

# HP Service Health Reporter

Software Version: 9.40  
Windows<sup>®</sup> and Linux operating systems

## Oracle WebLogic Server Content Pack Reference

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## About This Document

This document provides an overview of SHR 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 Service Health Reporter (SHR) to integrate with HP Operations Smart Plug-ins (SPIs) and HP 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.

## Getting Started

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

### Service Health Reporter (SHR) Overview

SHR is a cross-domain historical infrastructure performance reporting solution. It displays top-down reports from Business Service Management (BSM) Business Service and Business Application, HP Operations Manager (HPOM) Node Group or HP 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 crossdomain reports to detailed domain level reports.

### Deployment Scenarios

Following are the deployment scenarios supported on SHR:

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

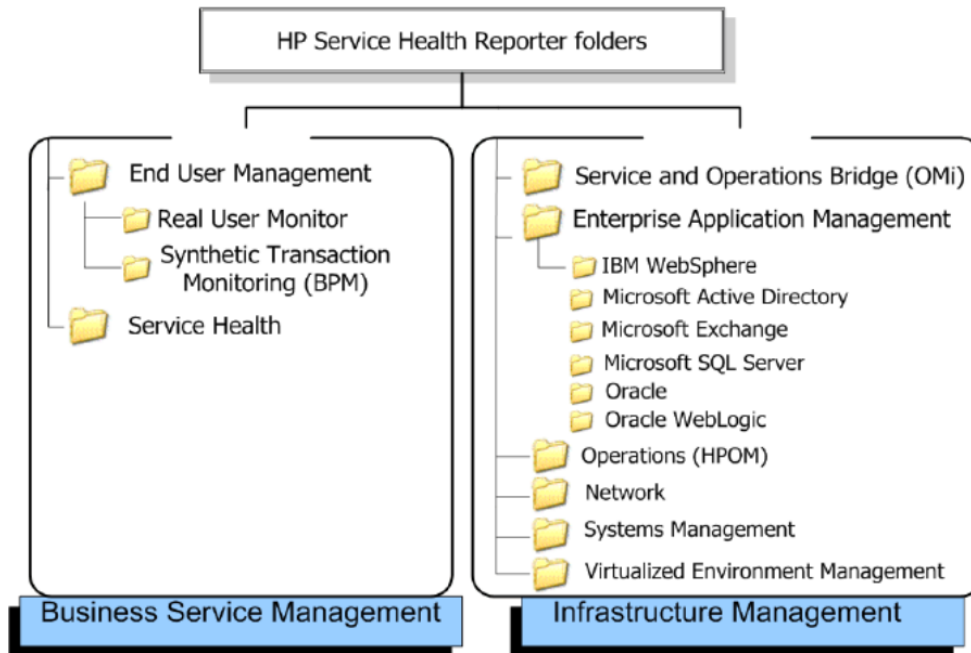
- Deployment with NNMi
- Deployment with a generic database
- Deployment with other applications using CSV

## Types of Reports

The reports available in HP Service Health Reporter (SHR) 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 HP Service Health Reporter concepts, see *HP Service Health Reporter Concepts Guide* and *HP Service Health 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

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

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

SHR 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. SHR 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 HP Operations Smart Plug-ins

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

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



## 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 HP 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 HP Operations agent's data store. The SPI creates at least one *data source* in agent's data store.
4. After configuring SHR to collect data from a data source and installing Oracle WebLogic Server, SHR 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> <li>• WLSSP I_0005</li> <li>• WLSSP I_0819</li> <li>• WLSSP I_0025</li> <li>• WLSSP I_0010</li> <li>• WLSSP</li> </ul>

Report Name	Data Source	Data Class	Required SPI Policy
WebLogic JVM Utilization	WLSSPI	WLSSPI_METRICS	<ul style="list-style-type: none"> <li>I_0012</li> <li>• WLSSP I_0061</li> </ul>
WebLogic Top N Summary	WLSSPI	WLSSPI_METRICS WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSP I_0262</li> <li>• WLSSP I_0238</li> </ul>
WebLogic EJB Cache Hit	WLSSPI	WLSSPI_METRICS WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSP I_0076</li> </ul>
WebLogic Transaction Performance Details	WLSSPI	WLSSPI_METRICS WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <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> <li>• WLSSP I_0265</li> <li>• WLSSP I_0001</li> <li>• WLSSP I_0255</li> <li>• WLSSP I_00256</li> </ul>

Report Name	Data Source	Data Class	Required SPI Policy
WebLogic Executive Summary	WLSSPI	WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSPI_0251</li> <li>• WLSSPI_0252</li> </ul>
WebLogic JMS Performance Details	WLSSPI	WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSPI_0253</li> </ul>
WebLogic Server Availability Details	WLSSPI	WLSSPI_RPT_METRICS	<ul style="list-style-type: none"> <li>• WLSSPI_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 HP OMi Management Packs

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

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

### Working of the Integration

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

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

2. HP OMi Management Pack collectors start collecting data on the node based on rules and specifications available with the policies deployed on the node.

3. HP OMi Management Pack stores the collected data into HP Operations agent's data store. HP OMi Management Pack creates at least one *data source* in agent's data store.
4. After configuring SHR to collect data from a data source and installing Content Packs, SHR 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	HP 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 Top N Summary	Weblogic JVM Heap Memory	Weblogic_JVMHeapUsage	WEBLOG I C_DATA	WEBLOGIC_JVM
	Weblogic JDBC Connection Pool Status	Weblogic_ConnectionDelayTime Weblogic_JDBCConnectionPoolThroughputRate	WEBLOG I C_DATA	WEBLOGIC_JDBC
	Weblogic EJB Performance	Weblogic_EJBCacheHitPercentage Weblogic_EJBPoolWaitCount	WEBLOG I C_DATA	WEBLOGIC_EJB_TRANS WEBLOGIC_EJB
WebLogic EJB Cache	Weblogic EJB	Weblogic_EJBCacheHitPercentage	WEBLOG I C_DATA	WEBLOGIC_EJB_TRANS

Report Name	Aspect Name	Policy Templates in Aspect	HP Operations agent	
			Data Source Name	Data Class Name
Hit	Performance			
WebLogic JMS Performance Details	Weblogic JMS Performance	Weblogic_JMSServerThruByteRate Weblogic_JMSServerThruMessageRate Weblogic_JMSUtilizationByBytesPercentage Weblogic_JMSUtilizationByMessagesPercentage	WEBLOGIC_DATA	WEBLOGIC_JMS
WebLogic JVM Utilization	Weblogic JVM Heap Memory	Weblogic_JVMHeapUsage Weblogic_JVMHeapFreeMemory	WEBLOGIC_DATA	WEBLOGIC_JVM
WebLogic Server Availability Details	Weblogic Server Status	Weblogic_ServerStatus	WEBLOGIC_DATA	WEBLOGIC_SERVER
WebLogic Transaction Performance Details	Weblogic Transactions	Weblogic_TransactionThroughputRate Weblogic_TransactionAverageTime	WEBLOGIC_DATA	WEBLOGIC_TRANSACTION
WebLogic Executive Summary	Weblogic Server Status	Weblogic_ServerStatus	WEBLOGIC_DATA	WEBLOGIC_SERVER

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

## Deploy Topology Views

To configure SHR 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 *HP Service Health Reporter Configuration Guide*.

## HP BSM Server

To deploy the topology model views for the Oracle WebLogic Server Content Pack in the HP 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 HP BSM server.

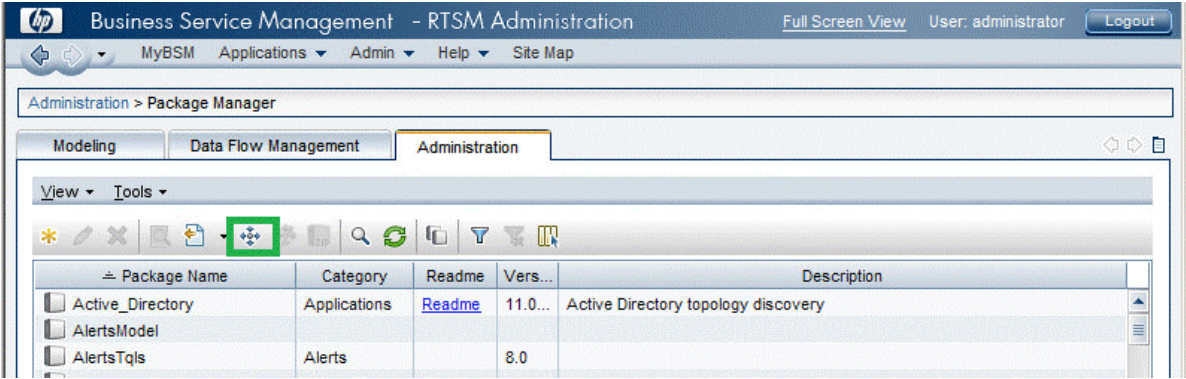
**Note:** You can launch the HP BSM server from a system where SHR is installed or any other local system. If you are launching from local system, ensure that you browse to the location mentioned in [List of Content Pack and Topology Views to Deploy](#) and copy the required views to your local system.

The Business Service Management Login page appears.

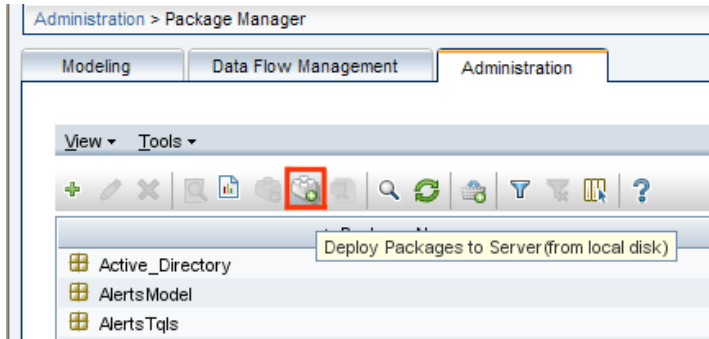
2. Type the login name and password and click **Log In**. The Business Service Management - Site Map appears.
3. Click **Administration > RTSM Administration**. The RTSM Administration page appears.



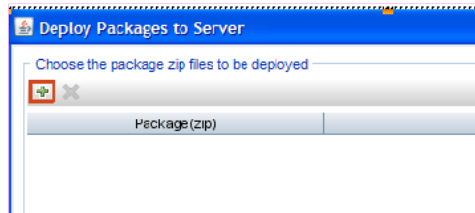
4. Click **Administration > Package Manager**. The Package Manager page appears.



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 SHR.

## HP OMi 10 Server

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

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

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

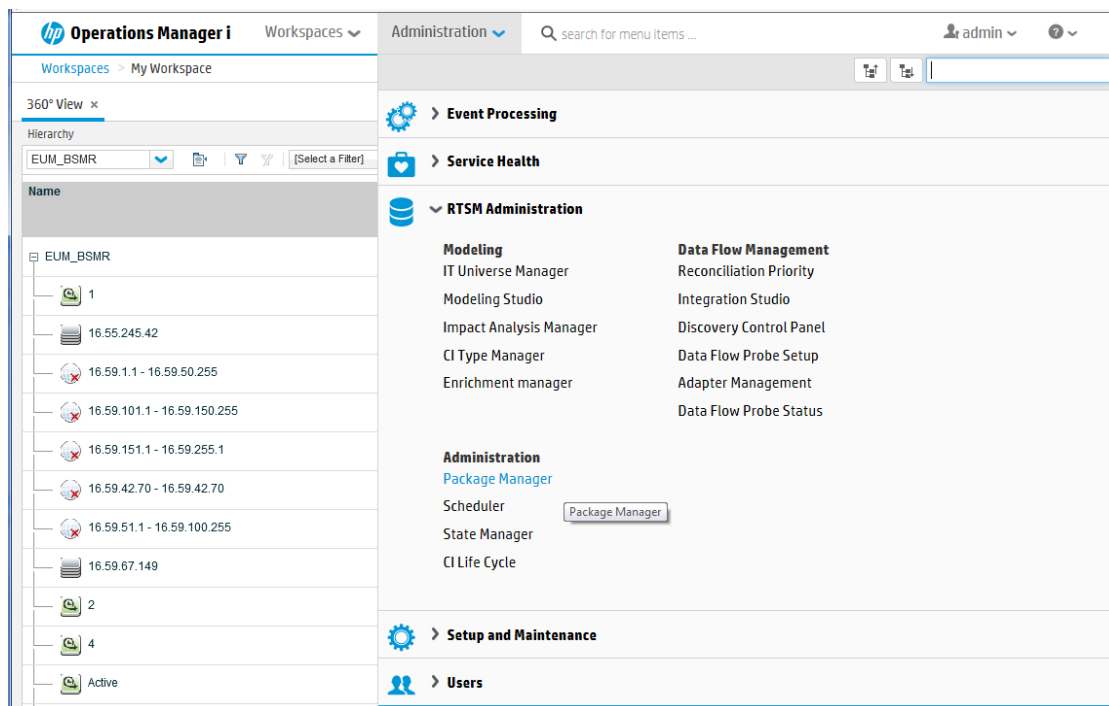
where, <OMi system FQDN> is the FQDN of the HP OMi server.



**Note:** You can launch the HP OMi server from a system where SHR 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.

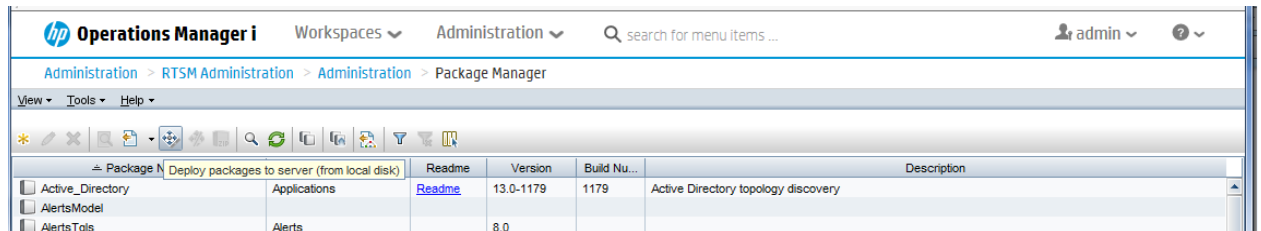
The Operations Manager i Login page appears.

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**.

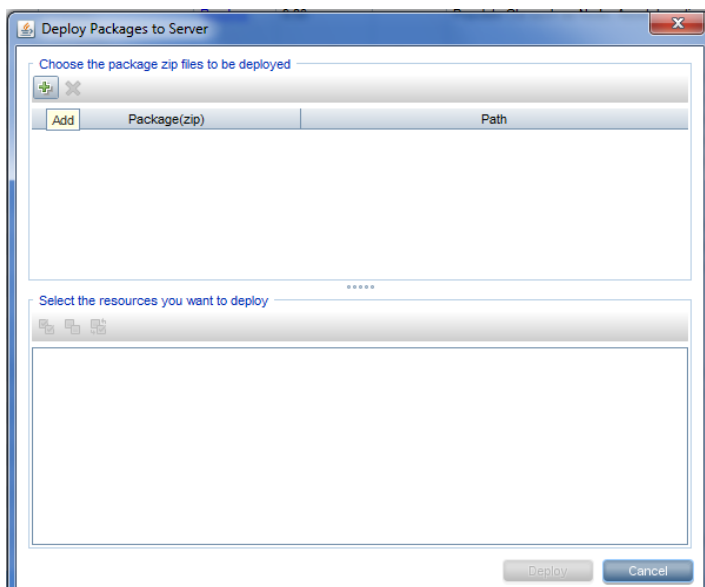


The Package Manager page appears.

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 SHR.

## Install the Content Pack

### Check Availability and Integrity of Data Sources

SHR enables you to check the availability and integrity of data sources prior to installing Content Packs.

1. Launch the following page:

`http://<SHR Server FQDN>:<port>/BSMRApp/dscheck.jsf`

2. To check the data sources related to RTSM, click **RTSM**.

Click **View** to see the results. Results include the list of missing mandatory CI types and attributes.

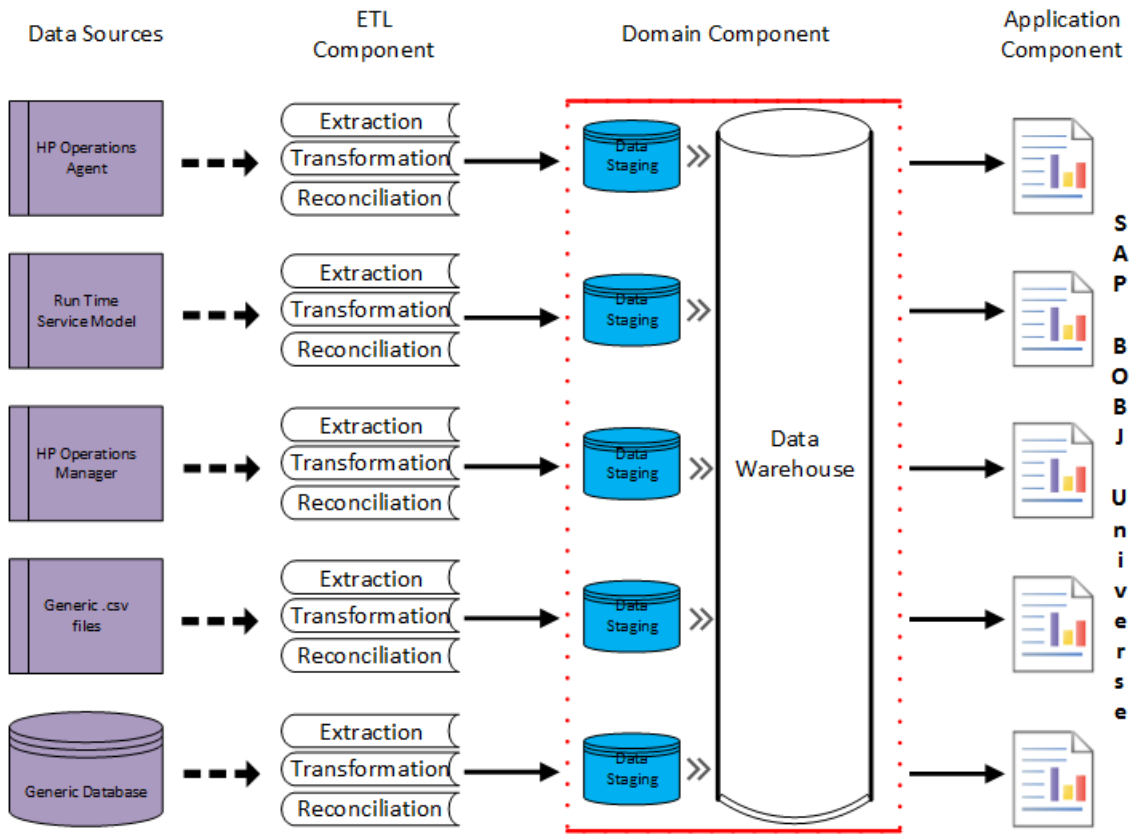
3. To check the data sources in the HP Operations agent, click **PA**.

Click **View** to see the results. Results include a status summary of nodes and missing policies.

### 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 Deployment Manager 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 Deployment Manager only displays those components that can be installed in the SaOB and APM deployment scenarios.

## Install the Content Pack in Deployment Manager

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://<SHR_Server_FQDN>:21411`

2. In the Administration Console, click **Administration > Deployment Manager**. The Deployment Manager page is displayed.

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

- OracleWebLogic\_ETL\_WebLogicSPI<sup>1</sup> (9.40.003)
- OracleWebLogic\_ETL\_WebLogicMP<sup>2</sup> (9.40.001)
- OracleWebLogic\_Domain (9.40.000)
- OracleWebLogic\_Reports (9.40.003)

**Tip:** Install the following dependent Content Packs (and their components) along with this

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

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

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.

**Note:** For more details on ETLs, see *HP Service Health Reporter Content Pack Release Notes*.

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

The color of the status column changes for all the selected Content Packs. An `Installation Started` status appears in the **Status** column for Content Pack that is currently being installed. The Deployment Manager 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 the link in the **Status** column for more information about the installation process. The Content Pack Component Status History window displayed. It displays the details of the current and historical status of that Content Pack component's installation.

**Note:** During install/uninstall process, Deployment Manager 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 Deployment Manager 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.

## Data Source Collection Configuration

After installing Content Packs, you must configure SHR to collect required data from various data collectors. The data collectors work internally within the SHR 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 HPOM deployment scenario, HP Operations Agent monitors the physical and virtual nodes. When you configure data source in this scenario, choose HP Operations Agent as the data source.

## Configuring the HP Operations Agent Data Source

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

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

1. In the **Administration Console**, click **Collection Configuration > HP Operations Agent**. The **HP Operations Agent Data Source** page appears.
2. To view detailed information about the HP Operations Agent data sources, click the Domain name or the number in the **HP Operations Agent Data Source Summary** table. The **HP Operations Agent Data Source Details** 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 **Schedule Polling 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

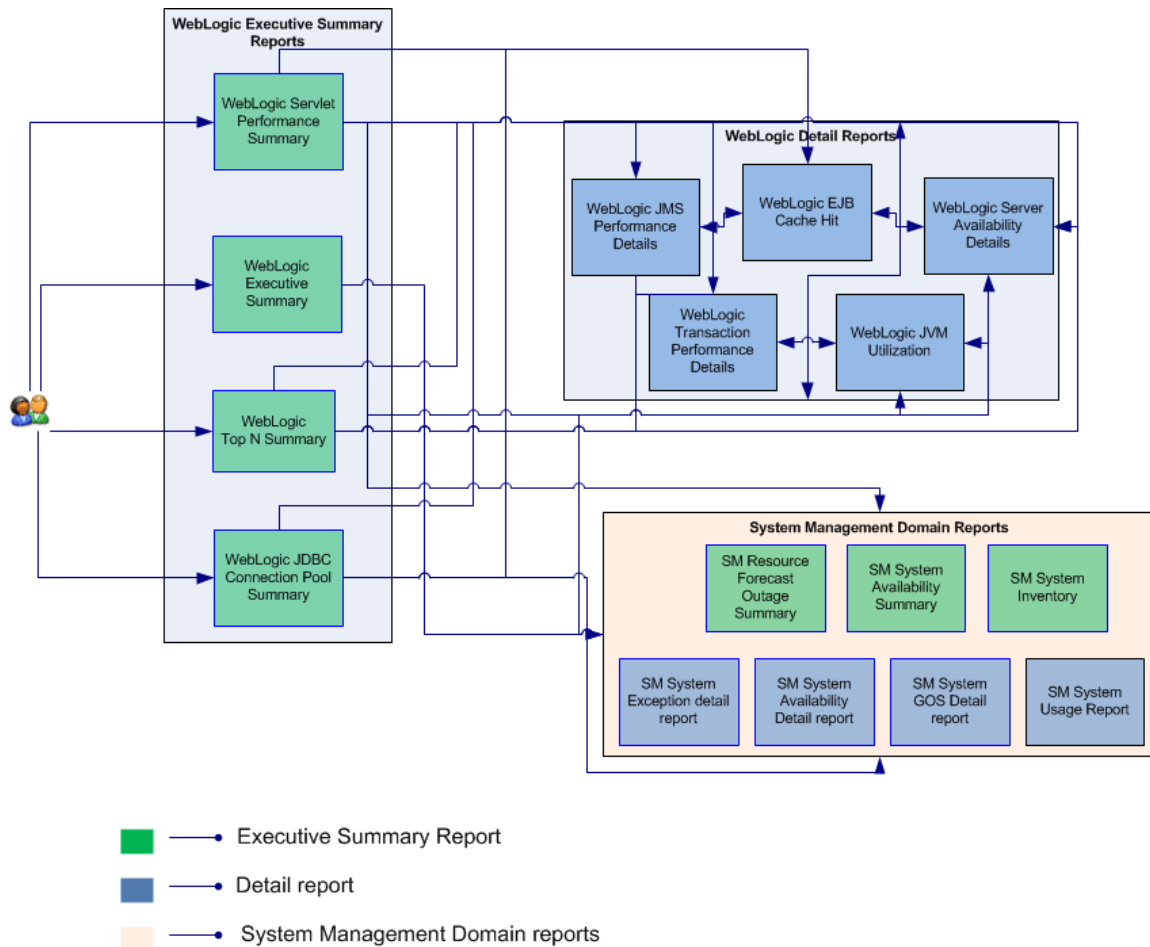
The following is the new Oracle WebLogic Server report:

- **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.

Availability	Color
< 90	
> 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

Description	Report Category	Report Name
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
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 HP Operations Manager (HPOM) to classify as specific organizations or entities within the enterprise. SHR uses the node groups from HPOM 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 SHR.

**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

SHR collects five-minute summary data for the Oracle WebLogic Server from the HP 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 SHR 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, SHR 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 *HP Service Health Reporter Online Help for Administrators*.

## Appendix C: Metric Mapping for Reports

SHR 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 following URL:

<https://hpln.hp.com/node/24267/attachment>

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**Feedback on Oracle WebLogic Server Content Pack Reference (Service Health Reporter 9.40)**

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 HP Service Health Reporter Help Authors: [docfeedback@hp.com](mailto:docfeedback@hp.com).

We appreciate your feedback!

