



# Operations Bridge Reporter

Software Version: 10.22  
Windows® and Linux operating systems

## Oracle WebLogic Server Content Pack Reference

Document Release Date: December 2017  
Software Release Date: December 2017

  
**Hewlett Packard**  
Enterprise

## Legal Notices

### Warranty

The only warranties for Seattle SpinCo, Inc and its subsidiaries ("Seattle") products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Seattle shall not be liable for technical or editorial errors or omissions contained herein. The information contained herein is subject to change without notice.

### Restricted Rights Legend

Confidential computer software. Except as specifically indicated, valid license from Seattle required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

### Copyright Notice

© 2015 - 2017 EntIT Software LLC, a Micro Focus company

### Trademark Notices

Adobe™ is a trademark of Adobe Systems Incorporated.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

UNIX® is a registered trademark of The Open Group.

## Documentation Updates

To check for recent updates or to verify that you are using the most recent edition of a document, go to: <https://softwaresupport.hpe.com/>.

This site requires that you register for an HPE Passport and to sign in. To register for an HPE Passport ID, click **Register** on the HPE Software Support site or click **Create an Account** on the HPE Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HPE sales representative for details.

## Support

Visit the HPE Software Support site at: <https://softwaresupport.hpe.com/>.

Most of the support areas require that you register as an HPE Passport user and to sign in. Many also require a support contract. To register for an HPE Passport ID, click **Register** on the HPE Support site or click **Create an Account** on the HPE Passport login page.

To find more information about access levels, go to: <https://softwaresupport.hpe.com/web/softwaresupport/access-levels>.

**HPE Software Solutions Now** accesses the HPE SW Solution and Integration Portal website. This site enables you to explore HPE Product Solutions to meet your business needs, includes a full list of Integrations between HPE Products, as well as a listing of ITIL Processes. The URL for this website is <https://softwaresupport.hpe.com/km/KM01702731>.

## About this PDF Version of Online Help

This document is a PDF version of the online help. This PDF file is provided so you can easily print multiple topics from the help information or read the online help in PDF format. Because this content was originally created to be viewed as online help in a web browser, some topics may not be formatted properly. Some interactive topics may not be present in this PDF version. Those topics can be successfully printed from within the online help.

# Contents

About This Document .....	5
Getting Started .....	6
Operations Bridge Reporter (OBR) Overview .....	6
Deployment Scenarios .....	6
Types of Reports .....	7
Oracle WebLogic Server Content Pack Overview .....	9
Target Audience .....	9
Data Sources for WebLogic Data .....	9
Integrating with Data Sources for Operations Smart Plug-ins .....	10
Prerequisite .....	10
Working of the Integration .....	10
Prerequisite Policies for Oracle WebLogic Reports .....	10
Integrating with Data Sources for OMi Management Packs .....	12
Working of the Integration .....	13
Prerequisite Policies for Oracle WebLogic Reports .....	13
Deploy Topology Views .....	16
List of Content Pack and Topology Views to Deploy .....	16
BSM Server .....	16
OMi 10 Server .....	18
Install the Content Pack .....	21
Check Availability and Integrity of Data Sources .....	21
Selecting the Content Pack Components .....	23
Install the Content Pack .....	25
Uninstalling the Content Pack Components .....	27
Data Source Collection Configuration .....	28
Configuring the Operations Agent Data Source .....	28
Report Navigation .....	29
Use Cases .....	31
Appendix .....	33
Appendix A: Terminology .....	33
Appendix B: Calculating WebLogic Server Instance Availability .....	33

Appendix C: Metric Mapping for Reports .....	35
Send documentation feedback .....	36

# About This Document

This document provides an overview of OBR and Oracle WebLogic Server Content Pack. This document provides the list of Oracle WebLogic Server reports available with the Oracle WebLogic Server Content Pack. The document also lists the prerequisite aspects and policies required for Operations Bridge Reporter (OBR) to integrate with Operations Smart Plug-ins (SPIs) and OMI Management Packs.

This document helps you to deploy the topology views, install and configure the data source for the Oracle WebLogic Server Content Pack, and configure the data source. It provides information on report navigation, metric mapping for report and calculate instance availability.

For information on Operations Bridge Reporter tools and contents, go to [Marketplace](#).

# Getting Started

This section provides OBR overview, deployment scenarios, and types of reports.

## Operations Bridge Reporter (OBR) Overview

OBR is a cross-domain historical infrastructure performance reporting solution. It displays top-down reports from Business Service Management (BSM) Business Service and Business Application, Operations Manager (OM) Node Group or OMi10 perspective to the underlying infrastructure. It also displays bottoms-up reports from the infrastructure to the impacted Business Services and Business Applications or Node Groups. It leverages the topology information to show how the underlying infrastructure health, performance and availability affects your Business Services and Business Applications or Node Groups in the long term. You can navigate from higher level cross domain reports to detailed domain level reports.

## Deployment Scenarios

Following are the deployment scenarios supported on OBR:

- **Deployment with BSM/OMi** - In this deployment, Run-time Service Model (RTSM) is the source of topology information. OBR discovers and synchronizes topology information from OMi. In a BSM environment with underlying OM servers, this synchronization technique receives discovered topology data from multiple OM systems and updates the Configuration Items (CIs) and CI relationships in the RTSM as soon as changes are discovered. However, you can also use the OM D-MoM dynamic topology synchronization technique to discover and synchronize the topology information in RTSM. In an environment with OMi 10.00, OBR uses RTSM to obtain topology information and metrics from Operations Agent or SiteScope systems that are configured with OMi.
- **Deployment with Operations Manager** - In this deployment, the topology information is a group of managed nodes defined in OM that are logically combined for operational monitoring. These logical node groups are created by OM users to classify the nodes as specific organizations or entities within their enterprise. For example, a group called `Exchange Servers` can be created in OM to organize the specific Exchange Servers and Active Directory nodes for reporting or monitoring purposes. OBR uses the node groups from OM for its topology computation.

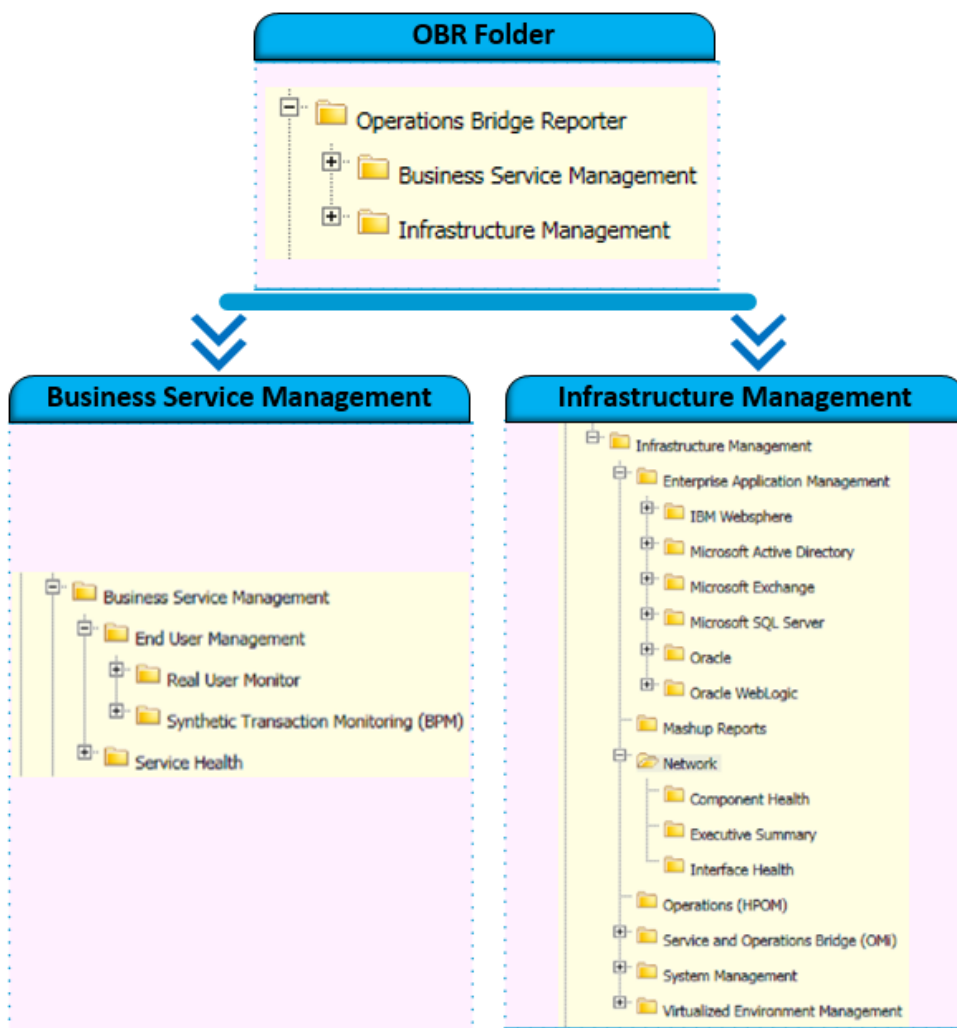
- **Deployment with VMware vCenter** - VMware vCenter is a distributed server-client software solution that provides a central and a flexible platform for managing the virtual infrastructure in business-critical enterprise systems. VMware vCenter centrally monitors performance and events, and provides an enhanced level of visibility of the virtual environment, thus helping IT administrators to control the environment with ease.
- **Other deployments** - Apart from the basic deployment scenarios, you can collect data from the following sources independently:
  - Deployment with NNMI
  - Deployment with a generic database
  - Deployment with other applications using CSV

## Types of Reports

The reports available in Operations Bridge Reporter (OBR) are divided into two broad categories:

- Business Service Management
- Infrastructure Management

The following image shows the supported list of reports folders under both these categories:



To view a map of all the reports available in the Oracle WebLogic Server Content Pack, see [Report Navigation](#).

For more information on Operations Bridge Reporter concepts, see *Operations Bridge Reporter Concepts Guide* and *Operations Bridge Reporter Content Development Guide*.



# Oracle WebLogic Server Content Pack Overview

This section provides an overview of Oracle WebLogic Server Content Pack, target audience, and supported data sources.

The Oracle WebLogic Server Content Packs determine the fact data that are to be collected from the various data sources, and the interval at which the data is collected. Configuration of the data source connections for the Oracle WebLogic Server Content Packs depends on the type of deployment scenario used.

## Target Audience

The target audience for the WebLogic reports is Operations Center Managers/Application Administrators, who help to setup and administer the various tasks involved in maintaining the web application servers in the IT infrastructure. The Oracle WebLogic reports help to identify and analyze the performance of WebLogic server instances over a period based on availability and responsiveness metrics so as to optimize the server parameters and appropriately consolidate consuming applications.

## Data Sources for WebLogic Data

OBR integrates with and collects historical and ongoing database performance metrics from the Operations Smart Plug-In and OMi Management Pack for Oracle WebLogic Server data stores in both BSM Run-time Service Model (RTSM) and OM deployment scenarios.

The AppServer WebLogic Content Pack identifies the list of metrics or facts that OBR must collect from each of these data sources. The corresponding dimension data is collected from the RTSM or OM topology source, depending on OBR's deployment scenario.

OBR collects data from different data sources at periodic intervals based on the collection policies predefined in the **OracleWebLogic\_ETL\_WebLogicSPI Content Pack**. From each data source, summarized fact data is collected at a 5-minute interval. This fact data is called rate data and is stored in the database in rate tables as individual records. Therefore, for a 60-minute interval, there are 12 records in the tables. OBR then performs aggregation routines on these records and converts the data to hourly and daily data. This aggregated data is displayed in the reports along with monthly and yearly aggregates that are derived via online aggregation.

# Integrating with Data Sources for Operations Smart Plug-ins

To show reports on the data collected from Oracle WebLogic Server, OBR relies on the metrics collected by collectors of Operations Smart Plug-ins for Oracle WebLogic Server (Oracle WebLogic Server SPI). SPI collectors store the data into the data store provided by the Operations agent. OBR's integration with SPI data sources facilitate transfer of data from Operations agent's data store to OBR's database. This integration is established when you deploy OBR in the OM deployment scenario.

OBR provides performance reports for the Oracle WebLogic Server enterprise applications.

## Prerequisite

The following is the prerequisite to integrate with data source for Operations Smart Plug-ins:

- CODA logging is a prerequisite for OBR to be able to collect data from multiple instances.

## Working of the Integration

1. Installation and configuration of the SPI ensures that necessary instrumentation, scripts, programs, and policies are transferred to a node where the application is running and the Operations agent is already installed.

**Tip:** For successful installation and configuration of Oracle WebLogic Server SPI, see the SPI documentation.

2. SPI collectors start collecting data on the node based on rules and specifications available with the policies deployed on the node.
3. SPI stores the collected data into Operations agent's data store. The SPI creates at least one *data source* in agent's data store.
4. After configuring OBR to collect data from a data source and installing Oracle WebLogic Server, OBR starts collecting historical data from agent's data store.

## Prerequisite Policies for Oracle WebLogic Reports

The following table lists the Oracle WebLogic SPI policies required by each Oracle WebLogic report.

**Note:** Policy Configuration Requirement is not required; deploy the policy with default settings.

Report Name	Data Source	Data Class	Required SPI Policy
WebLogic Servlet Performance Summary	WLSSPI	WLSSPI_METRICS	<ul style="list-style-type: none"> <li>• WLSSP I_0240</li> <li>• WLSSP I_0242</li> </ul>
WebLogic JVM Utilization	WLSSPI	WLSSPI_METRICS	<ul style="list-style-type: none"> <li>• WLSSP I_0005</li> <li>• WLSSP I_0819</li> </ul>
WebLogic Top N Summary	WLSSPI	WLSSPI_METRICS WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSP I_0025</li> <li>• WLSSP I_0010</li> <li>• WLSSP I_0012</li> </ul>
WebLogic EJB Cache Hit	WLSSPI	WLSSPI_METRICS WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSP I_0061</li> <li>• WLSSP I_0262</li> <li>• WLSSP I_0238</li> </ul>
WebLogic Transaction Performance Details	WLSSPI	WLSSPI_METRICS WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSP I_0076</li> <li>• WLSSP I_0070</li> <li>• WLSSP I_0071</li> </ul>
WebLogic JDBC Connection Pool Summary	WLSSPI	WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSP I_0260</li> <li>• WLSSP I_0262</li> <li>• WLSSP I_0063</li> <li>• WLSSP I_0061</li> <li>• WLSSP I_0263</li> </ul>

Report Name	Data Source	Data Class	Required SPI Policy
			<ul style="list-style-type: none"> <li>• WLSSPI_I_0265</li> </ul>
WebLogic Executive Summary	WLSSPI	WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSPI_I_0001</li> <li>• WLSSPI_I_0255</li> <li>• WLSSPI_I_00256</li> </ul>
WebLogic JMS Performance Details	WLSSPI	WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSPI_I_0251</li> <li>• WLSSPI_I_0252</li> </ul>
WebLogic Server Availability Details	WLSSPI	WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSPI_I_0253</li> <li>• WLSSPI_I_0254</li> </ul>

**Note:** The SHR also collects data from the following policies:

WLSSPI\_0011, WLSSPI\_0035, WLSSPI\_0036, WLSSPI\_0026, WLSSPI\_0014, WLSSPI\_0284, WLSSPI\_0285, WLSSPI\_0286, WLSSPI\_0287, WLSSPI\_0288, WLSSPI\_0823, WLSSPI\_0072, WLSSPI\_0073, WLSSPI\_0074, WLSSPI\_0075, WLSSPI\_0079, WLSSPI\_0224, WLSSPI\_0225.

Using these policies, you can create OOTB custom reports.

## Integrating with Data Sources for OMi Management Packs

To show reports on the data collected from Oracle WebLogic Server, OBR relies on the metrics collected by OMi Management Pack. The OMi Management Pack collectors store the data into the data store provided by the Operations agent. OBR's integration with OMi Management Pack data sources facilitates transfer of data from Operations agent's data store to OBR's database. This integration is established when you deploy OBR views in the RTSM deployment scenario.

OBR provides performance reports for the WebLogic Management Pack enterprise application.

## Working of the Integration

1. Installation and configuration of an OMi Management Pack ensures that necessary instrumentation, scripts, programs, and policies are transferred to a node where the application is running and the Operations agent is already installed.

**Tip:** For successful installation and configuration of OMi Management Packs, see the OMi Management Pack documentation.

2. OMi Management Pack collectors start collecting data on the node based on rules and specifications available with the policies deployed on the node.
3. OMi Management Pack stores the collected data into Operations agent's data store. OMi Management Pack creates at least one *data source* in agent's data store.
4. After configuring OBR to collect data from a data source and installing Content Packs, OBR starts collecting historical data from agent's data store.

## Prerequisite Policies for Oracle WebLogic Reports

The following table lists the OMi MP for Oracle WebLogic policies and aspects required for each Oracle WebLogic report.

Report Name	Aspect Name	Policy Templates in Aspect	Operations agent	
			Data Source Name	Data Class Name
WebLogic Servlet Performance Summary	Weblogic Servlet Performance	Weblogic_ServletAverageExecutionTime Weblogic_ServletRequestRate	WEBLOG I C_DATA	WEBLOGIC_SERVLETS
WebLogic JDBC Connection Pool Summary	Weblogic JDBC Connection Pool Status	Weblogic_ConnectionDelayTime Weblogic_JDBCConnectionLeakRate Weblogic_JDBCConnectionPoolThroughputRate Weblogic_JDBCConnectionPoolUtilization	WEBLOG I C_DATA	WEBLOGIC_JDBC
WebLogic	Weblogic	Weblogic_JVMHeapUsage	WEBLOG	WEBLOGIC_

Report Name	Aspect Name	Policy Templates in Aspect	Operations agent	
			Data Source Name	Data Class Name
Top N Summary	JVM Heap Memory		IC_DATA	JVM
	Weblogic JDBC Connection Pool Status	Weblogic_ConnectionDelayTime Weblogic_JDBCConnectionPoolThroughputRate	WEBLOG IC_DATA	WEBLOGIC_JDBC
	Weblogic EJB Performance	Weblogic_EJBCacheHitPercentage Weblogic_EJBPoolWaitCount	WEBLOG IC_DATA	WEBLOGIC_EJB_TRANS WEBLOGIC_EJB
WebLogic EJB Cache Hit	Weblogic EJB Performance	Weblogic_EJBCacheHitPercentage	WEBLOG IC_DATA	WEBLOGIC_EJB_TRANS
WebLogic JMS Performance Details	Weblogic JMS Performance	Weblogic_JMSServerThruByteRate Weblogic_JMSServerThruMessageRate Weblogic_JMSUtilizationByBytesPercentage Weblogic_JMSUtilizationByMessagesPercentage	WEBLOG IC_DATA	WEBLOGIC_JMS
WebLogic JVM Utilization	Weblogic JVM Heap Memory	Weblogic_JVMHeapUsage Weblogic_JVMHeapFreeMemory	WEBLOG IC_DATA	WEBLOGIC_JVM
WebLogic Server Availability Details	Weblogic Server Status	Weblogic_ServerStatus	WEBLOG IC_DATA	WEBLOGIC_SERVER
WebLogic Transaction Performance Details	Weblogic Transactions	Weblogic_TransactionThroughputRate Weblogic_TransactionAverageTime	WEBLOG IC_DATA	WEBLOGIC_TRANSACTION
WebLogic Executive Summary	Weblogic Server Status	Weblogic_ServerStatus	WEBLOG IC_DATA	WEBLOGIC_SERVER

**Note:** All the other metrics that were part of this report are collected from the System Management and OM OBR Content Packs.

## Deploy Topology Views

To configure OBR to collect domain-specific data, you need to deploy the topology views for Oracle WebLogic Server Content Pack. These topology views contain specific CI attributes that Oracle WebLogic Server Content Pack uses to collect the relevant data.

## List of Content Pack and Topology Views to Deploy

The following table lists the topology views to deploy for Oracle WebLogic Server Content Pack:

Content Pack	View Name	Location
<b>On Windows</b>		
Oracle WebLogic Server	J2EEApplication.zip J2EEApplication_OM.zip	<b>For OM/SPI:</b> %PMDB_ HOME%\packages\ApplicationServer\ETL_AppSrvrWLS_WLSSPI.ap\source\cldb_views  <b>For OMi/MP:</b> %PMDB_ HOME%\packages\ApplicationServer\ETL_AppSrvrWLS_WLSMP.ap\source\cldb_views
<b>On Linux</b>		
Oracle WebLogic Server	J2EEApplication.zip J2EEApplication_OM.zip	<b>For OM/SPI:</b> \$PMDB_ HOME/packages/ApplicationServer/ETL_AppSrvrWLS_WLSSPI.ap/source/cldb_views  <b>For OMi/MP:</b> \$PMDB_ HOME/packages/ApplicationServer/ETL_AppSrvrWLS_WLSMP.ap/source/cldb_views

For more information on topology model views for the Oracle WebLogic Server Content Pack, see *HPE Operations Bridge Reporter Configuration Guide*.

## BSM Server

To deploy the topology model views for the Oracle WebLogic Server Content Pack in the BSM server, follow these steps:



1. In the web browser, type the following URL:

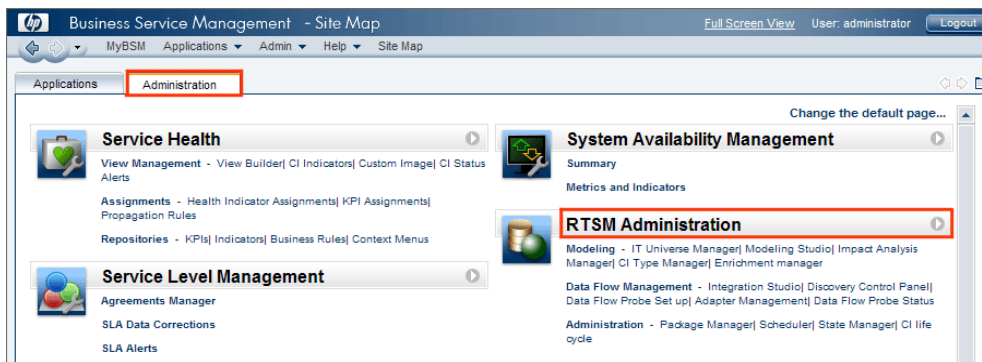
`http://<BSM system FQDN>/bsm`

where, `<BSM system FQDN>` is the FQDN of the BSM server.

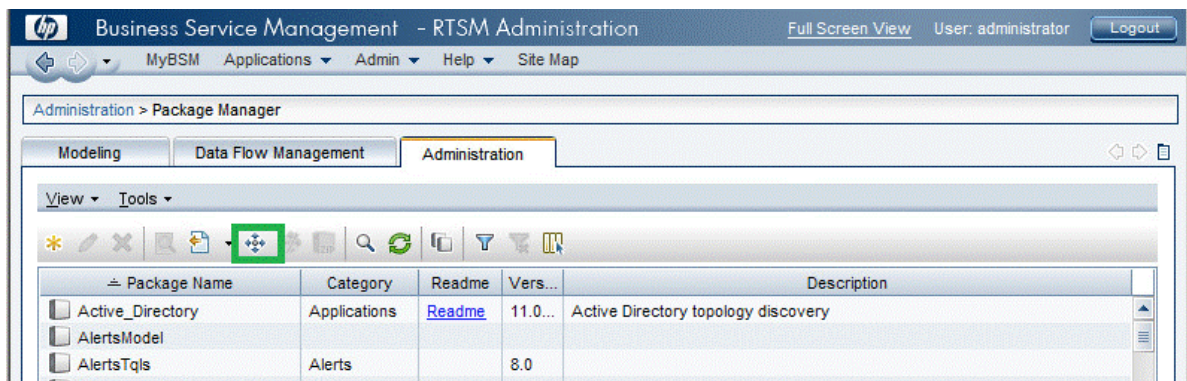
**Note:** You can launch the BSM server from a system where OBR is installed or any other local system. If you are launching from local system, ensure that you browse to the location mentioned in [List of Content Pack and Topology Views to Deploy](#) and copy the required views to your local system.

The Business Service Management Login page appears.

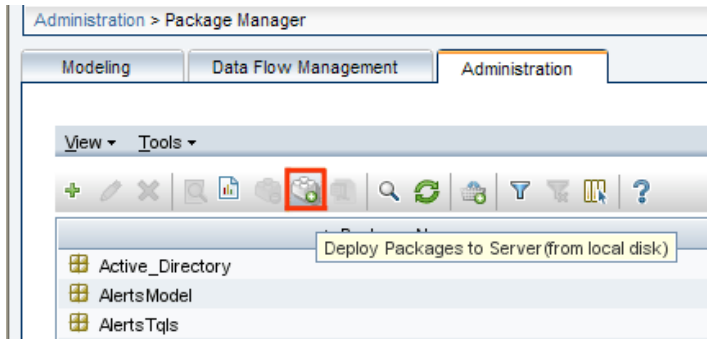
2. Type the login name and password and click **Log In**. The Business Service Management - Site Map appears.
3. Click **Administration > RTSM Administration**. The RTSM Administration page appears.



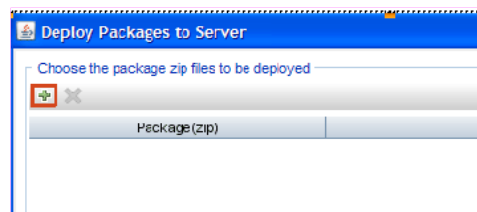
4. Click **Administration > Package Manager**. The Package Manager page appears.



5. Click the **Deploy Packages to Server (from local disk)** icon. The **Deploy Package to Server** dialog box appears.



6. Click the **Add** icon.



The **Deploy Package to Server (from local disk)** dialog box appears.

7. Browse to the location of the Content Pack zip files, select the required files, and then click **Open**.  
You can view and select the TQL and ODB views that you want to deploy under **Select the resources you want to deploy** in the **Deploy Package to Server (from local disk)** dialog box. Ensure that all the files are selected.
8. Click **Deploy** to deploy the Content Pack views.

You have successfully deployed the Content Packs views based on the type of deployment scenario selected for OBR.

## OMi 10 Server

To deploy the topology model views for the Oracle WebLogic Server Content Pack in the OMi 10 server, follow these steps:

1. In the web browser, type the following URL:

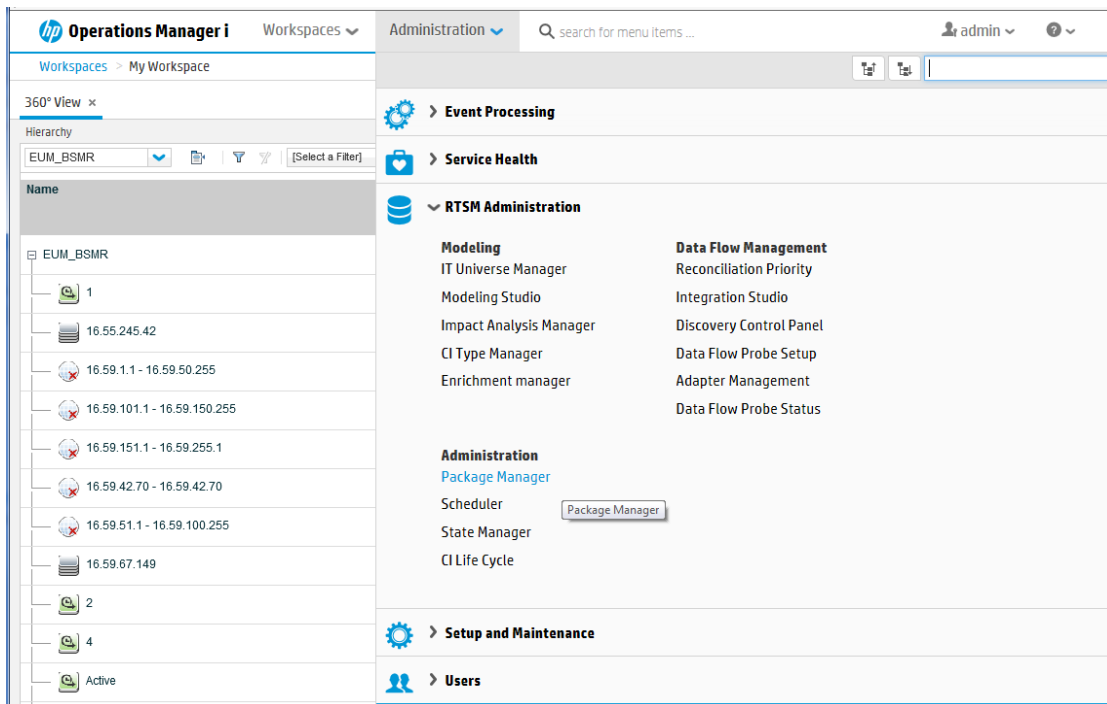
`http://<OMi system FQDN>/omi`

where, <OMi system FQDN> is the FQDN of the OMi server.

**Note:** You can launch the OMi server from a system where OBR is installed or any other local system. If you are launching from local system, ensure that you browse to the location mentioned in [List of Content Pack and Topology Views to Deploy](#) and copy the required views to your local system.

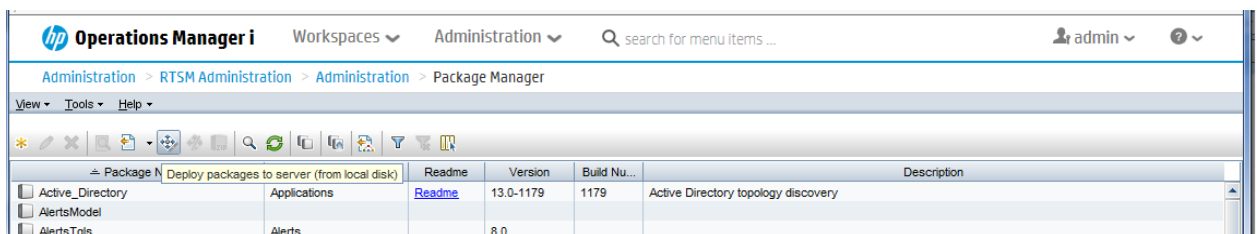
The Operations Manager i Login page appears.

2. Type the login name and password and click **Log In**. The Operations Manager i Workspace page appears.
3. Click **Administration > RTSM Administration > Package Manager**.

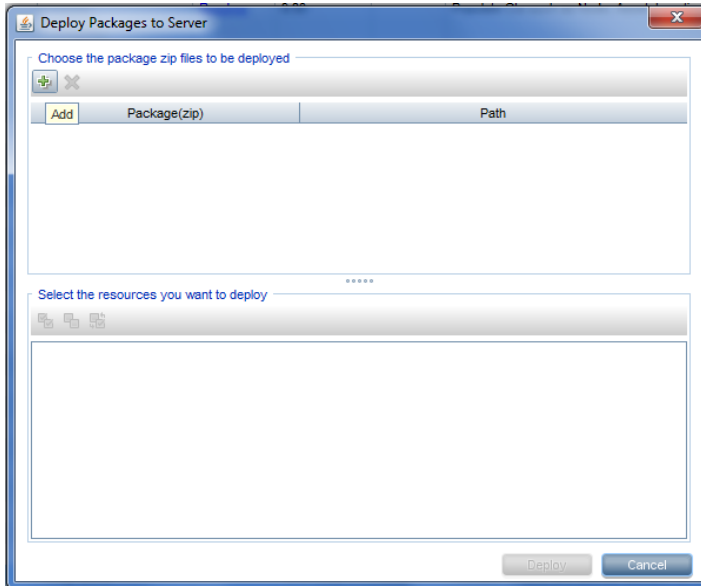


The Package Manager page appears.

4. Click the **Deploy Packages to Server (from local disk)** icon. The **Deploy Package to Server** dialog box appears.



5. Click the **Add** icon.



The **Deploy Package to Server (from local disk)** dialog box appears.

6. Browse to the location of the Content Pack zip files, select the required files, and then click **Open**.

You can view and select the TQL and ODB views that you want to deploy under **Select the resources you want to deploy** in the **Deploy Package to Server (from local disk)** dialog box. Ensure that all the files are selected.

7. Click **Deploy** to deploy the Content Pack views.

You have successfully deployed the Content Packs views based on the type of deployment scenario selected for OBR.

# Install the Content Pack

Before you begin to install the Content Packs, check the availability and integrity of the data sources.

## Check Availability and Integrity of Data Sources

[[[Undefined variable \_HPc\_Basic\_Variables.Short\_Name]]] has Data Source Readiness Check tool that enables you to check the availability and integrity of RTSM and PA data sources before installing Content Packs. The tool is available on Windows and Linux operating systems. You can check the data source readiness using the property file or by database.

### Check Data Source Related to RTSM

To check the availability and integrity of data source related to RTSM, follow these steps:

1. Log on to the [[[Undefined variable \_HPc\_Basic\_Variables.Short\_Name]]] system.
2. Before you check the data source readiness, ensure the following:
  - a. The **dscheck** folder is available in PMDB\_HOME.
  - b. The dscheckRTSM.sh script is available in %PMDb\_HOME%\dscheck\bin (**On Windows**) and \$PMDb\_HOME/dscheck/bin (**On Linux**).
  - c. Property file is created with the following entries:

```
## RTSM DB connection properties
rtsm.hostname=<hostname>
rtsm.username=<username>
rtsm.password=<password>
rtsm.port=<port>
```

3. To check the data source readiness, run the following command in the command prompt:
  - a. cd {PMDb\_HOME}/dscheck/bin
  - b. Check the data source readiness using:
    - i. **Property file:**

```
dscheckRTSM.sh -propFile <File_Path>/<property_file>
```

where, <File\_Path> is the path where property file is created.

<property\_file> is the name of the RTSM property file. For example, rtsm.prp.

ii. **Database:**

./dscheckRTSM.sh

You can open the .html file created in **dscheck** folder to check the availability and integrity of the RTSM data source.

**Status Summary**

BSM/OMI Version	Host Name	Connection Status	View Status	Mandatory CI Type Status	Mandatory CI Attributes Status	Number of Duplicate Nodes
Unknown	IWFV/M02277.hpswlabn.adapps.hp.com					0

**Select Views:**

Not available in RTSM     Missing Mandatory CI Types     Missing Mandatory CI Attributes

**View Summary**

View Name	Available in RTSM?	Mandatory CI Types Missing	Mandatory CI Attributes Missing
SM_PA	Yes	0	4
SM_SIS_BusinessView	Yes	1	1
Exchange_Site_View	Yes	0	0
J2EE_Deployment	Yes	1	0
SM_HyperV_BusinessView	Yes	1	3
SM_SIS_Server	Yes	1	3
SM_Sol_Zones	Yes	4	1
ORA_Deployment	Yes	1	0
MSSQL_BusinessView	Yes	0	0
ORA_BusinessView	Yes	1	0
SM_Sol_Zones_BusinessView	Yes	0	12
SHR_Network	Yes	0	0
SM_LPAR	Yes	1	1
SM_SIS	Yes	0	1

The file displays the following information:

- i. Server status
- ii. Configuration details
- iii. Views available in RTSM
- iv. Mandatory CI types missing in the view
- v. Mandatory CI attributes missing with the CI type

**Check Data Source Related to PA**

To check the availability and integrity of data source related to PA, follow these steps:

1. Log on to the [[[Undefined variable \_HPc\_Basic\_Variables.Short\_Name]]] system.
2. Before you check the data source readiness, ensure the following:
  - a. The **dscheck** folder is available in PMDB\_HOME.
  - b. The dscheckPA.sh script is available in %PMDb\_HOME%\dscheck\bin (**On Windows**) and

- `$PMDB_HOME/dscheck/bin` (**On Linux**).
- c. Property file with the entries of PA nodes is created.
3. To check the data source readiness, run the following command in the command prompt:
    - a. `cd {PMDB_HOME}/dscheck/bin`
    - b. Check the data source readiness using:
      - i. **Property file:**

```
dscheckPA.sh -propFile <File_Path>/<property_file>
```

where, `<File_Path>` is the path where property files is created.

`<property_file>` is the name of the PA property file. For example, `pa.prp`.

- ii. **Database:**

```
./dscheckPA.sh
```

You can open the `.html` file created in **dscheck** folder to check the availability and integrity of the PA data source.

Node Status Summary				
Total	Not Reachable	Policy Missing	Data not logged for last 2 days	DSi/CODA Status
1	0	1	1	1

Select any	
Node Name: <input type="text"/>	Domains: <input type="text" value="-- Select All --"/>

Node Status								
Node Name	ICMP ping	BBC ping	CODA ping	Agent Version	Last Log Time	Number of Missing Policies	Domain	DSi/CODA
<a href="#">WFMVS017.HPSWLABS.HP.COM</a>				11.11.025	09/28/15 13:38:00	1		

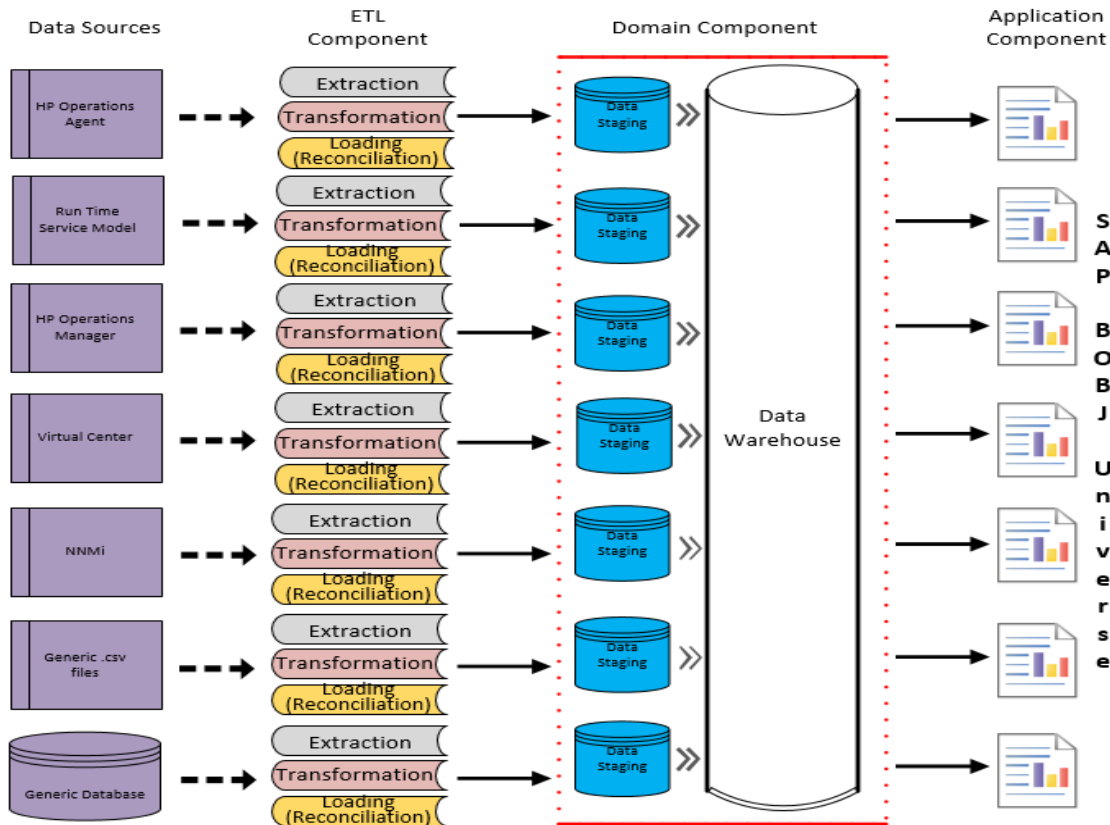
The file displays the following information:

- i. Node status summary
- ii. Node status

## Selecting the Content Pack Components

A typical Content Pack consists of three components - the Domain, Extraction Transformation Loading (ETL), and Application components.

The following figure shows the typical data flow between the components of the Content Pack:



- Domain component:** The Domain or Core Domain component defines the data model for a particular Content Pack. It contains the rules for generating the relational schema. It also contains the data processing rules, including a set of standard pre-aggregation rules, for processing data into the database. The Domain component can include the commonly-used dimensions and cubes, which can be leveraged by one or more Report Content Pack components. The Domain Content Pack component does not depend on the configured topology source or the data source from where you want to collect data.
- ETL (Extract, Transform, and Load) component:** The ETL Content Pack component defines the collection policies and the transformation, reconciliation, and staging rules. It also provides the data processing rules that define the order of execution of the data processing steps.

A single data source application can have multiple ETL components. For example, you can have one ETL component for each virtualization technology supported in Performance Agent such as Oracle Solaris Zones, VMware, IBM LPAR, and Microsoft HyperV. The ETL component can be dependent on one or more Domain components. In addition, you can have multiple ETL components feeding data into the same Domain component.



The ETL Content Pack component is data source dependent. Therefore, for a particular domain, each data source application has a separate ETL Content Pack component.

**Note:** If you have installed WebLogic SPI ETL already and are migrating from OM to OMi10 or upgrading to latest OMi Management Pack for WebLogic, uninstall the Oracle WebLogic SPI ETL and deploy the latest Oracle WebLogic MP ETL.

- **Application component:** The Application Content Pack component defines the application-specific aggregation rules, business views, SAP BOBJ universes, and the reports for a particular domain. Report components can be dependent on one or more Domain components. This component also provides the flexibility to extend the data model that is defined in one or more Domain components.

The list of Content Pack components that you can install depends on the topology source that you configured during the post-install configuration phase of the installation. Once the topology source is configured, the Content Pack Deployment page filters the list of Content Pack components to display only those components that can be installed in the supported deployment scenario. For example, if RTSM is the configured topology source, the Content Pack Deployment page only displays those components that can be installed in the SaOB and APM deployment scenarios.

## Install the Content Pack

To install the required Oracle WebLogic Server Content Pack, follow these steps:

1. Launch the Administration Console in a web browser using the following URL:

`http://<OBR_Server_FQDN>:21411`

2. In the Administration Console, click **Content Pack Deployment**.

The Content Pack Deployment page is displayed.

To install this Content Pack and to generate reports on data from OM, BSM, or OMi, make the following selections:

- OracleWebLogic\_ETL\_WebLogicSPI<sup>1</sup>
- OracleWebLogic\_ETL\_WebLogicMP<sup>2</sup>

<sup>1</sup>Use OracleWebLogic\_ETL\_WebLogicSPI to gather data from OM Smart Plug-in for WebLogic.

<sup>2</sup>Use OracleWebLogic\_ETL\_WebLogic\_MP to gather data from OMi Management Pack for WebLogic.

- OracleWebLogic\_Domain
- OracleWebLogic\_Reports

**Tip:** Install the following dependent Content Packs (and their components) along with this Content Pack for it to function:


- Core
  - Core\_Domain
  - Core\_Domain\_AppServer
- Operations Manager
  - OprEvent\_Domain\_Reports
- System Performance
  - SysPerf\_Domain

**Note:** The dependent domain content pack get selected automatically, you have to select only the ETLs based on the topology source.

3. Click **Install / Upgrade** to install the Content Packs.

An `Installation Started` status appears in the **Status** column for Content Pack that is currently being installed. The Content Pack Deployment page automatically refreshes itself to display the updated status. Once the installation completes, an `Installation Successful` status appears. If the installation fails, an `Installation Failed` status appears.

**Note:** The timer service will be stopped automatically during install/uninstall/upgrade operation and will be started once operation is complete.

4. Click icon  in the **Status** column for more information about the installation process.

The Content Pack Component Status History window is displayed. It displays the details of the current and historical status of that Content Pack component's installation.

**Note:** During install/uninstall process, Content Pack Deployment page does not allow you to interrupt the process. Instead, you must wait till the current process is complete before you can perform any other operations on the Content Pack Deployment page.

**Note:** If you had WebLogic SPI ETL already installed and are migrating from OM to OMi10 or upgrading to latest OMi Management Pack for WebLogic, uninstall the Oracle WebLogic SPI ETL and deploy the latest Oracle WebLogic MP ETL.

# Uninstalling the Content Pack Components

To uninstall the Content Packs, follow these steps:

1. Launch the Administration Console in a web browser:

- a. Launch the following URL:


`https://<OBR_Server_FQDN>:21412/`

- b. Type **administrator** in the **Login Name** field and password in the **Password** field. Click **Log In** to continue. The Administration Console page appears.

**Note:** If you use any other user account to access the Administration Console, make sure that the user account has administrator privileges.

2. On the left pane, click **Content Pack Deployment**. The **Content Pack Deployment** page appears.

The **Content Pack Deployment** displays the Content Pack components that are installed in the supported deployment scenario. For the list of Content Pack, see, "[List of Content Pack and Topology Views to Deploy](#)" on page 16.

3. Click  icon for the required Content Pack to be uninstalled. A summary message is displayed.

**Note:** At a time, only one Content Pack and its dependent Content Packs are uninstalled.

4. Click **OK** to uninstall the Content Pack. The uninstall status is displayed in the **Status** column.

# Data Source Collection Configuration

After installing Content Packs, you must configure OBR to collect required data from various data collectors. The data collectors work internally within the OBR infrastructure to collect the data. Therefore, you cannot directly interface with these collectors. Instead, you can specify the data sources from where the collectors can collect the data through the Administration Console.

In OM deployment scenario, Operations Agent monitors the physical and virtual nodes. When you configure data source in this scenario, choose Operations Agent as the data source.

## Configuring the Operations Agent Data Source

In the RTSM deployment scenario, you do not have to create new Operations Agent data source connections. Because, by default, all the nodes on which Operations Agent is installed are automatically discovered when the topology information is collected. These data sources or nodes are listed in the Operations Agent Data Source page of the Administration Console.

To view the list of Operations Agent data sources, follow these steps:

1. In the **Administration Console**, click **Data Source Configuration > Operations Agent**. The **Operations Agent** page appears.
2. To view detailed information about the Operations Agent data sources, click the Domain name or the number in the **Host collection status summary** table. The **Hosts : <selected host name>** table appears.
3. To change the data collection schedule for one or more hosts, specify a polling time between 1 and 24 hours in the **Hrs** box in the **Collection frequency** column.
4. Click **Save** to save the changes. A Saved Successfully message appears in the Information message panel.

# Report Navigation

The Oracle WebLogic reports are categorized into high-level Executive Summary and detailed Performance reports. You can navigate from the higher-level reports to the detailed reports using the various cross launch and hyperlink features. For example, you may start with the WebLogic Executive Summary for an overall picture of the health of the WebLogic servers and then navigate to the detailed reports for specific information.

The Oracle WebLogic Server reports display the availability, utilization, and performance information for the following:

- Oracle WebLogic servers
- Enterprise Java Beans (EJBs) used by the Oracle WebLogic servers
- Java Database Connectivity (JDBC) pools used by the Oracle WebLogic servers
- Java Messaging Service (JMS) servers embedded to the Oracle WebLogic servers
- Java Virtual Machines (JVMs) running on the Oracle WebLogic servers
- Servlets registered, deployed, and mapped to the Oracle WebLogic servers
- Execute queue for the WebLogic servers
- Business transactions in the WebLogic servers
- Nodes configured to use Oracle WebLogic servers

These reports also help to analyze the application server performance impact in the context of an associated Business Service and/or Business View/ Node Group.

## New Oracle WebLogic Server Content Pack Report

The following is the new Oracle WebLogic Server report:

- **WebLogic Server Availability** - Displays the availability details of the WebLogic server, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

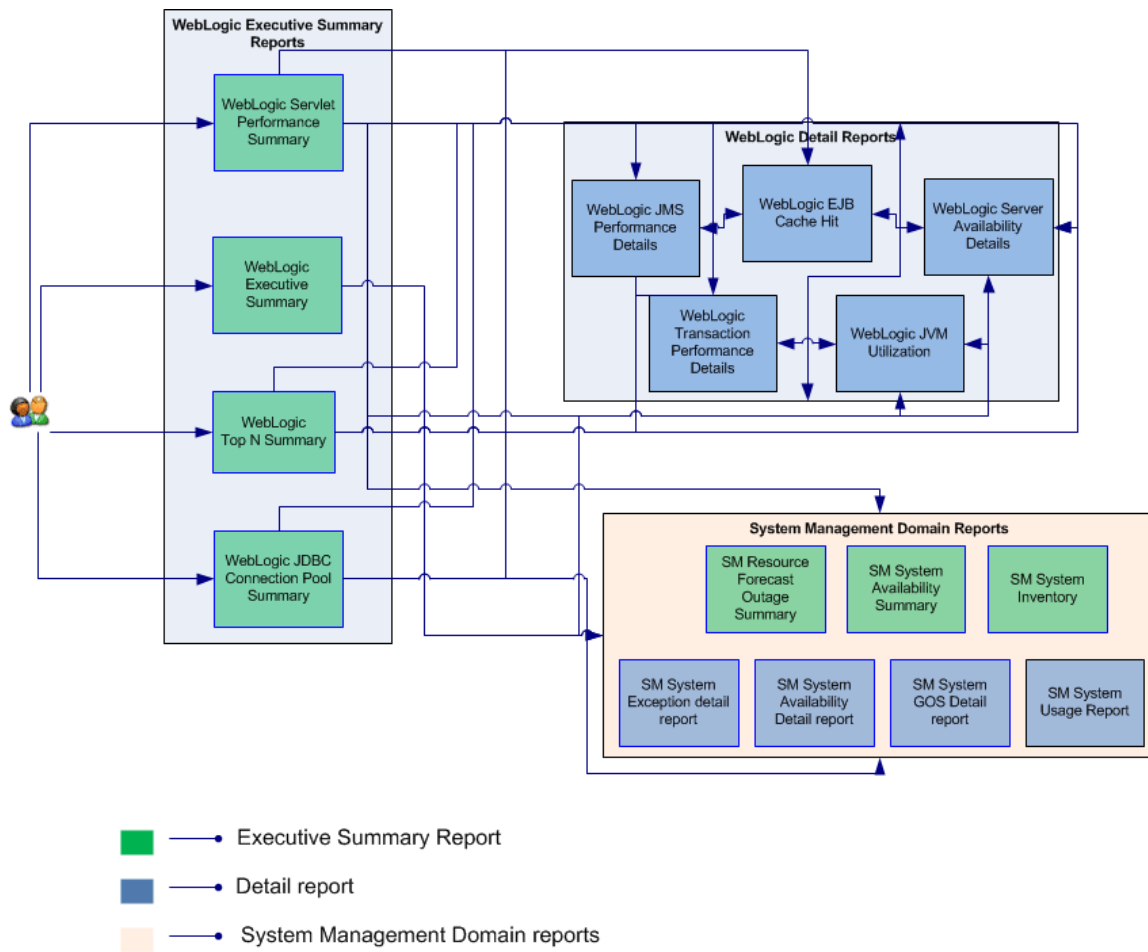
**Note:** This availability report presents the instance availability information for the application. This report should not to be used for uptime calculation.

Availability	Color
< 90	

Availability	Color
> 90 and < 95	
> 95	

### Report Navigation

Report navigation can vary depending on the use-cases around which these reports are designed and the following diagram represents a way of navigating the reports:



## Use Cases

This section provides information on use cases for Oracle WebLogic Server reports. The following table provides description, user, and report name for the use cases:

Description	Report Category	Report Name
To view the response time and request rate for all servlets of the nodes that belong to a given service	Executive Summary	WebLogic Servlet Performance Summary
To view the top 5 web server instances based on JVM memory utilization, execute queue wait count, JDBC delay time, EJB wait rate for a given service	Executive Summary	WebLogic Top 5 Summary
To view the top 5 JDBC pools based on delay time, leak rate, throughput rate and utilization percentage for all nodes that are part of a given service	Executive Summary	WebLogic JDBC Connection Pool Summary
To have a consolidated view of the inventory, availability, current and forecasted capacity usage of all weblogic instances hosted on nodes that are part of a given service	Executive Summary	WebLogic Executive Summary
To view the performance details in terms of throughput rate for and utilization for a JMS, over a period of time, for a given node and instance	Performance	WebLogic JMS Performance Details
To view the cache utilization by a EJB over a period of time, for a given node and instance	Performance	WebLogic EJB Cache Hit
To view the heap space utilized by a JVM instance over a period of time, for a given node and instance	Performance	WebLogic JVM Utilization
To view the availability of a server instance over a period of time, for a given node and instance	Performance	WebLogic Server Availability Details

Description	Report Category	Report Name
To view the performance of a transaction in terms of commit time and throughput rate over a period of time, for a given node and instance	Performance	WebLogic Transaction Performance Details



# Appendix

This section provides information on [Terminology](#), [Calculating WebLogic Server Instance Availability](#) and [Metric Mapping for Reports](#).

## Appendix A: Terminology

**Business Service:** Any service created in BSM Run-time Service Model (RTSM) and is part of your business, such as the online banking service or email service.

**Business View:** A view deployed on BSM RTSM that provides the topology information of the configuration items in your IT environment.

**Node Groups:** Group of managed nodes defined by users or available by default in Operations Manager (OM) to classify as specific organizations or entities within the enterprise. OBR uses the node groups from OM for its topology information.

**Instance Up Time Percentage:** The percentage of time the server instances were up and running for a selected node.

**Instance Down Time Percentage:** The percentage of time the server instances were down and unavailable for a selected node.

**Instance Unknown Time Percentage:** The percentage of time the availability status of the server instance was unknown to OBR.

**JDBC Delay Time:** The amount of time that a client has to wait to get a JDBC connection from the connection pool.

**EJB Wait Rate:** The number of times per minute that no EJBs were available from the free pool.

**EJB Cache Hit:** The number of used EJBs in the cache.

## Appendix B: Calculating WebLogic Server Instance Availability

OBR collects five-minute summary data for the Oracle WebLogic Server from the Performance Agent. This data is in the form of status values as follows:

- Downtime—0
- Uptime—5

The status values are stored in the rate table. The availability calculation procedure in OBR uses this information to calculate the actual uptime, downtime, availability and unknown time values for 5 minute interval. The possible scenarios are as follows:

- If the status value is 5, the procedure interprets it as uptime. The procedure updates the uptime value as 5, and downtime and unknown time values as 0 in the rate table.
- If the status value is 0, the procedure interprets it as downtime. The procedure updates the downtime value as 5, and uptime and unknown time value as 0 in the rate table.
- If, for some reason, OBR is unable to retrieve the status value for particular interval (12 records within an hour, that is, one record each for every five minutes), the procedure interprets it as unknown status. The procedure updates the uptime and downtime values as 0 and unknown time value as 5 in the rate table.

The availability calculation procedure for Oracle WebLogic Server instances ensures that 12 records are available for every hour and each record would either represent uptime, downtime, or unknown time. Using this data, the actual uptime, actual downtime, availability and unknown times are calculated as follows:

- **Actual Uptime Percentage**

$$\text{Uptime}/(\text{Uptime} + \text{Downtime}) * 100$$

- **Actual Downtime Percentage**

$$[(\text{Downtime} / (\text{Uptime} + \text{Downtime})) * 100]$$

- **Availability Computation**

$$[(\text{Uptime} + \text{Planned Downtime} + \text{Excused Downtime}) / (\text{Uptime} + \text{Downtime})] * 100$$

- **Unknown Time Percentage**

$$[(\text{Unknown Time}) / (\text{Uptime} + \text{Downtime} + \text{Unknown Time})] * 100$$

The availability procedure computes the planned downtime and excused downtime based on the configuration provided in the downtime XML file.

For more information on how to configure downtime, see *Configuring downtime in reports* section in *HPE Operations Bridge Reporter Online Help for Administrators*.

## Appendix C: Metric Mapping for Reports

OBR provides a utility to generate metric flow documents. The utility has strong filtering capabilities and generates the metric flow documents in HTML format. These HTML output files can then be saved in Excel for further filtering and metric tracking.

To generate the metric flow documents, follow these steps:

1. Run the utility using the following command:

**On Windows:**

```
%PMDB_HOME%\bin\shr_utility -flow -dir %PMDB_HOME%\packages\ApplicationServer
```

**On Linux:**

```
$PMDB_HOME/bin/shr_utility -flow -dir $PMDB_HOME/packages/ApplicationServer
```

The command generates multiple HTML output files in the current directory.

2. Open the HTML output file in Excel.

You can apply combination of filters to compare and track a particular metric(s).

**Note:** The output file in Excel format is published for some of the Content Packs. You can download the files from the [Marketplace](#).

# Send documentation feedback

If you have comments about this document, you can [contact the documentation team](#) by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

**Feedback on Oracle WebLogic Server Content Pack Reference (Operations Bridge Reporter 10.22)**

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to [docfeedback@hpe.com](mailto:docfeedback@hpe.com).

We appreciate your feedback!