaging:

1. Monitor, control, and configure JMS servers. How?
2. Monitor and control Store-and-Forward agents. How?
3. Monitor and control JMS resources and modules. How?
4. Monitor path services. How?
5. Monitor and configure messaging bridges. How?
6. Monitor and configure JMS bridge destinations. How?
7. Monitor and configure persistent stores. How?

For more information on WebLogic JMS and other related WebLogic messaging components, refer to the following guides:

- *Developing JMS Applications for Oracle WebLogic Server*
- *Administering JMS Resources for Oracle WebLogic Server*
- *Administering the Store-and-Forward Service for Oracle WebLogic Server*
- *Administering the WebLogic Messaging Bridge for Oracle WebLogic Server*

4.15 Manage WebLogic Server Users and Groups

A security realm comprises mechanisms for protecting WebLogic resources. Each security realm consists of a set of configured security providers, users, groups, security roles, and security policies. A user must be defined in a security realm in order to access any WebLogic resources belonging to that realm.

The following describes the steps you can take to manage WebLogic Server users and groups:

1. Monitor WebLogic Server users and groups. How?
2. Configure users. How?
3. Configure groups. How?

For more information on WebLogic Server users and groups, refer to the following guides:

- "Security Realms" in *Understanding Security for Oracle WebLogic Server*
- *Administering Security for Oracle WebLogic Server*

4.16 View the JNDI Tree

The JNDI browser is a central location where you can find the JNDI names of all the WebLogic Server resources. Typically, while writing WLS client programs, you would search the JNDI browser for JNDI names. The JNDI browser displays a tree of resources in the domain, a server, or a partition. Selecting a node or an object in the tree, displays JNDI information including Binding Name, Object Class, Object Hash Code, and Object toString Results entries.

The following describes the steps you can take to view the JNDI tree using Fusion Middleware Control:

1. View objects in the domain JNDI tree. How?
2. View objects in a server's JNDI tree. How?
3. View objects in a domain partition's JNDI tree. How?

To learn more about WebLogic JNDI, see "Understanding WebLogic JNDI" in *Developing JNDI Applications for Oracle WebLogic Server*.

Manage Security and Audit Settings

This chapter describes the set of typical tasks you need to manage security and auditing.

This chapter includes the following sections:

- [Manage Audit Policies with Fusion Middleware Control](#)
- [Configure the Audit Store with Fusion Middleware Control](#)
- [Manage Application Policies with Fusion Middleware Control](#)
- [Manage Application Roles with Fusion Middleware Control](#)
- [Manage System Policies with Fusion Middleware Control](#)
- [Manage Credentials with Fusion Middleware Control](#)
- [Manage Keystores with the Keystore Service](#)
- [Manage Certificates with the Keystore Service](#)

5.1 Manage Audit Policies with Fusion Middleware Control

Fusion Middleware Audit Framework provides a centralized audit framework for the middleware family of products. Audit settings for Java components like Oracle Platform Security Services, Oracle Web Services Manager, Oracle Web Services, and other components are handled at the domain level as part of security administration.

You can perform the following tasks on this page:

- View and update audit policies for a component
- Select audit events for the component
- Customize audit policies

For more information about audit policies, see "Managing Audit Policies with Fusion Middleware Control" in *Securing Applications with Oracle Platform Security Services*

5.2 Configure the Audit Store with Fusion Middleware Control

By default, security audit data is saved in a file. It is recommended that you configure auditing to use a database store to provide better management of the audit data.

To configure a database for the audit store (applies to Java components only):

1. Verify that you have installed the audit schema in the database, using the Repository Creation Utility (RCU). How?

2. Create a Data Source using the Oracle WebLogic Server Administration Console. How?
3. View the audit store settings for the domain. How?
4. Configure the domain so it uses the database as the audit store. How?

To view audit reports:

1. Configure a database for the audit store as explained above.
2. Analyze the audit data that you have gathered. How?

Note: Using the same database for Java components and system components ensures that your audit reports can display the audit records for all components together.

For more information about auditing, see the following topics in *Securing Applications with Oracle Platform Security Services*:

- Managing Audit Policies
- Managing the Audit Data Store
- Advanced Administration of the Database Store

5.3 Manage Application Policies with Fusion Middleware Control

An application policy is a functional policy that specifies a set of permissions that a principal is allowed to perform within the application, such as viewing web pages or modifying reports.

An application policy uses:

- Principals as grantees, and must have at least one principal.
- Either one or more permissions, or an entitlement, but not both.

Policies that use an entitlement are called entitlement-based policies; policies that use one or more permissions are called resource-based policies.

You can perform the following tasks in this page:

- Create an application policy
- Create an application policy based on an existing one
- Edit an application policy
- Display application policies matching a pattern

For details about managing application policies, see *Managing Application Policies in Securing Applications with Oracle Platform Security Services*.

5.4 Manage Application Roles with Fusion Middleware Control

An application role is a collection of users, groups, and other application roles; it can be hierarchical. Application roles are defined by application policies and not necessarily known to a Java EE container. Application roles can be many-to-many mapped to external roles. For example, the external group `employee` (stored in the identity store) can be mapped to the application role `helpdesk service request` (in one stripe) and to the application role `self service HR` (in another stripe).

You can perform the following tasks in this page:

- Create an application role
- Create an application role based on an existing role
- Edit an application role
- Display application roles matching a pattern

For details about managing application roles, see *Managing Application Roles in Securing Applications with Oracle Platform Security Services*.

5.5 Manage System Policies with Fusion Middleware Control

A system policy is a policy that specifies a set of permissions that a principal or a code source is allowed to perform, and it holds for an entire domain. System policies grant privileges to code sources and principals, while application policies can grant privileges to principals only.

You can perform the following tasks in this page:

- Create a system policy
- Create a system policy based on an existing one
- Edit a system policy
- Display system policies matching a pattern

For details about managing system policies, see *Managing System Policies in Securing Applications with Oracle Platform Security Services*.

5.6 Manage Credentials with Fusion Middleware Control

OPSS supports the following types of credentials according to the data they contain:

- A password credential encapsulates a user name and a password.
- A generic credential encapsulates any customized data or arbitrary token, such as a symmetric key.

A credential is uniquely identified by a map name and a key name. A map can hold several keys and, typically, the map name corresponds with the name of an application; all credentials with the same map name define a logical group of credentials, such as the credentials used by the application. The pair of map and key names must be unique for all entries in a credential store.

There is no limit to the number or kind of characters you can set in a password, except that it must be non-empty and non-null. The maximum size of a generic credential in an LDAP security store is 4K.

Oracle Wallet is the default file-based credential store, and it can store X.509 certificates; production environments typically use either an Oracle Internet Directory LDAP-based or a DB-based credential store.

You can perform the following tasks in this page:

- Create a credential map
- Add a key to a credential map
- Edit a key
- Display credentials matching a pattern

For details about managing credentials, see *Managing Credentials in Securing Applications with Oracle Platform Security Services*.

5.7 Manage Keystores with the Keystore Service

The OPSS Keystore Service allows managing keys and certificates for SSL, message security, encryption, and similar tasks. Use this service to create and maintain keystores that contain keys, certificates, and other artifacts.

Typical tasks on a keystore are as follows:

- Create a keystore in the context of an application stripe, directly or by importing a keystore file from the file system.
- Update or delete keystores; a password-protected keystore updating requires that the keystore password be entered.
- Change a keystore password.

You can perform the following tasks in this page:

- Create a keystore
- Delete a keystore
- Edit the keystore password

For details about managing keystores, see the following topics in *Securing Applications with Oracle Platform Security Services*:

- Creating a keystore
- Deleting a keystore
- Changing keystore Password

5.8 Manage Certificates with the Keystore Service

Keys and certificates reside in a keystore within an application stripe; there may be more than one keystore in an application stripe, each with a unique name. Each keystore contains asymmetric keys, symmetric keys, and trusted certificates.

You can perform the following tasks in this page:

- Create a key pair
- Generate a Certificate Signing request
- Export and import a certificate
- Change a certificate password
- Delete a certificate

For details about managing keystores, see the following topics in *Securing Applications with Oracle Platform Security Services*:

- Generating a Keypair
- Generating a CSR Certificate
- Exporting a Certificate or Trusted Certificate
- Importing a Certificate or Trusted Certificate
- Deleting a Certificate

- Changing a Certificate Password

Manage Oracle Fusion Middleware Web Services

This chapter describes the set of typical tasks you need to manage Oracle Web Services Manager (OWSM) policies and secure Oracle Web Services.

This chapter includes the following sections:

- [Creating a New Policy](#)
- [Editing a Policy](#)
- [Deleting a Policy](#)
- [Changing the Current Version of a Policy](#)
- [Attaching a Policy to a Web Service](#)
- [Testing a Web Service Endpoint](#)
- [Configuring a Web Service Client](#)
- [Managing OWSM Domain Configuration](#)
- [Viewing a Policy Set](#)
- [Creating a New Policy Set](#)
- [Editing a Policy Set](#)
- [Overriding the Policy Configuration in a Policy Set](#)
- [Deleting a Policy Set](#)

6.1 Creating a New Policy

This section provides a summary of the steps required to create a new policy. You can create a new policy using one or more assertion templates, or by cloning an existing policy and editing it as desired.

Before You Begin

1. Decide what behavior your policy needs to enforce and determine if you can use one of the predefined policies. [More](#)
2. Understand the different categories of policies. [More](#)
3. Understand the policy subjects to which policies can be attached. [More](#)
4. Decide upon a naming convention for your policies. [More](#)

Creating a Policy

The steps for this process are:

1. If you are creating a new policy, then use the Create feature. How?
2. If you are using an existing policy as the starting point for your policy, then use the Create Like feature. How?

For more information about creating policies, see "Managing Web Service Policies with Fusion Middleware Control" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.2 Editing a Policy

This section provides a summary of the steps required to edit a policy. Note that you can only edit a policy that you created, either using assertion templates or by cloning a predefined policy. You cannot edit the predefined policies; these policies are read only.

The steps for this process are:

1. Review the policy details. How?
2. Analyze the impact of editing the policy on the policy subjects. How?
3. Edit the policy. How?

For more information about editing policies, see "Managing Web Service Policies with Fusion Middleware Control" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.3 Deleting a Policy

This section provides a summary of the steps required to delete a policy. Note that you can only delete a policy that you created, either using assertion templates or by cloning a predefined policy. You cannot delete the predefined policies; these policies are read only.

The steps for this process are:

1. Review the policy details. How?
2. Analyze the impact of deleting the policy on the policy subjects. How?
3. Delete the policy. How?

For more information about deleting policies, see "Managing Web Service Policies with Fusion Middleware Control" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.4 Changing the Current Version of a Policy

This section provides a summary of the steps required to change the current version of a policy.

Note: You can change the current version of a user-created policy only. Version control does not apply to the Oracle predefined policies because they are read only and cannot be modified.

The steps for this process are:

1. Review the earlier versions of the policy to determine the version you want to restore. How?
2. Review the policy subjects to which this policy is attached. How?
3. Change the current version of the policy. How?

For more information about changing the current version of a policy, see "Versioning Web Service Policies" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.5 Attaching a Policy to a Web Service

This section provides a summary of the steps required to attach a standalone policy or globally available policy set to a Web service.

The steps for this process are:

1. Identify the Web service to which you want to attach the policy. How?
2. View the policies or policy sets that are currently attached to the Web service. How?
3. Navigate to the policy that you want to attach to the Web service endpoint. How?
4. If the policy you need does not exist, then create a new one. How?
5. View the policy and verify that it meets your requirements. How?
6. If you need to make changes, then edit the policy. How?

Note: Editing the predefined policies is not recommended.

7. Attach the policy to the Web service. How?
8. Test the Web service to verify that the policy is being used by the Web service. How?

For more information about attaching policies, see "Attaching Policies" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.6 Testing a Web Service Endpoint

This section provides a summary of the steps required to use the Web services test page to verify that the policy is being enforced and that you are getting the expected results.

Note: You can test RESTful Web services by selecting the **GET** or **POST** service port operations. However, because the SOAP protocol is not used with RESTful Web services, the only security options are **HTTP Basic Authentication** or **None**, and the results on the **Response** tab are a simplified version of the standard Web service results. In addition, SOAP action and other Web service policies, such as WS-RM, MTOM, and WS-Addressing are not applicable for REST endpoints.

The steps for this process are:

1. Navigate to the Web service you want to test and review the operations. How?
2. Test one of the operations using a security policy. How?

3. Review the results of the test.
4. Test the operation again, generating a load for the application. How?
5. Review the test results.
6. Review the system parameters and application performance metrics.

For more information about testing Web services, see "Testing Web Services" in *Administering Web Services*.

6.7 Configuring a Web Service Client

This section provides a summary of the steps required to use the Web Service Client page to configure policies and HTTP properties for SOA reference, Oracle Infrastructure clients such as ADF DC Web service clients, or the Web Service Callback Client page to configure asynchronous Web service callback clients.

The steps for this process are:

1. Use the **Policy** tab to attach or detach client policies, enable or disable client policy references, and override security configuration. How?
2. Use the **Configuration** tab to configure the client. How?

Note: The **Endpoint Address** and **Maintain Session** properties in the **General** area are not available on the Callback Client page for asynchronous Web service callback clients.

For more information about configuring a Web service client, see "Configuring Web Service Clients Using Fusion Middleware Control" in *Administering Web Services*.

6.8 Managing OWSM Domain Configuration

This section provides a summary of the steps required to manage OWSM configuration at the domain level.

The steps for this process are:

- View and Modify General Information About the Domain. How?

The **General** tab enables you view the domain name, platform type, and the number of applications and services. You can modify the display name and the description for the domain. It also provides version information for the configuration.

- Configuring Domain-Level Authentication. How?

The **Authentication** tab provides the ability to configure the authentication settings required for the environment. This includes the ability to configure SAML trust, specify the lifetime of an issued token, and configure the subject created in OWSM. You can also configure the SAML and SAML2 login modules, the Kerberos login module, and the X509 login module, as well as create custom login modules.

- Configure Domain-Level Message Security. How?

The **Message Security** tab provides the ability to configure the message protection settings required for the environment. This includes configuring the OWSM keystore and tuning security policy enforcement by adjusting the default message

timestamp skews between system clocks, the time-to-live for nonce messages in the cache, the message expiration time, and XPath transformations. You can also specify identity settings such as whether to enforce Web service policies by publishing the X509 certificate in the WSDL. In addition, if the X509 is published, you can also specify whether to ignore host name verification. You can also configure secure conversation settings such as when secure conversations should expire.

- **Configure Policy Access. How?**

The **Policy Access** tab provides the ability to configure the policy manager connection, including whether to use the auto-discovery feature. You can also configure the SSL settings for the OWSM domain, and tune the policy cache.

For more information about configuring an OWSM domain, see "Managing OWSM Domain Configuration" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.9 Viewing a Policy Set

This section provides a summary of the steps required to use the View Policy Sets page to review the configuration of a policy set.

The step for this process is:

- **Review the policy set details. How?**

For more information about viewing a policy set, see "Viewing the Configuration of a Policy Set Using Fusion Middleware Control" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.10 Creating a New Policy Set

This section provides a summary of the steps required to create a new policy set or copy an existing policy set and edit it.

Note: When you create a policy set from an existing policy set, all values and attachments are copied into the new one. You can modify the resource scope and the policy attachments in the new policy set, but you cannot change the type of resource to which it applies.

Before You Begin

1. Understand how to attach policies globally using policy sets. [More](#)
2. Understand how to define the type and scope of resources in a policy set. [More](#)
3. Understand how to specify a runtime constraint. [More](#)
4. Familiarize yourself with the policy framework to manage and secure Web services consistently across your organization. [More](#)

Creating a Policy Set

The steps for this process are:

1. If you are creating a new policy set, then use the Create feature. [How?](#)
2. If you are using an existing policy set as the starting point for your new policy set, then use the Create Like feature. [How?](#)

For more information about creating a new policy set, see "Attaching Policies Globally Using Policy Sets" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.11 Editing a Policy Set

This section provides a summary of the steps required to edit a policy set.

The steps for this process are:

1. Review the policy set details. How?
2. Edit the policy set. How?

For more information about editing a policy set, see "Editing a Policy Set" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.12 Overriding the Policy Configuration in a Policy Set

This section provides a summary of the steps required to override the policy configuration in a policy set.

The steps for this process are:

1. Review the policy set details. How?
2. Override the policy configuration. How?

For more information about overriding the policy configuration in a policy set, see "Overriding Policy Configuration Properties Using Fusion Middleware Control" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

6.13 Deleting a Policy Set

This section provides a summary of the steps required to delete a policy set.

The steps for this process are:

1. Review the policy set details. How?
2. Delete the policy set. How?

For more information about deleting a policy set, see "Deleting Policy Sets Using Fusion Middleware Control" in *Securing Web Services and Managing Policies with Oracle Web Services Manager*.

Manage Oracle User Messaging Service

Oracle User Messaging Service (User Messaging Service) enables you to create applications that send notifications to user devices. This chapter describes the set of typical tasks you need to configure User Messaging Service.

This chapter includes the following sections:

- [Section 7.1, "Configuring Messaging Server"](#)
- [Section 7.2, "Deploy Oracle User Messaging Service Drivers"](#)
- [Section 7.3, "Configure Oracle User Messaging Service Drivers"](#)
- [Section 7.4, "View Registered Client Applications"](#)
- [Section 7.5, "Search for a Message"](#)

7.1 Configuring Messaging Server

You can configure the Messaging Server by setting a deployment type for the Messaging Server (that is, select the storage method for runtime and management data) and adding or removing the business terms used to construct the message filters in User Communication Preferences. [More](#)

The steps for this process are:

1. Deploy Drivers. [How?](#)
2. Add business terms from User Communication Preferences. [How?](#)
3. Remove business terms from User Communication Preferences. [How?](#)

7.2 Deploy Oracle User Messaging Service Drivers

Oracle User Messaging Service (User Messaging Service) ships with the E-Mail, SMPP, and XMPP drivers already deployed. [More](#)

7.3 Configure Oracle User Messaging Service Drivers

Oracle User Messaging Service (User Messaging Service) ships with the E-Mail, SMPP, and XMPP drivers already deployed.

The steps for this process are:

1. Access Associated Drivers from the User Messaging Service home page. [How?](#)
2. Select a driver in the list and configure it. [How?](#)

3. Expand the Driver-Specific configuration section and configure the driver parameters. How?

7.4 View Registered Client Applications

Use the Messaging Client Application page to view the client applications that have (self-) registered to the Messaging Server. (Client applications auto-register when sending messages).

You can manually de-register Messaging Client Applications after the applications have been undeployed and are holding onto access points that must be made available to other applications.

The steps for this process are:

1. Access Messaging Client page from the User Messaging Service home page. How?
2. Select the messaging client application that you want to de-register. How?
3. Review and confirm your selection. How?

7.5 Search for a Message

You can check the delivery status of messages sent and received, and re-send selected messages.

The steps for this process are:

1. Access Message Status page from the User Messaging Service home page. How?
2. Select the messages using the default search criteria. How?
3. Customize the search by adding more search fields and setting the desired operator and search value. How?

Manage Oracle Enterprise Scheduler

This chapter describes the set of typical tasks you need to configure Oracle Enterprise Scheduler.

This chapter includes the following sections:

- [Search Job Requests](#)
- [Submit a Job Request](#)
- [Create a Job Definition](#)
- [Create a Work Assignment](#)
- [Configure a Purge Policy](#)
- [Configure Web Service Policies](#)

8.1 Search Job Requests

The following provides a summary of the steps required to view, search for, and submit job requests. You can also hold, resume, and cancel a running job request.

The steps for this process are:

1. Run a quick predefined search, or enter specific search criteria such as application, request ID, status and so on. How?
2. Optionally, run an advanced search to find job requests within a specified time period. How?
3. After running a search for job requests, you can configure the display of columns in the search results table. How?
4. Once you submit a search for job requests, you can view detailed information about an individual job request by clicking the job request ID or the request parent ID. How?
5. Hold, resume or cancel a running job request returned in the search results. How?

Related Topics

[Manage Oracle Enterprise Scheduler](#)

[Submit a Job Request](#)

8.2 Submit a Job Request

The following provides a summary of the steps for submitting a job request for a particular application, including a job definition and schedule.

Before You Begin

1. Create a job definition. How?
2. Optionally, define a job schedule. How?

Submitting a Job Request

The steps for this process are:

1. Select the application and job definition you want to use as the basis for your job request. How?
2. Specify the job schedule that will govern the submission of the job request.
Alternatively, create a job schedule. More
3. Alternatively, you can submit a job request using an existing request as a template. How?
4. Once you have submitted the request, you can hold, resume or cancel the job request as required. How?

Related Topics

[Manage Oracle Enterprise Scheduler](#)

[Create a Job Definition](#)

8.3 Create a Job Definition

The following provides a summary of the steps required for creating a job definition. A job definition forms the basis of a job request run by a given application.

The steps for this process are:

1. Select the job type for the job definition. Configure job parameters and system properties as required. How?
2. To control access to the job definition, associate the job definition with a particular role. How?
3. Define incompatibilities for the job definition as required. How?
4. Create a job set using the job definition. How?
5. Submit a job request using the job definition. How?

Related Topics

[Manage Oracle Enterprise Scheduler](#)

[Submit a Job Request](#)

8.4 Create a Work Assignment

The following provides a summary of the steps required to create a work assignment. A work assignment defines runtime operating constraints associated with a job request processor, and includes one or more workshifts and specialization rules. A workshift specifies a time window during which the job request processor handles job requests. Specialization rules define any restrictions on the job request processor for processing job requests.

Creating a Work Assignment

The steps for this process are:

1. Create a workshift. How?
2. Create or edit a schedule for the workshift. How?
3. Create a work assignment and add workshifts to the work assignment. How?

Related Topics

[Manage Oracle Enterprise Scheduler](#)

[Search Job Requests](#)

8.5 Configure a Purge Policy

The following provides a summary of the steps required to configure a purge policy. Purge policies determine the job requests are to be purged and or retained.

Configuring a Purge Policy

The steps for this process are:

1. Create a new purge policy. How?
2. Select the purge criteria for the policy, such as the application name, job definition, job type, and so on.
3. Enter the retention period for job requests.
4. Select a schedule for the purge policy. How?
5. Once you have configured a purge policy, you can update the policy. How?
 - View all purge policies on a particular scheduler service. How?
 - Delete a specific policy. How?

Related Topics

[Manage Oracle Enterprise Scheduler](#)

[Create a Work Assignment](#)

8.6 Configure Web Service Policies

The following provides a summary of the steps required to configure web service policies.

Configuring Web Service Policies

The steps for this process are:

1. Select an expression from the Constraint dropdown to view the corresponding effective policy references.
2. For a policy set flagged as "Not Valid", click the link to view the validation error details. For security policy references, click the violations count link to view violation details.
3. When policies are attached or detached, the effective policy references are recalculated.

Related Topics

[Create a Job Definition](#)

[Manage Oracle Enterprise Scheduler](#)

Part II

Manage Oracle Web Tier Components

This part describes the set of typical tasks you need to perform when managing the Oracle Web Tier.

This part includes the following chapters:

- [Chapter 9, "Manage Oracle HTTP Server"](#)

Manage Oracle HTTP Server

Oracle HTTP Server is the Web server component for Oracle Fusion Middleware. It provides a listener for Oracle WebLogic Server and the framework for hosting static pages, dynamic pages, and applications over the Web.

This chapter includes the following sections:

- [Configure Oracle HTTP Server](#)
- [Configure the mod_wl_ohs Module](#)

9.1 Configure Oracle HTTP Server

The following procedure provides a summary of the steps required to configure Oracle HTTP Server.

The steps for this process are:

1. Set the listening port. How?
2. Configure SSL for a listening port. How?
3. Specify server configuration properties. How?
4. Configure MIME settings. How?
5. Configure error and access logs. How?
6. Configure the mod_wl_ohs module. How?

9.2 Configure the mod_wl_ohs Module

The following procedure provides a summary of the steps required to configure the mod_wl_ohs module for routing requests from Oracle HTTP Server to Oracle WebLogic Server.

The steps for this process are:

1. Configure mod_wl_ohs module routing. How?
2. Configure SSL for mod_wl_ohs. How?
3. View mod_wl_ohs log files. How?

Part III

Manage Oracle SOA Suite

Oracle SOA Suite enables you to create, manage, and orchestrate services to produce composite applications and business processes.

This part includes the following chapters:

- [Chapter 10, "Manage the SOA Infrastructure"](#)
- [Chapter 11, "Manage a SOA Composite Application"](#)
- [Chapter 12, "Manage Service Components"](#)
- [Chapter 13, "Manage Binding Components, Oracle B2B, and Oracle Business Activity Monitoring"](#)
- [Chapter 14, "Manage Business Events"](#)
- [Chapter 15, "Manage Oracle Service Bus"](#)

Manage the SOA Infrastructure

The SOA Infrastructure is a Java EE-compliant application running in Oracle WebLogic Server. The application manages composites and their lifecycle, as well as service engines and binding components. This chapter describes the set of typical tasks you need to configure and monitor the SOA Infrastructure.

This chapter includes the following sections:

- [Monitor SOA Infrastructure Request Processing](#)
- [Configure the SOA Infrastructure Common Properties](#)
- [Monitor the Service and Reference Binding Components](#)
- [Monitor Overall Status of the SOA Infrastructure](#)
- [Manage the Partitions in the SOA Infrastructure](#)
- [Manage a Partition from the Dashboard Page](#)
- [Configure Global Token Variables](#)
- [Delete Large Numbers of Instances Automatically](#)
- [Manage Error Notification Rules](#)
- [Manage Work Manager Groups](#)
- [Track Business Flow Instances in the SOA Infrastructure](#)
- [Manage Faults in the Error Hospital of the SOA Infrastructure](#)
- [Monitor Deployed SOA Composite Applications in the SOA Infrastructure](#)
- [Manage Deployed Composites in the Partition](#)
- [Track Business Flow Instances in the Partition](#)
- [Manage Faults in the Error Hospital in the Partition](#)

10.1 Monitor SOA Infrastructure Request Processing

The following section provides a summary of the steps required to monitor message processing performance through the service engines, Service Infrastructure, and binding components. This section provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand the Service Infrastructure. [More](#)

3. Understand binding components. [More](#)
4. Monitor request processing. [How?](#)

10.2 Configure the SOA Infrastructure Common Properties

The following section provides a summary of the steps required to configure the SOA Infrastructure common properties. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand the SOA Infrastructure application. [More](#)
2. Configure SOA Infrastructure common properties. [How?](#)

10.3 Monitor the Service and Reference Binding Components

The following section provides a summary of the steps required to monitor the service and reference binding components of a SOA composite application. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service and reference binding components. [More](#)
2. Create service and reference binding components in a SOA composite application in Oracle JDeveloper. [How?](#)
3. Monitor service and reference binding components in the SOA Infrastructure. [How?](#)

10.4 Monitor Overall Status of the SOA Infrastructure

The following section provides a summary of the steps required to monitor the overall status of the SOA Infrastructure.

The steps for this process are:

1. Understand the SOA Infrastructure application. [More](#)
2. Understand SOA composite applications. [More](#)
3. Understand SOA business flow instances. [More](#)
4. Understand service engines. [More](#)
5. Monitor the overall status of the SOA Infrastructure. [How?](#)

10.5 Manage the Partitions in the SOA Infrastructure

The following section provides a summary of the steps required for managing the partitions in the SOA Infrastructure. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand partitions. [More](#)
2. Manage partitions. [How?](#)

10.6 Manage a Partition from the Dashboard Page

The following section provides a summary of the steps required for managing a partition from its home page. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand partitions. [More](#)
2. Manage partitions. [How?](#)

10.7 Configure Global Token Variables

The following section provides a summary of the steps required for managing a partition from its home page. This section also provides links to documentation that describes key concepts and procedures.

The step for this process is:

1. Configure global token variables. [How?](#)

10.8 Delete Large Numbers of Instances Automatically

The following section provides a summary of the steps required for automatically deleting large numbers of instances. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Plan for database growth [More](#)
2. Manage database growth [More](#)
3. Automatically delete large numbers of instances. [How?](#)

10.9 Manage Error Notification Rules

The following section provides a summary of the steps required for managing error notification rules. This section also provides links to documentation that describes key concepts and procedures.

The step for this process is:

1. Create error notification rules. [How?](#)

10.10 Manage Work Manager Groups

The following section provides a summary of the steps required for managing work manager groups. This section also provides links to documentation that describes key concepts and procedures.

The step for this process is:

1. Create work manager groups. [How?](#)

10.11 Track Business Flow Instances in the SOA Infrastructure

The following section provides a summary of the steps required for tracking business flow instances. This section also provides links to documentation that describes key concepts and procedures.

The step for this process is:

1. Understand business flow instances. [More](#)
2. Track business flow instances. [How?](#)

10.12 Manage Faults in the Error Hospital of the SOA Infrastructure

The following section provides a summary of the steps required for managing faults in the Error Hospital. This section also provides links to documentation that describes key concepts and procedures.

The step for this process is:

1. Understand the Error Hospital. [More](#)
2. Manage faults in the Error Hospital. [How?](#)

10.13 Monitor Deployed SOA Composite Applications in the SOA Infrastructure

The following section provides a summary of the steps required for monitoring all deployed SOA composite applications. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand deployment from Oracle JDeveloper. [More](#)
2. Understand SOA composite applications. [More](#)
3. Deploy SOA composite applications from Oracle Enterprise Manager. [How?](#)
4. Monitor the deployed SOA composite applications. [How?](#)

10.14 Manage Deployed Composites in the Partition

The following section provides a summary of the steps required for managing deployed SOA composite applications in the partition. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand partitions. [More](#)
2. Understand deployment from Oracle JDeveloper. [More](#)
3. Understand SOA composite applications. [More](#)
4. Deploy SOA composite applications from Oracle Enterprise Manager. [How?](#)
5. Manage the deployed SOA composite applications in partitions. [How?](#)

10.15 Track Business Flow Instances in the Partition

The following section provides a summary of the steps required for tracking business flow instances. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand partitions. [More](#)
2. Understand business flow instances. [More](#)
3. Track business flow instances. [How?](#)

10.16 Manage Faults in the Error Hospital in the Partition

The following section provides a summary of the steps required for managing faults in the Error Hospital. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand partitions. [More](#)
2. Understand the Error Hospital. [More](#)
3. Manage faults in the Error Hospital. [How?](#)

Manage a SOA Composite Application

This chapter describes the set of typical tasks you need to test, monitor, and manage a SOA composite application.

This chapter includes the following sections:

- [Monitor the SOA Composite Application Dashboard](#)
- [View the SOA Composite Application Diagram](#)
- [Tracking Business Flow Instances of the SOA Composite Application](#)
- [Automate SOA Composite Application Tests](#)
- [Manage SOA Composite Application Policies](#)
- [Manage Instance Audit Trails and Flows](#)
- [Export the Contents of a Running SOA Composite Application](#)

11.1 Monitor the SOA Composite Application Dashboard

The following section provides a summary of the steps required for monitoring SOA composite applications. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand SOA composite applications. [More](#)
2. Understand SOA business flow instances. [More](#)
3. Monitor the SOA composite application dashboard. [How?](#)

11.2 View the SOA Composite Application Diagram

The following section provides a summary of the steps required for viewing the SOA composite application diagram. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand SOA composite applications. [More](#)
2. View SOA composite application diagram. [How?](#)

11.3 Tracking Business Flow Instances of the SOA Composite Application

The following section provides a summary of the steps required for tracking SOA composite application business flow instances. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand SOA composite applications. [More](#)
2. Understand business flow instances. [More](#)
3. Track SOA composite application business flow instances. [How?](#)

11.4 Automate SOA Composite Application Tests

The following section provides a summary of the steps required for automating testing of SOA composite applications with test cases. Test cases enable you to simulate the interaction between a SOA composite application and its Web service partners prior to deployment in a production environment. This section also provides links to documentation that describes key test case concepts and procedures.

The steps for this process are:

1. Understand test cases, test suites, emulations, and assertions. [More](#)
2. Create test cases and test suites in Oracle JDeveloper. [How?](#)
3. Run test cases and view test results in Oracle Enterprise Manager. [How?](#)

11.5 Manage SOA Composite Application Policies

The following section provides a summary of the steps required for attaching or detaching policies to or from a SOA composite application. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand SOA composite applications. [More](#)
2. Understand policies. [More](#)
3. Understand the specific types of policies available and which ones to use in your environment. [More](#)
4. Manage SOA composite application policies. [How?](#)

11.6 Manage Instance Audit Trails and Flows

The following section provides a summary of the steps required for managing instance audit trails and flows in a BPEL process. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand business flow instances. [More](#)
2. Manage instance audit trails and flows. [How?](#)

11.7 Export the Contents of a Running SOA Composite Application

The following section provides a summary of the steps required for exporting the contents of a running SOA composite application to an archive JAR file. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand SOA composite applications. [More](#)
2. Export the contents of a running SOA composite application. [How?](#)

Manage Service Components

Service components provide the business logic of the SOA composite application.

This chapter includes the following sections:

- [Manage Oracle BPEL Process Manager](#)
- [Manage Oracle Mediator](#)
- [Manage Decision Service Component \(Business Rules\)](#)
- [Manage Human Workflow](#)

12.1 Manage Oracle BPEL Process Manager

Oracle BPEL Process Manager enables you to orchestrate and execute business process flow. This chapter describes the set of typical tasks you need to configure Oracle BPEL Process Manager.

This chapter includes the following topics:

- [Section 12.1.1, "Configure BPEL Process Service Engine Properties"](#)
- [Section 12.1.2, "Monitor Deployments in the BPEL Process Service Engine"](#)
- [Section 12.1.3, "Monitor BPEL Process Service Engine Pending and Active Requests and Thread Performance Statistics"](#)
- [Section 12.1.4, "Recover from BPEL Process Service Engine Message Failure"](#)
- [Section 12.1.5, "Monitor BPEL Process Service Component Dashboard"](#)
- [Section 12.1.6, "Manage BPEL Process Service Component Policies"](#)

12.1.1 Configure BPEL Process Service Engine Properties

The following section provides a summary of the steps required to configure BPEL process service engine properties. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand Oracle BPEL Process Manager sensors and analytics. [More](#)
3. Configure BPEL process service engine properties. [How?](#)

12.1.2 Monitor Deployments in the BPEL Process Service Engine

The following section provides a summary of the steps required to monitor all BPEL process service components running in the BPEL process service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand deployment in Oracle JDeveloper. [More](#)
3. Understand deployment in Oracle Enterprise Manager. [More](#)
4. View details about deployments in the BPEL process service engine. [How?](#)

12.1.3 Monitor BPEL Process Service Engine Pending and Active Requests and Thread Performance Statistics

The following section provides a summary of the steps required to monitor BPEL process service engine pending and active requests and thread statistics. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Monitor pending and active requests and thread statistics. [How?](#)

12.1.4 Recover from BPEL Process Service Engine Message Failure

The following section provides a summary of the steps required to perform manual message recovery in the BPEL process service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Recover from message failure. [How?](#)

12.1.5 Monitor BPEL Process Service Component Dashboard

The following section provides a summary of the steps required to monitor BPEL process service component recent instances and faults. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service components. [More](#)
2. Understand business flow instances. [More](#)
3. Monitor the BPEL process service component dashboard. [How?](#)

12.1.6 Manage BPEL Process Service Component Policies

The following section provides a summary of the steps required to attach or detach policies to or from BPEL process service components. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service components. [More](#)

2. Understand policies. [More](#)
3. Understand the specific types of policies available and which ones to use in your environment. [More](#)
4. Attach and detach policies to and from BPEL process service components. [How?](#)

12.2 Manage Oracle Mediator

This chapter describes the set of typical tasks you need to configure and administer Oracle Mediator. Oracle Mediator enables you to route data between service consumers and service providers, both within and outside of an enterprise. You can use Oracle Mediator to evaluate routing rules, perform transformations, and invoke a service or raise a business event.

This chapter includes the following sections:

- [Section 12.2.1, "Monitor Mediator Service Component Recent Instances and Faults"](#)
- [Section 12.2.2, "Monitor Mediator Service Component Instances"](#)
- [Section 12.2.3, "Monitor Mediator Service Component Faults"](#)
- [Section 12.2.4, "Recover From Mediator Service Component Faults"](#)
- [Section 12.2.5, "Manage Mediator Service Component Policies"](#)
- [Section 12.2.6, "Recover and Abort Faults"](#)
- [Section 12.2.7, "Monitor Mediator Routing Statistics"](#)
- [Section 12.2.8, "Monitor Request Breakdown Statistics"](#)
- [Section 12.2.9, "Delete Cross Reference Values"](#)
- [Section 12.2.10, "Configure Mediator Service Engine Properties"](#)
- [Section 12.2.11, "Monitor Mediator Service Engine Instances"](#)
- [Section 12.2.12, "Monitor Deployments in the Mediator Service Engine"](#)
- [Section 12.2.13, "Recover from Mediator Service Engine Faults"](#)
- [Section 12.2.14, "Monitor Mediator Service Engine Recent Instances and Faults"](#)

12.2.1 Monitor Mediator Service Component Recent Instances and Faults

The following section provides a summary of the steps required to monitor all Mediator service component instances and faults in the service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand SOA composite applications. [More](#)
3. Understand business flow instances. [More](#)
4. Monitor Mediator service engine recent instances and faults. [How?](#)

12.2.2 Monitor Mediator Service Component Instances

The following section provides a summary of the steps required to monitor Mediator service component instances. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service component and service component instances. [More](#)
2. Understand SOA composite application instances. [More](#)
3. Monitor Mediator service component instances. [How?](#)

12.2.3 Monitor Mediator Service Component Faults

The following section provides a summary of the steps required to monitor Mediator service component faults. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service component and service component instances. [More](#)
2. Understand a fault policy. [More](#)
3. Monitor Mediator service component faults. [How?](#)

12.2.4 Recover From Mediator Service Component Faults

The following section provides a summary of the steps required to recover from Mediator service component faults. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service component and service component instances. [More](#)
2. Understand a fault policy. [More](#)
3. Recover from faults. [How?](#)

12.2.5 Manage Mediator Service Component Policies

The following section provides a summary of the steps required to attach or detach policies to or from Mediator service components. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service component and service component instances. [More](#)
2. Understand policies. [More](#)
3. Understand the specific types of policies available and which ones to use in your environment. [More](#)
4. Attach and detach policies to and from BPEL process service components. [How?](#)

12.2.6 Recover and Abort Faults

You can recover and abort single or multiple faults.

The steps for this process are:

1. Open the SOA Infrastructure Home page. [How?](#)
2. Open the Mediator Service Engine Home page. [How?](#)
3. Select the **Faults** tab.
4. Specify the search criteria.

5. Select the faults.
6. Select an action.

12.2.7 Monitor Mediator Routing Statistics

You can view routing statistics of a source operation or a subscribed event for a Mediator service component.

The steps for this process are:

1. Open the Mediator Component Home page. [How?](#)
2. Specify a Routing source. [How?](#)

12.2.8 Monitor Request Breakdown Statistics

You can view the request breakdown statistics such as minimum, maximum or average time taken for each stage of completing a request.

The steps for this process are:

1. Open the SOA Infrastructure Home page. [How?](#)
2. Open the Mediator Service Engine Home page. [How?](#)
3. Monitor the Request Breakdown Statistics. [How?](#)

12.2.9 Delete Cross Reference Values

You can delete values from single or multiple cross reference tables. [More](#)

The steps for this process are:

1. Open the SOA Infrastructure Home page. [How?](#)
2. Open the Cross Reference page. [How?](#)
3. Specify values to be deleted. [How?](#)

12.2.10 Configure Mediator Service Engine Properties

The following section provides a summary of the steps required to configure Mediator service engine properties. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Configure Mediator service engine properties. [How?](#)

12.2.11 Monitor Mediator Service Engine Instances

The following section provides a summary of the steps required to monitor all Mediator service component instances running in the service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand SOA composite application instances. [More](#)
3. Monitor Mediator service engine instances. [How?](#)

12.2.12 Monitor Deployments in the Mediator Service Engine

The following section provides a summary of the steps required to monitor all deployed Mediator service components running in the Mediator service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand deployment in Oracle JDeveloper. [More](#)
3. Understand deployment in Oracle Enterprise Manager. [More](#)
4. View details about deployments in the Mediator service engine. [How?](#)

12.2.13 Recover from Mediator Service Engine Faults

The following section provides a summary of the steps required to recover from Mediator service engine faults. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand fault recovery. [More](#)
3. Recover from faults. [How?](#)

12.2.14 Monitor Mediator Service Engine Recent Instances and Faults

The following section provides a summary of the steps required to monitor Mediator service engine recent instances and faults. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand SOA composite applications. [More](#)
3. Understand SOA composite application instances. [More](#)
4. Monitor Mediator service engine recent instances and faults. [How?](#)

12.3 Manage Decision Service Component (Business Rules)

A Decision service component enables you to use business rules in a SOA application. This chapter describes the typical tasks you need to monitor and manage the Business Rules service engine and SOA composites with Decision service components:

This chapter includes the following sections:

- [Section 12.3.1, "Manage Decision Service Components"](#)
- [Section 12.3.2, "Monitor Business Rules Service Engine Statistics"](#)
- [Section 12.3.3, "Monitor Deployed Decision Service Components"](#)

12.3.1 Manage Decision Service Components

The following section provides a summary of the steps required to manage Decision service components. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service component and service component instances. [More](#)
2. Understand SOA composite application instances. [More](#)
3. Monitor Business Rules service engine statistics. [How?](#)

12.3.2 Monitor Business Rules Service Engine Statistics

The following section provides a summary of the steps required to monitor Business Rules service engine recent instances, components, and recent faults. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand SOA composite applications. [More](#)
3. Understand SOA composite application and service component instances. [More](#)
4. Monitor Business Rules service engine statistics. [How?](#)

12.3.3 Monitor Deployed Decision Service Components

The following section provides a summary of the steps required to monitor Decision service components deployed in the Business Rules service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand deployment in Oracle JDeveloper. [More](#)
3. Understand deployment in Oracle Enterprise Manager Fusion Middleware Control Console. [More](#)
4. View details about deployments of Decision service components in the Business Rules service engine. [How?](#)

12.4 Manage Human Workflow

This chapter describes the set of typical tasks you need to configure Human workflow. Human workflow enables you to interleave human functions with connectivity to systems and services within the BPEL process flow. A human task assigns a task, such as an approval for an order, to a user or role and waits for a response. The users act on the task using the Oracle BPM Worklist. This integration of human tasks with a business process creates a tight integration between process and task.

This chapter includes the following sections:

- [Section 12.4.1, "Configure Workflow Notification Properties"](#)
- [Section 12.4.2, "Configure Workflow Task Service Properties"](#)
- [Section 12.4.3, "Monitor Deployments in the Human Workflow Service Engine"](#)

- [Section 12.4.4, "Monitor Human Workflow Service Engine Active Requests and Operation Statistics"](#)
- [Section 12.4.5, "Manage Human Workflow Service Engine Incoming and Outgoing Notifications"](#)
- [Section 12.4.6, "Manage Human Task Service Component Policies"](#)
- [Section 12.4.7, "Manage the URI of the Human Task Service Component Task Details Application"](#)

12.4.1 Configure Workflow Notification Properties

The following section provides a summary of the steps required to configure the notification mode and incoming and outgoing message addresses. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand the notification service for human workflows. [More](#)
2. Understand the role of the User Messaging Service in notifications. [More](#)
3. Specify notification preferences in the Human Task Editor of Oracle JDeveloper. [How?](#)
4. Configure the notification mode and incoming and outgoing message addresses in Oracle Enterprise Manager. [How?](#)

For more information about using the notification service, see the "Using the Notification Service" chapter in *Developing SOA Applications with Oracle SOA Suite*.

12.4.2 Configure Workflow Task Service Properties

The following section provides a summary of the steps required to configure the task service actionable incoming e-mail account, additional workflow properties, and dynamic assignment and task escalation functions. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand the task service. [More](#)
2. Understand the dynamic assignment and task escalation functions. [More](#)
3. Configure the task service actionable e-mail account, additional workflow properties, and dynamic assignment and task escalation functions. [How?](#)

For more information about how notifications are sent, see the "Notifications from Human Workflow" section in *Developing SOA Applications with Oracle SOA Suite*.

12.4.3 Monitor Deployments in the Human Workflow Service Engine

The following section provides a summary of the steps required to monitor all human task service components running in the human workflow service engine. The service components are part of deployed SOA composite applications. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand deployment from Oracle JDeveloper. [More](#)
2. Understand service engines. [More](#)

3. Understand service component and service component instances. [More](#)
4. Understand SOA composite applications. [More](#)
5. Deploy SOA composite applications from Oracle Enterprise Manager. [How?](#)
6. Monitor deployments in the human workflow service engine. [How?](#)

12.4.4 Monitor Human Workflow Service Engine Active Requests and Operation Statistics

The following section provides a summary of the steps required to monitor active requests, average request processing times, and operation statistics in the human workflow service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Monitor human workflow service engine active requests, average request processing times, and operation statistics. [How?](#)

12.4.5 Manage Human Workflow Service Engine Incoming and Outgoing Notifications

The following section provides a summary of the steps required to manage incoming and outgoing notification messages for the human workflow service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand the notification service for human workflows. [More](#)
3. Specify notification preferences in the Human Task Editor of Oracle JDeveloper. [How?](#)
4. Manage outgoing and incoming notifications in Oracle Enterprise Manager. [How?](#)

For more information about the notification service, see the "Using the Notification Service" chapter in *Developing SOA Applications with Oracle SOA Suite*.

12.4.6 Manage Human Task Service Component Policies

The following section provides a summary of the steps required to manage policy attachments in human task service components. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service component and service component instances. [More](#)
2. Understand policies. [More](#)
3. Understand the specific types of policies available and which ones to use in your environment. [More](#)
4. Manage human task service component policies. [How?](#)

12.4.7 Manage the URI of the Human Task Service Component Task Details Application

The following section provides a summary of the steps required to manage the URI of the task details application of the human task service component. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service component and service component instances. [More](#)
2. Manage the task details application URI of human task service components. [How?](#)

For more information about using human workflow services in Oracle SOA Suite, see the "Introduction to Human Workflow Services" chapter in *Developing SOA Applications with Oracle SOA Suite*.

Manage Binding Components, Oracle B2B, and Oracle Business Activity Monitoring

Binding components establish a connection between a SOA composite application and the external world.

This chapter includes the following sections:

- [Manage Binding Components](#)
- [Manage Oracle B2B](#)
- [Manage Oracle Business Activity Monitoring](#)

13.1 Manage Binding Components

This section describes the set of typical tasks you need to configure binding components. Binding components enable your SOA composite application to communicate with the outside world. Services provide the outside world with an entry point to the SOA composite application. References enable messages to be sent from the SOA composite application to external services in the outside world.

This section contains the following topics:

- [Section 13.1.1, "Monitor Services and References Binding Component Instances and Faults"](#)
- [Section 13.1.2, "Manage Service and Reference Binding Component Policies"](#)
- [Section 13.1.3, "Configure Service and Reference Binding Component Properties"](#)

13.1.1 Monitor Services and References Binding Component Instances and Faults

The following section provides a summary of the steps required to monitor binding component instances and faults and recently rejected messages. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand binding components. [More](#)
2. Monitor binding component instances and faults. [How?](#)

13.1.2 Manage Service and Reference Binding Component Policies

The following section provides a summary of the steps required to manage policy attachments in binding components. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand binding components. [More](#)
2. Understand policies. [More](#)
3. Understand the specific types of policies available and which ones to use in your environment. [More](#)
4. Manage binding component policies. [How?](#)

13.1.3 Configure Service and Reference Binding Component Properties

The following section provides a summary of the steps required to modify values of binding component properties. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand binding components. [More](#)
2. Configure binding component properties. [How?](#)

13.1.4 View Adapter Reports

The following section provides a summary of the steps required to view Adapter reports. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. From the SOA Composite page, click on a Service or Reference page.
2. Click on the Adapters Tab on the Service or Reference page.
3. Click on Enable Reports. Fusion Middleware Control displays the Configuration, Monitoring and Snapshot Reports.

For more information see "Monitoring JCA Adapters" in the *Administering Oracle SOA Suite and Oracle Business Process Management Suite*.

13.1.5 Schedule Adapter Endpoint Activation and Deactivation

The following section provides a summary of the steps required to schedule Adapter endpoint activation and deactivation. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. From the SOA Infrastructure menu, select **Define Schedules** to navigate to the **Scheduling Services** page.
2. From the **Scheduling Services** menu that is available on that page, select **Job Requests > Define Schedules**. There, you can enter items such as the Schedule Name, Description, Frequency, and Start Date.
3. You can edit or delete these schedules from the **Create Schedules** page.
4. Use the Adapter Schedules dialog to choose among schedules you have already established through **Job Requests -> Define Schedules**.

For more information see "Monitoring JCA Adapters" in the *Administering Oracle SOA Suite and Oracle Business Process Management Suite*.

13.2 Manage Oracle B2B

Oracle B2B enables secure and reliable e-business transaction exchanges between an organization and its external trading partners. This chapter describes the set of typical tasks you need to monitor Oracle B2B.

This section includes the following topics:

- [Monitor B2B Infrastructure-SOA Binding](#)

13.2.1 Monitor B2B Infrastructure-SOA Binding

The following section provides a summary of the steps required to monitor the B2B binding component. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand document types. [More](#)
2. Understand trading partners. [More](#)
3. Understand endpoints. [More](#)

Use the **B2B Server Properties** link and the **B2B Console** link under **Related Links**.

13.3 Manage Oracle Business Activity Monitoring

Oracle BAM enables you to monitor business processes in real time.

This section describes the set of typical tasks you need to perform to configure Oracle BAM.

The sections are:

1. Understand the Oracle BAM Property Page.
2. Monitor the Oracle BAM Performance Summary Page.
3. Control the Start Up and Shut Down of the Oracle BAM server.
4. View Log Messages.
5. Configure Log Messages.
6. Understand Application Policies.
7. Understand Application Roles.
8. Understand System MBean Browser.
9. Use Target Information to view additional information about the Oracle BAM server, including the version, Oracle Home path, Middleware Home path, Domain Home path, and host name.

Related Topics

"Understand Oracle BAM Monitoring and Management" in *Monitoring Business Activity with Oracle BAM*

"Monitoring Oracle BAM Performance" in *Monitoring Business Activity with Oracle BAM*

"Monitoring Oracle BAM Logs" in *Monitoring Business Activity with Oracle BAM*

"Understanding Oracle BAM Security" in *Monitoring Business Activity with Oracle BAM*

"Using the Oracle WebLogic Server Administration Console" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*

"Using the System MBean Server" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*

Manage Business Events

Business events enable you to raise events when a situation of interest occurs. Business events consist of message data sent as the result of an occurrence in a business environment. When a business event is published, other service components can subscribe to it.

This chapter includes the following sections:

- [Subscribe to Business Events](#)
- [Manage Business Event Subscribers](#)

14.1 Subscribe to Business Events

The following section provides a summary of the steps required to manage the business events of a SOA composite application. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand business events, including subscriptions, event names, event namespaces, consistency levels, and XPath filters. [More](#)
2. Create business events in Oracle JDeveloper. [How?](#)
3. Subscribe to business events in Oracle Enterprise Manager. [How?](#)

14.2 Manage Business Event Subscribers

The following section provides a summary of the steps required to manage the business event subscribers in a SOA composite application. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand business events, including subscriptions, event names, event namespaces, consistency levels, and XPath filters. [More](#)
2. Create business events in Oracle JDeveloper. [How?](#)
3. Manage business event subscribers in Oracle Enterprise Manager. [How?](#)

Manage Oracle Service Bus

This chapter describes the set of typical tasks you need to configure and monitor Oracle Service Bus projects and instances.

This chapter includes the following sections:

- [Monitor Service Bus SLA Alerts](#)
- [Monitor Service Bus Pipeline Alerts](#)
- [Monitor Service Bus Services with Errors](#)
- [Configure Operational Settings for a Single Service](#)
- [Configure Operational Settings for Multiple Services Across the Domain](#)
- [Configure Operational Settings for Multiple Services in a Project](#)
- [Configure Service Bus Global Operational Settings](#)
- [Monitor Service Health Across a Service Bus Domain](#)
- [Monitor Service Health for a Service Bus Project](#)
- [Monitor Health for a Service Bus Service](#)
- [Monitor Service Bus Resequencing Groups](#)
- [Skip Resequencing Messages or Recover from Faults](#)
- [View and Update Security Policies](#)
- [View Service Bus Log Files](#)
- [View Service Bus Message Reports](#)
- [Import Service Bus Projects and Resources](#)
- [Export Service Bus Projects and Resources](#)

15.1 Monitor Service Bus SLA Alerts

The following provides a summary of the steps required to view SLA alerts generated for all services across a Service Bus domain and to search for specific alerts. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. [Understand SLA alerts. More](#)
2. [Create SLA alerts for Service Bus services. How?](#)

3. Enable monitoring and alerting. How?
4. Specify an alert level. How?
5. View all SLA alerts on the Service Bus Dashboard. How?
6. Search for SLA alerts. How?

15.2 Monitor Service Bus Pipeline Alerts

The following provides a summary of the steps required to view pipeline alerts generated for all pipelines across a Service Bus domain and to search for specific alerts. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand pipeline alerts. [More](#)
2. Add alert actions to pipelines. How?
3. Enable monitoring and alerting. How?
4. View all pipeline alerts on the Service Bus Dashboard. How?
5. Search for pipeline alerts. How?

15.3 Monitor Service Bus Services with Errors

The following provides a summary of the steps required to view services with the most errors across a Service Bus domain. This section provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. View services with the most errors on the Service Bus Dashboard. How?
2. View the service metrics for services with errors. How?

15.4 Configure Operational Settings for a Single Service

The following provides a summary of the steps required to view and configure operational settings for a service in a Service Bus domain. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand operational settings. [More](#)
2. Access the Properties page for the service. How?
3. Modify the operational settings for the services.
4. If necessary, modify the corresponding global settings. How?

15.5 Configure Operational Settings for Multiple Services Across the Domain

The following provides a summary of the steps required to view and configure operational settings for a multiple services in a Service Bus domain. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand operational settings. [More](#)
2. Search for services to configure. [How?](#)
3. Modify the operational settings for the services. [How?](#)
4. If necessary, modify the corresponding global settings. [How?](#)

15.6 Configure Operational Settings for Multiple Services in a Project

The following provides a summary of the steps required to view and configure operational settings for a multiple services within a Service Bus project. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand operational settings. [More](#)
2. Search for services to configure. [How?](#)
3. Modify the operational settings for the services. [How?](#)
4. If necessary, modify the corresponding global settings. [How?](#)

15.7 Configure Service Bus Global Operational Settings

The following provides a summary of the steps required to view and configure operational settings at the domain level in a Service Bus domain. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand operational settings. [More](#)
2. Modify the operational settings globally. [How?](#)

15.8 Monitor Service Health Across a Service Bus Domain

The following provides a summary of the steps required to view statistics that indicate the health of the services running on a Service Bus domain. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand service health metrics. [More](#)
2. Search for services to monitor their health. [How?](#)

15.9 Monitor Service Health for a Service Bus Project

The following provides a summary of the steps required to view statistics that indicate the health of the services in a Service Bus project. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand service health metrics. [More](#)
2. Search for services to monitor their health. [How?](#)

15.10 Monitor Health for a Service Bus Service

The following provides a summary of the steps required to view statistics that indicate the health of a service running on a Service Bus domain. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand service health metrics. [More](#)
2. View a service's health metrics on its Dashboard. [How?](#)

15.11 Monitor Service Bus Resequencing Groups

The following provides a summary of the steps required to view the status of resequencing groups on a Service Bus domain. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand resequencing in Service Bus. [More](#)
2. Search for resequencing messages to monitor. [How?](#)
3. View status information for a resequencing message. [How?](#)

15.12 Skip Resequencing Messages or Recover from Faults

The following provides a summary of the steps required to skip the processing for a message in a resequencing group that has timed out and is blocking other messages from being processed. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand resequencing in Service Bus. [More](#)
2. Search for resequencing groups to monitor. [How?](#)
3. Skip a stuck message or recover from a fault in a resequencing group. [How?](#)

15.13 View and Update Security Policies

The following provides a summary of the steps required to view and update security policies for Service Bus services. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand security policies. [More](#)
2. View policies attached to a service. [How?](#)
3. Attach or detach policies, or define policy overrides. [How?](#)

15.14 View Service Bus Log Files

The following provides a summary of the steps required to view Service Bus log files in Fusion Middleware Control. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand logging in Service Bus. [More](#)
2. (Optional) Configure Service Bus logging. [How?](#)
3. View log file entries. [How?](#)

15.15 View Service Bus Message Reports

The following provides a summary of the steps required to view Service Bus message reports in Fusion Middleware Control. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand Service Bus message reports. [More](#)
2. Create reporting actions. [How?](#)
3. Enable message reporting for the service. [How?](#)
4. Enable message reporting globally. [How?](#)
5. View message reports. [How?](#)

15.16 Import Service Bus Projects and Resources

The following provides a summary of the steps required to import Service Bus projects and resources into a Service Bus domain using Fusion Middleware Control. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand the import process. [More](#)
2. Import a configuration JAR file. [How?](#)

15.17 Export Service Bus Projects and Resources

The following provides a summary of the steps required to export Service Bus projects and resources from Fusion Middleware Control. This section provides links to documentation that describes key concepts and procedures. [More](#)

The steps for this process are:

1. Understand the export process. [More](#)
2. Export Service Bus resources. [How?](#)

Part IV

Manage Oracle Business Process Management Suite

This part includes the following chapter:

- [Chapter 16, "Manage Oracle Business Process Management Suite"](#)

Manage Oracle Business Process Management Suite

This chapter describes the set of typical tasks you need to configure Oracle Business Process Management Suite. Oracle Business Process Management Suite enables you to orchestrate and execute business process flow.

This chapter includes the following sections:

- [Configure BPMN Process Service Engine Properties](#)
- [Monitor BPMN Process Service Engine Performance Statistics](#)
- [Monitor Deployments in the BPMN Process Service Engine](#)
- [Manage BPMN Process Service Component Policies](#)
- [Recover from BPMN Process Service Engine Message Failure](#)

16.1 Configure BPMN Process Service Engine Properties

The following section provides a summary of the steps required to configure BPMN process service engine properties. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. [Understand service engines. More](#)
2. [Configure BPMN process service engine properties. How?](#)

16.2 Monitor BPMN Process Service Engine Performance Statistics

The following section provides a summary of the steps required to monitor BPMN process service engine pending and active requests and thread statistics. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. [Understand service engines. More](#)
2. [Monitor pending and active requests and thread statistics. How?](#)

16.3 Monitor Deployments in the BPMN Process Service Engine

The following section provides a summary of the steps required to monitor all BPMN process service components running in the BPMN process service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Understand deployment in Oracle JDeveloper. [More](#)
3. Understand deployment in Oracle Enterprise Manager. [More](#)
4. View details about deployments in the BPMN process service engine. [How?](#)

16.4 Manage BPMN Process Service Component Policies

The following section provides a summary of the steps required to attach or detach policies to or from BPMN process service components. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service component and service component instances. [More](#)
2. Understand policies. [More](#)
3. Understand the specific types of policies available and which ones to use in your environment. [More](#)
4. Attach and detach policies to and from BPMN process service components. [How?](#)

16.5 Recover from BPMN Process Service Engine Message Failure

The following section provides a summary of the steps required to perform manual message recovery in the BPMN process service engine. This section also provides links to documentation that describes key concepts and procedures.

The steps for this process are:

1. Understand service engines. [More](#)
2. Recover from message failure. [How?](#)

Part V

Manage Oracle Data Integrator

This part describes the set of typical tasks you need to perform when configuring and managing Oracle Data Integrator.

This part includes the following chapter:

- [Chapter 17, "Manage Oracle Data Integrator"](#)

Manage Oracle Data Integrator

Oracle Data Integrator provides a fully unified solution for building, deploying, and managing complex data warehouses or as part of data-centric architectures in an SOA or business intelligence environment. In addition, it combines all the elements of data integration - data movement, data synchronization, data quality, data management, and data services - to ensure that information is timely, accurate, and consistent across complex systems.

This section describes the set of typical tasks you need to perform when managing Oracle Data Integrator:

- [Section 17.1, "Configure Oracle Data Integrator"](#)
- [Section 17.2, "Manage Oracle Data Integrator"](#)

17.1 Configure Oracle Data Integrator

Oracle Data Integrator Console is a web-based console for managing and monitoring an Oracle Data Integrator run-time architecture and for browsing design-time objects.

The following provides a summary of the steps required to configure Oracle Data Integrator Console. It also provides links to documentation that describes key concepts and prerequisites.

Before You Begin

Understand the ODI domain architecture. [More](#).

Configuring Oracle Data Integrator

1. Configure an ODI domain. [How?](#)
2. Configure Oracle Data Integrator Console. [How?](#)

17.2 Manage Oracle Data Integrator

Oracle Data Integrator Console is a web-based console for managing and monitoring an Oracle Data Integrator run-time architecture and for browsing design-time objects.

The following provides a summary of the tasks performed when managing Oracle Data Integrator Console.

1. Start and stop Oracle Data Integrator Console. [How?](#)
2. Start and stop ODI agents. [How?](#)
3. Configure ODI Standalone agents. [How?](#)

4. Configure Master Repository. How?
5. Search sessions. How?
6. Search Load Plan executions. How?
7. View log messages. How?

17.3 Start and Stop Oracle Data Integrator Console

You can start and shut down Oracle Data Integrator Console from Fusion Middleware Control.

The steps for this process are:

1. Expand the Application Deployments folder in the Target Navigation pane and click **odiconsole**. The odiconsole page is displayed.
2. From the **Domain Application Deployment** menu, select **Control**.
3. Perform one of the following actions:
 - Select **Start Up** to start Oracle Data Integrator Console.
 - Select **Shut Down...** to stop Oracle Data Integrator Console.

17.4 Start and Stop ODI Agents

You can start and shut down Java EE Agents from Fusion Middleware Control when the Java EE Agents are deployed on the same domain.

The steps for this process are:

1. Expand the ODI folder in the Target Navigation pane and click the target link corresponding to your J2EE Agent. The J2EE Agent home page is displayed.
2. From the Agent menu, select **Control**.
3. Perform one of the following actions:
 - Select **Start Up** to start the agent.
 - Select **Shut Down...** to stop the agent.

Note: You can start and stop standalone agents from Fusion Middleware Control if they are managed by OPMN or CAM. If the standalone agents are not managed by OPMN or CAM, you must use startup and shutdown scripts to start and stop them. See "Managing Agents" in *Oracle Fusion Middleware Administering Oracle Data Integrator* for more information about how to start and shut down agents.

17.5 View Log Messages

You can view log messages in Fusion Middleware Control.

The steps for this process are:

1. Navigate to the Agent home page.
2. From the Agent menu, select **Logs > View Log Messages**.

Part VI

Manage Oracle Business Intelligence

This section of the online help contains the following:

- [Manage Oracle Business Intelligence](#)

Manage Oracle Business Intelligence

Oracle Business Intelligence is a comprehensive set of enterprise business intelligence tools and infrastructure, including a scalable and efficient query and analysis server, an ad-hoc query and analysis tool, interactive dashboards, proactive intelligence and alerts, real-time predictive intelligence, and an enterprise reporting engine. Oracle Business Intelligence is designed to bring greater business visibility and insight to a wide variety of users.

Oracle Fusion Middleware Control provides a single point of entry for configuring the middle tier for Oracle Business Intelligence. This enables the administrator of Oracle Business Intelligence to administer the instance without having to access and perform tasks through the operating system on server computers.

Oracle Business Intelligence administrators can use Fusion Middleware Control to change the default configuration (that is set during installation) to match their exact needs without requiring any explicit knowledge of operating system information about the middle tier.

This section describes the set of typical tasks you need to configure Oracle Business Intelligence:

- [Section 18.1, "Business Intelligence Instance Page"](#)
- [Section 18.2, "Perform General Management Tasks"](#)
- [Section 18.3, "Manage the Availability of Oracle Business Intelligence"](#)
- [Section 18.4, "Configure Oracle Business Intelligence"](#)
- [Section 18.5, "Diagnose and Resolve Issues in Oracle Business Intelligence"](#)
- [Section 18.6, "Manage Security for Oracle Business Intelligence"](#)

18.1 Business Intelligence Instance Page

You can use the Business Intelligence Instance page in Fusion Middleware Control to manage Oracle Business Intelligence. You can perform the following tasks:

- [Perform General Management Tasks](#)
- [Manage the Availability of Oracle Business Intelligence](#)
- [Configure Oracle Business Intelligence](#)
- [Diagnose and Resolve Issues in Oracle Business Intelligence](#)
- [Manage Security for Oracle Business Intelligence](#)

18.2 Perform General Management Tasks

You use Fusion Middleware Control to perform general management tasks for Oracle Business Intelligence on the middle tier. More

Tasks related to general management include:

- Obtain an overview of system status. How?
- Manage system start up and shut down. How?
- Obtain a diagnostic overview. How?

Related Topics

[Manage Oracle Business Intelligence](#)

Getting Started with Managing Oracle Business Intelligence in *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*

18.3 Manage the Availability of Oracle Business Intelligence

You use Fusion Middleware Control to manage the availability of Oracle Business Intelligence. More

Tasks related to managing availability include:

- Managing processes. How?
- Configure high availability. How?
- Scale components. How?

Related Topics

[Manage Oracle Business Intelligence](#)

Deploying Oracle Business Intelligence for High Availability in *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*

18.4 Configure Oracle Business Intelligence

You use Fusion Middleware Control to configure Oracle Business Intelligence. More

Tasks related to configuring include:

- Tune performance. How?
- Configure Oracle Business Intelligence for connecting to an email server. How?
- Change presentation setting defaults. How?

Related Topics

[Manage Oracle Business Intelligence](#)

Managing Performance Tuning and Query Caching in *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*

18.5 Diagnose and Resolve Issues in Oracle Business Intelligence

You use Fusion Middleware Control to diagnose and resolve issues, including checking and analyzing log files. More

Tasks related to diagnosing and resolving issues include:

- View log information, error messages, and alerts. How?
- Configure log file size and age and log levels. How?

Related Topics

[Manage Oracle Business Intelligence](#)

Understanding Diagnostic Log and Log Configuration Files in Oracle Business Intelligence in *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*

18.6 Manage Security for Oracle Business Intelligence

You use Fusion Middleware Control to configure application policies and application roles, multiple authentication providers, Single Sign-On (SSO), for Oracle Business Intelligence. More

Tasks related to security include:

- Manage application roles and application policies for Oracle Business Intelligence. How?
- Configure multiple authentication providers for Oracle Business Intelligence. How?
- Enable Single Sign-On (SSO) authentication for Oracle Business Intelligence. How?
- Configure SSL for the SMTP server. How?
- Link to the Oracle WebLogic Server Administrator Console to configure and manage the WebLogic security realm. How?

Related Topics

[Manage Oracle Business Intelligence](#)

Part VII

Manage Oracle WebCenter

This section of the online help contains the following:

- [Chapter 19, "Manage Oracle WebCenter Enterprise Capture"](#)
- [Chapter 20, "Manage Oracle Inbound Refinery"](#)
- [Chapter 21, "Manage Oracle WebCenter Content"](#)
- [Chapter 22, "Manage Oracle WebCenter Portal"](#)

Manage Oracle WebCenter Enterprise Capture

The Oracle WebCenter Enterprise Capture application provides scalable document capture focused on process-oriented imaging applications and image-enabling enterprise applications.

This section describes typical tasks for system configuration and monitoring for Oracle WebCenter Enterprise Capture using the Oracle Enterprise Manager Console:

- [Section 19.1, "Check the Status of Oracle WebCenter Enterprise Capture"](#)
- [Section 19.2, "Start and Stop Oracle WebCenter Enterprise Capture"](#)
- [Section 19.3, "Modify Oracle WebCenter Enterprise Capture Configuration"](#)
- [Section 19.4, "Configure Oracle WebCenter Enterprise Capture Bundle Manager"](#)
- [Section 19.5, "Assign Oracle WebCenter Enterprise Capture Roles"](#)
- [Section 19.6, "View and Set MBean Values for Oracle WebCenter Enterprise Capture"](#)
- [Section 19.7, "View Oracle WebCenter Enterprise Capture Performance Metrics"](#)
- [Section 19.8, "Monitor Oracle WebCenter Enterprise Capture Logs"](#)

19.1 Check the Status of Oracle WebCenter Enterprise Capture

From the Oracle WebCenter Enterprise Capture home page you can check the status of the application and view and navigate to all related functions.

The steps for this process are:

1. Navigate to the Oracle WebCenter Enterprise Capture home page. How?
2. View the status of the application. How?

19.2 Start and Stop Oracle WebCenter Enterprise Capture

You can start and to shut down Oracle WebCenter Enterprise Capture using Oracle Enterprise Manager.

The steps for this process are:

1. Navigate to the Oracle WebCenter Enterprise Capture home page. How?
2. Start the server. How?
3. Stop the server. How?

19.3 Modify Oracle WebCenter Enterprise Capture Configuration

From the Oracle WebCenter Enterprise Capture home page you can modify the application configuration.

Before You Begin

1. Consider the configuration options. [More](#)
2. Make the configuration changes. [More](#)

Managing Oracle WebCenter Enterprise Capture Configuration Settings

The steps for this process are:

1. Navigate to the Oracle WebCenter Enterprise Capture home page. [How?](#)
2. Select and modify one or more configuration settings. [How?](#)

19.4 Configure Oracle WebCenter Enterprise Capture Bundle Manager

You can manage client bundles using Oracle Enterprise Manager.

1. Navigate to the Oracle WebCenter Enterprise Capture home page. [How?](#)
2. Configure the Bundle Manager. [How?](#)

19.5 Assign Oracle WebCenter Enterprise Capture Roles

You can assign LDAP users and groups to Capture roles using Oracle Enterprise Manager.

1. Navigate to the Oracle WebCenter Enterprise Capture home page. [How?](#)
2. Assign a Capture role to users and groups. [How?](#)

19.6 View and Set MBean Values for Oracle WebCenter Enterprise Capture

You can use the Oracle Enterprise Manager System MBean Browser to view and modify Oracle WebCenter Enterprise Capture MBean values. [How?](#)

19.7 View Oracle WebCenter Enterprise Capture Performance Metrics

From the Oracle WebCenter Enterprise Capture home page you can view the application's performance metrics.

The steps for this process are:

1. Navigate to the Oracle WebCenter Enterprise Capture home page. [How?](#)
2. View performance metrics. [How?](#)

19.8 Monitor Oracle WebCenter Enterprise Capture Logs

From the Oracle WebCenter Enterprise Capture home page you can view the application's log files.

The steps for this process are:

1. Navigate to the Oracle WebCenter Enterprise Capture home page. [How?](#)

2. View log files. How?

Manage Oracle Inbound Refinery

Inbound Refinery version 11gR1 is a conversion server that manages file conversions for electronic assets such as documents, digital images, and motion video. In addition to conversion, it also provides thumbnailing functionality for documents and images, the ability to extract and use EXIF data from digital images and XMP data from electronic files generated from programs such as Adobe Photoshop and Adobe Illustrator, and storyboarding for video. An Inbound Refinery system with an Oracle WebCenter Content Server instance is deployed on an Oracle WebLogic server.

This section describes the set of typical tasks you can perform to manage an Oracle Inbound Refinery instance:

- [Start and Stop a WebCenter Inbound Refinery Instance](#)
- [Monitor WebCenter Inbound Refinery Performance](#)

20.1 Start and Stop a WebCenter Inbound Refinery Instance

You can control the basic functions of an Inbound Refinery instance in the same way that you control the basic functions of an Oracle WebCenter Content instance.

The steps for this process are:

1. Start an instance. How?
2. Shut down an instance. How?
3. Restart an instance. How?

Related Topics

[Manage Oracle Inbound Refinery](#)

"Using Fusion Middleware Control to Start and Stop WebCenter Content Server" in *Oracle Fusion Middleware Administering Oracle WebCenter Content*

"Starting and Stopping Oracle WebLogic Server Instances" in *Oracle Fusion Middleware Administrator's Guide*

20.2 Monitor WebCenter Inbound Refinery Performance

You can view information about performance metrics, log information, and MBean information for an Inbound Refinery instance in the same way that you do for an Oracle WebCenter Content Server instance.

The tasks include:

1. View performance information about an Inbound Refinery instance. How?

2. View log information about an Inbound Refinery instance. How?
3. View MBean information about an Inbound Refinery instance. How?

Related Topics

[Manage Oracle Inbound Refinery](#)

"Using Fusion Middleware Control to Monitor WebCenter Content Server" in *Oracle Fusion Middleware Administering Oracle WebCenter Content*

Manage Oracle WebCenter Content

Oracle WebCenter Content is used to manage all phases of content life cycle: from creation and approval to publishing, searching, expiration, and archival or disposition. All content types ranging from e-mail, discussions, documents, reports, spreadsheets and records to images, multimedia or other digital formats are stored in a web repository or database for management, reuse, and access. A WebCenter Content system with an Oracle WebCenter Content Server instance is deployed on an Oracle WebLogic server.

This section describes the set of typical tasks you can perform to manage an Oracle WebCenter Content Server instance:

- [Section 21.1, "Manage a WebCenter Content Server Instance"](#)
- [Section 21.2, "Modify WebCenter Content Server General Configuration"](#)
- [Section 21.3, "Modify WebCenter Content Server Internet Configuration"](#)
- [Section 21.4, "Modify WebCenter Content: Records Configuration"](#)
- [Section 21.5, "Monitor WebCenter Content Server Performance"](#)
- [Section 21.6, "Manage WebCenter Content Server Components"](#)
- [Section 21.7, "Manage WebCenter Content Server Components: Advanced"](#)

21.1 Manage a WebCenter Content Server Instance

You can control the basic functions of a WebCenter Content Server instance.

The steps for this process are:

1. Start a WebCenter Content Server instance. How?
2. Shut down a WebCenter Content Server instance. How?
3. Restart a WebCenter Content Server instance. How?

Related Topics

[Manage Oracle WebCenter Content](#)

"Using Fusion Middleware Control to Start and Stop WebCenter Content Server" in *Oracle Fusion Middleware Administering Oracle WebCenter Content*

"Starting and Stopping Oracle WebLogic Server Instances" in *Oracle Fusion Middleware Administrator's Guide*

21.2 Modify WebCenter Content Server General Configuration

You can view and modify certain system-level general configuration settings for a WebCenter Content Server instance.

Tasks include:

1. Modify the content security configuration settings used to control user access to content items managed by a WebCenter Content Server instance. How?
2. Modify general configuration settings for a WebCenter Content Server instance. How?

Related Topics

[Manage Oracle WebCenter Content](#)

"Using Fusion Middleware Control to Configure System Properties" in *Oracle Fusion Middleware Administering Oracle WebCenter Content*

21.3 Modify WebCenter Content Server Internet Configuration

You can view and modify certain system-level Internet configuration settings for a WebCenter Content Server instance.

Tasks include:

1. Modify Internet server configuration settings for a WebCenter Content Server instance. How?
2. Modify Internet email configuration settings for a WebCenter Content Server instance. How?

Related Topics

[Manage Oracle WebCenter Content](#)

"Using Fusion Middleware Control to Configure System Properties" in *Oracle Fusion Middleware Administering Oracle WebCenter Content*

21.4 Modify WebCenter Content: Records Configuration

You can view and modify configuration settings for Oracle WebCenter Content: Records, if you have installed and enabled this feature.

1. Modify the configuration settings used to control Records general options, record definition options, security options, notification options, scheduling options, user interface options, DoD configuration options, and classified topic options. How?

Related Topics

[Manage Oracle WebCenter Content](#)

"Configuring Records Management" in *Oracle Fusion Middleware Managing Oracle WebCenter Content*

21.5 Monitor WebCenter Content Server Performance

You can view information about performance metrics, log information, and MBean information for a WebCenter Content Server instance.

Tasks include:

1. View performance information about a WebCenter Content Server instance. How?
2. View log information about a WebCenter Content Server instance. How?
3. View MBean information about a WebCenter Content Server instance. How?

Related Topics

[Manage Oracle WebCenter Content](#)

"Using Fusion Middleware Control to Monitor WebCenter Content Server " in *Oracle Fusion Middleware Administering Oracle WebCenter Content*

21.6 Manage WebCenter Content Server Components

You can manage system-level components for a WebCenter Content Server instance using a standard list of component. Components provide additional functionality for the WebCenter Content Server system.

Tasks include:

1. View information about components in a WebCenter Content Server instance. How?
2. Enable or disable components in a WebCenter Content Server instance. How?

Related Topics

[Manage Oracle WebCenter Content](#)

"Managing Components Using Fusion Middleware Control" in *Oracle Fusion Middleware Administering Oracle WebCenter Content*

21.7 Manage WebCenter Content Server Components: Advanced

You can manage system-level and additional components for a WebCenter Content Server instance using a more detailed list of components and functions. Components provide additional functionality for the WebCenter Content Server system.

Tasks include:

1. Enable or disable components in a WebCenter Content Server instance. How?
2. Install components in a WebCenter Content Server instance. How?
3. Uninstall components in a WebCenter Content Server instance. How?
4. Download or upload components to a WebCenter Content Server instance. How?
5. Modify component configurations in a WebCenter Content Server instance. How?

Related Topics

[Manage Oracle WebCenter Content](#)

"Managing Components Using Fusion Middleware Control" in *Oracle Fusion Middleware Administering Oracle WebCenter Content*

Manage Oracle WebCenter Portal

Oracle WebCenter Portal brings you the very latest technology for portals, social networking, communication, collaboration, and personal productivity. This chapter describes typical configuration and administrative tasks you can perform to manage WebCenter Portal.

This chapter includes the following sections:

- [Section 22.1, "WebCenter Portal Home Page"](#)
- [Section 22.2, "WebCenter Portal Service Configuration Page"](#)
- [Section 22.3, "Add New Portlet Producer Page"](#)
- [Section 22.4, "Edit Selected Portlet Producer Page"](#)
- [Section 22.5, "Application Settings"](#)
- [Section 22.6, "Portlet Producer Page"](#)
- [Section 22.7, "Analytics Page"](#)
- [Section 22.8, "Discussions Page"](#)

22.1 WebCenter Portal Home Page

Use the home page to view general information about WebCenter Portal. This is your starting place for managing WebCenter Portal.

Home Page Components	Description
WebCenter Portal Menu	Menu options for WebCenter Portal enable you to: <ul style="list-style-type: none"> ■ Start and stop WebCenter Portal ■ Configure the BPEL server used for WebCenter Portal workflows ■ Manage back-end content repositories for WebCenter Portal ■ Manage back-end services for WebCenter Portal ■ Configure external applications for WebCenter Portal ■ Manage portlet producers ■ Monitor performance ■ Analyze diagnostic information ■ Export and import WebCenter Portal Server (All portals) ■ Configure security policies and roles

Home Page Components	Description
Performance Graphs	<p>Key performance metrics for WebCenter Portal shown graphically. See at a glance:</p> <ul style="list-style-type: none"> ■ WebCenter Portal Metrics - Recent performance and availability data. ■ Recent CPU and Memory Usage - Recent CPU and heap memory usage by the Java Virtual Machine (JVM). ■ WebLogic Server Metrics - Recent server health. ■ Security Metrics - Recent and historical performance metrics. ■ Response and Load - Average page response (in ms) for all portals. The number of invocations per minute is also displayed to help you determine why the average page processing time is increasing or decreasing. ■ Most Active Portals (last 24 hours) - Five most popular portals, that is, portals recording the most invocations. <p>Click More Info to see additional information for these portals and for any other portals being used. See also, Portal Metrics.</p> <p>Click Table View to drill down to more detailed metric data.</p>
WebCenter Portal Services	<p>Key performance metrics for WebCenter Portal tools and services. Use the table to quickly see which tools and services are up and running, and to review individual and relative performances of those services used by WebCenter Portal. Click the name of a service to drill down to more detailed metric data. See also, Service Metrics.</p>
Related Components	<p>Information and direct links to various components used by WebCenter Portal.</p>

Related Topics

Understanding WebCenter Portal Metric Collection

Understanding the Key Performance Metrics

Using Key Performance Metric Data to Analyze and Diagnose System Health

Customizing Key Performance Metric Thresholds and Metric Collection

22.2 WebCenter Portal Service Configuration Page

Use the WebCenter Portal Service Configuration page to configure content repositories, external applications, portlet producers and other back-end services for WebCenter Portal.

Note: All configuration changes are stored in the MDS repository.

This page enables you to perform the following tasks:

- Manage content repositories
- Manage tools and services
- Configure external applications
- Manage portlet producers

22.3 Add New Portlet Producer Page

Use the Add New Portlet Producer page to register a portlet producer or pagelet producer with WebCenter Portal.

Note: All configuration changes are stored in the MDS repository.

This page enables you to perform the following tasks:

- Register WSRP Producers
- Register Oracle PDK-Java Producers
- Register Pagelet Producers

22.4 Edit Selected Portlet Producer Page

Use the Edit Selected Portlet Producer page to update details of the selected portlet producer or pagelet producer.

This page enable you to perform the following tasks:

- Edit WSRP Producers
- Edit Oracle PDK-Java Producers
- Edit Pagelet Producers

22.5 Application Settings

Use the Application Settings page to configure application-level settings for WebCenter Portal:

- **BPEL Server** - Specify the BPEL server connection details to configure the workflow and notification functionality. [More](#)
- **WebCenter Portal Workflows** - Choose whether the BPEL server should be used for WebCenter Portal workflows. [More](#)
- **Notifications** - Configure how to route notifications. [More](#)
- **Search Crawlers** - Choose whether Oracle SES crawlers return search results in WebCenter Portal. [More](#)
- **Search Configuration** - Fine-tune search settings. [More](#)
- **Proxy Server** - Configure a proxy server to enable external RSS news feeds. [More](#)

Updates to this configuration are stored in the MDS repository. You will need to restart the managed server on which the application is deployed for configuration changes to take effect.

22.6 Portlet Producer Page

Use the Portlet Producer page to navigate to existing portlet producer and pagelet producer deployments. The table on this page lists all producers deployed on the WC_Portlets managed server, for example:

- portalTools - OmniPortlet
- wsrp-tools - WSRP Tools

- `pagelet-producer` - Pagelet Producer

To access detailed deployment information, select a producer target in the table.

For more information, see [Managing Portlet Producers](#).

22.7 Analytics Page

Use the Analytics page to monitor and manage the analytics collector deployed on the `WC_Portal` managed server. To access detailed application deployment information, select the `analytics-collector` target.

See also, [Managing Analytics](#).

22.8 Discussions Page

Use the Discussions page to monitor and manage the discussions server application deployed on the `WC_Collaboration` managed server.

To access detailed application deployment information, select the `owc_discussions` target. To test the deployment or to access the discussion server's Web application, click the URL in the **Web Modules** section. This opens the Web application home page for the discussions server.

To access the Admin Console, navigate to `http://host:port/owc_discussions/admin`.

See also, [Managing Discussions and Announcement](#).

Part VIII

Container Topics

This part includes the following appendix:

- [Appendix A, "Task-Summary Topics for Selected Fusion Middleware Control Pages"](#)

A

Task-Summary Topics for Selected Fusion Middleware Control Pages

This appendix provides **container topics** for the Fusion Middleware Control online help system. Container topics (or **task-summary topics**) are online help topics that provide a list of tasks that are associated with a single management page in Fusion Middleware Control. These topics are displayed when you can accomplish multiple tasks from as single Fusion Middleware Control page.

This appendix provides the following topics:

- [Fusion Middleware Components Page](#)
- [Ports Configuration and SSL Configuration Pages](#)
- [Create Port or Edit Port Page](#)
- [Oracle WebLogic Server Domain Home Page](#)
- [Oracle WebLogic Server Cluster Home Page](#)
- [Server Home Page](#)
- [Java EE Application Home Page](#)
- [Cluster Application Home Page](#)
- [Deployment Settings Page](#)
- [Deployment/Redeployment Wizard](#)
- [Wallets Page](#)
- [Keystores Page](#)
- [Manage Certificates \(for Oracle Wallets\) Page](#)
- [Manage Certificates \(for JKS Keystores\) Page](#)
- [Oracle HTTP Server Home Page](#)
- [Oracle SOA Suite](#)
- [Oracle Business Process Management Suite](#)
- [Oracle Data Integrator Console Home Page](#)
- [Oracle Service Bus](#)

A.1 Fusion Middleware Components Page

Use this page to create a new Managed Server or cluster in the Oracle WebLogic Server domain.

You can perform the following tasks on this page:

- [Add Managed Servers to the Domain](#)
- [Create a Cluster in the Domain](#)

A.2 Ports Configuration and SSL Configuration Pages

Use this the Port Configuration page to view, add, or modify ports for the Oracle Fusion Middleware component.

Use the SSL Configuration page to modify ports Oracle Web Cache and specify SSL settings.

These pages enable you to perform the following specific tasks for Oracle Web Cache and Oracle HTTP Server:

- [Configure an Oracle HTTP Server Listening Port](#)

A.3 Create Port or Edit Port Page

Use the Create Port or Edit Port page to create a new port or edit the characteristics of an existing port.

These pages enable you to perform the following specific tasks for Oracle HTTP Server:

- [Configure an Oracle HTTP Server Listening Port](#)

A.4 Oracle WebLogic Server Domain Home Page

Use the Oracle WebLogic Server Domain home page to view general information about the domain associated with this farm.

This page enables you to perform the following tasks:

Before You Begin

- [Manage Oracle WebLogic Server with Fusion Middleware Control](#)
- [Manage Oracle WebLogic Server with the Administration Console](#)

Managing the Farm Domain from Fusion Middleware Control

- [Use the Change Center and set user preferences](#)
- [Deploy Applications Using Fusion Middleware Control](#)
- [Manage Oracle Fusion Middleware Web Services](#)
- [View Oracle Fusion Middleware Log Files](#)

Managing Security for the Domain

- [Manage Security Credentials](#)

<<From Savita Thakur: The above link is breaking. I've converted it to Text only. Please fix.>>

- [Manage Audit Policies with Fusion Middleware Control](#)

A.5 Oracle WebLogic Server Cluster Home Page

Use Oracle WebLogic Server Cluster home page to monitor an Oracle WebLogic Server cluster.

This page enables you to perform the following tasks:

Before You Begin

- [Manage Oracle WebLogic Server with Fusion Middleware Control](#)
- [Manage Oracle WebLogic Server with the Administration Console](#)

Managing the Cluster

- [Monitor Clusters and the Applications Deployed on Clusters](#)
- [Deploy Applications Using Fusion Middleware Control](#)

A.6 Server Home Page

Use the Server home page to view information about the Administration Server or Managed Servers in the Oracle WebLogic Server domain.

This page enables you to perform the following tasks:

Before You Begin

- [Manage Oracle WebLogic Server with Fusion Middleware Control](#)
- [Manage Oracle WebLogic Server with the Administration Console](#)

Managing the Server

- [Monitor Managed Servers and the Applications Deployed on Managed Servers](#)
- [View Oracle Fusion Middleware Log Files](#)
- [Deploy Applications Using Fusion Middleware Control](#)

A.7 Java EE Application Home Page

Use the Java EE application home page to view information about the selected application. You can perform the following tasks from this page.

This page enables you to perform the following tasks:

Before You Begin

- [Manage Oracle WebLogic Server with Fusion Middleware Control](#)
- [Manage Oracle WebLogic Server with the Administration Console](#)

Managing the Application

- [Monitor Managed Servers and the Applications Deployed on Managed Servers](#)
- [Deploy Applications Using Fusion Middleware Control](#)
- [Redeploy Applications Using Fusion Middleware Control](#)
- [Create and Register an MDS Repository](#)

A.8 Cluster Application Home Page

Use this page to view information about the selected application that is deployed on an Oracle WebLogic Server cluster.

This page enables you to perform the following tasks:

Before You Begin

- [Manage Oracle WebLogic Server with Fusion Middleware Control](#)
- [Manage Oracle WebLogic Server with the Administration Console](#)

Managing the Cluster Application

- [Monitor Clusters and the Applications Deployed on Clusters](#)

A.9 Deployment Settings Page

When you deploy an application with Fusion Middleware Control, you can use the Deployment Settings page of the Deployment Wizard and its related deployment task pages modify the deployment plan settings for the application.

From the Deployment Settings page, you can perform the following tasks:

- Use the Deployment Plan section of the Deployment Settings page to view, modify, or save all the deployment plan settings for this specific application deployment. [More](#)
- Or, use one or more of the Deployment Tasks to modify typical deployment plan settings, specific to the application you are deploying. [More](#)

Only the tasks that apply to the contents of the selected archive are displayed on the Deployment Settings page.

For more information about managing deployment settings, see [Section 4.6, "Deploy Applications Using Fusion Middleware Control."](#)

A.10 Deployment/Redeployment Wizard

Depending upon the menu command you selected, you can perform one of the following tasks from the pages of this wizard:

- [Deploy Applications Using Fusion Middleware Control](#)
- [Redeploy Applications Using Fusion Middleware Control](#)

A.11 Wallets Page

Use the Wallets page to create and manage Oracle wallets.

You can perform the following tasks from this page:

- Create a Wallet
- Create a Self-Signed Wallet
- Export a Wallet
- Import a Wallet
- Delete a Wallet

A.12 Keystores Page

Use the Keystores page to create and manage Java (JKS) keystores.

You can perform the following tasks from this page:

- Create a Keystore
- Export a Keystore
- Delete a Keystore
- Import a Keystore
- Change the Keystore Password

For more information about creating a keystore, deleting a keystore, and changing the keystore password using the Fusion Middleware Control, see "Managing Keystores with Fusion Middleware Control" in *Securing Applications with Oracle Platform Security Services*.

For more information about exporting and importing a keystore using command line, see "Managing Keystores with WLST" in *Securing Applications with Oracle Platform Security Services*.

A.13 Manage Certificates (for Oracle Wallets) Page

Use the Manage Certificates page to create and manage certificates for Oracle wallets.

You can perform the following tasks from this page:

- Add a Certificate Request
- Export a Certificate, Certificate Request, or a Trusted Certificate
- Import a Certificate or a Trusted Certificate
- Delete a Certificate Request, a Certificate, or a Trusted Certificate
- Convert a Self-Signed Certificate into a Third-Party Certificate

A.14 Manage Certificates (for JKS Keystores) Page

Use the Manage Certificates page to create and manage certificates for Java (JKS) keystores.

You can perform the following tasks from this page:

- Generate a Certificate Signing Request
- Import a Certificate or Trusted Certificate into a Keystore
- Export a Certificate or Trusted Certificate from the Keystore
- Delete a Certificate or Trusted Certificate from the Keystore
- Convert a Self-Signed Certificate to a Third-Party Certificate

A.15 Oracle HTTP Server Home Page

Use the Oracle HTTP Server Home page to view general information about Oracle HTTP Server.

From this page, you can perform the following tasks:

Configure Oracle HTTP Server

- Set the Listening Port
- Configure SSL for a Listening Port
- Specify Server Configuration Properties
- Configure MIME Settings
- Configure mod_wl_ohs
- Configure mod_perl
- Configure Error and Access Logs
- Configure a Virtual Host

Manage Oracle HTTP Server

- Start Oracle HTTP Server
- Stop Oracle HTTP Server
- Restart Oracle HTTP Server
- View Port Numbers
- View Oracle HTTP Server Logs

Monitor Oracle HTTP Server Performance

- Monitoring Server Performance
- Set Performance Directives

A.16 Oracle SOA Suite

Use this page to manage Oracle SOA Suite.

A.16.1 SOA Infrastructure

Use this page to manage the SOA Infrastructure.

A.16.1.1 Manage the SOA Infrastructure

Use the SOA Infrastructure page to configure, monitor, and manage deployed SOA composite applications.

This page enables you to perform the following tasks:

- [Monitor Overall Status of the SOA Infrastructure](#)
- [Monitor Deployed SOA Composite Applications in the SOA Infrastructure](#)
- [Track Business Flow Instances in the SOA Infrastructure](#)
- [Manage Faults in the Error Hospital of the SOA Infrastructure](#)

A.16.2 SOA Partitions

Use the SOA partition to manage and monitor deployed SOA composite application.

This page enables you to perform the following tasks:

- [Manage a Partition from the Dashboard Page](#)
- [Manage Deployed Composites in the Partition](#)

- [Track Business Flow Instances in the Partition](#)
- [Manage Faults in the Error Hospital in the Partition](#)

A.16.3 SOA Composite Application

Use this page to manage the SOA composite application.

A.16.3.1 Oracle SOA Composite Page

Use the Oracle SOA Composite page to monitor, manage, and run SOA composite applications.

This page enables you to perform the following tasks:

- [Monitor the SOA Composite Application Dashboard](#)
- [View the SOA Composite Application Diagram](#)
- [Tracking Business Flow Instances of the SOA Composite Application](#)
- [Automate SOA Composite Application Tests](#)
- [Manage SOA Composite Application Policies](#)

A.16.4 Oracle BPEL Process Manager

Use this page to manage Oracle BPEL Process Manager.

A.16.4.1 BPEL Component Page

Use the BPEL Component page to monitor and manage BPEL process service components.

This page enables you to perform the following tasks:

- [Monitor BPEL Process Service Component Dashboard](#)
- [Manage BPEL Process Service Component Policies](#)

A.16.4.2 BPEL Engine Page

Use the BPEL Engine page to monitor and manage BPEL service engines.

This page enables you to perform the following tasks:

- [Monitor Deployments in the BPEL Process Service Engine](#)
- [Monitor BPEL Process Service Engine Pending and Active Requests and Thread Performance Statistics](#)
- [Recover from BPEL Process Service Engine Message Failure](#)

A.16.5 Decision Service Component

Use this page to manage the decision service component.

A.16.5.1 Decision Service Component Page

Use the Decision service component page to monitor and manage Decision Service components.

These pages enable you to perform the following tasks:

- [Manage Decision Service Components](#)

A.16.5.2 Business Rules Engine Page

Use the Business Rules engine page to monitor and manage Business Rules service engines.

This page enables you to perform the following tasks:

- [Monitor Business Rules Service Engine Statistics](#)
- [Monitor Deployed Decision Service Components](#)

A.16.6 Human Workflow

Use this page to manage human workflow.

A.16.6.1 Human Workflow Engine Page

Use the Human Workflow Engine page to monitor and manage human workflow service engines.

This page enables you to perform the following tasks:

- [Monitor Human Workflow Service Engine Active Requests and Operation Statistics](#)
- [Monitor Deployments in the Human Workflow Service Engine](#)
- [Manage Human Workflow Service Engine Incoming and Outgoing Notifications](#)

A.16.6.2 Human Task Component Page

Use the Human Task Component page to monitor and manage human task service components.

This page enables you to perform the following tasks:

- [Manage Human Task Service Component Policies](#)
- [Manage the URI of the Human Task Service Component Task Details Application](#)

A.16.7 Oracle Mediator

Use to manage Oracle Mediator.

A.16.7.1 Oracle MediatorService Component Page

Use the Oracle Mediator page to monitor and manage Oracle Mediator service components.

- [Monitor Mediator Service Component Recent Instances and Faults](#)
- [Monitor Mediator Service Component Instances](#)
- [Monitor Mediator Service Component Faults](#)
- [Recover From Mediator Service Component Faults](#)
- [Manage Mediator Service Component Policies](#)

A.16.7.2 Oracle MediatorService Engine Page

Use the Oracle Mediator page to monitor and manage the Oracle Mediator service engine.

- [Monitor Request Breakdown Statistics](#)

- [Monitor Deployments in the Mediator Service Engine](#)
- [Recover from Mediator Service Engine Faults](#)
- [Recover from Mediator Service Engine Faults](#)

A.16.8 Binding Components

Use to manage binding components.

A.16.8.1 Services and References Binding Components Page

Use the Services and References page to configure, monitor, and manage service and reference binding components in SOA composite applications.

This page enables you to perform the following tasks:

- [Monitor Services and References Binding Component Instances and Faults](#)
- [Manage Service and Reference Binding Component Policies](#)
- [Configure Service and Reference Binding Component Properties](#)
- [View Adapter Reports](#)

A.16.9 Business Events

Use the Business Events page to manage business events.

A.16.9.1 Business Events Page

Use the Business Events page to manage business events.

This page enables you to perform the following tasks:

- [Subscribe to Business Events](#)
- [Manage Business Event Subscribers](#)

A.16.10 Oracle BAM

Use this page to manage Oracle Business Activity Monitoring.

A.16.10.1 Oracle BAM Server Page

Use the Oracle BAM Server page to monitor server performance and configure server properties.

This page enables you to perform the following tasks:

- [Monitor Oracle BAM Server Performance](#)
- [Configure Oracle BAM Server Properties](#)

A.16.10.2 Oracle BAM Web Applications Page

Use the Oracle BAM Web Applications page to monitor web applications performance and configure web application properties.

This page enables you to perform the following tasks:

- [Monitor Oracle BAM Web Applications Performance](#)
- [Configure Oracle BAM Web Properties](#)

A.17 Oracle Business Process Management Suite

Use this page to manage Oracle Business Process Management Suite.

A.17.1 BPMN Component Page

Use the BPMN Component page to monitor and manage BPMN process service components.

This page enables you to perform the following tasks:

- [Manage BPMN Process Service Component Policies](#)

A.17.2 BPMN Engine Page

Use the BPMN Engine page to monitor and manage BPMN service engines.

This page enables you to perform the following tasks:

- [Monitor BPMN Process Service Engine Performance Statistics](#)
- [Monitor Deployments in the BPMN Process Service Engine](#)
- [Recover from BPMN Process Service Engine Message Failure](#)

A.18 Oracle Data Integrator Console Home Page

Use this page to configure and manage Oracle Data Integrator. From this page, you can perform the following tasks:

- [Configure Oracle Data Integrator](#)
- [Manage Oracle Data Integrator](#)

A.18.1 Agent Home Page

Use this page to monitor the Oracle Data Integrator run-time agents.

You can perform the following tasks on this page:

- Click **Master Repository** to access the Master Repository Home Page and monitor Master Repository components.
- Search Sessions
- Search Load Plan Executions

A.18.2 Master Repository Home Page

Use this page to monitor the master repository components.

You can perform the following tasks on this page:

- Search Sessions
- Search Load Plan Executions

A.19 Oracle Service Bus

Use these pages to monitor and manage Oracle Service Bus projects and services.

A.19.1 Manage an Oracle Service Bus Domain

Use this page to monitor and manage service health, alerts, and errors across a Service Bus domain. You can also update operational and global settings, skip resequenced messages, and recover from resequencing faults.

You can perform the following tasks on this page:

- [Monitor Service Bus SLA Alerts](#)
- [Monitor Service Bus Pipeline Alerts](#)
- [Monitor Service Bus Services with Errors](#)
- [Monitor Service Health Across a Service Bus Domain](#)
- [Monitor Service Bus Resequencing Groups](#)
- [Skip Resequencing Messages or Recover from Faults](#)
- [Configure Operational Settings for Multiple Services Across the Domain](#)
- [Configure Service Bus Global Operational Settings](#)

A.19.2 Manage an Oracle Service Bus Project

Use this page to monitor and manage service health across a Service Bus project and to configure operational settings for services the project.

You can perform the following tasks on this page:

- [Monitor Service Health for a Service Bus Project](#)
- [Configure Operational Settings for Multiple Services in a Project](#)

A.19.3 Manage an Oracle Service Bus Service Without OWSM Policies

Use this page to monitor and manage service health for a Service Bus service that does not have any OWSM policies attached. You can also configure operational settings for the service.

You can perform the following tasks on this page:

- [Monitor Health for a Service Bus Service](#)
- [Configure Operational Settings for a Single Service](#)

A.19.4 Manage an Oracle Service Bus Service with OWSM Policies

Use this page to monitor and manage service health for a Service Bus proxy or business service to which OWSM policies can be attached. You can also configure operational settings for the service.

You can perform the following tasks on this page:

- [Monitor Health for a Service Bus Service](#)
- [View and Update Security Policies](#)
- [Configure Operational Settings for a Single Service](#)

