

# HP Service Health Reporter

For the Windows<sup>®</sup> and Linux operating systems

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## Administration Guide

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# Online Help for Administrators

HP Service Health Reporter (SHR) is a cross-domain historical infrastructure performance reporting solution. It displays both top-down reports from Business Service Management (BSM) [Business Service](#)<sup>1</sup>, [Business View](#)<sup>2</sup>, and Business Application or HP Operations Manager (HPOM) [Node Group](#)<sup>3</sup> perspective to the underlying infrastructure and 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 are affecting your Business Services and Business Applications or Node Groups in the long term.

For more information about SHR features, functionality, and architecture, see the *HP Service Health Reporter Concepts Guide*.

SHR provides extensive administrative functions that can help you monitor and configure your applications. You can perform these administrative tasks by using the Administration Console, which is the web-based user interface (UI) of SHR.

## About this guide

This online help provides an overview of the Administration Console and guides you through the step-by-step tasks that you have to perform using the Administration Console.

This online help is organized into the following section based on the tasks you must perform on the Administration Console:

## Getting Started

This section guides you through the essential administrative tasks that you must perform immediately after installing SHR. It includes performing the post-install configuration tasks, configuring topology collection, and configuring data collection from the various data sources.

## Monitoring SHR

This section introduces you to the various monitoring tasks that you can perform through the Administration Console. It explains how to monitor the database content, the data processes, the database, error logs, and the application server platform.

<sup>1</sup>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.

<sup>2</sup>A view deployed on BSM RTSM that provides the topology information of the configuration items in your IT environment.

<sup>3</sup>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.

## Administering SHR

This section explains the various administrative tasks that you can perform through the Administration Console. It explains how to view the database credentials and licensing information, configure security access and data retention of the database, control the data processes, manage user accounts and services, and configure the time shifts.

## Administration Console Screens

This section provides an overview of each screen that is available on the Administration Console.

## Role of the Administrator

As an administrator, you must perform the following tasks after you install the SHR software. Here is the priority listing of the required tasks:

- **Configuration tasks**—These tasks are typically performed immediately after installing SHR. You must perform these tasks to ensure that SHR is up and running and data collection operations take place according to your requirements. Configuration tasks include:
  - Performing various post-install configuration tasks.
  - Selecting and installing the required [Content Packs](#)<sup>1</sup>.
  - Configuring your data sources to provide [topology information](#)<sup>2</sup> to SHR for data collection.
  - Configuring the different data collectors to collect fact data based on the collection policies defined in the Content Packs.
- **Monitoring tasks**—These tasks help you monitor the performance of SHR and identify and troubleshoot any problems with the application and the database. Monitoring tasks include:
  - Monitoring the data that is loaded in the SHR database for each installed Content Pack.
  - Monitoring and troubleshooting the data processes.
  - Monitoring the performance and availability of the SHR database and the host platform.
  - Tracking the errors reported by SHR.
  - Monitoring the SHR, SAP BOBJ, and database services.

<sup>1</sup>SHR provides out-of-the-box business intelligent solutions called Content Packs that define the data collection and data warehousing policies. The Content Packs also contain the required information to display reports.

<sup>2</sup>The relationship between Configuration Items (CIs), such as applications, servers, and system resources in your IT environment.

- **Administrative tasks**—These tasks help you ensure that the SHR's data and database are useful, usable, available, and accurate at all times. Administrative tasks include:
  - Setting up database access and security.
  - Managing the product license.
  - Controlling the execution of data processes.
  - Defining data retention policies for each Content Pack.

## Accessing the Administration Console

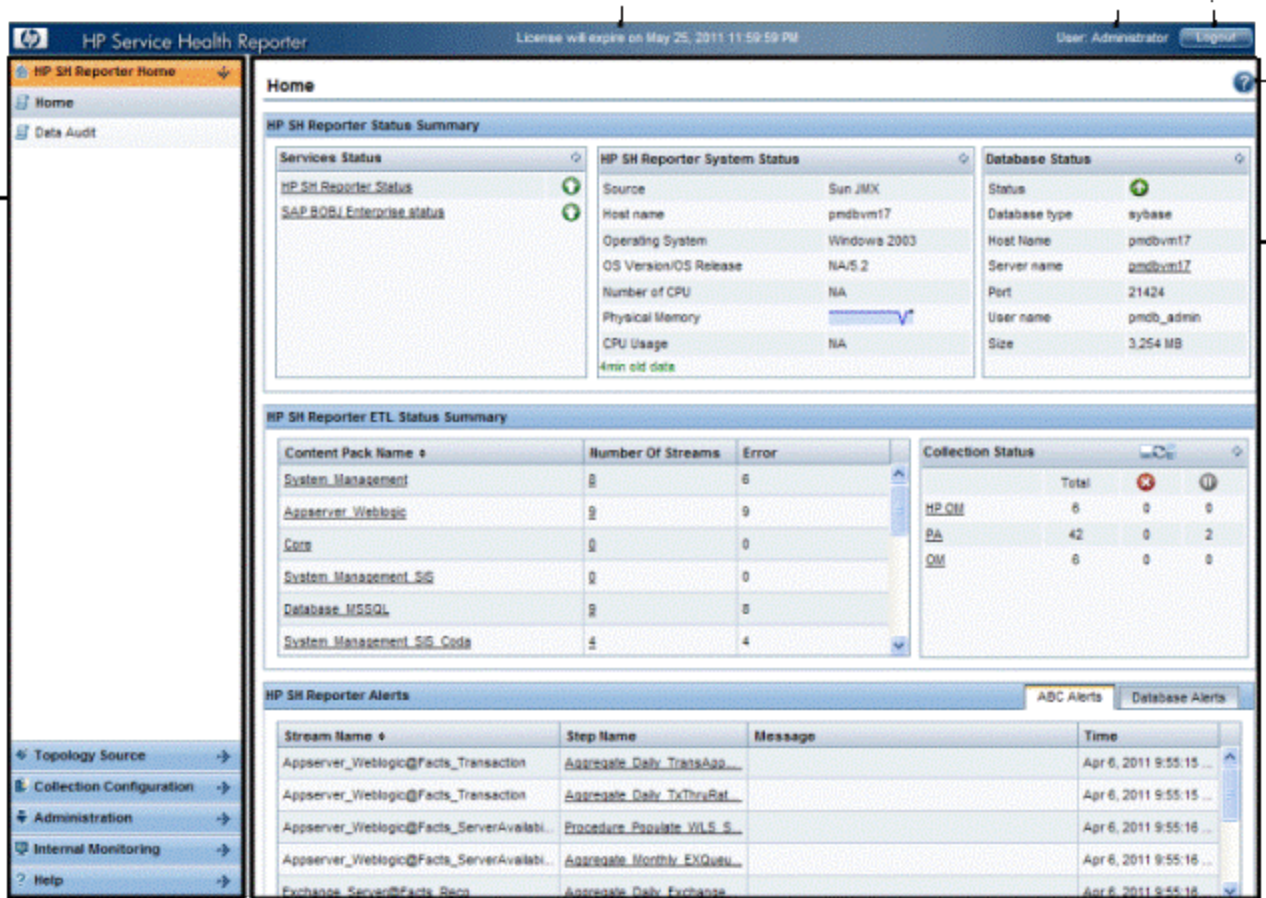
1. Click **Start > Programs > HP Software > SH Reporter > Administration**.  
The Administration Console Login page opens. You can also access the Administration Console directly by typing the SHR host system address in a web browser. The default address is **http://<server name>:21411/BSMRApp/logon.jsp** where *server name* refers to the name of the host system on which you have installed SHR. In addition, you can use this URL to remotely access the Administration Console from any other system.  
**Note:** For information about the web browser requirements to access the Administration Console, see the *HP Service Health Reporter Installation and Configuration Guide Chapter 2, "Installation Prerequisites."*
2. Type:

Field	Description
Login Name	Name of the SHR administrator.  <b>Note:</b> For first-time access, use the default login name and password. The default login name is Administrator. There is no password. The default user, Administrator, has complete administrative privileges.  <b>Important:</b> You should change the default login name and password after the first access to prevent unauthorized use. For the steps, see <a href="#">Access SAP BusinessObjects Central Management Console</a> .
Password	Password of the SHR administrator.

3. Click **Log In**.  
The Administration Console opens.

## Administration Console page

After you complete the post-install configuration task, the Home page of the Administration Console appears. The Home page includes:



Legend	Name	Description
a	Task pane	SHR collection configuration, administration, and monitoring options: <ul style="list-style-type: none"> <li>• SHR Home</li> <li>• Topology Source</li> <li>• Collection Configuration</li> <li>• Administration</li> <li>• Internal Monitoring</li> <li>• Help</li> </ul>
b	License details	Summary of the SHR license information.
c	User name	Name of the current SHR user.

Legend	Name	Description
d	Logout	Option to log out of the Administration Console.
e	Help	Option to launch the <i>Online Help for Administrators</i> .
f	View pane	View the administration, configuration, and monitoring options and attributes.

## Logging out of the Administration Console

To prevent unauthorized access, log out of the Administration Console after use.

From the Administration Console, click **Logout** to log out of the Administration Console. The You are successfully logged out message appears, after which the web browser window automatically closes.

## SHR log files

SHR uses the log4j API for most of its logging purposes. It maintains a log file for each of the its modules, such as collector, loader, metadata repository, internal monitoring, Administration Console, package manager, and data processing. These log files are placed in the %PMD\_HOME%\Log folder. SHR also maintains an application-wide log file that contains error messages from all the modules. These log file can be used for troubleshooting purposes.

The log files available in SHR are as follows:

Log file	Module	Description
BSMRApp.log	NA	Application-wide log file that contains error messages from all the SHR modules except data processing.
collections.log	Collector	Contains collection framework-related log messages such as data sources configured, collection job scheduling and maintenance information.

Log file	Module	Description
transform.log	Collector	Contains log messages related to data reconciliation, mapper, enrichment, data staging, and purging of staging area.
hpacollector.log	Collector	Contains log messages related to HP Performance Agent collection.
topologycollector.log	Collector	Contains log messages related to topology collection.
dbcollector.log	Collector	Contains log messages related to database collection.
loader.log	Loader	Contains log messages related to data loading from the stage area to the data store.
metadata.log	Metadata Repository	Contains log messages related to metadata repository persistence, access, and modification.
Bsmrim.log	Internal Monitoring	Contains log messages related to the internal monitoring of data processing job streams, Sybase IQ database, PMDB platform, and Content Packs.
bsmrf frontend	Administration Console	Contains log messages related to the Administration Console UI web application.
dw_abclauncher.log	Data processing	Contains log messages related to job streams. Log messages specific to a process can be seen in the process specific log file. For example, loader.log for the loader process.

Log file	Module	Description
packagemanager.log	Package Manager	Contains log messages related to Content Pack installation and uninstallation.
postinstallconfig.log	Post Install	Contains log messages related to the database creation, database schema creation, and other post-install configuration tasks.
trend.log	Aggregate, trendproc, trendtimer	Contains messages for all of SHR's back-end processes. Each message specifies the start and end times for the logged process.
aggregate.log	Aggregate	Contains log messages related to the loading of data from the rate tables to the hourly, daily, and forecast tables, and from the hourly tables to the daily tables.
audit.log	Aggregate, trendproc, trendtimer	Records the start times, end times, and durations of back-end processes. When a process begins, the file assigns a PID (process identification number), and then it records when the process ends, showing that the PID for the process was terminated.
backend.log	Aggregate, trendproc, trendtimer	Contains log information for all the data processing job steps. It also contains the logs for the Trend Sum, Loader, and SQL Executor programs.
License.log	License	Contain messages for license-related tasks.

## SHR service log files

All SHR services have a log file associated with it. These log files contain console error messages. These log files are not controlled through log4j API and are overwritten during service startup.

Log file	Service
BSMRService.log	Log file for the <a href="#">Performance Management Database (PMDB)</a> <sup>1</sup> Platform Administrator Service.
BSMRCollectionService.log	Log file for the PMDB Platform Collection Service.
BSMRDBLoggerService.log	Log file for the PMDB Platform DB Logger Service.
BSMRIMService.log	Log file for the PMDB Platform IM Service.
SybaseService.log	Log file for the PMDB Platform Sybase IQ Service.
Trend.log	Log file for PMDB Platform Timer service
Activemq.log	Log file for PMDB Platform Message Broker
Postgresql-<date and time>.log	Log file for the SHR PostgreSQL service.

## Log file message format

All entries in the log files have the following format

Format	Description
Timestamp	The timestamp field represents the time the log entry occurred. It uses a 24-hour clock with the YYYY-MM-DD hh:mm:ss,nnn format.
Severity	The severity field is the severity level for the log entry. The severity levels are DEBUG, INFO, WARN, ERROR, FATAL.
Class_name	The fully qualified class name of the caller issuing the logging request.
Method_name	The method name where the logging request was issued.
Message	The application-supplied message associated with the logging event.

<sup>1</sup>A common repository of the health, performance, and availability data of the IT elements in your environment. The platform data store contains performance data that is processed, transformed, and aggregated in the data store, based on the metadata specifications in the content packs.

## Getting started

After you install the SHR application, you must perform the following configuration tasks to ensure that SHR is operational and can start collecting data from the various data sources:

### ***Task 1: Perform the post-install configuration tasks***

You must perform the post-install configurations tasks immediately after installing the SHR application. These tasks help you set up the SHR database user account details and define the database schema. This guide provides a brief overview of the [post-install configuration tasks](#). For the step-by-step procedure to perform these tasks, see the *HP Service Health Reporter Installation and Configuration Guide* Chapter 4, "Configuring SHR."

### ***Task 2: Configure the topology source***

After you finish installing the Content Pack components, you must configure the topology sources from where SHR can retrieve the topology information about your environment. For more information, see [Managing the enterprise topology](#).

### ***Task 3: Install the Content Pack components***

After you perform the SHR post-install configuration tasks, you can select and install the required Content Pack components. The selection of the Content Pack components depends on the type of your SHR deployment environment. For the step-by-step procedure for installing the Content Packs, see the *HP Service Health Reporter Installation and Configuration Guide* Chapter 5, "Selecting and Installing the Content Packs."

### ***Task 4: Configure the data sources***

After you finish configuring the topology sources, you can configure the data sources from where SHR data collectors can collect fact data for the various installed Content Pack components. For more information, see [Configuring and managing data collection](#).

## Configuring SHR

The Post-Install Wizard is a web-based user interface (UI) that you can use to perform the mandatory SHR post-installation configuration tasks. The wizard sequentially takes you through the steps for configuring the SHR database, creating the database schema, and configuring the management database.

The Post-Install Wizard appears when you first launch the SHR Administration Console. You can access the Administration Console only after you successfully complete the SHR post-installation configuration tasks.

Using the Post-Install Wizard, you can perform the following configuration tasks:

- Configure the time zone for SHR.
- Create the database for SHR and configure an administrator user account to access the database.
- Create the database schema by specifying the data collection volume.
- Manage the user account for the management database, which is a repository used by SHR to store run-time data such as [data processing](#)<sup>1</sup> stream status, changed table status, and node information.
- Configure the topology source for the data collection.

## SHR Configuration Wizard

The SHR Configuration Wizard opens when you first run the Administration Console after installing SHR. This wizard takes you through a series of pages where you must configure the SHR database before you can start using SHR to collect data and generate reports.

The SHR Configuration Wizard includes the following pages:

### [Configure SHR Parameter/s](#)

On the Configure SHR Parameter/s page, select the time zone, that is, **GMT** or **Local**, under which you want SHR to operate.

### [Configure Database Connection page](#)

SHR uses the [Sybase IQ](#)<sup>2</sup> database engine to create the database. On the Configure Database Connection page, you must provide the details of the database server where you want to create a database for SHR.

The Configure Database Connection page includes:

Field	Description
Database Type	Type of database that you want to configure for SHR. SHR only supports Sybase IQ.
Remote Database	Select this option if you have performed a remote Sybase IQ installation.

<sup>1</sup>Data processing refers to a set of best practices in the context of data storage. They have been developed by HP to improve the quality and control during the loading of data into data stores.

<sup>2</sup>Sybase IQ is a column-oriented relational database used for business intelligence and data warehousing. As a column-oriented database management system (DBMS), Sybase IQ stores data tables as sections of columns of data rather than as rows of data.

Field	Description
Host name	Name or IP address of the host where the Sybase IQ database server is running.
Port	Port number to query the database; the default port is 21424.
Server name	Name of the Sybase IQ server.  <b>Important:</b> The server name displayed in this field is only for informational purposes. You must not change the server name at any time.
User name	Name of the Sybase IQ database user; the user must have database administrator (DBA) privileges.
Password	Password of the Sybase IQ database user.
Admin Password	Password for the SHR database administrator. The SHR Configuration Wizard uses this password to create the SHR database administrator account.
Confirm Admin Password	Retype the same password for confirmation purposes.

[Create Database Schema page](#)

On the Create Database Schema page, you must specify the deployment size of the Sybase IQ database to plan your data collection and retention. The deployment size or data volume indicates the number of nodes from where SHR will collect data. Nodes include both directly managed nodes, such as in the case of HP Performance agent, where SHR directly collect the data from the HP Performance agent data source, and indirectly managed nodes, such as those managed by HP Business Service Management, HP OMi, and HPOM. For these nodes, SHR collects the data from the Profile database, HP OMi, and HPOM data sources. Based on your selection, SHR calculates and displays the recommended database size.

The Create Database Schema page includes:

Field	Description
Select Deployment Size	The total number of managed nodes from which SHR will collect the required data: <ul style="list-style-type: none"> <li>• Low Volume—This option enables SHR to support data collection from less than 500 nodes.</li> <li>• Medium Volume—This option enables SHR to support data collection from 500 to 5000 nodes.</li> </ul>

Field	Description
IQ Main Cache(MB)	The recommended size of the main buffer cache for the Sybase IQ main store. The value displayed in this field changes based on the type of deployment size you select.
IQ Temporary Cache (MB)	The recommended size of the temporary buffer size for the Sybase IQ temporary store. The value displayed in this field changes based on the type of deployment size you select.
IQ DBSpace Size(MB)	The recommended size for the IQ_System_Main dbspace, which stores the main database files. You can modify this size.
IQ Temporary DBSpace Size(MB)	The recommended size for the IQ_System_Temp dbspace, which stores the temporary database files. You can modify this size.
Choose Database File Location	The location where the database files will be stored.

**Note:** You can reconfigure the deployment size of the database later by using the Database Administration Utilities, which will override your current selection.

[Create Management Database page](#)

The SHR management database refers to the online transaction processing (OLTP) store used by SHR to store its run-time data such as job stream status, changed tables status, and node information. On the Create Management Database page, you can change the password of the administrator account for accessing the management database.

The Create Management Database page includes:

Field	Description
User name	Name of the PostgreSQL database administrator. The default value is <b>postgres</b> .
Password	Password of the PostgreSQL database administrator. The default value is <b>pmdb_admin1</b> .
User name	Name of the SHR management database user. This field is disabled by default.
New Password	New password of the SHR management database user.
Confirm New Password	Retype the password for confirmation purpose.

[Configure Topology Source](#)

You can configure the topology source on the Configure Topology Source page.

The Configure Topology Source page includes:

Field	Description
Service Definition Source	<p>Option to select RTSM or HPOM or VMware vCenter as the source of the service definition (topology) data.</p> <p><b>Note:</b> You must select the topology source during post-install configuration of SHR. You can not switch among the topology sources (RTSM, HPOM, and VMware vCenter) afterwards.</p>
Host name	IP address or fully-qualified name (FQDN) of the service definition host system.
Connection Status	<p>Status of the service definition source connection.</p> <ul style="list-style-type: none"> <li>✔ Indicates that the SHR host system is connected to the data source.</li> <li>✘ Indicates that the SHR host system is not connected to the data source.</li> </ul>
Configuration	Modify an existing service definition source connection.
Test Connection	Test a service definition source connection.
Create New	Create a new service definition source connection.
Save	Save a specific service definition source configuration attribute.

For information on how to configure a topology source connection, see [Managing the enterprise topology](#).

[Summary page](#)

You can review the details of the database connection and the management database on the Summary page.

The Summary page includes:

Field	Description
Database Connection	<p>Details of the database connection. Details include:</p> <ul style="list-style-type: none"> <li>Host name</li> <li>Port</li> </ul>
Management Database	<p>Details of the SHR management database. Details include:</p> <ul style="list-style-type: none"> <li>Host name</li> <li>Port</li> </ul>

**Note:** The HP Service Health Reporter Configuration Wizard supports session state persistence, which enables you to resume and continue a halted or previously-interrupted configuration session.

## Managing the enterprise topology

Before SHR can start collecting domain-specific data, such as fact data related to applications, databases, and system resources, from the nodes or Configuration Items (CIs), it must first identify and collect the [topology information](#)<sup>1</sup> about the managed environment, your business services, and the underlying IT components. Using this information, SHR can align and reconcile the collected fact data for long-term storage, analytics, and cross-domain reporting.

### *Enterprise topology source*

The enterprise topology includes IT components such as applications, servers, databases, and system resources, which are monitored by HP business service-oriented product, such as Runtime Service Model (RTSM) or HPOM. These monitored components are called Configuration Items (CIs). Identifying the enterprise topology helps you understand how each of your business services is linked to the underlying CIs. It provides a map of the dependencies of the business services to the IT infrastructure. It helps you track configuration changes.

SHR supports the collection of topology-related data from the following data sources:

- RTSM—is the central repository for the configuration information, which stores and handles the topology and configuration data that is collected and updated through data collectors by the [Discovery](#)<sup>2</sup> process. The information concerning the discovered CIs and their relationships are used to generate a topology model of all the components that constitute your IT environment on which your business functions.
- HPOM—is a distributed, client-server software solution designed to help system administrators detect, solve, and prevent problems that occur in networks, systems, and applications in any enterprise. HPOM collects data that enable you to maximize IT system performance, reduce downtime, delegate tasks to operators, and reduce costs. HPOM constantly monitors thousands of [events](#)<sup>3</sup> that occur on all your [managed nodes](#)<sup>4</sup> and presents just the information you want to know just when you need it. HPOM uses a component called Service Navigator (SN) to create the topology service tree for the managed nodes and builds the relationship between the nodes and the applications in your environment.

<sup>1</sup>The relationship between Configuration Items (CIs), such as applications, servers, databases, and system resources in your IT environment.

<sup>2</sup>The mechanism that enables you to collect data about your system by discovering the IT infrastructure resources and their interdependencies. Discovery can discover such resources as applications, databases, network devices, different types of servers, and so on. Each discovered IT resource is stored in the RTSM, where it is represented as a managed CI.

<sup>3</sup>A particular fault or incident within the computing environment that occurs on an object.

<sup>4</sup>Managed nodes are computers that are controlled and monitored by HPOM.

The collection of the topology data from these data sources depends on the type of scenario in which SHR is deployed. SHR currently supports three types of deployment scenarios:

- BSM Service and Operations Bridge (SaOB)
- Application Performance Management (APM)
- HPOM

If SHR is deployed within the BSM SaOB or the APM environment, you must configure the data collector to collect topology data from RTSM. If SHR is deployed in the HPOM environment, the HPOM database becomes the source of the topology information for SHR.

For more information about deployment scenarios, see the *HP Service Health Reporter Concepts Guide*.

## ***Managing the data collection***

SHR uses various out-of-the-box collectors to collect topology data:

- RTSM collector—Collects topology information and data about the various CI types in your environment from the RTSM database. The data to be collected is defined by the RTSM view provided with each Content Pack.
- HPOM collector—Collects topology information and data about the various CI types in your environment from the HPOM database. The information collected by the HPOM collector is limited to node list and node groups.

These data collectors collect the required data from the RTSM or HPOM service definition sources, which you must configure in SHR. You can create and configure RTSM or HPOM service definition source connections on the Service Definition page of the Administration Console. In addition, you can schedule SHR to collect data from the data repositories at specific intervals. You can also add new data source connections or modify the existing connections.

Using the Service Definition page, you can perform the following RTSM or HPOM topology data collection tasks:

- [Select a service definition source](#)
- [Create a service definition source connection](#)
- [Modify a service definition source connection](#)
- [Enable or disable a service definition data collection](#)
- [Schedule a service definition synchronization](#)
- [Test the service definition source connection](#)

- [View a service definition source connection status](#)
- [View a service definition data collection status](#)

## **Select a service definition source**

Before you can configure the topology definition data connections, you must first select the source from where SHR should retrieve the topology information. This topology source depends on the type of deployment scenario used for SHR. You can view the topology source on the Service Definition page of the Administration Console.

To select the service definition source:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Under **Service Definition Source**, perform one of the following steps:
  - Select **RTSM** if you want to configure RTSM as the topology source for SHR.
  - Select **HP OM** if you want to configure HPOM as the topology source for SHR.
  - Select **VMware vCenter** if you want to configure VMware vCenter as the topology source for SHR.

You cannot change the topology source after it has been configured on the Service Definition page. All the other tasks that you can perform on this page, such as creating a new data source connection, enabling collection, scheduling the frequency, and testing the connections, is available only for the selected source.

## **Create a service definition source connection**

To create an RTSM service definition connection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Ensure that the required service definition source is selected under **Service Definition Source**.
3. Click **Create New**.  
The Connection Parameters dialog box opens.
4. In the **Connection Parameters** dialog box, type the following values:

Field	Description
Datasource Type	Select the type of HPOM that is configured in your environment. The options include: <ul style="list-style-type: none"><li>■ HPOM for Windows</li><li>■ HPOM for Unix</li><li>■ HPOM for Linux</li><li>■ HPOM for Solaris</li></ul>
Host name	Address (IP or name) of the Business Service Management server. If your HP Business Service Management deployment is distributed, type the name of the data processing server (DPS) in the Host name field.
Database instance	System identifier (SID) of the database instance. The default database instance is OVOPS. This field is not displayed when OM on Oracle RAC is selected.
Port	Port number to query the RTSM web service. The default port number is 21212.
User name	Name of the RTSM web service user. The default user name is admin.
Password	Password of the RTSM web service user. The default password is admin.

5. Click **OK**.
6. Click **Save**.
7. In the message box, click **Yes**.  
A **Saved Successfully** message appears in the Information message panel.

**Note:** You can create a single RTSM data source connection. The Create New button is disabled by default at the data source connection is created.

To create an HPOM service definition connection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Click **Create New**.  
The **Connection Parameters** dialog box opens.  
**Note:** If you are using the database method of authentication to connect to the HPOM

database server, you must provide the user details that have the select and connect permissions for the “openview” database here.

3. Type:

Field	Description
Datasource Type	Select the type of HPOM that is configured in your environment. The options include: <ul style="list-style-type: none"> <li>■ HPOM for Windows</li> <li>■ HPOM for UNIX</li> <li>■ HPOM for LINUX</li> <li>■ HPOM for Solaris</li> </ul>
Database Type	Depending on the data source type that you select, the database type is automatically selected for you. For the HPOM for Windows data source type, the database type is MSSQL. For the HPOM for UNIX, HPOM for LINUX, or HPOM for Solaris, the database type is Oracle.
OM on Oracle RAC	Option to enable HPOM database on Oracle RAC. This option is not displayed when HPOM for Windows is selected.
Service Name	Specify the name by which SHR connects to the Oracle instance. This option appears only if OM on Oracle RAC is selected.
File Name	The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OM on Oracle RAC is selected.
Host name	IP address or fully-qualified domain name (FQDN) of the HPOM database server. If the HPOM database is configured on a remote system, the machine name of the remote system must be provided here. Host name is not displayed when the database type is Oracle and Management DB on Oracle RAC is selected.
Database instance	System identifier (SID) of the database instance. The default database instance is OVOPS. Database instance is not displayed when the database type is Oracle and Management DB on Oracle RAC is selected.

Field	Description
Database name	Name of the HPOM database. This field only appears if HPOM for Windows is selected as the data source type. The name of the database is openview.
Port	Port number to query the HPOM database server. Port number is not displayed when the database type is Oracle and Management DB on Oracle RAC is selected.  To find the port number, see the <i>Installation and Configuration Guide</i> chapter, "Configuring SHR."
Windows Authentication	Option to enable Windows authentication for accessing the HPOM database. The user can use the same credentials to access HPOM as that of the Windows system hosting the database.  This option only appears if HPOM for Windows is selected as the data source type.
User name	Name of the HPOM database user.  <b>Note:</b> For the HPOM for Windows data source type, if the Windows Authentication option is selected, this field is disabled.
Password	Password of the HPOM database user.  <b>Note:</b> For the HPOM for Windows data source type, if the Windows Authentication option is selected, this field is disabled.

4. Click **OK**.
5. Click **Save**.
6. In the message box, click **Yes**.  
 A Saved Successfully message appears in the Information message panel.

**Note:** The default SQL Server Express that is installed with HPOM for Windows does not accept remote connections.

Data collection for the newly created service definition data source is enabled by default. In addition, the collection frequency is scheduled for every 24 hours.

**Note:** When you create a data source connection for HPOM on the Service Definition page, the same data source connection appears on the Operation Manager page as well. However, updating the data source connection on the Service Definition page does not update the connection details on the Operation Manager page.

To create a VMware vCenter service definition connection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Click **Create New**.  
The **Connection Parameters** dialog box opens.
3. Type:

Field	Description
Host name	IP address or FQDN of the VMware vCenter server. If your VMware vCenter deployment is distributed, type the name of the data processing server (DPS) in the Host name field.
User name	Name of the VMware vCenter user.
Password	Password of the VMware vCenter user.

4. Click **OK**.
5. Click **Save**.
6. In the message box, click **Yes**.  
A **Saved Successfully** message appears in the Information message panel.

## ***Modify a service definition source connection***

To modify an RTSM service definition connection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. For a specific host, click **Configure**.  
The Connection Parameters dialog box appears.
3. In the **Connection Parameters** dialog box, type the following connection parameters:

Field	Description
Datasource Type	Select the type of HPOM that is configured in your environment. The options include: <ul style="list-style-type: none"><li>■ HPOM for Windows</li><li>■ HPOM for Unix</li><li>■ HPOM for Linux</li><li>■ HPOM for Solaris</li></ul>
Host name	IP address or FQDN of the Business Service Management server.  You cannot modify the host name after it has been specified during the creation process. This field is disabled by default.
Database instance	System identifier (SID) of the database instance. The default database instance is OVOPS. This field is not displayed when OM on Oracle RAC is selected.
Port	Port number to query the RTSM web service. The default port number is 21212.
User name	Name of the RTSM web service user. The default user name is admin.
Password	Password of the RTSM web service user. The default password is admin.

4. Click **OK**.
5. Click **Save**.  
A `Saved Successfully` message appears in the Information message panel.

To modify an HPOM service definition connection:

1. From the Administration Console, select **Topology Source > Service Definition**.  
The Service Definition page opens.
2. For a specific host, click **Configure**.  
The Connection Parameters dialog box appears.  
**Note:** If you are using the database method of authentication to connect to the HPOM database server, you must provide the user details that have the select and connect permissions for the "openview" database here.
3. In the **Connection Parameters** dialog box, type the following connection parameters:

Field	Description
Datasource Type	<p>Select the type of HPOM that is configured in your environment. The options include:</p> <ul style="list-style-type: none"> <li>■ HPOM for Windows</li> <li>■ HPOM for UNIX</li> <li>■ HPOM for LINUX</li> <li>■ HPOM for Solaris</li> </ul> <p>You cannot modify the data source type after it has been selected during the creation process. This field is disabled by default.</p>
Database Type	<p>Depending on the data source type that you select, the database type is automatically selected for you. For the HPOM for Windows data source type, the database type is MSSQL. The database type is Oracle for the HPOM for UNIX, LINUX, and Solaris.</p> <p>You cannot modify the database type after it has been selected during the creation process. This field is disabled by default.</p>
OM on Oracle RAC	<p>Option to enable HPOM database on Oracle RAC. This option is not displayed when HPOM for Windows is selected.</p>
Service Name	<p>Specify the name by which SHR connects to the Oracle instance. This option appears only if OM on Oracle RAC is selected.</p>
File Name	<p>The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OM on Oracle RAC is selected.</p>
Host name	<p>Address (IP or FQDN) of the HPOM database server.</p> <p>You cannot modify the host name after it has been specified during the creation process. This field is disabled by default</p>
Database instance	<p>System identifier (SID) of the database instance. The default database instance is OVOPS.</p>
Database name	<p>Name of the HPOM database. This field only appears if HPOM for Windows is selected as the data source type. The name of the database is openview.</p>

Field	Description
Port	Port number to query the HPOM database server.  To find the port number, see the <i>Installation and Configuration Guide</i> chapter, "Configuring SHR."
Windows Authentication	Option to enable Windows authentication for accessing the HPOM database. The user can use the same credentials to access HPOM as that of the Windows system hosting the database.  This option only appears if HPOM for Windows is selected as the data source type.
User name	Name of the HPOM database user.  <b>Note:</b> For the HPOM for Windows data source type, if the Windows Authentication option is selected, this field is disabled.
Password	Password of the HPOM database user.  <b>Note:</b> For the HPOM for Windows data source type, if the Windows Authentication option is selected, this field is disabled.

4. Click **OK**.
5. Click **Save**.  
 A Saved Successfully message appears in the Information message panel.

To modify a VMware vCenter service definition connection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
 The Service Definition page opens.
2. For a specific host, click **Configure**.  
 The Connection Parameters dialog box appears.
3. In the **Connection Parameters** dialog box, type the following connection parameters:

Field	Description
Host name	IP address or FQDN of the VMware vCenter server. If your VMware vCenter deployment is distributed, type the name of the data processing server (DPS) in the Host name field.

Field	Description
User name	Name of the VMware vCenter user.
Password	Password of the VMware vCenter user.

4. Click **OK**.
5. Click **Save**.
6. In the message box, click **Yes**.  
A *Saved Successfully* message appears in the Information message panel.

## ***Enable or disable a service definition data collection***

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. For a specific host, perform any one of the followings steps:
  - Select the check box in the **Enable Collection** column to enable data collection.
  - Clear the check box in the **Enable Collection** column to disable data collection.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

## ***Schedule a service definition collection***

To schedule an RTSM service definition collection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. For one or more hosts, specify a synchronization time between 1 and 24 hours in the **Hrs** box in the **Schedule Frequency** column.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

To schedule an HPOM service definition collection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. For one or more hosts, specify a synchronization time between 1 and 24 hours in the **Hrs** box under **Schedule HP OM Synchronization**, and then click **Apply**.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

To schedule a VMware vCenter service definition collection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. For one or more hosts, specify a synchronization time between 1 and 24 hours in the **Mins** box under **Schedule VMware vCenter Synchronization**, and then click **Apply**.
3. Click **Save**.  
A **Saved Successfully** message appears in the Information message panel.

## ***Test the service definition source connection***

To test the RTSM service definition source connection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Click **Test Connection**.  
A **Test Connection Successful** message appears in the Information message panel if the connection exists.

To test the HPOM service definition source connection:



1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Select the check box in the first column for the HPOM data source connection that you want to test, and then click **Test Connection**.  
**Note:** You cannot test more than one HPOM connection at a time.  
A **Test Connection Successful** message appears in the Information message panel if the connection exists.

To test the VMware Vcenter service definition source connection:

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Select the check box in the first column for the VMware vCenter data source connection that you want to test, and then click **Test Connection**.  
**Note:** You cannot test more than one VMware vCenter connection at a time.  
A **Test Connection Successful** message appears in the Information message panel if the connection exists.

## ***View service definition source connection status***





1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Check the connection status indicator in the **Status Connection** column:

-  Indicates that the host system is connected to the data source.
-  Indicates that the host system is not connected to the data source.

## ***View service definition data collection status***

1. In the Administration Console, click **Topology Source > Service Definition**.  
The Service Definition page opens.
2. Check the collection status indicator in the **Status Collection** column:

Status of the collection showing the date and local time of the latest collection attempt and the current status:

-  indicates that the data collection is in progress.
-  indicates that the data collection completed successfully in the previous attempt.
-  indicates that the data collection failed in the previous attempt.
-  indicates that the data collection was never started.

**Note:** **Status collection** column is not displayed when VMware vCenter is the service definition source.

## **Configuring and managing data collection**

In SHR, data collection involves collecting domain-specific data from the various product center repositories such as HP Operations Manager i (OMi), HP Business Service Management Profile database, HP Performance Agent, and HP Operation agent. The collected data is stored in the SHR database, which is then used for long-term, cross-domain performance analysis and reporting.

### ***Data collection***

SHR provides an open and flexible data collection framework that can be used to collect data from heterogeneous data sources. SHR uses various data collectors to collect the required data:

- HP Performance Agent collector—Collects system performance metrics for the System Management Content Pack and application metrics for domain-specific applications. The data is collected by the HP Performance Agents that are installed on the host systems.
- Database collector—Collects events, messages, availability, and performance Key Performance Indicators (KPIs) from the databases of the data source such as Profile database, Management database, HPOM database, HP OMi database, and Network Performance Server (NPS). The database collector can also collect data from generic databases that use Sybase, Oracle, or SQL Server as the database system. This collector uses the database collector technology to collect the data.

These 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.

The Administration Console supports the configuration of four type of data source connections:

- Management and Profile databases
- HP Performance Agent
- HP OMi
- HPOM
- Generic databases
- VMware vCenter

The deployed 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 installed Content Packs depends on the type of deployment scenario used. For more information about the data collection process and what Content Packs are supported for each deployment scenario, see the *HP Service Health Reporter Concepts Guide*.

You can use the Administration Console for:

- [Managing the ManagementDB / ProfileDB data collection](#)
- [Managing the HP Operations agent data source data collection](#)
- [Managing the HP OMi data collection](#)
- [Managing the HPOM data collection](#)
- [Managing collection from generic databases](#)
- ["Managing the VMware vCenter data collection" on page 72](#)

## ***Managing the ManagementDB / ProfileDB data collection***

SHR supports data collection from the following HP Business Service Management data sources:

- **Business Process Monitor (BPM):** BPM proactively monitors enterprise applications and identifies performance problems before users experience them. It enables you to monitor sites from various locations, emulating the end-user experience, and assess site performance from different client perspectives.
- **Real User Monitor (RUM):** RUM measures the experience of real users from a network/server perspective by monitoring real user traffic and collecting network and server performance data in real time.

## ***HP Business Service Management data***

You can configure SHR to collect data from the following HP Business Service Management data repositories:

- **Management database:** The Management database stores system-wide and management-related metadata for the HP Business Service Management environment.
- **Profile database:** The Profile database stores raw and aggregated measurement data obtained from the HP Business Service Management data collectors. The Profile database also stores measurements collected through HP OMi, BPM, and RUM.

SHR also supports the configuration of and data collection from multiple Profile databases. You might have set up multiple Profile database in your HP Business Service Management environment for scaling purposes—one database might not be enough to store all the data—or for data separating—all critical data in one Profile database and all non-critical data in another. The information about the various Profile databases deployed in your environment is stored in the Management database.

For more information about the Management and Profile databases, see the *HP Business Service Management Database Guide*.

## ***Managing the data collection***

You can use the ManagementDB / ProfileDB page of the Administration Console to configure the data source connections. To configure the multiple Profile database connections, you only need to configure the Management database on the ManagementDB / ProfileDB page. After the Management database data source connection is configured, SHR discovers all the deployed Profile databases and lists them on the ManagementDB / ProfileDB page.

Using the ManagementDB / ProfileDB page, you can perform the following tasks:

- [Create a new ManagementDB / ProfileDB connection](#)
- [Modify a ManagementDB / ProfileDB connection](#)
- [Enable or disable a ManagementDB / ProfileDB data collection](#)
- [Schedule a ManagementDB / ProfileDB synchronization](#)
- [Test the ManagementDB / ProfileDB connection](#)
- [View ManagementDB / ProfileDB connection status](#)
- [View ManagementDB / ProfileDB collection status](#)
- [Delete a ManagementDB / ProfileDB connection](#)

## Create a new ManagementDB / ProfileDB connection

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Management Database**, click **Create New**.  
The Connection Parameters dialog box appears.
3. In the **Connection Parameters** dialog box, specify or type the connection parameters:

Field	Description
Host name	Name of the Management database server. Host name is not displayed when Management DB on Oracle RAC is selected or when both Management DB on Oracle RAC and Profile DB on Oracle RAC are selected.
Port	Port number to query the Management database server. Port number is not displayed when Management DB on Oracle RAC is selected.
Database instance	System Identifier (SID) of the Management database instance. Database instance is not displayed when Management DB on Oracle RAC is selected.  <b>Note:</b> For information about the database host name, port number, and SID, contact your HP Business Service Management administrator.
Database type	The type of database engine that is used to create the Management database. It can either be Oracle or MSSQL.
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
ManagementDB on Oracle RAC	This option appears only if you have selected Oracle as the database type. If only ManagementDB on Oracle RAC is selected and Profile DB on Oracle RAC is not selected, the profile database details are configured automatically.
ProfileDB on Oracle RAC	This option appears only if you have selected Oracle as the database type. Configure the profile database parameters only when this option is selected.

Field	Description
Database name	Name of the database. This field appears only if MSSQL is selected as the database type.
Service name	This option appears only if Management DB on Oracle RAC is selected  <b>Note:</b> Service name is displayed instead of the Host name when users select only Management DB on Oracle RAC or both Management DB on Oracle RAC and Profile DB on Oracle RAC.
User name	Name of the Management database user, which was specified in the BSM Configuration Wizard when setting up the Management database.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Password	Password of the Management database user, which was specified in the BSM Configuration Wizard when setting up the Management database.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.

4. Click **OK**.


5. Click **Save**.

A Saved Successfully message appears in the Information message panel.

**Note:** You can only create a single Management database data source connection, after which the Create New button is automatically disabled.

After you save the newly created Management database connection, SHR retrieves the Profile database information from the Management database data source and lists all the available Profile database data sources under the Profile Database section.

To view details of the Profile database data source connection:

1. Under **Profile Database**, in the **Host name** column, click the  icon. The pop-up box opens that displays details of the Profile database system.
2. View:

Field	Description
Host name	Name of the Profile database server.

Field	Description
Port	Port number to query the Profile database server.
Database instance	System Identifier (SID) of the Profile database instance.
DB type	The type of database engine that is used to create the Profile database. It can either be Oracle or MSSQL.
Database name	Name of the Profile database.
User name	Name of the Profile database user.

**Note:** Set up parameters for the profile management database, only if Profile DB on Oracle RAC is selected, or when both Management DB on Oracle RAC and Profile DB on Oracle RAC are selected. In such an instance, the Create New option under Profile Database is displayed.

Data collection for the Profile database data source is enabled by default. In addition, the collection frequency is scheduled for every one hour.

**Note:** Copy the seed.properties and encryption.properties files from the %topaz\_home%\Conf folder on HP BSM DP Server to the %PMDB\_HOME%\config folder on the HP SH Reporter system to discover Profile DB. In case of Oracle RAC copy bsm-tnsnames.ora in addition to these files.

## ***Modify a ManagementDB / ProfileDB connection***

You can only modify the Management database data source connection, not the Profile database data source connections.

To modify a Management database data source connection:

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Management Database**, click **Configure**.  
The Connection Parameters dialog box appears.
3. In the **Connection Parameters** dialog box, specify or type the connection parameters:

Field	Description
Host name	Name of the Management database server. Host name is not displayed when Management DB on Oracle RAC is selected or when both Management DB on Oracle RAC and Profile DB on Oracle RAC are selected.

Field	Description
Port	Port number to query the Management database server. Port number is not displayed when Management DB on Oracle RAC is selected.
Database instance	System Identifier (SID) of the Management database instance. Database instance is not displayed when Management DB on Oracle RAC is selected.  <b>Note:</b> For information about the database host name, port number, and SID, contact your HP Business Service Management administrator.
Database type	The type of database engine that is used to create the Management database. It can either be Oracle or MSSQL.
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
ManagementDB on Oracle RAC	This option appears only if you have selected Oracle as the database type. If only ManagementDB on Oracle RAC is selected and Profile DB on Oracle RAC is not selected, the profile database details are configured automatically.
ProfileDB on Oracle RAC	This option appears only if you have selected Oracle as the database type. Configure the profile database parameters only when this option is selected.
Application	HP Business Service Management application type. This field is disabled by default.
Database name	Name of the Management database. This field appears only if MSSQL is selected as the database type.
Service name	This option appears only if Management DB on Oracle RAC is selected.  <b>Note:</b> Service name is displayed instead of the Host name when users select only Management DB on Oracle RAC or both Management DB on Oracle RAC and Profile DB on Oracle RAC.
User name	Name of the Management database user, which was specified in the BSM Configuration Wizard when setting up the Management database.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.

Field	Description
Password	Password of the Management database user, which was specified in the BSM Configuration Wizard when setting up the Management database.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.

4. Click **OK**.
5. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

Although you cannot configure the individual Profile database data source connections, you can retrieve the updated list of Profile database connections from the Management database. You can use the **Refresh** button to synchronize the databases and get the updated list of Profile database changes. Changes can include:

- New Profile database discovered from Management database.
- Existing Profile database deleted from Management database.
- Changes in configuration data for existing database.

To update the list of Profile database connections:

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Profile Database**, click **Refresh**.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

### ***Enable or disable ManagementDB / ProfileDB data collection***

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. For one or more hosts, under **Profile Database**, perform any one of the following steps:
  - Select the **Enable Collection** check box to enable data collection.
  - Clear the **Enable Collection** check box to disable data collection.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

## ***Schedule a ManagementDB / ProfileDB synchronization***

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Profile Database**, specify a synchronization time between 1 and 24 hours in the **Select Schedule** box and then click **Apply**.  
A Please click on Save button to save the changes message appears below the table.
3. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

## ***Test the ManagementDB / ProfileDB connection***

To test the Management database data source connection:

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Click **Test Connection** under **Management Database**.  
A Test Connection Successful message appears in the Information message panel if connection exists.



To test the Profile database data source connections:

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Profile Database**, click **Test** in the **Test Connection** column for a specific Profile database data source connection.  
A Test Connection Successful message appears in the Information message panel if connection exists.



## ***View the ManagementDB / ProfileDB connection status***

To view the connection status of a Management database data source:

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Management Database**, check the connection status indicator in the **Status Connection** column:

-  Indicates that the host system is connected to the data source.
-  Indicates that the host system is not connected to the data source.

To view the connection status of a Profile database data source:





1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Profile Database**, for one or more Profile databases, check the connection status indicator in the **Status Connection** column:
  -  Indicates that the host system is connected to the data source.
  -  Indicates that the host system is not connected to the data source.

## ***View the ManagementDB / ProfileDB collection status***

To view the collection status of a Management database data source:

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Management Database**, check the collection status indicator in the **Status Collection** column:





Status of the collection showing the date and time of the latest collection attempt and the current status:

-  indicates that the data collection is in progress.
-  indicates that the data collection completed successfully in the previous attempt.
-  indicates that the data collection failed in the previous attempt.
-  indicates that the data collection was never started.

To view the collection status of Profile database data sources:

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Profile Database**, for one or more Profile databases, check the collection status indicator in the **Status Collection** column:

Status of the collection showing the date and time of the latest collection attempt and the current status:

-  indicates that the data collection is in progress.
-  indicates that the data collection completed successfully in the previous attempt.
-  indicates that the data collection failed in the previous attempt.
-  indicates that the data collection was never started.

## **Delete a ManagementDB / ProfileDB connection**

1. In the Administration Console, click **Collection Configuration > ManagementDB / ProfileDB**.  
The ManagementDB / ProfileDB page opens.
2. Under **Management Database**, click **Delete**.
3. In the message box, click **Yes**.  
A Deleted Successfully message appears in the Information message panel.
4. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

Although you cannot delete individual Profile database data source connections, deleting the Management database data source connection automatically removes all the Profile database data source connections. However, deleting a Management database connection does not delete the collected data from the SHR database.

## **Managing the HP Operations agent data source data collection**

SHR reports on various facts collected from the HP Performance Agent and HP Operations agent-managed nodes. The HP Performance Agent and HP Operations agent collect, summarize, [timestamp](#)<sup>1</sup>, and detect alarm conditions on current and historical resource data across your system. These agents provide performance, resource, and end-to-end transaction response time measurements, and support network and database measurement information.

<sup>1</sup>The process of recording timestamps that is the time at which an event occurred in the system. Timestamps are typically used for logging events.

## ***HP Performance Agent data sources***

SHR integrates with HP Performance Agent and HP Operation agent to collect historical system and application-performance data. Depending on the deployment scenario, RTSM or HPOM discovers the hosts on which the agent is installed and running. SHR uses an HP Performance Agent data collector to collect the fact data from the hosts. The list of metrics to be collected from each HP Performance Agent host is identified by the Content Packs.

For more information about HP Performance Agent, see the HP Performance Agent documentation.

## ***Managing the data collection***

You can use the HP Operations agent Data Source page of the Administration Console to manage the HP Performance and Operations Agent data collection. You do not need to create new agent data source connections because, by default, SHR discovers all the nodes on which HP Performance Agent and HP Operations agent are installed during the topology data collection phase. These discovered agent data sources or nodes are listed in the HP Operations agent Data Source page.

Using the HP Operations agent Data Source page, you can perform the following tasks:

- [View the HP Operations agent data source details](#)
- [Enable or disable an HP Operations agent data source data collection](#)
- [Schedule an HP Operations agent data source synchronization](#)
- [Test the HP Operations agent data source connection](#)

## ***View the HP Operations agent data source details***

1. In the Administration Console, click **Collection Configuration > HP Operations agent**. The HP Operations agent page opens.

2. In the HP Operations Agent Data Source Summary table, view:

Field	Description
View name	<p>A list of topology views that contain the specific CI attributes that the HP Performance Agent collector uses to collect the relevant data.</p> <p><i>All</i> indicates all the views. <i>Unassigned</i> indicates the HP Performance Agent data sources that do not have any topology views assigned to it.</p>
Hosts	The number of HP Performance Agent data sources for that particular view.
Collection: Passed	The number of distinct HP Operations agent data sources from where the raw data was successfully collected.
Collection: Failed	The number of distinct HP Operations agent data sources from where data collection failed.
Collection: Never Collected	The number of distinct HP Operations agent data sources from where data was never collected.
Enabled/Disabled	The number of distinct HP Operations agent data sources that are enabled or disabled for data collection.






3. To view detailed information about the HP Operations agent data sources, click the view name or the number in the HP Operations Agent Data Source Summary table. You can:

- Click the view name to view the list of HP Operations agent data sources for that particular view.
- Click the number in the Hosts column to list details of all the HP Operations agent data sources.
- Click the number in the Passed column to view the details of the HP Operations agent data sources from where data collection was successful.
- Click the number in the Failed column to view the details of the HP Operations agent data sources from where data collection failed.
- Click the number in the Never Collection column to view the details of the HP Performance Agent data sources from where data was never collected.

- Click the number in the Enabled/Disabled column to view the details of the HP Operations agent data sources were enabled or disabled for data collection.

The HP Operations Agent Data Source Details <view name> table appears.

4. View:

Field	Description
Search: Host name	Search option that support pattern matching search. You can use this feature to search for a particular HP Operations agent data source or filter this displayed list of hosts.
Host name	Name of the HP Operations agent data source.
Enable Collection	Enable or disable data collection from the HP Operations agent data source.  <b>Note:</b> Use the enable or disable option in the header to enable or disable data collection from all the HP Operations agent Data Sources in the list.
Schedule Polling Frequency	Time (in hours) to synchronize the SHR database with the HP Operations agent data source.
Connection Status	Status of the HP Operations agent data source connection.  <ul style="list-style-type: none"> <li>■  Indicates that the host system is connected to the data source.</li> <li>■  Indicates that the host system is not connected to the data source.</li> </ul>
Collection Status	Status of the data collection showing the date and local time of the latest collection attempt and the current status.  <ul style="list-style-type: none"> <li>■  indicates that the data collection completed successfully.</li> <li>■  indicates that the data collection failed.</li> <li>■  indicates that the data collection was never started.</li> </ul>

## ***Enable or disable a HP Operations agent data source data collection***

1. In the Administration Console, click **Collection Configuration > HP Operations Agent**. The HP Operations agent Data Source page opens.
2. In the HP Operations Agent Data Source Summary table, click the view name or the number in the column to list the HP Performance Agent data sources for which you want to enable or disable data collection. The HP Operations Agent Data Source Details table opens.
3. Type the host name in the **Host name** box and click **Search**, if you want to filter the list of HP Performance Agent data sources.
4. You can enable or disable a HP Performance agent data source data collection in the following ways:
  - For one or more hosts, select the check box in the **Enable Collection** column.
  - To enable data collection for all the displayed HP Performance agent data sources, select the check box in the **Enable Collection** header.
  - To disable data collection, clear the **Enable Collection** check box.
5. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

**Note:** The collection for the HP Performance Agent data source connections are enabled by default.

## ***Schedule a HP Operations agent data source data synchronization***

By default, the data collection from the various HP Performance Agent data sources is scheduled for every one hour. However, you can modify this according to your requirements.

To schedule a HP Performance Agent data source polling frequency:

1. In the Administration Console, click **Collection Configuration > HP Operations agent**. The HP Operations agent Data Source page opens.
2. In the HP Operations Agent Data Source Summary table, click the view name or the number in the column to list the HP Performance Agent data sources for which you want to enable or disable data collection. The HP Operations Agent Data Source Details table opens.
3. For one or more hosts, specify a polling time between 1 and 24 hours in the **Hrs** box in the **Schedule polling frequency** column.  
**Note:** Type the host name in the **Host name** box and click **Search**, if you want to filter the list of HP Performance Agent data sources.

4. Click **Save**.  
A Saved Successfully message appears in the Information message panel.
5. If you want to apply the collection schedule to all the lists hosts, click **Update All**.  
The Apply schedule to group section appears.

**Note:** The Update All option does not appear for the **All** or **Unassigned** options in the View name column.

6. Specify a polling time between 1 and 24 hours in the **Hrs** box and then click **OK**.
7. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

## ***Blacklisting of Nodes***

Data collection from a host will not occur when the connection to the HP Performance agent is lost. If the node is unreachable for three consecutive data collection runs, the node is noted in the blacklisted category. Once a node is blacklisted, the interval of the data collection run is doubled with every three retries until the data collection interval reaches 24 hours. If the connection to the node is resumed, it is no longer considered a blacklisted node and the data collection interval resumes to the original value.

You can view the blacklisted hosts from the **Java Monitoring & Management Console**. Access this console from an SHR system through `<BO install dir>\javadk\bin\jconsole.exe` and login with the `<host name>;<port>` credentials, where the port is 21409 for SHR.

To disable the blacklisting of nodes:

1. Browse to the `{PMDB.HOME}/config/collection.properties` file.
2. Locate the `pa.collector.blacklist.mode` parameter
3. Set the value to `FALSE`. The default value is `TRUE` .

## ***Test the HP Operations agent data source connection***

1. In the Administration Console, click **Collection Configuration > HP Operations agent**.  
The HP Operations Agent Data Source page opens.
2. In the HP Operations Agent Data Source Summary table, click the view name or the number in the column to list the HP Performance Agent data sources for which you want to enable or disable data collection. The HP Operations Agent Data Source Details table opens.
3. Select the check box in the first column for a specific HP Performance agent data source connection.

**Note:** Type the host name in the **Host name** box and click **Search**, if you want to filter the list

of HP Performance Agent data sources. You cannot test more than one HP Performance agent data source connection at a time.

4. Click **Test Connection**.

A `Test Connection Successful` message appears in the Information message panel if the connection exists.

## ***Managing the HP OMi data collection***

HP OMi combines business-service management and infrastructure management so that you can monitor and manage a wide variety of problems that occur in your IT environment from different but complimentary perspectives at the same time. HP OMi generates Health Indicators (HIs) for the CI types in your environment, which provide a detailed status of a CI type. These HIs are mapped with the events that are generated by other domain manager products in your environment such as Network Node Manager (NNM), HP SiteScope, and HPOM. The HIs are used to calculate the KPIs of a CI type, which displays the aggregated state of a CI type. The KPIs represent the high-level health of the CI types to the operator and shows the health and event summary of your business.

### ***HP OMi data***

SHR collects the historical HI and KPI values against RTSM instances from the HP Business Service Management Profile database over a period of time and displays the trend of these values through reports and dashboards. SHR uses the database collector to collect the historical HI and KPI values from the Profile database. The KPI names, HI dimension details, and value details are collected from the HP BSM Management database.

For more information about HP OMi, see the HP OMi documentation.

## ***Managing the data collection***

Using OMI page, you can perform the following tasks:

- [Create an HP OMi data source connection](#)
- [Modify an HP OMi data source connection](#)
- [Enable or disable an HP OMi data collection](#)
- [Schedule an HP OMi data collection](#)
- [Test the HP OMi data source connection](#)
- [View the HP OMi data source connection status](#)
- [View the HP OMi data collection status](#)
- [Delete an HP OMi data source connection](#)

## Create an HP OMi data source connection

Before you create a new HP OMi data source connection, make sure that a data source connection for the HP BSM Management database exists on the ManagementDB \ ProfileDB page. This data connection is a prerequisite for the HP OMi connection because SHR collects the KPI metadata for HP OMi from the Management database.

If you have one or more OMi setups in your environment, you must configure the OMi data source that belongs to the HP Business Service Management RTSM that was configured as the topology source.

To create a new HP OMi data source connection:

1. In the Administration Console, click **Collection Configuration > OMI**.  
The OMI page opens.
2. Click **Create New**.  
The Connection Parameters dialog box opens.
3. In the **Connection Parameters** dialog box, type the following values:

Field	Description
OMi on Oracle RAC	Option to enable OMi database on Oracle RAC.
Service Name	Specify the name by which SHR connects to the Oracle instance. This option appears only if OMi on Oracle RAC is selected.
File Name	The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OMi on Oracle RAC is selected.
Host name	IP address or FQDN of the HP OMi database server.
Port	Port number to query the HP OMi database server.
Database Instance	System Identifier (SID) of the HP OMi database Instance. The default database instance is OVOPS. <b>Note:</b> For information about the database hostname, port number and SID, contact your HP OMi database administrator.
Database type	The type of database engine that is used to create the HP OMi database. It can either be Oracle or MSSQL.

Field	Description
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
Database name	Name of the database. This field appears only if MSSQL is selected as the database type. The name is openview.
User name	Name of the HP OMi database user. <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Password	Password of the HP OMi database user. <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Collection Station	The name of the system where the collector is installed.

4. Click **OK**.

5. Click **Save**.

A Saved Successfully message appears in the Information message panel.

**Note:** You can only create a single HP OMi data source connection. The Create New button is disabled after you create a new HP OMi data source connection or if a connection already exists.

Data collection for the newly created HP OMi data source connection is enabled by default. In addition, the collection frequency is scheduled for every one hour.

## ***Modify an HP OMi data source connection***

1. In the Administration Console, click **Collection Configuration > OMI**.  
The OMI page opens.
2. For a specific host, click **Configure**.  
The Connection Parameters dialog box appears.
3. In the **Connection Parameters** dialog box, type the following values:

Field	Description
OMi on Oracle RAC	Option to enable OMi database on Oracle RAC.
Service Name	Specify the name by which SHR connects to the Oracle instance. This option appears only if OMi on Oracle RAC is selected.

Field	Description
File Name	The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OMI on Oracle RAC is selected.
Host name	Address (IP or name) of the HP OMI database server.
Port	Port number to query the HP OMI database server.
Database type	The type of database engine that is used to create the HP OMI database. It can either be Oracle or MSSQL.
Database instance	System Identifier (SID) of the HP OMI database instance.  <b>Note:</b> For information about the database hostname, port number, and SID, contact your HP OMI database administrator.
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
Database name	Name of the database. This field appears only if MSSQL is selected as the database type.
User name	Name of the HP OMI database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Password	Password of the HP OMI database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Collection Station	The name of the system where the collector is installed.

4. Click **OK**.
5. Click **Save**.  
 A Saved Successfully message appears in the Information message panel.

### ***Enable or disable an HP OMI data collection***

1. In the Administration Console, click **Collection Configuration > OMI**.  
 The OMI page opens.
2. Perform any one of the following steps:
  - Select the check box in the **Enable Collection** column to enable data collection.

- Clear the check box in the **Enable Collection** column to disable data collection.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.



### ***Schedule an HP OMi data collection***

1. In the Administration Console, click **Collection Configuration > OMI**.  
The OMI page opens.
2. Specify a collection time between 1 and 24 hours in the **Hrs** box in the **Schedule Frequency** column.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

### ***Test the HP OMi data source connection***

1. In the Administration Console, click **Collection Configuration > OMI**.  
The OMI page opens.
2. Click **Test Connection**.  
A *Test Connection Successful* message appears in the Information message panel if connection exists.





### ***View the HP OMi data source connection status***

1. In the Administration Console, click **Collection Configuration > OMI**.  
The OMI page opens.
2. Check the connection status indicator in the **Status Connection** column:
  -  Indicates that the host system is connected to the data source.
  -  Indicates that the host system is not connected to the data source.

### ***View the HP OMi data collection status***

1. In the Administration Console, click **Collection Configuration > OMI**.  
The OMI page opens.
2. Check the collection status indicator in the **Status Collection** column:

Status of the collection showing the date and time of the latest collection attempt and the current status:

-  indicates that the data collection is in progress.
-  indicates that the data collection completed successfully in the previous attempt.
-  indicates that the data collection failed in the previous attempt.
-  indicates that the data collection was never started.

## **Delete an HP OMI data source connection**

1. In the Administration Console, click **Collection Configuration > OMI**.  
The OMI page opens.
2. Click **Delete**.  
A Deleted Successfully message appears in the Information message panel.
3. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

## **Managing the HPOM data collection**

HPOM is a distributed server-client software solution that provides service-driven event and performance management of business-critical enterprise systems, applications, and services. HPOM centrally monitors performance and events by using agents that are installed on the managed nodes. An agent is a deployment package that helps you manage nodes by collecting data, discovering services, monitoring events, and running actions and commands that control the nodes.

SHR collects event statistics, severity statistics for each of those events, as well as operator statistics, such as how many events were handled by each operator, from the HPOM database.

## **Managing the data collection**

Using the Operations Manager page, you can perform the following tasks:

- [Create an HPOM data source connection](#)
- [Modify an HPOM data source connection](#)
- [Enable or disable an HPOM data collection](#)
- [Schedule an HPOM data collection](#)
- [Test the HPOM data source connection](#)
- [View the HPOM data source connection status](#)

- [View the HPOM data collection status](#)
- [Delete an HPOM data source connection](#)

## Create an HPOM data source connection

**Note:** When you create a data source connection for HPOM on the Service Definition page, the same data source connection appears on the Operation Manager page as well. However, updating the data source connection on the Service Definition page does not update the connection details on the Operation Manager page.

1. In the Administration Console, click **Collection Configuration > Operations Manager**.  
The Operations Manager page opens.

2. Click **Create New**.  
The Connection Parameters dialog box opens.

**Note:** If you are using the database method of authentication to connect to the HPOM database server, you must provide the user details that have the select and connect permissions for the “openview” database here.

- 3.

Field	Description
OM on Oracle RAC	Option to enable HPOM database on Oracle RAC.
Service Name	Specify the name by which SHR connects to the Oracle instance. This option appears only if OM on Oracle RAC is selected.
File Name	The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OM on Oracle RAC is selected.
Host name	IP address or FQDN of the HPOM database server.
Port	Port number to query the HPOM database server. The default port is 1433 if SQL Server is the database type and 1521 if Oracle is the database type.
Database Instance	Specify the instance name of the HPOM database.  The default database instance for HPOM for Windows is OVOPS; the default database instance for HPOM on UNIX/Linux is openview.  For information about the database host name, port number, and instance name, contact your HPOM database administrator.

Field	Description
Database type	The type of database engine that is used to create the HPOM database.  Select MSSQL if you want to create a connection for HPOM for Windows; select Oracle to create a connection for HPOM on UNIX/Linux.
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
User name	Name of the HPOM database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Password	Password of the HPOM database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Collection Station	The name of the system where the collector is installed.

4. Click **OK**.

5. Click **Save**.

A *Saved Successfully* message appears in the Information message panel.

Data collection for the newly created HPOM data source is enabled by default. In addition, the collection frequency is scheduled for every one hour.

### ***Modify an HPOM data source connection***

1. In the Administration Console, click **Collection Configuration > Operations Manager**.  
The Operations Manager page opens.

2. Click **Configure**.

The Connection Parameters dialog box opens.

**Note:** If you are using the database method of authentication to connect to the HPOM database server, you must provide the user details that have the select and connect permissions for the "openview" database here.

3. In the **Connection Parameters** dialog box, type the following values:

Field	Description
OM on Oracle RAC	Option to enable HPOM database on Oracle RAC.
Service Name	Specify the name by which SHR connects to the Oracle instance. This option appears only if OM on Oracle RAC is selected.
File Name	The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OM on Oracle RAC is selected.
Host name	Address (IP or name) of the HPOM database server.
Port	Port number to query the HPOM database server. The default port is 1433 if SQL Server is the database type and 1521 if Oracle is the database type.
Database Instance	System Identifier (SID) of the HPOM database instance. The default database instance is OVOPS.  <b>Note:</b> For information about the database host name, port number, and SID, contact your HPOM database administrator.
Database type	The type of database engine that is used to create the HPOM database. It can either be Oracle or MSSQL.
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
User name	Name of the HPOM database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Password	Password of the HPOM database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Collection Station	The name of the system where the collector is installed.

4. Click **OK**.
5. Click **Save**.  
 A Saved Successfully message appears in the Information message panel.

## ***Enable or disable an HPOM data collection***

1. In the Administration Console, click **Collection Configuration > Operations Manager**.  
The Operations Manager page opens.
2. For one or more hosts, perform any one of the following steps:
  - Select the check box in the **Enable Collection** column to enable data collection.
  - Clear the check box in the **Enable Collection** column to disable data collection.
3. Click **Save**.  
A `Saved Successfully` message appears in the Information message panel.

## ***Schedule an HPOM data collection***



1. In the Administration Console, click **Collection Configuration > Operations Manager**.  
The Operations Manager page opens.
2. For one or more hosts, specify a collection time between 1 and 24 hours in the **Hrs** box in the **Schedule Frequency** column.
3. Click **Save**.  
A `Saved Successfully` message appears in the Information message panel.

## ***Test the HPOM data source connection***

1. In the Administration Console, click **Collection Configuration > Operations Manager**.  
The Operations Manager page opens.
2. Select the check box in the first column for a specific HPOM connection.  
**Note:** You cannot test more than one HPOM connection at a time.
3. Click **Test Connection**.  
A `Test Connection Successful` message appears in the Information message panel if connection exists.

## ***View the HPOM data source connection status***





1. In the Administration Console, click **Collection Configuration > Operations Manager**.  
The Operations Manager page opens.
2. For one or more hosts, check the connection status indicator in the **Status Connection** column:

-  Indicates that the host system is connected to the data source.
-  Indicates that the host system is not connected to the data source.

## ***View the HPOM data collection status***

1. In the Administration Console, click **Collection Configuration > Operations Manager**.  
The Operations Manager page opens.
2. For one or more hosts, check the connection status indicator in the **Status Collection** column:

Status of the collection showing the date and time of the latest collection attempt and the current status:

-  indicates that the data collection is in progress.
-  indicates that the data collection completed successfully in the previous attempt.
-  indicates that the data collection failed in the previous attempt.
-  indicates that the data collection was never started.

## ***Delete an HPOM data source connection***

1. In the Administration Console, click **Collection Configuration > Operations Manager**.  
The Operations Manager page opens.
2. Select the check boxes in the first column to delete one or more HPOM data source connections.
3. Click **Delete**.  
A Deleted Successfully message appears in the Information message panel.
4. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

## ***Managing collection from generic databases***

SHR enables you to configure data collection from any generic database source. Using the Generic Database page, you can configure SHR to connect to and collect data from any generic data source that use Sybase, Oracle, or Microsoft SQL Server as the database system.

This page is typically used to configure and collect network-related data from the Network Performance Server (NPS) for the Network reports in SHR. The Network Performance Server (NPS) provides the infrastructure that is used in conjunction with Network Node Manager i Software (NNMi) to monitor the operational performance of the network infrastructure. With the performance data collected by different NNMi Software Smart Plug-ins (iSPIs), the NPS builds data tables, runs queries in response to user selections, and displays query results in web-based

reports that help you diagnose and troubleshoot problems in your network environment. The NPS enables you to effectively store, access, and track performance data.

Out-of-the-box, SHR supports configuration to generic data sources that use the above-mentioned database types. However, using this page, you can configure SHR to connect to and collect data from other generic database types as well such as MySQL, PostgreSQL, Sybase, and so on. For a particular database type, you can specify the domain for which you want SHR to collect data such as system data, network data, and so on. For more information on how to configure such data sources, contact HP Support.

## ***Managing the data collection***

Using the Generic Database page, you can perform the following tasks:

- [Create a generic database connection](#)
- [Modify a generic database connection](#)
- [Enable or disable a generic database data collection](#)
- [Schedule a generic database data collection](#)
- [Test the generic database connection](#)
- [View the generic database connection status](#)
- [View the generic database collection status](#)
- [Delete a generic database connection](#)

## ***Create a generic database connection***

1. In the Administration Console, click **Collection Configuration > Generic Database**.  
The Generic Database page opens.
2. Click **Create New**.  
The Connection Parameters dialog box opens.
3. In the **Connection Parameters** dialog box, type the following values:

Field	Description
Host name	IP address or FQDN of the generic database server.
Port	Port number to query the database server.
TimeZone	The time zone under which the database instance is configured.

Field	Description
Database type	The type of database engine that is used to create the database. It can be Sybase IQ, Sybase ASE, Oracle, or MSSQL.
Domain	Select the domain(s) for which you want SHR to collect data from the selected database type.
URL	<p>The URL of the database instance. The syntax for the URL for each of the database types is:</p> <ul style="list-style-type: none"> <li>■ <b>Oracle:</b>  <code>jdbc:bto:oracle://&lt;server&gt;:&lt;port&gt;;SID=&lt;sid&gt;</code></li> </ul> <p>In an Oracle Real Application Cluster (RAC), copy the TNS ORA file to the SHR system and provide the absolute path in the following URL syntax:</p> <pre>jdbc:bto:oracle:TNSNamesFile=&lt;absolute path of TNS ORA file&gt;;TNSServerName=&lt;Service name&gt;</pre> <ul style="list-style-type: none"> <li>■ <b>MSSQL:</b> <code>jdbc:jtds:sqlserver://&lt;server&gt;&lt;port&gt;/&lt;database&gt;;instance=&lt;dbInstance&gt;</code></li> <li>■ <b>Sybase IQ:</b>  <code>jdbc:sybase:Tds:&lt;server&gt;:&lt;port&gt;/&lt;database&gt;</code></li> <li>■ <b>Sybase ASE:</b>  <code>jdbc:sybase:Tds:&lt;server&gt;:&lt;port&gt;?ServiceName=&lt;dbInstance&gt;</code></li> <li>■ <b>PostgreSQL:</b>  <code>jdbc:postgresql://&lt;server&gt;:&lt;port&gt;/&lt;database&gt;</code></li> </ul> <p>where <code>&lt;server&gt;</code>, <code>&lt;port&gt;</code>, <code>&lt;sid&gt;</code>, <code>&lt;database&gt;</code>, and <code>&lt;dbInstance&gt;</code> are replaceable variables that you must enter.</p>
User name	Name of the generic database user.
Password	Password of the generic database user.
Collection Station	The name of the system where the collector is installed.

4. Click **OK**.

5. Click **Save**.

A *Saved Successfully* message appears in the Information message panel.

Data collection for the newly created data source is enabled by default. In addition, the collection frequency is scheduled for every one hour.

## ***Modify a generic database connection***

1. In the Administration Console, click **Collection Configuration > Generic Database**.  
The Generic Database page opens.
2. Click **Configure**.  
The Connection Parameters dialog box opens.
3. In the **Connection Parameters** dialog box, type the following values:

<b>Field</b>	<b>Description</b>
Host name	Address (IP or name) of the generic database server.
Port	Port number to query the database server.
TimeZone	The time zone under which the database instance is configured.
Database type	The type of database engine that is used to create the generic database. It can be Sybase IQ, Sybase ASE, Oracle, or MSSQL.
Domain	Select the domain(s) for which you want SHR to collect data from the selected database type.

Field	Description
URL	<p>The URL of the database instance. The syntax for the URL for each of the database types is:</p> <ul style="list-style-type: none"> <li>■ <b>Oracle:</b>  <code>jdbc:bto:oracle://&lt;server&gt;:&lt;port&gt;;SID=&lt;sid&gt;</code></li> </ul> <p>In an Oracle Real Application Cluster (RAC), copy the TNS ORA file to the SHR system and provide the absolute path in the following URL syntax:</p> <p><code>jdbc:bto:oracle:TNSNamesFile=&lt;absolute path of TNS ORA file&gt;;TNSServerName=&lt;Service name&gt;</code></p> <ul style="list-style-type: none"> <li>■ <b>MSSQL:</b> <code>jdbc:jtds:sqlserver://&lt;server&gt;&lt;port&gt;/&lt;database&gt;;instance=&lt;dbInstance&gt;</code></li> <li>■ <b>Sybase IQ:</b>  <code>jdbc:sybase:Tds:&lt;server&gt;:&lt;port&gt;/&lt;database&gt;</code></li> <li>■ <b>Sybase ASE:</b>  <code>jdbc:sybase:Tds:&lt;server&gt;:&lt;port&gt;?ServiceName=&lt;dbInstance&gt;</code></li> <li>■ <b>PostgreSQL:</b>  <code>jdbc:postgresql://&lt;server&gt;:&lt;port&gt;/&lt;database&gt;</code></li> </ul> <p>where <code>&lt;server&gt;</code>, <code>&lt;port&gt;</code>, <code>&lt;sid&gt;</code>, <code>&lt;database&gt;</code>, and <code>&lt;dbInstance&gt;</code> are replaceable variables that you must enter.</p>
User name	Name of the generic database user.
Password	Password of the generic database user.
Collection Station	The name of the system where the collector is installed.

4. Click **OK**.
5. Click **Save**.  
 A Saved Successfully message appears in the Information message panel.

### ***Enable or disable a generic database data collection***

1. In the Administration Console, click **Collection Configuration > Generic Database**.  
 The Generic Database page opens.
2. For one or more hosts, perform any one of the following steps:
  - Select the check box in the **Enable Collection** column to enable data collection.

- Clear the check box in the **Enable Collection** column to disable data collection.
3. Click **Save**.  
A `Saved Successfully` message appears in the Information message panel.



### ***Schedule a generic database data collection***

1. In the Administration Console, click **Collection Configuration > Generic Database**.  
The Generic Database page opens.
2. For one or more hosts, specify a collection time between 1 and 24 hours in the **Hrs** box in the **Schedule Frequency** column.
3. Click **Save**.  
A `Saved Successfully` message appears in the Information message panel.

### ***Test the generic database connection***

1. In the Administration Console, click **Collection Configuration > Generic Database**.  
The Generic Database page opens.
2. Select the check box in the first column for a specific database connection.  
**Note:** You cannot test more than one connection at a time.
3. Click **Test Connection**.  
A `Test Connection Successful` message appears in the Information message panel if connection exists.





### ***View the generic database connection status***

1. In the Administration Console, click **Collection Configuration > Generic Database**.  
The Generic Database page opens.
2. For one or more hosts, check the connection status indicator in the **Status Connection** column:
  -  Indicates that the host system is connected to the data source.
  -  Indicates that the host system is not connected to the data source.

### ***View the generic database collection status***

1. In the Administration Console, click **Collection Configuration > Generic Database**.  
The Generic Database page opens.
2. For one or more hosts, check the connection status indicator in the **Status Collection** column:

Status of the collection showing the date and time of the latest collection attempt and the current status:

-  indicates that the data collection is in progress.
-  indicates that the data collection completed successfully in the previous attempt.
-  indicates that the data collection failed in the previous attempt.
-  indicates that the data collection was never started.

## ***Delete a generic database connection***

1. In the Administration Console, click **Collection Configuration > Generic Database**. The Generic Database page opens.
2. Select the check boxes in the first column to delete one or more database connections.
3. Click **Delete**.  
A Deleted Successfully message appears in the Information message panel.
4. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

## ***Managing the VMware vCenter data collection***

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.

SHR collects event statistics, severity statistics for each of those events, as well as operator statistics, such as how many events were handled by each operator, from the VMware vCenter database.

## ***Managing the data collection***

Using the VMware VCenter page, you can perform the following tasks:

- ["Create VMware vCenter data source connection" on the next page](#)
- ["Modify a VMware vCenter data source connection" on the next page](#)
- ["Enable or disable a VMware vCenter data collection" on page 74](#)
- ["Schedule a VMware vCenter data collection" on page 74](#)

- ["Test the VMware vCenter data source connection" on the next page](#)
- ["View the VMware vCenter data source connection status" on page 75](#)

## **Create VMware vCenter data source connection**

**Note:** When you create a data source connection for VMware vCenter on the Service Definition page, the same data source connection appears on the VMware vCenter data collection page as well. You can create additional data sources from the VMware vCenter collection configuration page.

1. In the Administration Console, click **Collection Configuration > VMware vCenter data source**.  
The VMware vCenter page opens.
2. Click **Create New**.  
The Connection Parameters dialog box opens.
3. In the **Connection Parameters** dialog box, type the following values:

Field	Description
Host name	IP address or FQDN of the VMware vCenter database server.
User name	Name of the VMware vCenter database user.
Password	Password of the VMware vCenter database user.
Collection Station	The name of the system where the collector is installed.

4. Click **OK**.
5. Click **Save**.  
A **Saved Successfully** message appears in the Information message panel.

Data collection for the newly created VMware vCenter data source is enabled by default. In addition, the collection frequency is scheduled for every one hour.

## **Modify a VMware vCenter data source connection**

1. In the Administration Console, click **Collection Configuration > VMware vCenter Data Source**.  
The VMware vCenter Data Source page opens.
2. Click **Configure**.  
The Connection Parameters dialog box opens.
3. In the **Connection Parameters** dialog box, type the following values:

Field	Description
Host name	IP address or FQDN of the VMware vCenter database server.
User name	Name of the VMware vCenter database user.
Password	Password of the VMware vCenter database user.
Collection Station	The name of the system where the collector is installed.

4. Click **OK**.
5. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

### ***Enable or disable a VMware vCenter data collection***

1. In the Administration Console, click **Collection Configuration > VMware vCenter Data Source**.  
The VMware vCenter Data Source page opens.
2. For one or more hosts, perform any one of the following steps:
  - Select the check box in the **Enable Collection** column to enable data collection.
  - Clear the check box in the **Enable Collection** column to disable data collection.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

### ***Schedule a VMware vCenter data collection***



1. In the Administration Console, click **Collection Configuration > VMware vCenter Data Source**.  
The VMware vCenter Data Source page opens.
2. For one or more hosts, specify a collection time between 5 and 60 minutes in the **Mins** box in the **Schedule Frequency** column.
3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

### ***Test the VMware vCenter data source connection***

1. In the Administration Console, click **Collection Configuration > VMware vCenter Data Source**.  
The VMware vCenter page opens.

2. Select the check box in the first column for a specific VMware vCenter connection.  
**Note:** You cannot test more than one VMware vCenter connection at a time.
3. Click **Test Connection**.  
A **Test Connection Successful** message appears in the Information message panel if connection exists.

## ***View the VMware vCenter data source connection status***

1. In the Administration Console, click **Collection Configuration > VMware vCenter Data Source**.  
The VMware vCenter Data Source page opens.
2. For one or more hosts, check the connection status indicator in the **Status Connection** column:
  -  Indicates that the host system is connected to the data source.
  -  Indicates that the host system is not connected to the data source.

## **Monitoring SHR**

After you perform the initial essential tasks to get SHR up and running, your next task is to monitor the SHR to ensure that it functions properly. The Administration Console provides an Internal Monitoring feature that you can use to monitor SHR.

You can use the Administration Console to perform the following monitoring tasks:

- [View the status of SHR.](#)
- [Monitor the SHR content.](#)
- [Monitor the data processes.](#)
- [Monitor the SHR database.](#)
- [Monitor the application server platform.](#)

Internal monitoring not only helps you identify the problematic processes or utilities that take a long time to run but also identify specific nodes where the data is stuck. If something goes wrong at the collection, reconciliation, or aggregation level, this feature helps you precisely identify the nodes where the problem occurred. You can also view the trend of usage of the database and the application server platform and a trend of the different data processes.

## **Using the Home page**

SHR performs various self-monitoring tasks where it monitors the database system, its key services, the data collection, and the database loading operations. This information is displayed on

the Home page of the Administration Console. The Home page gives you an overall status of the SHR components. You can directly troubleshoot performance issues with SHR by using this information. For additional information, you can drill down from this page by using the hyperlinks or open the relevant pages from the Task pane.

## Monitoring SHR




Using the Home page, you can perform the following monitoring tasks:


- [View the SHR status](#)
- [View details of the ABC alerts](#)




## View SHR status








The Home page displays information such as the status of the SHR services, the host system, and the database. You can view the number and status of active streams for the installed Content Pack components and the status of the data collection. You can also view the list of ABC and database alerts reported by SHR.

The Home page includes the following tables:

Field	Description
Services Status	<p>This table displays the status of the SHR database and SAP BusinessObjects Enterprise services. You can drill down to the Services page by clicking either the <a href="#">SHR Status</a> or the <a href="#">SAP BOBJ Enterprise status</a> hyperlinks.</p> <p>Status of the service:</p> <ul style="list-style-type: none"><li>•  indicates that all the services are running successfully.</li><li>•  indicates that one or all of the services are not running.</li></ul> <p>The data displayed in this table is refreshed periodically. Click  to update the table with the latest data.</p>

Field	Description
HP SH Reporter System Status	<p>This table displays the status and details of the SHR host system.</p> <ul style="list-style-type: none"><li>• <b>Source:</b> Source of the data. The values displayed can be either HP Performance Agent or Sun JMX. If you have HP Performance Agents installed in your environment, the data displayed in this table is retrieved from the Agents. If HP Performance Agents are not installed, data is collected through the JMX interface from the operating system. You can validate the accuracy of the data displayed here by verifying it with the source.</li><li>• <b>Host name:</b> Name of the SHR host system.</li><li>• <b>Operating System:</b> Name of the operating system installed on the host system.</li><li>• <b>OS Version/OS Release:</b> Version of the operating system.</li><li>• <b>Number of CPU:</b> Number of processors installed on the host system.</li><li>• <b>Physical Memory:</b> Graphical representation of the usage trend of the system physical memory.</li><li>• <b>CPU Usage:</b> Graphical representation of the usage trend of the processor.</li></ul> <p>The data displayed in this table is refreshed periodically. Click  to update the table with the latest data.</p>

Field	Description
Database Status	<p>This table displays the status and details of the SHR database.</p> <ul style="list-style-type: none"> <li>• Status: The connection status of the SHR database:           <ul style="list-style-type: none"> <li>▪  indicates that the connection to the database has been successfully established. The database is up and running.</li> <li>▪  indicates that there is no connection to the database. The database is down.</li> </ul> </li> <li>• Database type: Type of the database engine used by SHR.</li> <li>• Host name: Name of the database server.</li> <li>• Server name: System Identifier (SID) of the Sybase database instance.  <b>Note:</b> For information about the database hostname, port number, and SID, contact your database administrator.</li> <li>• Port: Port number to query the database.</li> <li>• User name: Name of the Sybase IQ database user, which is created during the SHR post-installation stage. The user name is pmdb_admin.</li> <li>• Size: Current size of the database in megabytes (MB).</li> </ul> <p>For detailed information about the database, you can drill down to the Database Monitoring page by clicking the Server name hyperlink.</p> <p>The data displayed in this table is refreshed periodically. Click  to update the table with the latest data.</p>
HP SH Reporter ETL Status Summary	<p>This table displays details of the Content Pack streams such as the total number of streams and the number of streams with errors. The total number of streams value indicates the number of streams that are currently running, or the number of streams that are loaded for execution, or the number of streams that completed in the last run.</p> <p>For additional information, you can drill down to the Data Processing page by clicking either the Content Pack component name or the stream number hyperlinks.</p>

Field	Description
Collection Status	<p>This table displays the number of data sources that are configured for each data collector. For more information, you can drill down to the Collection Configuration page by clicking the collector hyperlink. For example, clicking the PA hyperlink opens the HP Operations agent Data Source page.</p> <ul style="list-style-type: none"> <li>• Total: The total number of configured hosts.</li> <li>•  indicates that the collector failed to collect data.</li> <li>•  indicates that the collector never started.</li> </ul> <p><b>Note:</b> For HP Performance Agents, the numerical values listed under each indicator denotes the number of HP Performance Agent collectors.</p> <p>The data displayed in this table is refreshed periodically. Click  to retrieve the data from the memory to the database. Click  to update the table with the latest data.</p>
ABC Alerts	<p>This table list of all data processing job streams that have failed to complete along with their stream names, steps where the error occurred, messages, and dates. For more information, see <a href="#">View details of the ABC alerts</a>.</p>
Database Alerts	<p>This table displays the severity, message, and date of the all error, warning, and information alerts generated by SHR. The following icons are used to identify the types of alerts:</p> <ul style="list-style-type: none"> <li>•  indicates an information alert. No action is required for this type of alert.</li> <li>•  indicates a warning alert. You might need to resolve these type of alerts to ensure SHR functions properly. However, immediate action might not be required.</li> <li>•  indicates an error alert. These are critical alerts and immediate action is required to resolve these issues.</li> </ul>

## View details of the ABC alerts

The SHR workflow framework creates an execution log file that stores the information of all the job steps. The ABC Alerts tab picks up and displays a list of the 10 latest active data processes that failed to complete successfully. You can use the information displayed on the ABC Alerts tab to troubleshoot data processing-related issues.

To view more information about the error:

1. Under the **Step Name** column, click a step name hyperlink.  
 A dialog box opens.
2. View:

Field	Description
Status	Type of alert, which can be of two types: <ul style="list-style-type: none"> <li>■ Error—This status indicates that the job step failed to complete the execution process because of a serious error. The execution of the job stream cannot continue.</li> <li>■ Maximum execution time exceeded— This status indicates that the job step failed to complete the execution process within the defined time frame.</li> </ul>
Detail Message	Displays the execution log of the job step with detailed information on how the error was generated during the execution of the job step. An experienced user can also obtain all the necessary details related to the stream execution status by looking at the relevant dictionary and run-time tables.
Command	The command that was used to run the job stream when the error was generated. This field only appears for job steps with error states.
Max Retries	Maximum number of retries for the job step.
Remaining Retries	The number of remaining retries for the job step.
Max Execution Time (Mins)	Maximum execution time, in minutes, for the job step.
Start Time	Time when the execution of the job step started.
End Time	Time when the execution of the job step ended.

3. Click **OK**.

## Monitoring the SHR content

In SHR, a fact table consists of the measurements or facts of a business process. It is often located at the center of a star schema or a snowflake schema, surrounded by dimension tables. The dimension tables contain attributes (or fields) used to constrain and group data when performing data processing queries. Fact tables are often defined by their grain. The grain of a fact table represents the smallest level by which the facts may be defined. For example, the grain of a CPU fact table might be stated as CPU utilization every five minute or CPU utilization every day. In the SHR database, the raw data or rate data that is collected is stored as unique records in fact tables called "As-pollled" table or "5-minute" table. The workflow process then performs summary routines on these tables and converts it into hourly, daily, monthly, and yearly data. The converted data is stored in hourly, weekly, monthly, or yearly fact tables.

**Note:** Monthly table and yearly table are not physical tables in the database for any out-of-the-box (OOTB) content packs.

SHR allows you to monitor the data throughput, that is, the volume of data that is stored in the database, for specific Content Pack component. Using the SHR Content page, you can monitor the growth of the fact tables for a specific Content Pack component.

Using this page, you can perform the following tasks:

- [View the installed Content Pack components](#)
- [View the fact table details](#)

### ***View the installed Content Pack component***

1. In the Administration Console, click **Internal Monitoring > SH Reporter Content**. The SH Reporter Content page opens.
2. View:

Field	Description
Content Pack Component Name	Name of the Content Pack component.
Installation Date	Date and time of installation of the Content Pack component.
Version	Version number of the installed Content Pack component.
Detail	Option to view fact table details for the Content Pack component.

## View the fact table details

1. In the Administration Console, click **Internal Monitoring > SH Reporter Content**.  
The SH Reporter Content page opens.
2. For a specific Content Pack component, click **Detail**.  
The Fact Details tab opens.
3. On the **Fact Details** tab, view:

Field	Description
Fact	<p>The fact table alias.</p> <p>Clicking the Fact hyperlink opens the Fill Detail graph for the corresponding fact table. This graph displays the rate at the Fact table is growing based on the number of rows added at a point of time in the:</p> <ul style="list-style-type: none"><li>■ Last 1 Day</li><li>■ Last 7 Day</li></ul> <p>The row count is checked at a six-hour interval and the graph is plotted accordingly.</p>
Fact Row Count	Total number of rows currently in the fact table.
Dimension Instance	Total number of dimensions for the corresponding fact table. In the case of a star schema, this is the total number of primary dimensions.
Last Updated Row Count	The total number of rows that were updated during the last aggregation.
Last Updated	Time (in GMT) when the fact table was last updated.

**Note:** The fact table information displayed on this page is stored in the database for seven days, after which it is purged.

## Monitoring the data processes

SHR provides a workflow framework that handles the tasks of taking raw data, running reconciliation and aggregation routines on it, and then loading the data into the data store. The Content Packs contains the predefined workflow [job streams](#)<sup>1</sup> that are loaded into the framework

<sup>1</sup>A set of workflow execution tasks related through parent-child relationships. A child task can have zero, one, two, three, or more parent tasks.

during the installation of the Content Pack. A job stream is made up of multiple job steps, which are processed in [batches](#)<sup>1</sup> by the workflow framework.

The workflow framework centrally organizes and manages the flow and the execution of the steps that each job stream based on metadata defined in the Content Packs.

Figure 1 illustrates the execution flow of a sample SHR job stream.



In this example, the job stream consists of nine steps, starting from data collection and ending with steps involving facts aggregation. All steps are dependent on the preceding steps; therefore, in the event of a failure on one of the steps, the workflow framework prevents the job stream from completing successfully. The workflow framework loads the next job stream for execution only after the current stream completes successfully.

Using the workflow framework, you can:

- Monitor the status of the execution of the workflow.
- Control the processes that move data into the data store.

Knowing how the workflow job streams perform becomes the most important task in monitoring the status of the SHR database operations.

## Monitoring job stream details

SHR provides you with a way of monitoring the execution of the job streams of each installed Content Pack. The Data Processing page of the Administration Console displays stream information under the following three tabs:

- Active Stream Details—This tab displays information about the status of active streams that are currently running. You can also view the step-wise execution flow of the job stream.

<sup>1</sup>A run-time instance of a job stream is called a batch.

- **Historical Stream Overview**—This tab displays number and status of the job streams that completed with errors or with warnings. Job streams that were aborted by the user because of it warning or error state, also appear on this tab.
- **Historical Streams Details**—This tab displays a graphical trend of the number of error and warning states encountered by a job stream during its execution over a period of time.

Using the Data Processing page, you can monitor the execution of the active job streams and troubleshoot any issues if the execution fails. In addition, you can perform a trend analysis for the stream over a period of time to identify the cause of the failure. On this page, you can perform the following data stream monitoring tasks:

- [View the data stream details](#)
- [View the historical stream details](#)
- [View the historical trend of the streams](#)

## ***View the job stream details***

To view the number of job streams for a Content Pack component:

1. In the Administration Console, click **Internal Monitoring > Data Processing**. The Data Processing page opens.
2. On the **Stream Details** tab, view:

Field	Description
Content Pack Component name	Name of the Content Pack component.
Number of Streams	Total number of job streams. This value indicates the number of streams that are currently running, or the number of streams that are loaded for execution, or the number of streams that completed in the last run.

Field	Description
Stream Status Details	Status of the job stream. <ul style="list-style-type: none"> <li>■ Status include:               <ul style="list-style-type: none"> <li>○ OK—The number of job streams that completed successfully.</li> <li>○ Warning—The number of job streams that completed successfully. However, certain job steps in the stream completed with warnings. These warnings, however, do not hinder the execution of the remaining job steps in the stream.</li> <li>○ Error—The number of job streams that failed to complete. This indicates that a job step in the stream failed its execution process and generated an error. This causes the entire stream stop running until the error state is resolved.</li> </ul> </li> <li>■ Total: Total number of streams that are running.</li> </ul>

To view the details of the streams:

1. Click a number in the **Number of Streams** column to open the Stream Detail for Content Pack Component table.
2. View:

Field	Description
Stream Name	Name of the job stream.
Step Status (Completed/Total)	Status of the job stem in the stream. Completed indicates the number of steps in the job stream that have completed irrespective of whether it was successful or generated a warning or an error. Total indicates the total number of job steps in the stream.

Field	Description
Step Status	Status of the job step execution:  indicates that the job stream has not started running but has been loaded for execution.  indicates that all job steps in the stream completed successfully.  indicates that some job steps completed with warnings.  indicates that a job step in the stream failed to complete and generated an error.
Start Time	Local time when the execution of the job step started.

- To view a diagrammatic representation of the job stream, in the **Start Time** column, click a specific Start Time hyperlink.  
 The Stream Details diagram opens which displays the execution flow and status of the job steps.
- Click a job step icon in the diagram to open a detailed message box about that job step.
- View:

Field	Description
Step name	The name of the job step.
Process Id	The unique identifier for the job step.
State	The state of the job step. The options include: <ul style="list-style-type: none"> <li>■ FINISHED—indicates that the job step finished running.</li> <li>■ WAITING—indicates that the job step is waiting to be run.</li> <li>■ RUNNING—indicates that the job step is currently running.</li> </ul>

Field	Description
Status	Status of the job step. The options are: <ul style="list-style-type: none"> <li>■ SUCCESS—indicates that the job step execution was successful.</li> <li>■ WARNING—indicates that the job step completed but generated a warning.</li> <li>■ ERROR—indicates that the job step failed to complete and generated an error.</li> <li>■ MAX_EXEC_TIME_EXCEEDED—indicates that the job step failed to complete within the defined execution timeframe.</li> <li>■ WAITING—indicates that the job step is currently in the waiting state because the preceding job step is yet to complete.</li> </ul>
Detail Message	Displays the execution log of the job step with detailed information on how the warning or error was generated during the execution of the job step.
Log File	The name of the log file where information about the job step process is logged.
Command	The command that was used to run the job step.
Max Retries	Maximum number of retries for the job step. This field only appears for job steps with error or warning states.
Remaining Retries	The number of remaining retries. This field only appears for job steps with error or warning states.
Max Execution Time (Mins)	Maximum execution time, in minutes, for the job step. This field only appears for job steps with error or warning states.
Start Time	Time when the execution of the job step started.
End Time	Time when the execution of the job step ended.
Audit Details	A summarized view of the data audit information for the job step. The information can include the number of files or rows that were processed, passed, and failed and the time taken for the audit step.

6. Click **OK**.

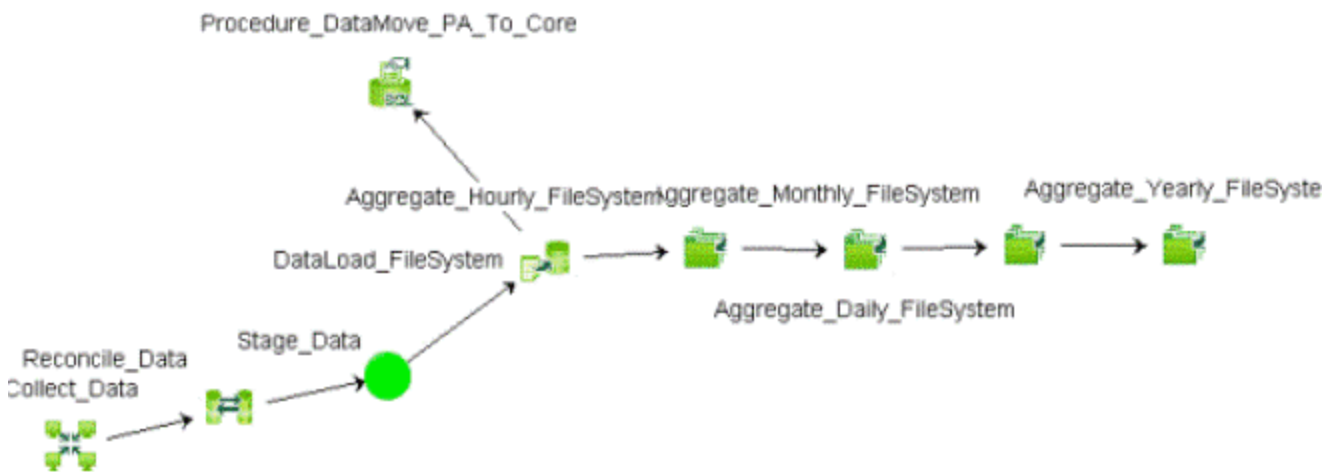
To understand the information displayed in the job stream diagram and relate it to the information in the tables, see [Understanding the job stream status](#). To troubleshoot the stream alerts, see the *Troubleshooting Guide*.

## Understanding the job stream status

To help you understand the information displayed on the Data Processing page and the relationship between the states and statuses of the job streams, three possible job stream scenarios are provided.

### Scenario 1

Consider the following sample job stream.

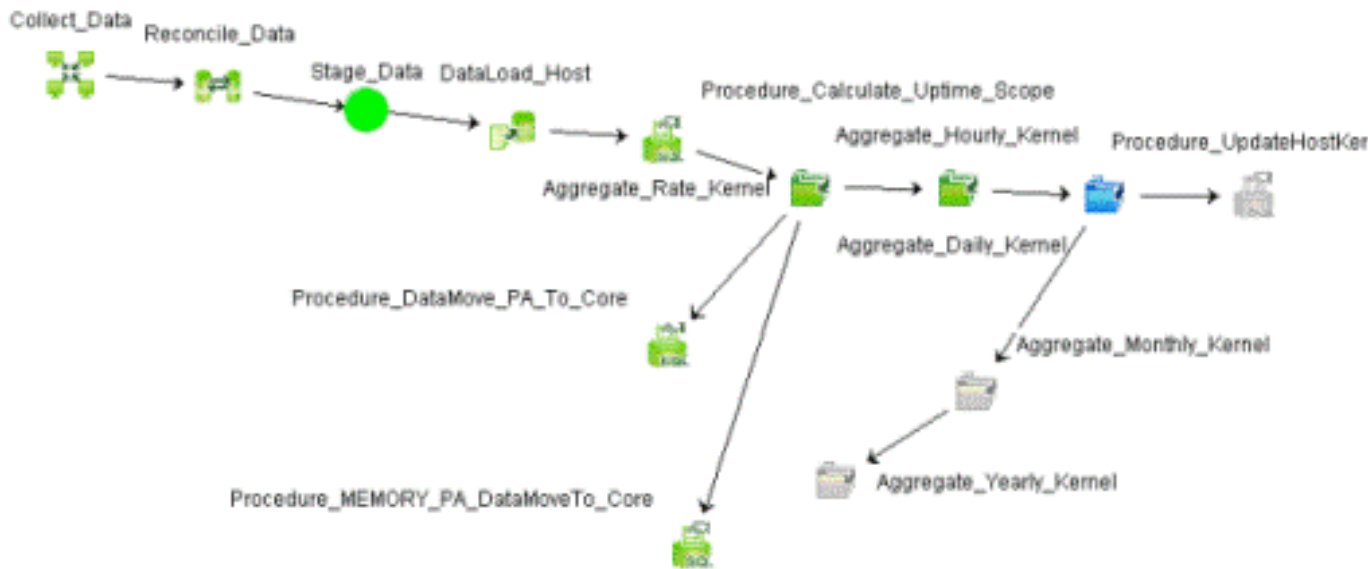


This job stream contains nine job steps. All of the job steps completed successfully, as indicated by the green color. In the **Step Status (Completed/Total)** column, the value for this stream will be 9/9 because there were nine steps and all the steps completed execution. The **Step Status** column displays the **SUCCESS** indicator because all the job steps completed successfully. Therefore, the job stream status is OK.

To know the state and status of the particular job step, such as DataLoad\_FileSystem, you must click the job step icon. This opens a pop-up window, which displays the job step details including the state and status of the step. For the DataLoad\_FileSystem job step, the state of the job step will be FINISHED, while the status will be SUCCESS. This job stream will no longer be active and gets moved the Historical Stream section of the page. Now, let's look at another scenario.

### Scenario 2

Consider the following sample job stream.



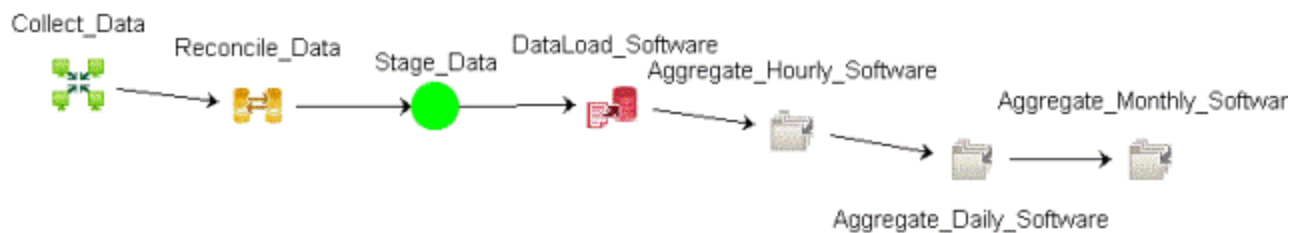
This job stream contains 13 job steps. In the **Step Status (Completed/Total)** column, the value for this stream will be 9/13 because only nine steps are complete. The tenth step, `Aggregate_Daily_Kernel`, is currently running, as indicated by the blue color. However, the **Step Status** column displays the **SUCCESS** indicator. This is because all the job steps till the `Aggregate_Daily_Kernel` step completed successfully.

The job stream status is calculated based on the status of all job steps till the step that is currently running; in this case, the `Aggregate_Daily_Kernel` step. Therefore, the overall status of the job stream is OK because all job steps till `Aggregate_Daily_Kernel` completed successfully.

The state of the `Aggregate_Daily_Kernel` step will be `RUNNING`, while its status will be `WAITING`. The state and status of the remaining three job steps that are in gray color will be `WAITING` because these job steps will only start after `Aggregate_Daily_Kernel` completes.

### Scenario 3

Consider the following sample job stream.



This job stream contains seven job steps. In the **Step Status (Completed/Total)** column, the value for this stream will be 4/7. However, the **Step Status** column displays the **ERROR** indicator because the `DataLoad_Software` job step failed to complete. A failed job step continues to

block the execution of the remaining steps until it is resolved. Therefore, only four job steps are complete in this stream.

The workflow framework will retry running the failed job step based on the number of retries defined for this job stream. Once all the retries are exhausted, the job stream will be blocked. The status of this job stream will be error. The state of the DataLoad\_Software job step will be FINISHED, while the status will be ERROR or MAX\_EXEC\_TIME\_EXCEEDED.

If you observe the Reconcile\_Data icon, it has a yellow color. This indicates that Reconcile\_Data job step completed but with warnings. However, this does not block the job stream and, as you can see, the Stage\_Data job step completed successfully. The state of the Reconcile\_Data job step will be FINISHED, while the status will be WARNING.

## ***View the historical stream details***

To view the number the historical job streams for a Content Pack component:

1. In the Administration Console, click **Internal Monitoring > Data Processing**.  
The Data Processing page opens.
2. Under **Stream Detail**, select the option to display the list of job stream that ran for that specified period. The options include:
  - Last 1 day
  - Last 7 days
  - Last 30 days

**Note:** The workflow framework stores information about job steps in run-time tables for a maximum period of 30 days, after which the data is automatically purged by the PMDB Platform IM Service.

3. In the table, view:

<b>Field</b>	<b>Description</b>
Content Pack Component name	Name of the Content Pack component.
Number of Streams	Total number of job streams that ran during the specified period of time.

Field	Description
Stream Status Details	<p>Status of the job stream.</p> <ul style="list-style-type: none"> <li>■ Status include:           <ul style="list-style-type: none"> <li>○ OK—The number of job streams that completed successfully.</li> <li>○ Warning—The number of job streams that completed successfully. However, certain job steps in the stream completed with warnings.</li> <li>○ Error—The number of job streams that failed to complete. This indicates that a job step in the stream failed its execution process and generated an error. This causes the entire stream stop running until the error state is resolved.</li> </ul> </li> <li>■ Total: Total number of streams that are running.</li> </ul>

To view the details of the job stream:

1. Click a number in the **Number of Streams** column to open the Stream Detail for Content Pack table.
2. View:


Field	Description
Stream name	Name of the job stream.
Stream Status Details	<p>Status details of the stream.</p> <ul style="list-style-type: none"> <li>■ Status include:           <ul style="list-style-type: none"> <li>○ OK—The number of the job steps that have completed successfully.</li> <li>○ Warning—The number of the job steps that have completed successfully but with warnings.</li> <li>○ Error—The number of the job steps that failed to complete.</li> </ul> </li> <li>■ Total: Total number of job steps that ran.</li> </ul>

## ***View the historical trend of the streams***

1. In the Administration Console, click **Internal Monitoring > Data Processing**. The Data Processing page opens.

2. On the **Historical Stream Details** tab, under **Select Filter**, select a Content Pack component in the **CP** list.
3. In the **Stream** list, select a stream.
4. In the **Severity** list, select the appropriate severity option that you want to generate the graph for. The option include:
  - **WARNING**—displays the number of warning states encountered by the job stream during its execution.
  - **ERROR**—displays the number of error states encountered by the job stream during its execution.
5. In the **State** list, select the required state of the job stream. The options include:
  - **ALL**—all states of the job stream.
  - **FINISH**—state where the job stream completed successfully irrespective of the warning or error encountered during its execution.
  - **ABORT**—state where the execution of the job stream was aborted by the user.
6. Click **Find**.

The graph for the selected stream is displayed. This graph displays the number of times a job stream generated a warning or error over a specific period of time.

Alternatively, you can access the historical stream trends directly from the Historical Stream Overview tab. On the **Historical Stream Overview** tab, click the hyperlink or the  icon in the **Content Pack Component name** column or the **Stream Name** column to view the historical trend for the job stream.

## ***Back up and restore SHR PostgreSQL management database***

The SHR PostgreSQL management database stores three types of information:

- Data processing stream information
- Internal tables that control the deletion of stage tables (stage\_control)
- Collection audit information (Data Audit)

### **Backing up the database**

You might want to back up the management database for data recovery purposes. To back up the database, follow these steps:

1. Stop the PMDB Platform Timer service.
2. Stop the PMDB Platform Collection service.

3. Wait for all the loaded data processing stream processes to stop running.
4. Check the status of the streams on the Data Processing page of the Administration Console. You can also check the status by typing the following command:  
`abcMonitor -stream ID=ALL, state=active`
5. Back up the database using a PostgreSQL database backup utility.

### Restoring the database

You might want to restore the management database to get the historical step execution status details. To restore the database, follow these steps:

1. Stop the PMDB Platform Timer service.
2. Stop the PMDB Platform Collection service.
3. Wait for all the loaded data processing stream processes to stop running.
4. Check the status of the streams on the Data Processing page of the Administration Console. You can also check the status by typing the following command:  
`abcMonitor -stream ID=ALL, state=active`
5. Restore the Management database using a PostgreSQL restore utility.
6. Restart the PMDB Platform Collection Service and the PMDB Platform Timer service after the restore operation is complete.

After the services are started, the data processing framework automatically starts executing the restored steps from where it stopped, handling the Step status automatically. Restoration of the old database also results in old data for the `stage_control` and `data_audit` tables. However, these tables are automatically updated by the framework within a couple of hours.

## Monitoring the SHR database

SHR uses the Sybase IQ database for managing and storing the data that is collected from the various HP product center repositories. Workflow operations are performed on the collected data after which the data is stored in the data store for analysis purposes. Unlike traditional databases, which store data in rows, Sybase IQ stores data by columns, which can be stored separately and across multiple disks. This method of data storage ensures easier and faster data access, improved storage management, faster aggregations, and improved analytical performance.

In Sybase IQ, indexes have been redesigned to improve data retrieval performance. Traditionally, indexes are often used as a reference mechanism that pointed to the storage area that contained the row data. However, in Sybase IQ, indexes actually represent and store the data so that the data

capability, which is used to manage large query loads on the database.

At an application level, Sybase IQ distributes data across multiple disks by representing each device as a dbspace. A dbspace can be an operating system file (dbfile) or a raw disk partition. Dbspaces can contain both user data and internal database structures used for startup, recovery, backup, and transaction management.

A database that you create using a Sybase IQ server is called an IQ database. Each IQ database that you create includes three stores:

- IQ main store—Contains the IQ\_SYSTEM\_MAIN dbspace and other user dbspaces, where persistent database structures, such as permanent data tables, backup metadata, and rollback data for committed transactions, are stored.
- IQ temporary store—Consists of a set of temporary tables. The database server uses them for sorting and other temporary processing purposes.

**Note:** The size of the total database space depends on the volume and retention policies you select while creating the schema.

Sybase IQ is the platform on which PMDB, the database repository for all SHR-related data, is created. The data is stored in the database in designated table, which are created when you create the database schema during the post-installation stage of SHR.

## ***Monitoring the database health and availability***

The Database Monitoring page of the Administration Console provides a detailed status of the health and availability of SHR database. Monitoring the database helps you to:

- Check the availability of database servers.
- Monitor the database size, buffer cache size, database connection time, and database polling time.
- Analyze the number of user connections to the databases at various time.
- Analyze usage trends.
- Identify potential database performance problems.
- Take actions proactively before critical incidents occur.



Using the Database Monitoring page, you can [view the database details](#).

<sup>1</sup>Multiplexing is a highly scalable shared disk grid technology where the database that is stored in a disk array is shared across multiple data sources. This technology provides application scalability through a clustered server configuration and can support tens of thousands of users with little or no data load or query performance degradation.

## View the database details

To view the database information including the availability, CPU, and memory usage of the database:

1. In the Administration Console, click **Internal Monitoring > Database Monitoring**. The Database Monitoring page opens.
2. Under **Database Information**, view:

Field	Description
Status	Connection status of the SHR database: <ul style="list-style-type: none"> <li>▪  indicates that the connection to the database has been successfully established. The database is up and running.</li> <li>▪  indicates that there is no connection to the database. The database is down.</li> </ul>
Host Name	Name or IP address of the SHR database server.
Port	Port number to query the database. The default port is 21424.
Version	Version number of the database.
Database type	Type of the SHR database.
Platform Detail	Operating system installed on the platform that is hosting the SHR database.
Multiplexed	Multiplexing capability of the database is enabled or not.
Database Size	Total size of the database main store in megabytes.
Page Size	Amount of memory allocated for storing database entries.
Last Backup Time	Time at which the database instance was last backed up.
Last Full Backup Time	Time when a full backup was performed on the database.
Last Started	Time at which the database service was last started.
Last DB Polled	Time at which the database was last polled.

3. Under **Database Availability**, view the availability of the database:

Field	Description
Database Availability	<p>The amount of time the database was available in the:</p> <ul style="list-style-type: none"> <li>■ Last 7 days</li> <li>■ Last 1 day</li> </ul> <p><b>Legend description:</b></p> <p>● indicates the amount of time, in hours, the database was available.</p> <p>● indicates the time, in hours, the database was not available.</p>



4. Under **DBSpace Usage**, view the dbspace usage information:



Field	Description
DBSpace Usage	<p>Graphical representation of the database space, in megabytes:</p> <ul style="list-style-type: none"> <li>■ <b>IQ_System_Main:</b> The IQ_System_Main dbspace is created at database creation. IQ_SYSTEM_MAIN is a special dbspace that contains structures necessary for the database to open such as the IQ checkpoint log, IQ rollforward/rollback data for each committed transaction and each active checkpointed transaction, the incremental backup metadata, and database space and identity metadata. IQ_SYSTEM_MAIN is always online when the database is open.</li> <li>■ <b>IQ_System_Temp:</b> The IQ_System_Temp is a single dbspace for the IQ temporary store created when you create a database. It stores the temporary database files.</li> <li>■ <b>PMDB_User_Main:</b> This is the user main dbspace that is used for storing user-defined tables, indexes, and table metadata that is specific to SHR data.</li> </ul> <p><b>Legend description:</b></p> <ul style="list-style-type: none"> <li>■ indicates reserved space, which is used for storing certain small but critical data structures used during release savepoint, commit, and checkpoint operations.</li> <li>■ indicates used space, which is used for storing the main user tables and indexes.</li> <li>■ indicates free space, which is the space available for use.</li> </ul>

5. Under **DBSpace Usage**, click a specific histogram, which represents the IQ System Main Store, IQ System Temp Store, and the main user database. The DBSpace Fill Details box opens.

6. Select **Last 1 Day** or **Last 7 Day** to view the graphical representation of the amount of database space, in megabytes, used by the selected store over a period of time.
7. Under **Current Activities**, view the current activities of the database:

Field	Description
Connection (Used/Max)	Number of active user connections to the database and the maximum number of connections the database can handle.
(%) CPU Utilization	Percentage of CPU time that is being used by all the activities in the database.
Open Transaction	Number of transactions that are currently running in the database.
Active Txn Versions	The number of active write transactions and the amount of data they created and destroyed.
Other Versions	Other database versions and the total space consumed.
Active Requests	Number of server threads currently handling a request.
IQ Threads (Used/Free)	Number of threads that are allocated to process queries and data loads and the number of threads that are not in use.

8. Click the following icons on the **Current Activities** header to start or stop the current activity polling of the database:
  - Click the  icon to start current activity polling.
  - Click the  icon to stop current activity polling.
9. Under **IQ Physical Memory Trend**, view the physical memory usage trend:

Field	Description
IQ Physical Memory Trend	Graphical representation of the physical memory usage of the Sybase IQ server, in megabytes, for the last one day.  indicates the current physical memory usage trend.  indicates the maximum physical memory usage trend.

## Monitoring the application platform

The Platform page of the Administration Console enables you to monitor the Administration Console's application server. Monitoring the application server platform provides data to diagnose the cause of poor application performance.

Using the Platform page, you can [view the application server details](#).

## View the application server details

To view information about the application server, its availability, CPU, and memory usage:

1. In the Administration Console, click **Internal Monitoring > Platform**.  
The Platform page opens.
2. Under **Application Server Information**, view:

Field	Description
Host Name	Name of the Administration Console application server.
Port	Port number to query the Administration Console application server.
Host OS	Operating system installed on the application server.
Server Type	Type of application server.
Virtual Machine Name	Name of the application server host virtual machine.
Virtual Machine Version	Version number of the application server host virtual machine.
Virtual Machine Vendor	Provider of the host virtual machine.



3. Under **Application Server Availability**, view the availability of the application server:

Field	Description
Application Server Availability	<p>Graphical representation of the time the application server was available in the:</p> <ul style="list-style-type: none"><li>■ Last 7 days</li><li>■ Last 1 day</li></ul> <p><b>Legend description:</b></p> <ul style="list-style-type: none"><li>● indicates the time, in hours, the server was available.</li><li>● indicates the time, in hours, the server was not available.</li></ul>

4. Under **Memory Usage**, select **Heap Memory** in the **Memory Type** list to view the [heap<sup>1</sup>](#) memory usage.



<sup>1</sup>Dynamic memory allocation or heap-based memory allocation is the allocation of memory storage for use in a computer program during the runtime of that program.

5. Under **Latest (%) Heap Memory Usage**, view:

Field	Description
Latest (%) Heap Memory Usage	Graphical representation of the percentage of heap memory usage.  <b>Legend description:</b>   indicates that the heap memory usage is within the critical limits.  indicates that the heap memory usage is outside the critical limits.

6. Under **Memory Usage**, select **Non-Heap Memory** in the **Memory Type** list to view the non-heap memory usage.

7. Under **Latest (%) NonHeap Memory Usage**, view:

Field	Description
Latest (%) NonHeap Memory Usage	Graphical representation of the percentage of non-heap memory usage.  <b>Legend description:</b>   indicates that the non-heap memory usage is within the critical limits.  indicates that the non-heap memory usage is outside the critical limits.

8. Under **Memory Usage**, select the following options to view the historical memory usage of the application server:

Field	Description
Memory Type	Type of memory, heap or non-heap.
Memory Usage	Maximum available memory and a graphical representation of the amount of Heap and Non-Heap memory used, in megabytes, by the application server in the: <ul style="list-style-type: none"> <li>■ Last 7 Days</li> <li>■ Last 1 Day</li> </ul>

9. Under **Latest (%) CPU Utilization**, view the current CPU utilization of the application server:

Field	Description
Latest (%) CPU Utilization	Graphical representation of the percentage of CPU utilization.  <b>Legend description:</b>  ● indicates that the CPU utilization is within the critical limits. ● indicates that the CPU utilization usage is outside the critical limits.

10. Under **CPU Usage**, view the historical CPU utilization of the application server:

Field	Description
CPU Usage	Graphical representation of the percentage of CPU used by the application server in the: <ul style="list-style-type: none"><li>■ Last 7 Days</li><li>■ Last 1 Day</li></ul>

## Administering SHR

Using the Administration Console, you can perform additional administrative tasks that improve the accessibility, usability, and operability of SHR.

You can use the Administration Console to perform the following administrative tasks:

- [View the database credentials.](#)
- [View the licensing details.](#)
- [Configure the security access for the database.](#)
- [Control the execution of the workflow job streams.](#)
- [Manage user accounts.](#)
- [Configure the data retention period.](#)
- [Manage the SHR services.](#)
- [Configure the time shifts.](#)

## Configuring SHR

System configuration involves managing the centralized SHR database. The SHR database stores fact and topology information collected from different data sources based on the policies that are defined in the Content Packs. The database is configured when you perform the post-install configuration steps after installing the SHR application. The database size is allocated based on the volume and retention policies that you select during the post-installation stage.

**Note:** After you set the volume and retention policies and define the database size the first time, you cannot modify the database size through the Administration Console.

### Managing the database

Using the System Configuration page, you can perform the following tasks:

- [View database configuration details](#)
- [Change the SHR database password](#)
- [Change the SHR management database password](#)

### View database configuration details

1. In the Administration Console, click **Administration > System Configuration**.  
The System Configuration page opens.
2. Under **HP SH Reporter Database Parameters**, view:

Field	Description
Database Type	Type of the database engine that is used for the SHR database. <b>Note:</b> SHR only supports Sybase IQ database.
Host name	Name or IP address of the host system on which the SHR database is running.
Server name	Name of the SHR database server.
Port	Port number to query the database. The default port is 21424.
User name	Name of the SHR database user account. This account is created during the post-installation stage.

3. On the **Management Database Configuration** tab, under **HP SH Reporter Management Database Parameters**, view:

Field	Description
Database Type	Type of the database engine that is used for the SHR management database.
Host name	Name or IP address of the host system on which the SHR management database is running.
Database name	Name of the SHR management database instance.
Port	Port number to query the management database. The default port is 21425.
User name	Name of the SHR management database user account. This account is created during the post-installation stage.

## ***Change the SHR database password***

1. In the Administration Console, click **Administration > System Configuration**.  
The System Configuration page opens.
2. Click **Reset Password**.  
The Reset Password dialog box opens.
3. In the **Reset Password** dialog box, type the database password details:

Field	Description
Old Password	Enter the existing database administrator password.
New Password	Enter a new password. The password should be an alphanumeric value and less than 25 characters in length.
Confirm New Password	Retype the new password for confirmation purposes.

4. Click **OK**.  
A **Password Successfully Changed** message appears in the Information message panel indicating that the password has been successfully changed.

## ***Change the SHR management database password***

1. In the Administration Console, click **Administration > System Configuration**.  
The System Configuration page opens.
2. On the **Management Database Configuration** tab, click **Reset Password**.

The Reset Password dialog box opens.

3. In the **Reset Password** dialog box, type the database password details:

Field	Description
Old Password	Enter the existing management database administrator password.
New Password	Enter a new password. The password should be an alphanumeric value and less than 25 characters in length.
Confirm New Password	Retype the new password for confirmation purposes.

4. Click **OK**.

A **Password Successfully Changed** message appears in the Information message panel indicating that the password has been successfully changed.

## Managing licenses

By default, SHR includes a temporary, instant-on license, which is valid for 60 days. To continue using SHR after 60 days, you must install a permanent license.

The SHR license includes:

- **HP Service Health Reporter Software:** This license includes the data collection framework, the SAP BusinessObjects Enterprise, a high-performance Performance Management Database for storing and processing the collected metrics, and the out-of-the-box Content Packs. Also included is an entitlement to collect and report on the metrics for up to 250 nodes.
- **Additional scalability packs of 50 nodes:** Additional data collection and reporting entitlements can be added to grow the solution to fit your environment.

SHR is integrated with the HP License Manager licensing package for its licensing needs. The HP License Manager provides the SHR license framework and the functionality of installing a temporary or permanent license.

Basic license information is displayed on the Licensing page of the Administration Console. To obtain a permanent license, you can either use the HP License Manager or directly retrieve the license from the HP Password Center by using the HP Webware web site.

## Configuring license

Using the Licensing page, you can perform the following tasks:

- [View license information](#)
- [Obtain a Permanent license key](#)

- [Install the Permanent license key](#)
- [SAP BOBJ license reactivation](#)

## ***View license information***

1. In the Administration Console, click **Administration > Licensing**.  
The Licensing page opens.
2. Under **HP SH Reporter License Details**, view:

<b>Field</b>	<b>Description</b>
Active License Type	Type of existing license; license types include: <ul style="list-style-type: none"><li>■ Instant On (IO)</li><li>■ Permanent (PERM)</li></ul>
License Expiry Date	Date and time of expiry of the existing license in local time.
Days to License Expiry	Number of days remaining for the license to expire.
License Entitlement	The maximum number of nodes that are supported under the current license.
License Usage	The number of nodes being used under the current license.
Nodes Remaining\Nodes Exceeded	The remaining number of nodes that can be added under the current license or the number of nodes that exceed the current license usage.

## ***Obtain a Permanent license key***

1. From the Administration Console, select **Administration > Licensing**.  
The Licensing page opens.
2. Click **Launch HP Password Center**.  
The HP License Key Delivery Service page opens.
3. Click **Generate New licenses** under Welcome.
4. Log on to HP Passport with your user ID and password. If you do not have an account, you must create one before you can proceed. The Order number page opens.
5. Type the order number in the **Order number** field and click **Next**.  
The Product selection page opens.

6. Select **PERM** and click **Next**.  
The License redemption page opens.
7. Select **Find or create a license owner** and type your email address in the **License Owner e-mail address** field.
8. Type the IP address of the SHR host system and click **Next**.  
The Create license owner page opens.
9. Type the license owner information:

Field	Description
Create license owner (End-User) information	Name, phone number, and email address of the license owner.
Company e-mail domain	Domain name of the license owner's company.
Mailing address	Mailing address of the license owner.
License owner privacy policy (Optional)	Optional settings for License owner privacy policy.

10. Click **Next** to continue.  
The Transaction summary page opens.
11. Review the summary and click **Next** to continue.  
The License certificate page opens.
12. Review the license certificate information, save the license to your system, and then close the License certificate page.

## ***Install the Permanent license key***

You must install the permanent license key by using HP License Manager.

To install the license:

1. *On Windows.* Click **Start > Programs > HP Software > SH Reporter > License Manager**.  
  
*On Linux.* Run the command **\$PMDB\_HOME/bin/LicenseManager.sh**.  
  
The Retrieve/Install License Key window opens.
2. Click **Install/Restore License Key from file**.  
The Install/Restore License Key from file page opens.
3. Browse to the location of the saved license certificate, click **View file content**, select **PERM**, and then click **Install**.

## **Reactivate SAP BOBJ license and Re-enable the SAP BOBJ Servers**

The SAP BOBJ license depends on the validity of the SHR license. If the SHR license expires, it deactivates the SAP BOBJ license key and disables all the SAP BOBJ servers.

To reactivate the SAP BOBJ license

1. Obtain a new SHRlicense key, see ["Obtain a Permanent license key" on page 104](#)
2. Install a new SHR license key, see ["Install the Permanent license key" on the previous page](#)

**Note:** After you install the Permanent license key , wait for at least five minutes before accessing the Administration Console to reactivate the SAP BOBJ license.

3. Access the SHR Administration Console.

After you reactivate the SHR license and access the Administration Console, SHR automatically reactivates the SAP BOBJ license key. However, the SAP BOBJ servers remain in the disabled state. To ensure that SAP BOBJ works, you must manually enable the servers.

To enable the SAP BOBJ servers:

1. Log on to the Central Management Console by launching the following URL:

**http://<SHR\_System\_FQDN>:8080/CmcApp**

In this instance, <SHR\_System\_FQDN> is the fully qualified domain name of the SHR system.

2. Log on as Administrator.
3. Click **Servers**.
4. Right-click each server, and then click **Enable Server**.

If Business Object services do not get activated even after installing new license, see [Troubleshooting Business Object Services](#)

## **Managing security**

SHR provides seamless access to integrated HP and SAP BusinessObjects applications through Lightweight Single Sign-On (LW-SSO) and SAP BusinessObjects Trusted Authentication.

## LW-SSO

Single Sign-On allows you to log on once to SHR and gain access to multiple integrated HP products or software systems without being prompted to log on again. The products within the configured group of products trust the authentication, and there is no need for further authentication when moving from one application to another. All requests to integrated applications are channeled through the LW-SSO authentication.

LW-SSO is embedded in SHR and does not require an external machine for authentication. You need only to specify the shared key ( [Init String](#)<sup>1</sup>), which is used for encryption and decryption of the LW-SSO [session token](#)<sup>2</sup>. You must ensure that the other applications in the Single Sign-On environment have LW-SSO enabled and are working with the same Init String.

SHR supports LW-SSO authentication with the following HP products:

- HP Business Service Management
- HPOM
- HP OMi

**Note:** In SHR, all applications participating in an LW-SSO integration must use the same GMT time.

## ***SAP BusinessObjects Trusted Authentication***

SAP BusinessObjects Trusted Authentication facilitates single sign-on between SHR and SAP BusinessObjects applications. Applications that have established trust with the [SAP BusinessObjects Central Management Server \(CMS\)](#)<sup>3</sup> can use Trusted Authentication to allow users to log on without providing their passwords.

To use single sign-on, you must specify the SAP BusinessObjects shared key (Shared Secret), which is used for encryption and decryption of the Trusted Authentication session token. You must ensure that all the other applications in the Trusted Authentication environment have Trusted Authentication enabled and are working with the same shared key.

SHR supports Trusted Authentication with the following SAP BusinessObjects applications:

<sup>1</sup>Init String is a connection string that contains the initialization information. This information is passed as a parameter from the data provider to the data source while attempting to open a connection with the data source.

<sup>2</sup>A session token is a unique identifier—8-byte binary value—that is generated and sent from a server to a client to identify the connection between the server and the client.

<sup>3</sup>The CMS is a key component of the SAP BusinessObjects Enterprise XI that is bundled with SHR. It is responsible for handling security and managing services. The CMS maintains a database which contains information that helps you manage the SAP BusinessObjects Enterprise infrastructure.

- SAP BusinessObjects Central Management Console (CMC)
- SAP BusinessObjects InfoView

For more information, see the *SAP BusinessObjects Enterprise Administrator's Guide*. For the latest documents, see [http://help.sap.com/businessobject/product\\_guides/](http://help.sap.com/businessobject/product_guides/).

## Configuring security

Using the Security page, you can perform the following tasks:

- [Configure LW-SSO authentication](#)
- [Configure SAP BusinessObjects Trusted Authentication](#)

## Configure LW-SSO authentication

1. In the Administration Console, click **Administration > Security**.  
 The Security page opens.
2. Under **LW-SSO Configuration**, specify or type the authentication details:

Field	Description
Enabled	Enable or disable LW-SSO.
Domain	Domains for which LW-SSO is valid. By default, the SHR host system's domain is enabled.
Expiration Period (mins)	<p>Period for which the LW-SSO session is valid. The default value is 60 minutes.</p> <p><b>Note:</b> The LW-SSO expiration period should be at least the same value as that of the application session expiration value. The recommended value is 60 minutes. For applications that do not require high levels of security, you can configure higher values, such as 300 minutes.</p> <p><b>Note:</b> All applications participating in an LW-SSO integration must use the same GMT time.</p>
Init String	<p>Shared key used for encryption and decryption of a LW-SSO session token.</p> <p><b>Note:</b> For LW-SSO, ensure that the other applications in the Single Sign-On environment have LW-SSO enabled and are working with the same Init String.</p>
Protected Domains	List of domains for which SSO is protected. By default, the SHR host system's domain is protected.

3. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

**Note:** This page is only visible if SHR is installed on the system.

## **Configure SAP BusinessObjects Trusted Authentication**

1. In the Administration Console, click **Administration > Security**.  
The Security page opens.
2. Click the **BO Trusted Authentication** tab.
3. Under **BO Trusted Authentication Configuration**, specify or type the authentication details:

Field	Description
Enabled	Enable or disable SAP BusinessObjects Trusted Authentication.
Shared Secret	Shared key used for encryption and decryption of a SAP BusinessObjects Trusted Authentication session token.

4. Click **Save**.  
A *Saved Successfully* message appears in the Information message panel.

**Note:** This page is only visible if SHR is installed on the system.

## **Managing data processes**

Using the Data Processing page of the Administration Console, you can view the number and status of the job streams corresponding to each installed Content Pack. You can also configure the job streams and specify a maximum number of retries for the batches in the event of its failure during execution as well as a maximum execution time per step. When the number of retries for a job step exceeds the maximum number allowed, the workflow framework blocks the job stream and generates an error event.

The maximum execution time and maximum retries are two configuration parameters that directly impact the stream execution functionality. In the case of the maximum execution time, setting a very high value can result in delay in identifying hanged processes. Setting a low value can result in the step being marked as Error too often. In addition, the maximum retries option should be set to a positive value only if a retry could result in successful execution. This option is most commonly used to overcome resource unavailability issues.

However, the best way to arrive at the value for the configuration parameters is to understand the use case, test, and arrive at an optimum value.

The number of job steps that are run simultaneously in the workflow framework is proportional to the number of job streams under execution. However, if the number of streams deployed on a system is high, it can result in a very high load on the system, which can lead to system failure. In such a

situation, the resource control feature of data processing helps mitigate problems caused by the high load by providing the ability to limit resource usage to configured limits.

By managing the job stream resources, you can:

- Provide exclusive access to resources and help resolve locking issues with critical resources. If the pool count is zero, then the access to the resource becomes exclusive.
- Control the number of processes that are launched. For example, if you set a pool count of “5” for a resource named “Summary” and attach the resource to all the data aggregation jobs, then only a maximum of five instances of five aggregations can run at any point of time. This way, you can control the number of processes that are running.

You can also specify the resource definition details and set limits for the number of streams that can access the resource types concurrently. By default, all resource types are configured with the unlimited count, which means that there is no control based on the resource type.





Using the Data Processing page, you can perform the following job stream administration tasks:

- [Configure the maximum number of retries and the maximum execution time](#)
- [Configure the stream resource details](#)

## ***Configure a maximum number of retries and the maximum execution time***

You can configure the maximum number of retries and the maximum execution time across all installed Content Packs, for a particular Content Pack, for a particular job stream in the Content Pack, or for a particular job step in the job stream. Perform the following steps:

1. In the Administration Console, click **Administration > Data Processing**.  
The Data Processing page opens.
2. On the **Active Stream Details** tab, in the **Select Filter** pane, perform any one of the following steps:
  - To configure the maximum number of retries and maximum execution time for all Content Packs, in the **Level** list, select **All content packs**.
  - To configure the maximum number of retries and maximum execution time for a particular Content Pack, in the **Level** list, select **Content pack**, and then in the **Content Pack component name** list, select the Content Pack component.
  - To configure the maximum number of retries and maximum execution time for a particular job stream, in the **Level** list, select **Stream**, in the **Content Pack Component name** list, select the Content Pack component, and then in the **Stream Name** list, select the job stream.

- To configure the maximum number of retries and maximum execution time for a particular job step, in the **Level** list, select **Step**, in the **Content Pack Component name** list, select the Content Pack, and then in the **Stream Name** list, select the job stream.
3. Click **Enter maximum retries count** in the **Maximum Number of Retries** column, and type a value.  
**Note:** The maximum value that you can set for this field is 8640.
  4. Click  to accept the new value. If you want to change the value, click , and then type a new value.
  5. Click **Enter maximum execution time** in the **Maximum Execution Time (Mins)** column, and then type a value.  
**Note:** The maximum value that you can set for this field is 180 minutes.
  6. Click  to accept the new value. If you want to change the value, click , and then type a new value.
  7. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

## ***Configure the stream resource details***

1. In the Administration Console, click **Administration > Data Processing**.  
The Data Processing page opens.
2. Click the **Stream Resource Control** tab to view the resource details.
3. For a specific resource type, if you want to provide the job streams with unlimited access resources, select the check box under the **Unlimited Resources** column.
4. To specify the number of streams that can access the resource type, under the **Resource Count** column, type a value in the box.  
**Note:** The maximum value that you can set for this field is 20,000.
5. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

## **Managing user accounts**

In SHR, user accounts are managed by using the SAP BusinessObjects Central Management Console (CMC). By default, SHR includes an Administrator account, which is created during the post-install configuration stage. The Administrator account is a privileged account for managing and configuring SHR. Only accounts with administrative privileges can log onto the Administration Console. You can create additional accounts with administrative privileges by using the SAP BusinessObjects CMC.

## **SAP BusinessObjects CMC**

You create and manage user accounts by using the SAP BusinessObjects CMC, which is integrated with SHR. After you create user accounts and groups, you can specify access rights to them.

Using the SAP BusinessObjects CMC, you can perform the following user management tasks:

- Manage enterprise and general accounts
- Add users to groups
- Manage passwords
- Manage aliases

For more information, see the Central Configuration Manager documentation. This guide is located in the installation directory of SAP BOBJ at:

```
<drive>:\Program Files (x86)\Business Objects\BusinessObjects  
Enterprise 12.0\Help\en
```

For the latest help documents, see [http://help.sap.com/businessobject/product\\_guides/](http://help.sap.com/businessobject/product_guides/).

## **SAP BusinessObjects InfoView**

SAP BusinessObjects InfoView is the central web-based GUI in SHR that allows you to view and interface with reports and dashboards. You can use the integrated search facility or the folder navigation tree to locate specific reports. In addition, InfoView allows you to personalize your experience by customizing the Start page to display reports that you want to view when you log on, change your password, choose your preferred language, and the level of interaction for different information.

To know more about SAP BOBJ InfoView, see *Web Intelligence online guide*. This guide is located in the installation directory of SAP BusinessObjects at:

```
C:\Program Files (x86)\Business Objects\BusinessObjects Enterprise  
12.0\Web Content\Enterprise12\Help\en\webintelligence
```

For additional information and the latest help documents, see [http://help.sap.com/businessobject/product\\_guides/](http://help.sap.com/businessobject/product_guides/).

## **Managing accounts**

Using the SAP BOBJ page, you can perform the following tasks:

- [Access SAP BusinessObjects Central Management Console](#)
- [Access SAP BusinessObjects InfoView](#)

- [Create a password for the Administrator account](#)

## ***Access SAP BusinessObjects Central Management Console***

1. In the Administration Console, click **Administration > SAP BOBJ**.  
The SAP BOBJ page opens.
2. Click **Launch CMC**.  
The SAP BusinessObjects CMC Login page opens.

**Note:** This page is only visible if SHR is installed on the system.

## ***Access SAP BusinessObjects InfoView***

1. In the Administration Console, click **Administration > SAP BOBJ**.  
The SAP BOBJ page opens.
2. Click **Launch InfoView**.  
The SAP BusinessObjects InfoView Login page opens.
3. Type

Field	Description
User Name	Name of the SAP BusinessObject InfoView user.
Password	Password of the SAP BusinessObject InfoView user.

4. Click **Log On**.  
The SAP BusinessObjects InfoView portal opens.

**Note:** This page is only visible if SHR is installed on the system.

## ***Create a password for the Administrator account***

If you want to create a password for the default Administrator user name, perform the following steps:

1. Access the SAP BOBJ CMC.
2. On the Central Management Console login screen, in the **User Name** field, type Administrator.
3. Click **Log On**. The CMC Home screen opens.

4. Click **Users and Groups**. The Users and Groups screen opens.
5. On the right pane, double-click **Administrators**.
6. Right-click **Administrator** and then click **Properties**. The Properties:Administrator dialog box opens.
7. Under **Enterprise Password Settings**, in the **Password** field, type a new password.
8. In the **Confirm** field, retype the password to confirm it. You can change the Administrator user name, if required, and specify other necessary details on this screen.
9. Click **Save & Close** to accept the changes.
10. Click **Log Out** to exit the Central Management Console.

**Note:** This task is valid only if SHR is installed on the system.

## Managing data aging

SHR collects data from different data sources at periodic intervals based on the collection policies predefined in the Content Packs. The collected data is stored in the database in various types of fact tables. If the data is collected as polled events from the data source, it is called raw data and stored in "As-polled" tables. Data can also be collected as a 5-minute summarized data. This type of data is called rate data and stored in "5-minute" tables.

The SHR database performs aggregation routines on the raw or rate data through the workflow process. The aggregation routines convert the data into hourly and daily data. This data is then stored in the following physical data tables:

- Hourly—This table contains the raw or rate data that is aggregated at an hourly level.
- Daily—This table contains the hourly data that is aggregated at the daily level.
- Monthly—This table contains the daily data that is aggregated at the monthly level. (not available in OOTB content packs)
- Yearly—This table contains the monthly data that is aggregated at the yearly level. (not available in OOTB content packs)

When reports are generated for a month or year, the data from daily tables is aggregated online to display in the SHR reports. Monthly table and yearly table are not physical tables in the database for any out-of-the-box (OOTB) content packs.

The data tables vary based on the content pack. For a given content pack, the available data tables is based on the model defined for that content pack.

## ***Active retention***

To prevent the accumulation of excessive data in the tables, SHR ages the data. Aging involves the concept of retention time, which is the number of days the data is stored in the table. The aging process deletes the data when it has been in the table longer than the specified retention time for that table. Each table has a default retention time:

- As-pollled table: 90 days
- 5-minute table: 90 days
- Hourly table: 365 days
- Daily table: 1825 days
- Monthly table: 1825 days (not available in OOTB content packs)
- Yearly table: 1825 days (not available in OOTB content packs)

**Note:** Dimension data such as CI types and nodes that is collected by SHR remains in the database tables. SHR does not delete this data.

## ***Managing aging***

Using the Aging page of the Administration Console, you can [configure the active retention period](#).

### ***Configure active retention period***

1. In the Administration Console, click **Administration > Aging**  
The Aging page opens.
2. For a specific Content Pack component, click **Configure Retention**.  
The Content Pack retention configuration details appear.
3. Click **Edit**.
4. For a specific type of periodic data, type the number of days for which the data is to be retained.
5. Click **Save**.  
A Saved Successfully message appears in the Information message panel.

**Note:** You cannot modify the Active Retention policies for the Core Content Pack components.

**Warning:** For the Service Health and OMi Content Pack components, you should not change the retention period of the "As-pollled" table. The data in this table is a snapshot data and the status might not change within a short period of time. However, you can change the retention periods of the hourly, daily, monthly, or yearly data.

## Managing services

The SHR services are long-running executables that perform specific functions. These services are designed to automatically start when the application is launched or when the operating system is booted. If required, you can also start these services manually. You can use the Administration Console to monitor two sets of services—one for the SHR database and the other for SAP BOBJ Enterprise.

The SHR database services include:

- **PMDB Platform Message Broker Service**—This service is responsible for validating, transforming, and routing Java Message Service (JMS) messages. SHR uses the Apache ActiveMQ message broker service, which fully implements JMS. If this service is stopped, notifications across services and components, such as Package Manager, cannot be delivered.
- **PMDB Platform Collection Service**—This service handles the configuration of the data collection policies based on the rules defined in the Content Packs. Stopping this service halts all collection-related tasks.
- **PMDB Platform DB Logger Service**—This service handles all logging-related tasks and is responsible for capturing and logging serious and critical events. This service reads the events and displays the information to the end user through the Administration Console and log files. In addition, the PMDB Platform DB Logger service logs events in the BSMRApp.log file. If this service is stopped, SHR cannot update the log files or display any alerts or events.
- **PMDB Platform Timer**—This service manages the scheduling of the SHR database processes. If this service is stopped, all data processes become affected such as data summarization, aggregation, and storage. In addition, maintenance tasks no longer occur. In short, the SHR database stops to function.
- **PMDB Platform IM Service**—This service handles the internal monitoring-related tasks of the SHR system. It collects and displays information related to the health and performance of the system to the user through the Administration Console. Stopping this service prevents SHR from displaying monitoring-related information, such as the status of the fact tables, the data processes, and the performance and availability of the SHR database and the application server platform.
- **SHR PostgreSQL service**—This service manages the PostgreSQL management database processes. This database is used by SHR to store data processing information, internal tables that control the deletion of stage tables, and collection audit information.

The SAP BOBJ Enterprise services include:

- **SAP BOBJ Apache Tomcat**—This service handles the deployment of SAP BusinessObjects-related administrative web applications and servers. Stopping this service prevents the deployment of the web applications.

- SAP BOBJ CMS—This service collectively manages all the other SAP BusinessObjects services and applications. If this service is stopped, all SAP BusinessObjects-related services and applications cannot work.





## Managing services

Using the Services page, you can perform the following tasks:

- [View the status of an SHR service](#)
- [Start or stop an SHR service](#)
- [View the status of a SAP BOBJ Enterprise service](#)

### View the status of an SHR service





1. From the Administration Console, select **Administration > Services**.  
The Services page opens.
2. In the **Service** list, select **HP SH Reporter Status**.
3. View:

Field	Description
Service Name	The name of the SHR service.
Description	A description of the service.
Status	The status of the service. <b>Legend description:</b>  indicates that the service is up and running.  indicates that the service is not running.  indicates a warning.  indicates that the status of the service is unknown.
Start/Stop	Option to start or stop the service.

4. For a detailed status of the service, click the hyperlink in the **Service Name** column.  
The Service Detail for table appears, which provides detailed status information such as status of the service, status of the Java Virtual Machine (JVM), and status of the disk space. This table organizes information into two tabs:

- Service Message Detail—Displays details of the status message.
- Service Dependency—Displays the services that have a dependency on the selected service.

5. On the **Service Message Detail** tab, view:

Field	Description
Severity	The severity of the message. <b>Legend description:</b>  indicates that the service is running.  indicates an error.  indicates a warning.  indicates that the status of the service is unknown.
Message	A detailed description of the status.

6. On the **Service Dependency** tab, view:

Field	Description
Name	The name of the SHR service that has a dependency on the selected service.
Service Name	The name of the service as displayed in the Services window.
Dependent	Indicates that the displayed service is depends on the selected service.
Depends On	Indicates that the selected service depends on the displayed service.

## ***Start or stop a SHR service***

1. From the Administration Console, select **Administration > Services**.  
 The Services page opens.
2. In the **Service** list, select **HP SH Reporter Status**.
3. In the table, perform any one of the following steps:
  - Click **Start** to start a service that is currently not running.
  - Click **Stop** to stop a service that is currently running.

**Important:** If you change the system date after installing SHR, make sure that you restart all the SHR services.

## ***View the status of a SAP BOBJ Enterprise service***

1. From the Administration Console, select **Administration > Services**.  
The Services page opens.
2. In the **Service** list, select **SAP BOBJ Enterprise status**.  
The list of services and their status is displayed.

**Note:** This page is only visible if SHR is installed on the system.

## **Managing time shifts**

Using SHR, you can configure the shift timings and enable shift-based availability reporting for the monitored system resources in your environment. Out-of-the-box, SHR defines a default shift period, which ranges from 0 to 23 hours.

Using the Shift Management page of the Administration Console, you can define the shift timings. Once configured, the shifts are applied globally across all relevant reports.

When configuring the shifts, you must consider the following points:

- Shift-based data is available to a maximum of the initial history (by default, this is set to 15 days) prior to the current date when the shift is created.
- You can modify the start and end times of the shifts.
- A shift must have a time range defined.
- The value must be in the 24-hour format.
- You can define multiple shifts.
- A single shift can have multiple time ranges.
- Shifts can have overlapping time ranges.
- You can delete a time range from the shift.
- If you delete a shift, all the time ranges within that shift are also deleted.
- You cannot create a shift that has the same name of an existing shift.
- Time ranges that do not correspond to any shift is referred to as off-shift.
- Node or group-level shift configuration is not supported.

Using the Shift Management page, you can:

- [View time shifts](#)
- [Create a new time shift](#)
- [Modify the time shift](#)
- [Expire the time shift](#)

## ***View shift information***

1. In the Administration Console, click **Administration > Shift Management**.  
The Shift Management page opens.
2. View:

<b>Field</b>	<b>Description</b>
Shift Name	Name of the shift.
Status	The current status of the shift. It can be either ACTIVE or INACTIVE.
Effective From	The date from which shift-based data is collected by SHR.
Expires On	The date when the shift will expire. If a shift is configured to not expire, "Do Not Expire" is displayed.

## ***Create a new time shift***

1. In the Administration Console, click **Administration > Shift Management**.  
The Shift Management page opens.
2. To create a new shift, click **Create New Shift**.  
The Create New Shift box opens.
3. Type:

<b>Field</b>	<b>Description</b>
Shift Name	Name of the shift that you want to create such as prime, swing, or graveyard.
Effective From	Select the date from when you want the shift to be implemented.
Expires On	Select the date when the shift should expire.
Do Not Expire	Select this check box if you do not want the shift to expire. If you select this option, the shift will remain active until you manually expire it.


Field	Description
Shift Day	Select the day that you want to include in your shift period.
Start Time	The starting time of the shift. The value must in 24-hour format. The range of the start time is 0 to 23 hours.
End Time	The ending time of the shift. The value must in 24-hour format. The range of the end time is 1 to 24 hours.

4. To add additional days to the shift, click **Add New Row**.
5. Click **Save**.  
The newly create shift appears in the Shift Management table.

## ***Modify the time shift***

A shift includes all the time ranges that you defined for that shift. To modify the shift, you need to modify the time ranges in that shift or you can add new time ranges to that shift.

To modify the shift:

1. In the Administration Console, click **Administration > Shift Management**.  
The Shift Management page opens.
2. In the **Shift Name** column, click the shift that you want to modify.  
The Edit Shift box opens.
3. To edit a shift, you can:
  - Change the day in the Shift Day column.
  - Change the start and end times of the shift.
  - Click **Add New Row** to add a new shift day.
  - Click the  icon to remove a shift day.

**Note:** You cannot change the shift name or the Effective from date. These field are disabled by default. If the shift is modified, data that is already collected by SHR will not be reprocessed.

4. Click **Save** to save the changes.

## ***Expire a time shift***

Once a time shift is created, SHR does not allow you to delete it. This is because the data collected and aggregated based on that shift period can be used for data analysis purposes. This data remains in the SHR database. However, if you no longer require the time shift, you can disable it by expiring it. Once expired, SHR does not collect any data for that shift period.

To expire a shift:

1. In the Administration Console, click **Administration > Shift Management**.  
The Shift Management page opens.
2. In the **Shift Name** column, click the shift that you want to expire.  
The Edit Shift box opens.
3. Click **Expire Shift** to expire the shift.
4. In the confirmation message box, click **Yes**.

**Note:** If the shift is modified, data that is already collected by SHR will not be reprocessed.

## Configuring custom groups

Custom groups in SHR help to retrieve information pertaining to the set of nodes that comprise a specific dimension. Custom groups in SHR can be created for conformed dimensions only. For instance, if you wish to view the nodes that are linked to a specific network, you can create a custom group that displays information pertaining only to the nodes that are a part of the specific network. Custom groups are created as an XML and imported to SHR through the platform stream.

To create a Custom Group:

1. Create an XML for the Custom Group. For syntax on creating the Custom Group XML, see [Creating Custom Groups](#).
2. After creating the XML, save it in the **%PMDB\_HOME%/config** folder.

After you create the Custom Group:

- The Custom Group is processed by the PMDB Platform stream **PMDB\_Platform@CustomGroup**.
- To confirm whether the Custom Group is imported to SHR, check whether the **PMDB\_Platform@CustomGroup** stream is loaded successfully.
- You must wait for the SHR dimension stream to populate the SHR data tables with the Custom Group information.

SHRenables you to:

- Create multiple custom groups for an operating system in a single XML file, by changing the values of the syntax.
- Select the desired custom group from the **Prompts** section of the reports.

## Creating custom group

To create a Custom Group, copy the following syntax in an XML file:

**Note:** You can enter a file name of your choice for the XML file, but follow the **<name>customgroup.xml** restriction; where, **<name>** is any file string supported by the operating system.

For example, shr\_customgroup.xml or SHR9XXcustomgroup.xml and so on.

```
<groups>
<group name=" " type=" ">
<instances type=" ">
<instance>
<attribute name=" " value=" " operator=" " relation=" " />
</instance>
</instances>
</group>
</groups>
```

**Note:** Copy the attribute tag for each entity type that you want to define for the Custom Group.

The following table provides a description of the tags used in the above example.

Field	Description
group name	New Custom Group name.
type	The Group type.
instances type	Dimension table conformed to the K_CI table. The dimensions are extracted from this table.
attribute name	Name of the string column (not numeric column) in the dimension table defined in the <i>&lt;instance type&gt;</i> tag.
value	The column value in the dimension table must match this value.

Field	Description
operator	<p>Operator for searching the node name value.</p> <p>To perform an exact match of values, use the EQUALS operator. For example, "abcvalue1"</p> <p>To perform a pattern based match of values, use the LIKE operator. You can specify the value as "abcvalue1%" or "%abcvalue1%" and so on.</p> <p>For other operators such as IN, NOT IN, NOT LIKE, EXISTS, "=", or "!=", you must specify the values enclosed within double quotes. For example, the IN operator must have the values as "'abcvalue1', 'abcvalue2', 'abcvalue3'".</p> <p><b>Note:</b> All the value comparisons in the XML against the SHR database is case insensitive.</p>
relation	<p>Determines the relation between the attribute name and value. The relation value can either be AND or OR.</p> <p><b>Note:</b> If you do not define a relation value, SHR considers the default value as AND.</p>

For examples of Custom Group syntax, see:

[Custom Groups in Windows ® and Linux operating systems](#)

```
<groups>  
<group name="Windows" type="CUSTOMGROUP">  
<instances type="K_CI_System">  
<instance>  
<attribute name="OS" value="NT" operator="LIKE" relation="OR" />  
<attribute name="OS" value="Windows" operator="LIKE" relation="OR" />  
<attribute name="OS" value="windows" operator="LIKE" relation="OR" />  
<attribute name="OS" value="Win" operator="LIKE" relation="OR" />  
<attribute name="OS" value="win" />  
</instance>  
</instances>  
</group>  
</groups>
```

## Custom Groups in UNIX Operating System

```
<groups>
<group name="Unix" type="CUSTOMGROUP">
<instances type="K_CI_System">
<instance>
<attribute name="OS" value="%ux%" operator="LIKE" relation="OR" />
<attribute name="OS" value="%UX%" operator="LIKE" relation="OR" />
<attribute name="OS" value="AIX" operator="LIKE" relation="OR" />
<attribute name="OS" value="Sun%" operator="LIKE" />
</instance>
</instances>
</group>
</groups>
```

## Managing dimensions

When a data source is configured in SHR, it collects dimension and fact data from the nodes (host, network device, application, and so on) for generating reports. Dimension data is collected from the topology source. But, when you remove a node or CI from your environment, it is not removed from the SHR database. This is meant to enable you to generate historical reports on deleted dimensions.

**Inactive dimension:** When a node is deleted from your environment and you continue to have an inactive dimension in the SHR database.

**Duplicate dimension:** When a new node is added to the environment with the name of an older node, you have a duplicate dimension in the SHR database.

When you have retired nodes or CIs permanently from your environment and no longer generate reports on them, you can delete the inactive dimensions. You can do it for both local and conformed dimensions from the SHR system using the Command Line Interface (CLI).

If you have added new nodes and they have taken up the names of older nodes, you can rename the duplicate dimensions. You can do it for only conformed dimensions from the SHR system using the Command Line Interface (CLI).

**Note:** When you delete a dimension, the dimension and its fact data is deleted permanently. Take a backup of the SHR database before you perform this operation.

For more information on fact, dimension, and types of dimensions, see the section, "*Architecture*" in the *HP Service Health Reporter Concepts Guide*.

To view the CLI Help that lists the commands you can use, run the following command:

```
dimensionManager -help
```

Before running the commands in this section, stop the *HP\_PMDB\_Platform\_Timer* service (Windows) or the *TrendTimer* service (Linux).

## Managing inactive dimensions

You can identify the dimensions that have remained inactive for a certain period in the SHR database and delete them.

### List inactive dimensions

To generate a list of inactive dimensions, run the following command:

```
dimensionManager -inactive_dim_list -caption <caption name> -inactive <number of days inactive> -output_dir <directory location>
```

For details on the command parameters, see ["Inactive Dimension Parameters" below](#)

### Delete inactive dimensions

To delete inactive dimensions, run the following command:

```
dimensionManager -inactive_dim_delete -file <input file> -mode <test/commit>
```

For details on the command parameters, see ["Inactive Dimension Parameters" below](#)

**Caution:** When you execute this command in the commit mode, the dimension and its fact data will be deleted permanently. Take a backup of the SHR database before you perform this operation.

The following table provides a description of the parameters used in the preceding commands:

#### Inactive Dimension Parameters

Parameter	Description
inactive_dim_list	Operation for listing the inactive dimensions.
inactive_dim_delete	Operation for deleting inactive dimensions.
caption	Caption name or table name for a dimension. Obtain it from the model interface document available with each content pack in their respective <i>/doc</i> folder. <b>Example:</b> "K_CI_System" or "System".
file	Absolute path of the input CSV file that lists the inactive dimensions to be deleted.
inactive	Number of days for which data does not exist for the dimension. <b>Example:</b> 180

### Inactive Dimension Parameters, continued

Parameter	Description
output_dir	Directory location of the output CSV file that lists inactive dimensions.  <b>Example:</b>  Directory location: {PMDb_HOME}\DLC  CSV file: <dimension_table_name>_0_*.csv
mode	Mode of the operation [test/commit].  Use the test (default) mode to review the data that will be modified or deleted. Execute the commit mode to permanently apply the changes to the SHR database.  You should use the test mode and review the affected files before you perform the commit operation.

## Managing duplicate dimensions

When a new node is added to the environment with the name of an older node, you have a duplicate dimension in the SHR database. You can list out duplicate entries and delete them or rename them. The Configuration Item (CI) with the latest time-stamp is considered the original dimension and the earlier entries are considered duplicate dimensions. This feature is supported only on conformed dimensions.

### List duplicate dimensions

To generate a list of duplicate dimensions, run the following command:

```
dimensionManager -duplicate_dim_list -caption <caption name> -file <input file>
```

For details on the command parameters, see ["Duplicate Dimension Parameters" on the next page](#).

### Delete duplicate dimensions

To delete duplicate dimensions, run the following command:

```
dimensionManager -duplicate_dim_delete -file <input file> -mode <test/commit>
```

For details on the command parameters, see ["Duplicate Dimension Parameters" on the next page](#).

**Caution:** When you execute this command in the commit mode, the dimension and its fact data will be deleted permanently. Take a backup of the SHR database before you perform this operation.

The following table provides a description of the parameters used in the preceding commands:

### Duplicate Dimension Parameters

Parameter	Description
duplicate_dim_list	Operation for listing duplicate dimensions.
duplicate_dim_delete	Operation for deleting duplicate dimensions.
caption	Caption name or table name for a dimension. Obtain it from the model interface document available with each content pack.  <b>Example:</b> "K_CI_System" or "System".
file	Delete or remove duplicate dimension: Absolute path of the input CSV file that lists the duplicate dimensions to be deleted or renamed.
mode	Mode of the operation [test/commit].  Use the test (default) mode to review changes to your reports. Execute the commit mode to permanently apply the changes to the SHR database.  You should use the test mode and review the affected files before you perform the commit operation.

## Managing dimensions using business key

To list the business keys (CI\_UID) of a conformed dimension, run the following command:

```
dimensionManager -dim_list -business_keys all -caption <caption name> -output_dir <directory location>
```

To delete business keys (CI\_UID) based on your requirement, run the following command:

```
dimensionManager -dim_delete -caption <caption name> -file <input file> -mode <test/commit>
```

To modify the business key (CI\_UID) of the duplicate or older dimensions, run the following command:

```
dimensionManager -rename_key -caption <caption name> -file <input file>
```

### Dimension Parameters

Parameter	Description
dim_list	Operation for listing dimensions.
dim_delete	Operation for deleting dimensions.
business_keys	Comma separated values/patterns (only '*' wildcard is supported) for listing business keys. Use '-business_keys all' to list all the business keys (CI_UID).

**Dimension Parameters, continued**

Parameter	Description
rename_key	Operation for renaming the old value of business key (CI_UID) with new value.
caption	Caption name or table name for a dimension. Obtain it from the model interface document available with each content pack.  <b>Example:</b> "K_CI_System" or "System".
file	Absolute path of the input CSV file that lists the business keys to be deleted or renamed.
output_dir	Directory location of the output CSV file.  <b>Example:</b> C:\DLC
mode	Mode of the operation [test/commit].  Use the test (default) mode to review changes to your reports. Execute the commit mode to permanently apply the changes to the SHR database.

## ***Managing dimensions using natural key***

To list the natural keys of a conformed dimension, run the following command:

```
dimensionManager -dim_list -natural_keys all -caption <caption name> -output_dir <directory location>
```

To delete natural keys based on your requirement, run the following command:

```
dimensionManager -dim_delete -caption <caption name> -file <input file> -mode <test/commit>
```

To modify the natural key of the duplicate or older dimensions, run the following command:

```
dimensionManager -rename -caption <caption name> -file <input file>
```

The following table provides a description of the parameters used in the preceding commands:

**Dimension Parameters**

Parameter	Description
dim_list	Operation for listing dimensions.
dim_delete	Operation for deleting dimensions.
natural_keys	Comma separated values/patterns (only '*' wildcard is supported) for listing natural keys. Use '-natural_keys all' to list all the natural keys.
rename	Operation for renaming the old value of natural key with new value.

### Dimension Parameters, continued

Parameter	Description
caption	Caption name or table name for a dimension. Obtain it from the model interface document available with each content pack.  <b>Example:</b> "K_CI_System" or "System".
file	Absolute path of the input CSV file that lists the natural keys to be deleted or renamed.
output_dir	Directory location of the output CSV file.  <b>Example:</b> C:\DLC
mode	Mode of the operation [test/commit].  Use the test (default) mode to review changes to your reports. Execute the commit mode to permanently apply the changes to the SHR database.

## ***Managing inactive or duplicate dimensions in data source***

You can list and delete the dimensions that have remained inactive for a certain period in the Runtime Service Model (RTSM) data source from which SHR gathers data.

### ***List inactive dimensions in data source***

To generate a list of inactive dimensions in the RTSM data source, run the following command:

```
dimensionManager -check_datasource -list_inactive -output_dir <directory location>
```

For details on the command parameters, see ["Check data source dimension parameters" on the next page](#)

### ***List duplicate dimensions in data source***

To generate a list of duplicate dimensions in the RTSM data source, run the following command:

```
dimensionManager -check_datasource -list_duplicate -output_dir <directory location>
```

For details on the command parameters, see ["Check data source dimension parameters" on the next page](#)

The following table provides a description of the parameters used in the preceding commands:

### Check data source dimension parameters

Parameter	Description
list_inactive	Operation for listing the inactive dimensions in data source.
list_duplicate	Operation for listing duplicate dimensions in data source.
check_datasource	Operation for verifying dimensions in the RTSM data source.
output_dir	Directory location of the output CSV file that lists inactive dimensions.  <b>Example:</b>  Directory location: {PMDB_HOME}\DLC  CSV file: <dimension_table_name>_0_*.csv

## Configuring downtime in reports

Downtime refers to periods when a system, network, or application is not available to the user because of known or unknown reasons. Downtime is important for calculating the availability of a system, application, or network, which is typically expressed as the percentage of uptime in a given period. When using SHR to generate service-level agreement (SLA)-based reports, there is a need to exclude the predefined downtime to provide accurate availability information. This is because downtime can skew the CI data in the reports.

In SHR, there are two types of downtime:

- **Planned downtime:** This refers to the scheduled periods of time where the system or network is brought down to run maintenance job such as running a backup, or patching software, or performing a system reboot. Planned downtime is a result of logical, management-initiated event.
- **Excused downtime:** This refers to the unscheduled periods of time when the system is not available because of some physical event, such as hardware or software failure or a power outage.

Downtimes are configured based on associated CIs. For example, you might want to exclude a recurring maintenance event or a holiday for a specific host CI whose physical host you know will be down for that period of time.

SHR enables you to:

- Configure the downtime to occur once or to recur weekly or monthly.
- Select multiple CIs to be affected by the downtime.

The downtime information is defined for each CI in an XML file, where you must manually specify the downtime period, the duration, and the specific instances of the CIs. SHR uses this XML file to update the collected fact data with the downtime information before loading the data into the database.

The downtime period is marked on the "As-pollled" data or "5-minute" data only. When this data is summarized for the hourly table and upwards, the downtime period is excluded from it. SHR OOTB Availability reports display the overall uptime and downtime of the node in your environment over a period of time.

The following table tells you what content packs downtime applies to:

Content Pack	Yes/No
Real User Monitor	No (SHR obtains downtime data from the data source; provision downtime at the source)
Business Process Monitor	No (SHR obtains downtime data from the data source; provision downtime at the source)
Service Health	No (SHR obtains downtime data from the data source; provision downtime at the source)
IBM WebSphere Application Server	Yes
Microsoft Active Directory	No (SHR obtains downtime data from the data source; provision downtime at the source)
Microsoft Exchange	Yes
Microsoft SQL Server	Yes
Oracle	Yes
Oracle WebLogic Server	Yes
Network	No (SHR obtains downtime data from the data source; provision downtime at the source)
HP Operations Manager	No (SHR obtains downtime data from the data source; provision downtime at the source)
OMi	No (SHR obtains downtime data from the data source; provision downtime at the source)
System Management	Yes
Virtualization	Yes

## **Create the downtime XML file**

You can provide the downtime information at any time after installing the Content Packs. To provide downtime information to SHR, following these steps:

1. Depending on the deployment scenario, identify the CIs or managed nodes that are going to be affected by downtime.

2. Get the CI details from the Model Automation XSD file. For more information, see the *SHR Content Development - Getting Started Guide*.
3. Decide whether the downtime will occur once or recur at a weekly or monthly basis.
4. Based on the recurrence, create a downtime schedule XML file using any one of the following examples:
  - [Downtime schedule with one occurrence](#)
  - [Weekly downtime schedule](#)
  - [Monthly downtime schedule](#)
5. After creating the XML file, place the file in the C:\HP-SHR\PMDB\data\downtime folder.

After the files are placed in the downtime folder, the data processing in SHR handles the downtime enrichment on the collected data. The enriched data is aggregated and stored in the database for reporting purposes. You can monitor the downtime enrichment on the Internal Monitoring > Data Processing page, which displays the downtime stream details for a particular Content Pack.

## ***Syntax for downtime schedule with one occurrence***

To create a downtime schedule that occurs only once, you can use one of the following XML syntax:

### **Syntax 1**

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<downtime>
  <name>Sample1</name>
  <category>Other</category>
  <schedule >
    <type>ONCE</type>
    <startDate>2012-02-07 10:00:00</startDate>
    <endDate>2012-02-07 22:00:00</endDate>
  </schedule>
  <instances type="system">
    <instance>
      <attribute name="CI_UID"
        value="c2fa6553dd16af591b128e19feec3d49"/>
    </instance>
  </instances>
</downtime>
```

```
        </instance>
    </instances>
</downtime>
Syntax 2
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<downtime>
    <name>Sample1</name>
    <category>Application maintenance</category>
    <schedule >
        <type>ONCE</type>
        <startDate>2012-02-07 10:00:00</startDate>
        <endDate>2012-02-07 22:00:00</endDate>
    </schedule>
    <selectedCIs>
        <ci>
            <id>ciid_bizsvc1</id>
        </ci>
        <ci>
            <id>ciid_bizsvc2</id>
        </ci>
    </selectedCIs>
</downtime>
```

The following table provides a description of the tags used in the above sample.

Tag	Description
<name>	Provide a name for the downtime in the tag.

Tag	Description
<category>	<p>The category assigned to the downtime. Options include:</p> <ul style="list-style-type: none"> <li>• Application installation</li> <li>• Application maintenance</li> <li>• Hardware installation</li> <li>• Hardware maintenance</li> <li>• Network maintenance</li> <li>• Operating system reconfiguration</li> <li>• Other</li> <li>• Security issue</li> </ul>
<schedule>	<p>Define the downtime schedule in this section of the XML.</p>
<type>	<p>Define the type of downtime schedule that you want to create. The values can be ONCE, WEEKLY, or MONTHLY.</p>
<startDate>	<p>Specify the starting date and time of the scheduled downtime for the monitored component or CI. The date format is yyyy-mm-dd hh:mm:ss. You can change this value at any time. However, data that is enriched with downtime information will not be reprocessed.</p>
<endDate>	<p>Specify the ending date and time of the scheduled downtime for the CI. The date format is yyyy-mm-dd hh:mm:ss. You can change this value at any time. However, data that is enriched with downtime information will not be reprocessed.</p>
<instances type>	<p>In this section, you define the CI type that will be affected by downtime such as node, CPU, Disk, Web server, application, event, and so on. The downtime XML that you create is applicable for one CI type only. For additional CIs, you must create additional XML files.</p>

Tag	Description
<instance>	Each instance of the CI type must be defined in a separate <instance> tag. The attribute name refers to the instance metric and the value refers to the value of that metric. If a particular CI instance is defined by more than one metric, additional instances must also be defined by the same number and type of metrics. For the CI parameters, see the Model Automation XSD.
<selectedCIs>	In this section, you can directly define multiple CIs that will be affected by downtime. You can refer to these CIs by using their unique IDs. This section is applicable if SHR is deployed in the SaOB and APM deployment scenarios where RTSM is the topology source.

## Syntax for weekly downtime schedule

To create a downtime schedule that occurs on a weekly basis, you can use one of the following XML syntax:

### Syntax 1

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<downtime>
  <name>Sample2</name>
  <category>Other</category>
  <schedule >
    <type>WEEKLY</type>
    <days>
      <selectedDays>SUNDAY</selectedDays>
      <selectedDays>MONDAY</selectedDays>
      <selectedDays>TUESDAY</selectedDays>
      <selectedDays>WEDNESDAY</selectedDays>
    </days>
    <startTimeInSecs> 57600</startTimeInSecs>
    <durationInSecs> 10800</durationInSecs>
    <validFrom>2012-02-02 12:00:00</validFrom>
    <validTo>2012-03-10 12:00:00</validTo>
```

```
</schedule>
<instances type="CPU">
  <instance>
    <attribute name="CI_UID"
      value="c2fa6553dd16af591b128e19feec3d49"/>
  </instance>
  <instance>
    <attribute name="CI_UID"
      value="b1ta83456aa13rf352h908e19teec3d49"/>
  </instance>
</instances>
</downtime>
```

### Syntax 2

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<downtime>
  <name>Sample2</name>
  <category>Other</category>
  <schedule >
    <type>WEEKLY</type>
    <days>
      <selectedDays>SUNDAY</selectedDays>
    </days>
    <startTimeInSecs> 57600</startTimeInSecs>
    <durationInSecs> 10800</durationInSecs>
    <validFrom>2012-02-02 12:00:00</validFrom>
    <validTo>2012-03-10 12:00:00</validTo>
  </schedule>
  <selectedCIs>
    <ci>
```

```

    <id>ciid_bizsvc1</id>
  </ci>
  <ci>
    <id>ciid_bizsvc2</id>
  </ci>
</selectedCIs>
</downtime>

```

The following table provides a description of the tags used in the above sample.

Tag	Description
<name>	Provide a name for the downtime in the tag.
<category>	The category assigned to the downtime. Options include: <ul style="list-style-type: none"> <li>• Application installation</li> <li>• Application maintenance</li> <li>• Hardware installation</li> <li>• Hardware maintenance</li> <li>• Network maintenance</li> <li>• Operating system reconfiguration</li> <li>• Other</li> <li>• Security issue</li> </ul>
<schedule>	Define the downtime schedule in this section of the XML.
<type>	Define the type of downtime schedule that you want to create. The values can be ONCE, WEEKLY, or MONTHLY.
<days>	Specify the days of the week when downtime for the CI type is planned for in this section.
<startTimeInSecs>	Specify the starting time of the scheduled downtime in seconds. For example, 57600 seconds equals to 16:00, which means that the downtime is scheduled to start at 4 P.M. on each day that is defined in the <days> tag.

Tag	Description
<durationInSecs>	Specify the duration of the downtime in seconds. For example, 10800 seconds equals to 3 hours, which means that the downtime period lasts for 3 hours from 4 P.M. to 7 P.M.
<validFrom>	Specify the starting date and time when SHR must start collecting the downtime information for data enrichment. The date format is yyyy-mm-dd hh:mm:ss.
<validTo>	Specify the ending date and time when SHR must stop collecting the downtime information for data enrichment. The date format is yyyy-mm-dd hh:mm:ss.
<instances type>	In this section, you define the CI type that will be affected by downtime such as node, CPU, Disk, Web server, application, event, and so on. The downtime XML that you create is applicable for one CI type only. For additional CIs, you must create additional XML files.
<instance>	Each instance of the CI type must be defined in a separate <instance> tag. The attribute name refers to the instance metric and the value refers to the value of that metric. If a particular CI instance is defined by more than one metric, additional instances must also be defined by the same number and type of metrics. For the CI parameters, see the Model Automation XSD.
<selectedCIs>	In this section, you can directly define multiple CIs that will be affected by downtime. You can refer to these CIs by using their unique IDs. This section is applicable if SHR is deployed in the SaOB and APM deployment scenarios where RTSM is the topology source.

## ***Syntax for monthly downtime schedule***

To create a downtime schedule that occurs on a monthly basis, you can use one of the following XML syntax:

### **Syntax 1**

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<downtime>
  <name>Sample3</name>
  <category>Other</category>
  <schedule >
```

```
<type>MONTHLY</type>
<days>
  <selectedDays>4</selectedDays>
  <selectedDays>8</selectedDays>
</days>
<startTimeInSecs>57600</startTimeInSecs>
<durationInSecs>10800</durationInSecs>
<validFrom>2012-02-02 12:00:00</validFrom>
<validTo>2012-03-10 12:00:00</validTo>
</schedule>
<instances type="CPU">
  <instance>
    <attribute name="CI_UID"
      value="c2fa6553dd16af591b128e19feec3d49"/>
  </instance>
</instances>
</downtime>
```

### Syntax 2

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<downtime>
  <name>Sample3</name>
  <category>Other</category>
  <schedule >
    <type>MONTHLY</type>
    <days>
      <selectedDays>4</selectedDays>
      <selectedDays>8</selectedDays>
    </days>
    <startTimeInSecs>57600</startTimeInSecs>
```

```

    <durationInSecs>10800</durationInSecs>
    <validFrom>2012-02-02 12:00:00</validFrom>
    <validTo>2012-03-10 12:00:00</validTo>
  </schedule>
  <selectedCIs>
    <ci>
      <id>ciid_bizsvc1</id>
    </ci>
    <ci>
      <id>ciid_bizsvc2</id>
    </ci>
  </selectedCIs>
</downtime>

```

The following table provides a description of the tags used in the above sample.

Tag	Description
<name>	Provide a name for the downtime in the tag.
<category>	The category assigned to the downtime. Options include: <ul style="list-style-type: none"> <li>• Application installation</li> <li>• Application maintenance</li> <li>• Hardware installation</li> <li>• Hardware maintenance</li> <li>• Network maintenance</li> <li>• Operating system reconfiguration</li> <li>• Other</li> <li>• Security issue</li> </ul>
<schedule>	Define the downtime schedule in this section of the XML.

Tag	Description
<type>	Define the type of downtime schedule that you want to create. The values can be ONCE, WEEKLY, or MONTHLY.
<days>	Specify the days of the month when downtime for the CI type is planned for in this section. For example, 4 and 8 refers to the 4th and 8th day of the month when the downtime for the particular CI is planned.
<startTimeInSecs>	Specify the starting of the scheduled downtime in seconds. For example, 57600 seconds equals to 16:00, which means that the downtime is scheduled to start at 4 P.M. each day that is defined in the <days> tag.
<durationInSecs>	Specify the duration of the downtime in seconds. For example, 10800 seconds equals to 3 hours, which means that the downtime period lasts for 3 hours from 4 P.M. to 7 P.M.
<validFrom>	Specify the starting date and time when SHR must start collecting the downtime information for data enrichment. The date format is yyyy-mm-dd hh:mm:ss.
<validTo>	Specify the ending date and time when SHR must stop collecting the downtime information for data enrichment. The date format is yyyy-mm-dd hh:mm:ss.
<instances type>	In this section, you define the CI type that will be affected by downtime such as node, CPU, Disk, Web server, application, event, and so on. The downtime XML that you create is applicable for one CI type only. For additional CIs, you must create additional XML files.
<instance>	Each instance of the CI type must be defined in a separate <instance> tag. The attribute name refers to the instance metric and the value refers to the value of that metric. If a particular CI instance is defined by more than one metric, additional instances must also be defined by the same number and type of metrics. For the CI parameters, see the Model Automation XSD.
<selectedCIs>	In this section, you can directly define multiple CIs that will be affected by downtime. You can refer to these CIs by using their unique IDs. This section is applicable if SHR is deployed in the SaOB and APM deployment scenarios where RTSM is the topology source.

## Configuring downtime in the past

Past downtime in SHR can be configured by performing the following steps:

1. Log on to the system as an administrator.
2. Configure downtime under the `%pmdb_home%/data/downtime` folder. To configure the downtime, see ["Configuring downtime in reports" on page 131](#)
3. Click **Start** > **Run** > type `cmd`. The command prompt window opens.
4. Type `downtime` to populate the CIs that are associated with the downtime streams.

Past downtime for all the streams in SHR can be processed as follows:

1. Click **Start** > **Run** > type `cmd`. The command prompt window opens.
2. Type `downtimeutility` to process all the downtime streams as shown below.

```
G:\Users\Administrator>downtimeutility
PID:28108
Started processing all the streams...
Processing downtime streams, please wait for some time...
in executer
Waiting for all running streams to complete there job
Aborting all ABC streams...
Aborted all ABC streams...
Running ABCBatch load (loading all streams)..
Finished loading streams..
Running streams..
Starting Timer service..
in executer
Successfully processed all the streams...
```

Processing past downtime for all the streams is time consuming. If you wish to process past downtime for a single stream perform the following steps:

1. Log on to the Administration Console.
2. Go to **Home Page**, click **PMDB Platform** under the **Content Pack Component Name** for the list of streams that are configured in SHR.
3. Select the Stream ID of the specific stream for which you wish to process past downtime.
4. Click **Start** > **Run** > type `cmd`. The command prompt window opens.

5. Type `downtimeutility -streamid <stream ID>`
6. This processes the past downtime only for the specific stream and the associated CI.

**Note:** Processing past downtime stops the **HP\_PMDB\_Platform\_Timer** service. Reprocessing of the streams is started after processing the streams that are currently running. The **HP\_PMDB\_Platform\_Timer** service is automatically restarted after reprocessing the streams.

Past Downtime is automatically configured for a period of 7 days. To change this value, perform the following steps:

1. Open the file **config.prp** present in the **%pmdb\_home%/data** folder.
2. Change the value assigned to the field **downtimedays**. The default number of days is 7.

## Configuring customer in reports

If you are a Managed Service Provider (MSP) using SHR, you can generate reports per customer or aggregate data per customer by:

1. Provisioning customers and customer-dimension associations in an XML file.
2. Creating custom reports using the Customer Name object in the SAP BusinessObjects Universe.

You can associate only conformed dimensions [Configuration Items (CIs)] to customers. You can configure multiple customers in a single XML file which is processed periodically. Newer dimensions that meet the conditions defined in the XML file are automatically associated to the customer.

To provision customers and associate them with dimensions in SHR:

1. Create an XML file with the name of the customer and associate it with the appropriate dimensions. For the syntax of this XML file, see [Creating customer XML](#).
2. Save the XML file in the **PMDB\_HOME/config** folder.
3. Wait for a few minutes and verify if the **PMDB\_Platform@CustomerEnrichment** stream has run successfully. This stream processes the XML and creates CSV files that SHR consumes for generating reports.

To generate reports grouped by customers you configured, use the Customer Name object from the SAP BusinessObjects Universe. You can enhance out-of-the-box (OOTB) reports or create new reports.

**Note:** You must make a copy of the OOTB reports when you modify them.

## Creating Customer XML

To provision customers, copy the following syntax in an XML file:

**Note:** You can enter a file name of your choice for the XML file, but follow the **<name>customerenrich.xml** restriction; where, **<name>** is any file string supported by the operating system.

For example, shr\_customerenrich.xml or SHR9XXcustomerenrich.xml and so on.

```
<customers>
<customer name="">
<address1></address1>
<address2></address2>
<city></city>
<state></state>
<zipcode></zipcode>
<phonenumber></phonenumber>
<description></description>
<instances type="">
<instance>
<attribute name="" value="" operator="" relation=""/>
<attribute name="" value="" operator=""/>
</instance>
</instances>
</customer>
</customers>
```

The following table provides a description of the attribute tags used in the above syntax.

Field	Description
<customer name>	Enter name of a customer. Entering a value in this field is mandatory.
<address1>	Enter address here. (Optional)
<address2>	Enter address here. (Optional)
<city>	Enter the name of a city here. (Optional)

Field	Description
<state>	Enter the name of a state here. (Optional)
<zipcode>	Enter the zipcode here; only numbers are allowed. (Optional)
<phonenumber>	Enter the phone number here; only numbers are allowed. (Optional)
<description>	Enter a description of your choice. (Optional)
<instances type>	Dimension table name conformed to the K_CI table. See the model interface document available with each content pack in their respective <i>/doc</i> folder to fetch the list of dimensions. The dimensions are extracted from this table.
<attribute name>	Name of the string column (not numeric column) in the dimension table defined in the <i>&lt;instance type&gt;</i> tag.
<value>	The column value in the dimension table must match this value.
<operator>	<p>Operator for searching the node name value.</p> <p>To perform an exact match of values, use the EQUALS operator. For example, "abcvalue1"</p> <p>To perform a pattern based match of values, use the LIKE operator. You can specify the value as "abcvalue1%" or "%abcvalue1%" and so on.</p> <p>For other operators such as IN, NOT IN, NOT LIKE, EXISTS, "=", or "!=", you must specify the values enclosed within double quotes. For example, the IN operator must have the values as "'abcvalue1', 'abcvalue2', 'abcvalue3'".</p> <p><b>Note:</b> All the value comparisons in the XML against the SHR database is case insensitive.</p>
<relation>	<p>Determines if the AND or OR operation must be performed when multiple attribute-value pairs are specified.</p> <p>If you do not define a relation value, SHR considers the default value as AND.</p>

## Applicable Content Packs

You can associate customers to conformed dimensions in the following content packs:

- Cross-Domain Operations Events
- IBM WebSphere Application Server
- Microsoft Active Directory

- Microsoft Exchange Server
- Microsoft SQL Server
- Network Performance
- Oracle
- Oracle WebLogic Server
- System Performance
- Virtualization Infrastructure Management

The customer information is available from the data source for the following content packs:

- Real User Transaction Monitoring
- Health and Key Performance Indicators
- Synthetic Transaction Monitoring

The customer information is not available in the Operations Events content pack.

## ***Customer XML Example***

```
<customers>
<customer name="Hewlett-Packard Company">
<Address1>3000 Hanover Street</Address1>
<Address2></Address2>
<City>Palo Alto</City>
<State>California</State>
<ZipCode>94304</ZipCode>
<PhoneNumber>16508571501</PhoneNumber>
<Description></Description>
<instances type="K_CI_Oracle">
<instance>
<attribute name="CI_UID" value="8c5e2d0fd63a0b0bd66d6e" operator="EQUALS"
relation="OR" />
<attribute name="CI_UID" value="3f5a2d0fd64a0b0wg66d6e" operator="EQUALS"
relation="OR" />
<attribute name="CI_UID" value="98cd49a3e850a455788286" operator="EQUALS" />
```

```
</instance>  
</instances>  
</customer>  
</customers>
```

## Configuring location in reports

You can use SHR to generate reports on infrastructure and applications based on their geographical location.

To generate reports grouped by location, you must associate dimensions with location information as follows:

1. Create an XML file, enter location details, and associate dimensions to the location. For the syntax of this XML file, see [Creating location XML](#).
2. Save the XML file in the **PMDB\_HOME/config** folder.
3. Wait for a few minutes and verify if the **PMDB\_Platform@platform\_poller\_registry\_build** stream has run successfully. This stream processes the XML and creates CSV files that SHR consumes for generating reports.

You can associate only conformed dimensions [Configuration Items (CIs)] to locations. Newer dimensions that meet the conditions defined in the XML file are automatically associated to the location.

## Creating Location XML

To create a location record, copy the following syntax in an XML file:

**Note:** You can enter a file name of your choice for the XML file, but follow the **<name>locationenrich.xml** restriction; where, **<name>** is any file string supported by the operating system.

For example, shr\_locationenrich.xml or SHR9XXlocationenrich.xml and so on.

```
<locations>  
<location name="">  
<country></country>  
<state ></state>  
<city></city>  
<region></region>  
<address></address>  
<building></building>
```

```

<floor></floor>
<instances type=" ">
<instance>
<attribute name="" value="" operator="" relation=""/>
<attribute name="" value="" operator="" />
</instance>
</instances>
</location>
</locations>

```

The following table provides a description of the tags used in the above example:

Field	Description
<location name>	Enter name of the location. Entering a value in this field is mandatory.
<country>	Enter the name of a country here. (Optional)
<state>	Enter the name of a state here. (Optional)
<city>	Enter the name of a city here. (Optional)
<region>	Enter the name of a region here. Entering a value in this field is mandatory.
<address>	Enter address here. (Optional)
<building>	Enter the name of a building here. (Optional)
<floor>	Enter the floor here. (Optional)
<instances type>	Dimension table name conformed to the K_CI table. See the model interface document available with each content pack in their respective /doc folder to fetch the list of dimensions. The dimensions are extracted from this table.
<attribute name>	Name of the string column (not numeric column) in the dimension table defined in the <instance type> tag.
<value>	Value of the column in the dimension table for which you create the location, such as values in the column "node_name" of the "K_CI_Oracle" dimension table. Or, values in the column "dns_name" of the "K_CI_System" dimension table, and so on.

Field	Description
< operator>	<p>Operator for searching the node name value.</p> <p>To perform an exact match of values, use the EQUALS operator. For example, "abcvalue1"</p> <p>To perform a pattern based match of values, use the LIKE operator. You can specify the value as "abcvalue1%" or "%abcvalue1%" and so on.</p> <p>For other operators such as IN, NOT IN, NOT LIKE, EXISTS, "=", or "!=", you must specify the values enclosed within double quotes. For example, the IN operator must have the values as "'abcvalue1', 'abcvalue2', 'abcvalue3'".</p> <p><b>Note:</b> All the value comparisons in the XML against the SHR database is case insensitive.</p>
<relation>	<p>Determines if the AND or OR operation must be performed when multiple attribute-value pairs are specified.</p> <p>If you do not define a relation value, SHR considers the default value as AND.</p>

## Applicable Content Packs

You can associate location to conformed dimensions in the following content packs:

- IBM WebSphere Application Server
- Microsoft Active Directory
- Microsoft Exchange Server
- Microsoft SQL Server
- Oracle
- Oracle WebLogic Server
- System Performance
- Virtualization Infrastructure Management

The location information is available from the data source in the following content packs:

- Network Performance
- Real User Transaction Monitoring
- Synthetic Transaction Monitoring

The location information is not available in the following content packs:

- Operations Events
- Cross-Domain Operations Events
- Health and Key Performance Indicators

## ***Location XML Example***

```
<locations>
  <location name="Santa Clara County">
    <Country>USA</Country>
    <State>California</State>
    <City>Palo Alto</City>
    <Region>San Francisco Bay Area</Region>
    <3000 Hanover Street/>
    <Building />
    <Floor />
    <instances type="K_CI_System">
      <instance>
        <attribute name="dns_name" value="abc%" operator="LIKE" relation="OR" />
        <attribute name="dns_name" value="abc1" operator="EQUALS" relation="OR" />
        <attribute name="dns_name" value="abc2%" operator="LIKE" />
      </instance>
    </instances>
    <instances type="K_CI_SQLServer">
      <instance>
        <attribute name="database_dbsid" value="abc123" operator="EQUALS" />
      </instance>
    </instances>
  </location>
</locations>
```

## Managing Content Packs

SHR enables you to install and manage Content Packs with the help of the Deployment Manager utility, a web-based interface that is a part of the Administration Console.

The Deployment Manager simplifies the selection of the Content Packs by filtering them based on the topology source that you defined in the post-install configuration phase. From the filtered list, you can then select the Content Packs or specific Content Pack components that you want to install.

The Deployment Manager provides the following benefits:

- Gives you more control over how you want to install a Content Pack; whether it is the entire Content Pack or individual components.
- Displays the data source dependencies for each Content Pack
- Supports the installation of custom Content Pack and custom Content Pack components
- Provides a single, easy-to-use interface for installing and uninstalling Content Packs.

Using the Deployment Manager page, you can:

- [Install a Content Pack](#)
- [Remove an Installed Content Pack](#)

### ***Install a Content Pack***


1. In the Administration Console, click **Administration > Deployment Manager**.  
The Deployment Manager page opens. By default, all the Content Pack components that have not been installed are selected for installation.
2. To modify the selection of the Content Pack components, perform any one of the followings steps:
  - In the **Content** column, clear the Content for which you do not want to collect data.
  - In the **Data Source Application** column, clear the data sources from which you do not want SHR to collect data for the selected Content Pack. The corresponding Content Pack components will not be selected for installation.
  - In the **Content Pack Component Name** column, clear the components of the selected Content Pack that you do not want to install.
  - Click **Restore Default** if you want to go back to the default selection.
3. Click **Deploy** to install the Content Packs.  
An `Installation Started` status appears in the **Status** column for each Content

Pack. 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.

4. Click the link in the **Status** column for more information about the installation process. The Content Pack Component Status History window opens. It displays the details of the current and historical status of that Content Pack component's installation.

**Note:** During the installation process, you cannot remove a Content Pack component that is already installed. Instead, you must wait till installation of all the Content Pack components is complete before you can perform any other operations on the Deployment Manager page.

## Remove an Installed Content Pack

1. In the Administration Console, click **Administration > Deployment Manager**. The Deployment Manager page opens.
2. In the **Remove** column for each Content Pack component, click the  icon to uninstall the component. The Content Pack Components Removal Summary dialog box opens. This dialog box lists the selected component and all the dependent components that will be uninstalled.
3. Click **OK** to confirm the removal of the selected Content Pack component. An `Uninstallation Started` status appears in the **Status** column for each Content Pack. The Deployment Manager page automatically refreshes itself to display the updated status of the uninstallation. Once the uninstallation completes, an `Uninstallation Successful` or an `Uninstallation Successful with Warnings` status appears in the **Status** column. If the uninstallation fails, an `Uninstallation Failed` status appears.
4. Click the link in the **Status** column for more information about the uninstallation process. The Content Pack Component Status History window opens. It displays the details of the current and historical status of that Content Pack component's uninstallation.

**Note:** If the Status column displays either the `Uninstallation Successful with Warnings` or `Uninstallation Failed` status, you must uninstall the Content Pack component again for it to succeed.

## Configuring a Collector Installed on a Remote System

To configure a collector that is installed on a remote system (and not on the SHR system), do the following:

1. In the Administration Console, click **Administration >Configure Collectors**
2. Click **Create New, Configuration Parameters** section opens
3. In the **Name** field write the display name of the collector
4. In the **Host** field write the host name of the collector.
5. In the **Communication mode** field ,select the communication protocol between the collector andSHR
6. Click **Ok** and Click **Save** to complete the configuration.


## Disabling a Collector Installed on a Remote System

To disable a collector that is installed on a remote system (and not on the SHR system), do the following:

1. .Uncheck the **Enable** field in the Collector Configuration
2. Click **Save** in the Collector Summary section.

**Note** : If a source is assigned to the collector, you will not be able to uncheck the **Enable** field ; it is required to ensure that no data source is assigned to the collector.

## Administration Console Screens

This section lists the context-sensitive Help pages for the different Administration Console screens. These Help pages provide an overview of the screens that are present in the Administration Console. You can directly launch these Help pages for a particular screen by clicking the  icon on the top-right corner of the screen.

The Administration Console screens include:





- [Home](#)
- [Service Definition](#)
- [ManagementDB / ProfileDB](#)
- [HP Operations agent](#)
- [OMI](#)




- [Operations Manager](#)
- [Generic Database](#)
- [System Configuration](#)
- [Licensing](#)
- [Security](#)
- [Data Processing](#)
- [SAP BOBJ](#)
- [Aging](#)
- [Services](#)
- [Shift Management](#)
- [SH Reporter Content](#)
- [Data Processing](#)
- [Database Monitoring](#)
- [Platform](#)
- [About SHR](#)








## Home

The Home page is the main page of the Administration Console. This page gives you an overall view of the status of SHR, its associated services, the database, and the host platform. You can also view the status of the data collection, check the performance of the Content Packs, and view a list of ABC and database alerts generated by SHR.

The Home page includes:

Field	Description
Services Status	<p>This table displays the status of the SHR database and SAP BOBJ Enterprise services. You can drill down to the Services page by clicking either the <a href="#">SHR Status</a> or the <a href="#">SAP BOBJ Enterprise status</a> hyperlinks.</p> <p>Status of the service:</p> <ul style="list-style-type: none"><li>•  indicates that all the services are running successfully.</li><li>•  indicates that one or all of the services are not running.</li></ul> <p>The data displayed in this table is refreshed periodically. Click  to update the table with the latest data.</p>
HP SH Reporter System Status	<p>This table displays the status and details of the SHR host system.</p> <ul style="list-style-type: none"><li>• Source: Source of the data. The values displayed can be either HP Performance Agent or Sun JMX. If you have HP Performance Agents installed in your environment, the data displayed in this table is retrieved from the Agents. If HP Performance Agents are not installed, data is collected through the JMX interface from the operating system. You can validate the accuracy of the data displayed here by verifying it with the source.</li><li>• Host name: Name of the SHR host system.</li><li>• Operating System: Name of the operating system installed on the host system.</li><li>• OS Version/OS Release: Version of the operating system.</li><li>• Number of CPU: Number of processors installed on the host system.</li><li>• Physical Memory: Graphical representation of the usage trend of the system physical memory.</li><li>• CPU Usage: Graphical representation of the usage trend of the processor.</li></ul> <p>The data displayed in this table is refreshed periodically. Click  to update the table with the latest data.</p>

Field	Description
Database Status	<p>This table displays the status and details of the SHR database.</p> <ul style="list-style-type: none"> <li>• Status: The connection status of the SHR database:           <ul style="list-style-type: none"> <li>▪  indicates that the connection to the database has been successfully established. The database is up and running.</li> <li>▪  indicates that there is no connection to the database. The database is down.</li> </ul> </li> <li>• Database type: Type of the database used by SHR.</li> <li>• Host name: Name of the database server.</li> <li>• Server name: System Identifier (SID) of the Sybase database instance.  <b>Note:</b> For information about the database hostname, port number, and SID, contact your database administrator.</li> <li>• Port: Port number to query the database.</li> <li>• User name: Name of the Sybase IQ database user, which is created during the SHR post-installation stage. The user name is pmdb_admin.</li> <li>• Size: Current size of the database in megabytes (MB).</li> </ul> <p>For detailed information about the database, you can drill down to the Database Monitoring page by clicking the Server name hyperlink.</p> <p>The data displayed in this table is refreshed periodically. Click  to update the table with the latest data from the database.</p>
HP SH Reporter ETL Status Summary	<p>This table displays details of the Content Pack streams such as the total number of streams and the number of streams with errors. The total number of streams value indicates the number of streams that are currently running, or the number of streams that are loaded for execution, or the number of streams that completed in the last run.</p> <p>For additional information, you can drill down to the Data Processing page by clicking either the Content Pack component name or the stream number hyperlinks.</p>

Field	Description
Collection Status	<p>This table displays the number of data sources that are configured for each data collector. For more information, you can drill down to the Collection Configuration page by clicking the collector hyperlink. For example, clicking the PA hyperlink opens the HP Operations agent Data Source page.</p> <ul style="list-style-type: none"> <li>• Total: The total number of configured hosts.</li> <li>•  indicates that the collector failed to collect data.</li> <li>•  indicates that the collector never started.</li> </ul> <p><b>Note:</b> For HP Performance Agents, the numerical values listed under each indicator denotes the number of HP Performance Agent collectors.</p> <p>The data displayed in this table is refreshed periodically. Click  to retrieve the data from the memory to the database. Click  to update the table with the latest data.</p>
ABC Alerts	<p>This table list of all data processing job streams that have failed to complete along with their stream names, steps where the error occurred, messages, and dates. For more information, see <a href="#">View details of the ABC alerts</a>.</p>
Database Alerts	<p>This table displays the severity, message, and date of the all error, warning, and information alerts generated by SHR. The following icons are used to identify the types of alerts:</p> <ul style="list-style-type: none"> <li>•  indicates an information alert. No action is required for this type of alert.</li> <li>•  indicates a warning alert. You might need to resolve these types of alerts to ensure SHR functions properly. However, immediate action might not be required.</li> <li>•  indicates an error alert. These are critical alerts and immediate action is required to resolve these issues.</li> </ul>

Use the Home page to:



- [View the SHR status](#)
- [View details of the ABC alerts](#)





## Service Definition

You can use the Service Definition page to create and configure RTSM and HPOM data source connections to provide topology-related data of your enterprise. On this page, you can schedule SHR to collect data from the data repositories at specific intervals. In addition, you can view the status of the connection and data collection.

The Service Definition page includes:

### ***Service Definition Source***

Field	Description
RTSM	Option to select RTSM as the source of the service definition data.
HP OM	Option to select HPOM database as the source of the service definition data.
VMware vCenter	Option to select VMware vCenter as the source of service definition data.
Host name	IP address or fully-qualified name (FQDN) of the service definition host system.
Enable Collection	Enable or disable the service definition data collection.
Schedule Frequency	Time (in hours) to synchronize the SHR database with the RTSM database.
Schedule HP OM Synchronization	Time (in hours) to synchronize the SHR database with the HPOM database.
Status	Status of the service definition source connection and data collection.
<ul style="list-style-type: none"><li>• Connection</li></ul>	Status of the service definition source connection. <ul style="list-style-type: none"><li>•  Indicates that the SHR host system is connected to the data source.</li><li>•  Indicates that the SHR host system is not connected to the data source.</li></ul>

Field	Description
<ul style="list-style-type: none"> <li>Collection</li> </ul>	<p>Status of the collection showing the date and time of the latest collection attempt and the current status:</p> <ul style="list-style-type: none"> <li> indicates that the data collection is in progress.</li> <li> indicates that the data collection completed successfully in the previous attempt.</li> <li> indicates that the data collection failed in the previous attempt.</li> <li> indicates that the data collection was never started.</li> </ul>
Configuration	Modify an existing service definition source connection.
Test Connection	Test a service definition source connection.
Create New	Create a new service definition source connection.
Save	Save a specific service definition source configuration attribute.

## **Connection Parameters: RTSM**

Field	Description
Host name	IP address or FQDN of the Business Service Management server. If your HP Business Service Management deployment is distributed, type the name of the data processing server (DPS) in the Host name field.
Port	Port number to query the RTSM web service. The default port number is 21212.
User name	Name of the RTSM web service user. The default user name is admin.
Password	Password of the RTSM web service user. The default password is admin.

## Connection Parameters: HP OM

Field	Description
Datasource Type	Select the type of HPOM that is configured in your environment. The options include: <ul style="list-style-type: none"> <li>• HPOM for Windows</li> <li>• HPOM for Unix</li> <li>• HPOM for Linux</li> <li>• HPOM for Solaris</li> </ul>
OM on Oracle RAC	Option to enable HPOM database on Oracle RAC. This option is not displayed when HPOM for Windows is selected.
Service Name	Specify the name by which SHR connects to the Oracle instance. This option appears only if OM on Oracle RAC is selected.
File Name	The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OM on Oracle RAC is selected.
Database Type	Depending on the data source type that you select, the database type is automatically selected for you. For the HPOM for Windows data source type, the database type is MSSQL. For the HPOM for Unix, HPOM for Linux, or HPOM for Solaris, the database type is Oracle.
Host name	IP address or fully-qualified domain name (FQDN) of the HPOM database server. This field is not displayed when OM on Oracle RAC is selected.
Database instance	System identifier (SID) of the database instance. The default database instance is OVOPS. This field is not displayed when OM on Oracle RAC is selected.
Database name	Name of the HPOM database. This field only appears if HPOM for Windows is selected as the data source type. The name of the database is openview.
Port	Port number to query the HPOM database server.  To find the port number, see the <i>Installation and Configuration Guide</i> chapter "Configuring SHR."

Field	Description
Windows Authentication	<p>Option to enable Windows authentication for accessing the HPOM database. The user can use the same credentials to access HPOM as that of the Windows system hosting the database.</p> <p><b>Note:</b> If you are using the database method of authentication to connect to the HPOM database server, you must provide the user details that have the select and connect permissions for the “openview” database here.</p> <p>This option only appears if HPOM for Windows is selected as the data source type.</p>
User name	<p>Name of the HPOM database user.</p> <p><b>Note:</b> For the HPOM for Windows data source type, if the Windows Authentication option is selected, this field is disabled.</p>
Password	<p>Password of the HPOM database user.</p> <p><b>Note:</b> For the HPOM for Windows data source type, if the Windows Authentication option is selected, this field is disabled.</p>

## Connection Parameters: VMware vCenter

Field	Description
Host name	IP address or FQDN of the VMware vCenter server. If your VMware vCenter deployment is distributed, type the name of the data processing server (DPS) in the Host name field.
User name	Name of the VMware vCenter user.
Password	Password of the VMware vCenter user.

Use the Service Definition page to:

- [Select a service definition source](#)
- [Create a service definition source connection](#)
- [Modify a service definition source connection](#)
- [Enable or disable a service definition data collection](#)
- [Schedule a service definition synchronization](#)
- [Test the service definition source connection](#)



- [View a service definition source connection status](#)
- [View a service definition data collection status](#)





## ManagementDB / ProfileDB

You can use the ManagementDB / ProfileDB page to create and configure a Management database source connection and multiple Profile database connections to collect performance-related data of your enterprise for various HP BSM applications such as Business Process Monitor (BPM), Real User Monitor (RUM), and HP SiteScope. You can schedule SHR to collect data from the data repositories at specific intervals. In addition, you can view the status of the connection and data collection.



The ManagementDB / ProfileDB page includes:





### *Management Database*

Field	Description
Host name	IP address or FQDN of the Management database host system. Host name is not displayed when Management DB on Oracle RAC is selected or when both Management DB on Oracle RAC and Profile DB on Oracle RAC are selected.
Database name	Name of the database. This column appears only if MSSQL is selected as the database type when configuring Management database connection. It does not appear if Oracle is the database type.
Status	Status of the Management database connection and data collection.
Connection	Status of the Management database connection. <ul style="list-style-type: none"><li>•  Indicates that the SHR host system is connected to the data source.</li><li>•  Indicates that the SHR host system is not connected to the data source.</li></ul>

Field	Description
Collection	<p>Status of the collection showing the date and time of the latest collection attempt and the current status:</p> <ul style="list-style-type: none"> <li>•  indicates that the data collection is in progress.</li> <li>•  indicates that the data collection completed successfully in the previous attempt.</li> <li>•  indicates that the data collection failed in the previous attempt.</li> <li>•  indicates that the data collection was never started.</li> </ul>
Configuration	Modify the existing Management database connection.
Test Connection	Test the Management database connection.
Delete	Delete the Management database connection.
Create New	Create a new Management database connection.
Save	Save the changes made to the Management database connection parameters.

## ***Profile Database***

Field	Description
Host name	IP address or FQDN of the Profile database host system.
Enable Collection	Option to enable or disable data collection.
Database name	Name of the Profile database instance.
Status	Status of the Profile DB connection and data collection.
Connection	<p>Status of the Profile DB connection.</p> <ul style="list-style-type: none"> <li>•  Indicates that the SHR host system is connected to the data source.</li> <li>•  Indicates that the SHR host system is not connected to the data source.</li> </ul>

Field	Description
Collection	<p>Status of the collection showing the date and time of the latest collection attempt and the current status:</p> <ul style="list-style-type: none"> <li>•  indicates that the data collection is in progress.</li> <li>•  indicates that the data collection completed successfully in the previous attempt.</li> <li>•  indicates that the data collection failed in the previous attempt.</li> <li>•  indicates that the data collection was never started.</li> </ul>
Test Connection	Test the Profile database source connection.
Select Schedule	Time to synchronize the SHR database with the Profile database source connection.
Refresh	Update the list of Profile database source connections.
Save	<p>Save the changes made to the Profile DB connection.</p> <p><b>Note:</b> Set up parameters for the profile management database, only if Profile DB on Oracle RAC is selected, or when both Management DB on Oracle RAC and Profile DB on Oracle RAC are selected. In such an instance, the Create New option under Profile Database is displayed.</p>

## Create New: Connection Parameters

Field	Description
Host name	IP address or FQDN of the Management database server. Host name is not displayed when Management DB on Oracle RAC is selected or when both Management DB on Oracle RAC and Profile DB on Oracle RAC are selected.
Port	Port number to query the Management database server. Port number is not displayed when Management DB on Oracle RAC is selected.
Database instance	<p>System Identifier (SID) of the Management database instance. Database instance is not displayed when Management DB on Oracle RAC is selected.</p> <p><b>Note:</b> For information about the database host name, port number, and SID, contact your HP Business Service Management administrator.</p>
Database type	The type of database engine that is used to create the Management database. It can either be Oracle or MSSQL.

Field	Description
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
ManagementDB on Oracle RAC	This option appears only if you have selected Oracle as the database type. If only ManagementDB on Oracle RAC is selected and Profile DB on Oracle RAC is not selected, the profile database details are configured automatically.
ProfileDB on Oracle RAC	This option appears only if you have selected Oracle as the database type. Configure the profile database parameters only when this option is selected.
Database name	Name of the database. This field appears only if MSSQL is selected as the database type.
Service name	This option appears only if Management DB on Oracle RAC is selected.  <b>Note:</b> Service name is displayed instead of the Host name when users select only Management DB on Oracle RAC or both Management DB on Oracle RAC and Profile DB on Oracle RAC
User name	Name of the Management database user, which was specified in the BSM Configuration Wizard when setting up the Management database.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Password	Password of the Management database user, which was specified in the BSM Configuration Wizard when setting up the Management database.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Collection Station	This option is used for a collector installed on a remote system.

## **Configure: Connection Parameters**

Field	Description
Host name	IP address or FQDN of the Management database server. Host name is not displayed when Management DB on Oracle RAC is selected or when both Management DB on Oracle RAC and Profile DB on Oracle RAC are selected.

Field	Description
Port	Port number to query the Management database server. Port number is not displayed when Management DB on Oracle RAC is selected.
Database instance	System Identifier (SID) of the Management database instance. Database instance is not displayed when Management DB on Oracle RAC is selected.  <b>Note:</b> For information about the database host name, port number, and SID, contact your HP Business Service Management administrator.
Database type	The type of database engine that is used to create the Management database. It can either be Oracle or MSSQL.
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
ManagementDB on Oracle RAC	This option appears only if you have selected Oracle as the database type. If only ManagementDB on Oracle RAC is selected and Profile DB on Oracle RAC is not selected, the profile database details are configured automatically.
ProfileDB on Oracle RAC	This option appears only if you have selected Oracle as the database type. Configure the profile database parameters only when this option is selected.
Application	HP Business Service Management application type. This field is disabled by default.
Database name	Name of the Management database. This field appears only if MSSQL is selected as the database type.
Service name	This option appears only if Management DB on Oracle RAC is selected.  <b>Note:</b> Service name is displayed instead of the Host name when users select only Management DB on Oracle RAC or both Management DB on Oracle RAC and Profile DB on Oracle RAC
User name	Name of the Management database user, which was specified in the BSM Configuration Wizard when setting up the Management database.  <b>Note :</b> If the Windows Authentication option is selected, this field is disabled.
Password	Password of the Management database user, which was specified in the BSM Configuration Wizard when setting up the Management database.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Collection Station	This option is used to configure a remote collector.

Use the ManagementDB / ProfileDB page to:

- [Create a new ManagementDB / ProfileDB connection](#)
- [Modify a ManagementDB / ProfileDB connection](#)
- [Enable or disable a ManagementDB / ProfileDB data collection](#)
- [Schedule a ManagementDB / ProfileDB synchronization](#)
- [Test the ManagementDB / ProfileDB connection](#)
- [View the ManagementDB / ProfileDB connection status](#)
- [View the ManagementDB / ProfileDB collection status](#)
- [Delete a ManagementDB / ProfileDB connection](#)

## HP Operations Agent

You can use the HP Operations agent page to manage the HP Operations agent data collection. You do not need to create new HP Operations agent data source connections because, by default, all the nodes on which the HP Operations agent is installed are automatically discovered when the topology data is collected. These data sources or nodes are listed on the HP Operations agent page. Using this page, you can schedule the HP Operations agent data collection, enable or disable the data collection, and delete HP Operations agent connections.



The HP Operations agent Data Source page includes:

### ***View tab: HP Operations Agent Data Source Summary***

Field	Description
Domain name (Content Pack Component Name)	A list of topology views for the installed Content Packs. These topology views contain the specific CI attributes that the HP Performance Agent collector uses to collect the relevant data.  <i>All</i> indicates all the views. <i>Unassigned</i> indicates the HP Performance Agent data sources that do not have any topology views assigned to it.
Hosts	The number of HP Performance Agent data sources for that particular view.
Collection: Passed	The number of distinct HP Performance Agent data sources from where the raw data was successfully collected.
Collection: Failed	The number of distinct HP Performance Agent data sources from where data collection failed.

Field	Description
Collection: Never Collected	The number of distinct HP Performance Agent data sources from where data was never collected.
Enabled/Disabled	The number of distinct HP Performance Agent data sources that are enabled or disabled for data collection.

### ***View tab: HP Operations Agent Data Source Application Details***

Field	Description
Search: Host name	Search option that support pattern matching search. You can use this feature to search for a particular HP Performance Agent data source node or filter this displayed list of nodes.
Host name	Name of the HP Operations agent data source.
Enable Collection	<p>Enable or disable data collection from the HP Operations agent data source.</p> <p><b>Note:</b> Use the enable or disable option in the header to enable or disable data collection from all the HP Operations agent Data Sources in the list.</p>
Schedule Polling Frequency	Time (in hours) to synchronize the SHR database with the HP Performance Agent data source.
Remote Collector	List of remote collectors enabled for data collection configured in SHR.
Rule Type	<p>List of rules you can apply on the remote collector.</p> <p>User: Select it when you want to overwrite any pre-assigned rule or when you want to manually assign a remote collector to a host.</p> <p>System: If the remote collector assignment is based on the rules mentioned by the user from the Assignment tab.</p> <p>Unassigned: Indicates that no rules are defined for the host. You must manually assign a remote collector to the host using the rule type "User" or add/modify the rule from the Assignment tab to assign a remote collector to the host .</p>
Connection Status	<p>Status of the HP Operations agent data source connection.</p> <ul style="list-style-type: none"> <li>•  Indicates that the host system is connected to the data source.</li> <li>•  Indicates that the host system is not connected to the data source.</li> </ul>

Field	Description
Collection Status	<p>Status of the data collection showing the date and local time of the latest collection attempt and the current status.</p> <ul style="list-style-type: none"> <li>✔ indicates that the data collection completed successfully.</li> <li>✘ indicates that the data collection failed.</li> <li>⏸ indicates that the data collection was never started.</li> </ul>
Test Connection	Test an HP Operations agent data source connection.
Save	Save the changes made to an HP Operations agent data source connection.
Update All	Opens the Apply schedule to group section where you can apply the collection schedule for all the listed hosts. This option does not appear for the <b>All</b> or <b>Unassigned</b> options in the View name column.

### ***Assignment tab: Rule Assignment***

Field	Description
Collection Station	List of remote collectors configured in the SHR system.
Rule Type: Pattern Based	Select it for writing a regular expression to assign a remote collector to HP Operations agents.
Rule Type: View/Node Group Based	Select it to assign a remote collector to a view or node group of the installed content packs.
Rule	<p>If the Rule Type is "Pattern Based", it lists rules defined by the user.</p> <p>If the Rule Type is "View/Node Group Based", it lists view or node groups of the installed content packs.</p>

Use the HP Operations agent page to:

- [View the HP Operations agent data source details](#)
- [Enable an HP Operations agent data source data collection](#)
- [Schedule an HP Operations agent data source synchronization](#)
- [Test the HP Operations agent data source connection](#)
- [Assign View/Node Group based Rules for Data Collection](#)
- [Assign Pattern based Rules for Data Collection](#)







## OMI

You can use the OMI page to view an HP OMi data source, which collect events and health indicators from managed entities in your environment. Using this page, you can schedule the HP OMi data collection times, enable or disable data collection, and delete the data collection connection according to your requirements.

Before you create a new HP OMi data source connection, make sure that a data source connection for the HP BSM Management database exists on the ManagementDB \ ProfileDB page. This data connection is a prerequisite for the HP OMi connection because SHR collects the KPI metadata for HP OMi from the Management database.

If you have one or more OMi setups in your environment, you must configure the OMi data source that belongs to the HP BSM RTSM that was configured as the topology source.

The OMI page includes:

Field	Description
Host name	IP address or FQDN of the HP OMi database server.
Enable Collection	Enable or disable a data collection.
Schedule Frequency	Time (in hours) to synchronize the SHR database with the HP OMi data source.
Status	Status of HP OMi connection and data collection.
Connection	Status of HP OMi connection. <ul style="list-style-type: none"> <li> Indicates that the host system is connected to the data source.</li> <li> Indicates that the host system is not connected to the data source.</li> </ul>
Collection	Status of the collection showing the date and time of the latest collection attempt and the current status: <ul style="list-style-type: none"> <li> indicates that the data collection is in progress.</li> <li> indicates that the data collection completed successfully in the previous attempt.</li> <li> indicates that the data collection failed in the previous attempt.</li> <li> indicates that the data collection was never started.</li> </ul>
Configuration	Modify an existing HP OMi data source connection.
Test Connection	Test an HP OMi data source connection.

Field	Description
Delete	Delete an HP OMi data source connection.
Create New	Create a new HP OMi data source connection.  <b>Note:</b> The Create New option is disabled after you create a new connection or if an HP OMi connection already exists.
Save	Save the changes made on this page.

## Connection Parameters

Field	Description
OMi on Oracle RAC	Option to enable OMi database on Oracle RAC.
Service Name	Specify the name by which SHR connects to the Oracle instance. This option appears only if OMi on Oracle RAC is selected.
File Name	The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OMi on Oracle RAC is selected.
Host name	IP address or FQDN of the HP OMi database server.
Port	Port number to query the HP OMi database server.
Database Instance	System Identifier (SID) of the HP OMi database instance.  <b>Note:</b> For information about the database hostname, port number, and SID, contact your HP OMi database administrator.
Database type	The type of database engine that is used to create the HP OMi database. It can either be Oracle or MSSQL.
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.
Database name	Name of the database. This field appears only if MSSQL is selected as the database type.
User name	Name of the HP OMi database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.

Field	Description
Password	Password of the HP OMi database user. <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Collection Station	This option is used for a collector installed on a remote system.

Use the OMI page to:







- [Create an HP OMi data source connection](#)
- [Modify an HP OMi data source connection](#)
- [Enable or disable an HP OMi data collection](#)
- [Schedule an HP OMi data collection](#)
- [Test the HP OMi data source connection](#)
- [View the HP OMi data source connection status](#)
- [View the HP OMi data collection status](#)
- [Delete an HP OMi data source connection](#)

## Operations Manager

You can use the Operations Manager page to view a list of HPOM data sources, which collect performance and event-related data of business-critical enterprise systems, applications, and services. Using this page, you can schedule the data collection frequency, enable, or disable data collection, and also add or delete data collection connections based on your requirements.

The Operations Manager page includes:

Field	Description
Host name	IP address or FQDN of the HPOM database server.
Enable Collection	Enable or disable a HPOM data collection.
Schedule Frequency	Time (in hours) to synchronize the SHR database with the HPOM data source.
Status	Status of an HPOM connection and data collection.

Field	Description
Connection	<p>Status of the HPOM connection.</p> <ul style="list-style-type: none"> <li>•  Indicates that the SHR host system is connected to the data source.</li> <li>•  Indicates that the SHR host system is not connected to the data source.</li> </ul>
Collection	<p>Status of the collection showing the date and time of the latest collection attempt and the current status:</p> <ul style="list-style-type: none"> <li>•  indicates that the data collection is in progress.</li> <li>•  indicates that the data collection completed successfully in the previous attempt.</li> <li>•  indicates that the data collection failed in the previous attempt.</li> <li>•  indicates that the data collection was never started.</li> </ul>
Configuration	Modify an existing HPOM data source connection.
Test Connection	Test an HPOM data source connection.
Delete	Delete an HPOM data source connection.
Create New	Create a new HPOM data source connection.
Save	Save a specific HPOM configuration attributes.

## Connection Parameters

Field	Description
OM on Oracle RAC	Option to enable HPOM database on Oracle RAC.
Service Name	Specify the name by which SHR connects to the Oracle instance. This option appears only if OM on Oracle RAC is selected.
File Name	The *.ora configuration file that defines database addresses for establishing connections. Manually copy this file from the data source system to the SHR system. This option appears only if OM on Oracle RAC is selected.
Host name	IP address or FQDN of the HPOM database server. If the HPOM database is configured on a remote system, the machine name of the remote system must be typed here.

Field	Description
Port	Port number to query the HPOM database server. The default port is 1433 if SQL Server is the database type and 1521 if Oracle is the database type.
Database Instance	System Identifier (SID) of the database instance. The default database instance is OVOPS.  <b>Note:</b> For information about the database host name, port number, and SID, contact your HPOM database administrator.
Database type	The type of database engine that is used to create the HPOM database. It can either be Oracle or MSSQL.
Windows Authentication	If you have selected MSSQL as the database type, you have the option to enable Windows authentication for MSSQL, that is, the user can use the same credentials to access SQL Server as that of the Windows system hosting the database.  <b>Note:</b> If you are using the database method of authentication to connect to the HPOM database server, you must provide the user details that have the select and connect permissions for the “openview” database here.
Database name	Name of the database. This field appears only if MSSQL is selected as the database type. The name is openview.
User name	Name of the HPOM database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Password	Password of the HPOM database user.  <b>Note:</b> If the Windows Authentication option is selected, this field is disabled.
Collection Station	This option is used for a collector installed on a remote system.

Use the HPOM page to:

- [Create an HPOM data source connection](#)
- [Modify an HPOM data source connection](#)
- [Enable an HPOM data collection](#)
- [Schedule an HPOM data collection](#)
- [Test the HPOM data source connection](#)
- [View the HPOM data source connection status](#)



- [View the HPOM data collection status](#)
- [Delete an HPOM data source connection](#)





## Generic Database

You can use the Generic Database page to configure generic databases from where you want to collect any type of data. This page is typically used to configure the Network Performance Server (NPS) to collect performance data from Network Node Manager i (NNMi). Using this page, you can schedule the data collection frequency, enable, or disable data collection, and also add or delete data collection connections based on your requirements.

Out-of-the-box, SHR supports configuration to generic data sources that use Oracle, Sybase, or Microsoft SQL Server database types. However, using this page, you can also configure SHR to connect to and collect data from other generic database types as well, such as MySQL, PostgreSQL, and so on. For a particular database type, you can specify the domain for which you want SHR to collect data such as system data, network data, and so on. For more information on how to configure such data sources, contact HP Support.

The Generic Database page includes:

Field	Description
Host name	IP address or FQDN of the generic database server.
Enable Collection	Enable or disable data collection from a generic database.
Schedule Frequency	Time (in hours) to synchronize the SHR database with the generic database.
Status	Status of an generic database connection and data collection.
Connection	Status of the generic database connection. <ul style="list-style-type: none"><li>•  Indicates that the SHR host system is connected to the data source.</li><li>•  Indicates that the SHR host system is not connected to the data source.</li></ul>

Field	Description
Collection	<p>Status of the collection showing the date and time of the latest collection attempt and the current status:</p> <ul style="list-style-type: none"> <li>•  indicates that the data collection is in progress.</li> <li>•  indicates that the data collection completed successfully in the previous attempt.</li> <li>•  indicates that the data collection failed in the previous attempt.</li> <li>•  indicates that the data collection was never started.</li> </ul>
Configuration	Modify an existing generic database connection.
Test Connection	Test a generic database connection.
Delete	Delete a generic database connection.
Create New	Create a new generic database connection.
Save	Save specific generic database attributes.

## Connection Parameters

Field	Description
Host name	IP address or FQDN of the generic database server.
Port	Port number to query the database server.
TimeZone	The time zone under which the database instance is configured.
Database type	The type of database engine that is used to create the database. It can be Sybase IQ, Sybase ASE, Oracle, or MSSQL.
Domain	Select the domain(s) for which you want SHR to collect data from the selected database type.

Field	Description
URL	<p>The URL of the database instance. The syntax for the URL for each of the database types is:</p> <ul style="list-style-type: none"> <li>• <b>Oracle:</b>  <code>jdbc:bto:oracle://&lt;server&gt;:&lt;port&gt;;SID=&lt;sid&gt;</code></li> </ul> <p>In an Oracle Real Application Cluster (RAC), copy the TNS ORA file to the SHR system and provide the absolute path in the following URL syntax:</p> <pre>jdbc:bto:oracle:TNSNamesFile=&lt;absolute path of TNS ORA file&gt;;TNSServerName=&lt;Service name&gt;</pre> <ul style="list-style-type: none"> <li>• <b>MSSQL:</b> <code>jdbc:jtds:sqlserver://&lt;server&gt;&lt;port&gt;/&lt;database&gt;;instance=&lt;dbInstance&gt;</code></li> <li>• <b>Sybase IQ:</b>  <code>jdbc:sybase:Tds:&lt;server&gt;:&lt;port&gt;/&lt;database&gt;</code></li> <li>• <b>Sybase ASE:</b>  <code>jdbc:sybase:Tds:&lt;server&gt;:&lt;port&gt;?ServiceName=&lt;dbInstance&gt;</code></li> <li>• <b>PostgreSQL:</b>  <code>jdbc:postgresql://&lt;server&gt;:&lt;port&gt;/&lt;database&gt;</code></li> </ul> <p>where <i>&lt;server&gt;</i>, <i>&lt;port&gt;</i>, <i>&lt;sid&gt;</i>, <i>&lt;database&gt;</i>, and <i>&lt;dbInstance&gt;</i> are replaceable variables that you must enter.</p>
User name	Name of the generic database user.
Password	Password of the generic database user.
Collection Station	This option is used for a collector installed on a remote system.

Use the Operations Manager page to:



- [Create a generic database connection](#)
- [Modify a generic database connection](#)
- [Enable or disable a generic database data collection](#)
- [Schedule a generic database data collection](#)
- [Test the generic database connection](#)
- [View the generic database connection status](#)

- [View the generic database collection status](#)
- [Delete a generic database connection](#)

## VMware vCenter Data Source

You can use the VMware vCenter Data Source page to view a list of VMware vCenter data sources, which collect performance and event-related data of business-critical VMware installed in your environment. Using this page, you can schedule the data collection frequency, enable, or disable data collection, and also add or delete data collection connections based on your requirements.

The VMware vCenter Data Source page includes:

Field	Description
Host name	IP address or FQDN of the VMware vCenter database server.
Enable Collection	Enable or disable a VMware vCenter data source data collection.
Schedule Frequency	Time (in minutes) to synchronize the SHR database with the VMware vCenter data source.
Connection	Status of the VMware vCenter connection. <ul style="list-style-type: none"> <li>•  Indicates that the SHR host system is connected to the data source.</li> <li>•  Indicates that the SHR host system is not connected to the data source.</li> </ul>
Configuration	Modify an existing VMware vCenter data source connection.
Test Connection	Test a VMware vCenter data source connection.
Delete	Delete a VMware vCenter data source connection.
Create New	Create a new VMware vCenter data source connection.
Save	Save a specific VMware vCenter configuration attributes.

## Connection Parameters

Field	Description
Host name	IP address or FQDN of the VMware vCenter database server. If the VMware vCenter database is configured on a remote system, the machine name of the remote system must be typed here.

Field	Description
User name	Name of the VMware vCenter database user.
Password	Password of the VMware vCenter database user.
Collection Station	This option is used for a collector installed on a remote system.

**Note:** If you have configured VMware vCenter as the topology source, data collection parameters are automatically configured.

Use the VMware vCenter page to:

- ["Create VMware vCenter data source connection" on page 73](#)
- ["Modify a VMware vCenter data source connection" on page 73](#)
- ["Enable or disable a VMware vCenter data collection" on page 74](#)
- ["Schedule a VMware vCenter data collection" on page 74](#)
- ["Test the VMware vCenter data source connection" on page 74](#)
- ["View the VMware vCenter data source connection status" on page 75](#)

## System Configuration

You can use the System Configuration page to manage the centralized SHR database and the SHR management database. You can view the details of the SHR database and change the database administrator password on this page.

The System Configuration page includes:

### ***HP SH Reporter Database Parameters***

Field	Description
Database Type	Type of the database engine that is used for the SHR database.
Host name	FQDN or IP address of the host system on which the SHR database is running.
Server name	Name of the SHR database server.
Port	Port number to query the database. The default port is 21424.
User name	Name of the SHR database user account. This account is created during the post-installation stage.
Reset Password	Change the database password. Opens the Reset Password dialog box.

## ***HP SH Reporter Management Database Parameters***

<b>Field</b>	<b>Description</b>
Database Type	Type of the database engine that is used for the SHR management database.
Host name	Name or IP address of the host system on which the SHR management database is running.
Database name	Name of the SHR management database instance.
Port	Port number to query the management database. The default port is 21425.
User name	Name of the SHR management database user account. This account is created during the post-installation stage.
Reset Password	Change the database password. Opens the Reset Password dialog box.

### ***Reset Password***

<b>Field</b>	<b>Description</b>
Old Password	Enter the existing database administrator password.
New Password	Enter a new password. The password should be an alphanumeric value and less than 25 characters in length.
Confirm New Password	Retype the new password for confirmation purposes.

Use the System Configuration page to:

- [View database configuration details](#)
- [Change the SHR database password](#)
- [Change the SHR management database password](#)

## **Licensing**

The Licensing page displays the SHR license details. You can change the license type by accessing the HP Password Center through the hyperlink provided on the page.

The Licensing page includes:

Filed	Description
Active License Type	Type of existing license; license types include: <ul style="list-style-type: none"> <li>• Instant On (IO): 60-day evaluation license (default)</li> <li>• Permanent (PERM): Permanent license</li> </ul>
License Expiry Date	Date and time of expiry of the existing license in local time.
Days to License Expiry	Number of days remaining for the license to expire.
License Entitlement	The maximum number of nodes that are supported under the current license.
License Usage	The number of nodes being used under the current license.
Nodes Remaining/Nodes Exceeded	The remaining number of nodes that can be added under the current license or the number of nodes that exceed the current license usage.
Launch HP Password Center	Link to access the HP Password Center web site to obtain a permanent license key.

Use the Licensing page to:

- [View license information](#)
- [Obtain a Permanent license key](#)

## Security

You can use the Security page to configure the security authentication protocols that are used by SHR—Lightweight Single Sign-On (LW-SSO) and SAP BusinessObjects Trusted Authentication.

The Security page includes:

### ***LW-SSO tab***

Field	Description
Enabled	Enable or disable LW-SSO.
Domain	Domain for which LW-SSO is valid; by default, the SHR host system's domain is enabled

Field	Description
Expiration Period	<p>Period for which the LW-SSO session is valid; The default value is 60 minutes</p> <p><b>Note:</b> The LW-SSO expiration period should be at least the same value as that of the application session expiration value. The recommended value is 60 minutes. For applications that do not require high levels of security, you can configure higher values, such as 300 minutes.</p> <p><b>Note:</b> All applications participating in an LW-SSO integration must use the same GMT time.</p>
Init String	<p>Shared key used for encryption and decryption of a LW-SSO session token</p> <p><b>Note:</b> For LW-SSO, ensure that the other applications in the Single Sign-On environment have LW-SSO enabled and are working with the same Init String.</p>
Protected Domains	<p>Domains for which LW-SSO is protected; by default, the SHR host system's domain is protected</p>

## ***BO Trusted Authentication tab***

Field	Description
Enabled	Enable or disable SAP BusinessObjects Trusted Authentication
Shared Secret	Shared key used for encryption and decryption of a Trusted Authentication session token

Use the Security page to:

- [Configure LW-SSO authentication](#)
- [Configure SAP BusinessObjects Trusted Authentication](#)

**Note:** This page is only visible if SHR is installed on the system.

## **Data Processing**

The Data Processing page enables you to control the workflow job stream. Information on this page is divided between the following two tabs:

### ***Active Stream Details tab***

This tab allows you to configure the job streams and specify a maximum number of retries for the streams as well as a maximum execution time per step. You can specify the number of retries and

the execution time across all Content Packs, for a particular Content Pack component, for a job stream, or for a particular job step in a stream.

The Active Stream Details tab includes:

Field	Description
Level	Select the level at which you want to configure the maximum number of retries and the maximum execution time. The options include: <ul style="list-style-type: none"> <li>• All content packs</li> <li>• Content pack</li> <li>• Stream</li> <li>• Step</li> </ul>
Content Pack name	Name of the Content Pack. This drop-down list appears only when you select <b>Content pack</b> , <b>Stream</b> , or <b>Step</b> in the <b>Level</b> list.
Stream Name	Name of the job stream present in the selected Content Pack. This drop-down list appears only when you select <b>Stream</b> or <b>Step</b> in the <b>Level</b> list.
Step ID	Unique identifier for the job step. This column appears only when you select <b>Step</b> in the <b>Level</b> list.
Business Name	An alias name for the stream. This column appears only when you select <b>Step</b> in the <b>Level</b> list.
Maximum Number of Retries	Maximum number of retries for the job step in the event of its failure. The maximum value that you can set for this field is 8640.
Maximum Execution Time (Mins)	Maximum amount of time, in minutes, for a job step to complete running. The maximum value that you can set for this field is 180 minutes.
Save	Save the changes made.

## ***Stream Resource Control tab***

This tab displays the job stream resource details and helps you to manage the resources attached to a particular step in a job stream and set limits for the number of jobs that can access the resource types.

The Stream Resource Control tab includes:

Field	Description
Resource Type	Type of resource that is used for data processes.

Field	Description
Unlimited Resources	Option to provide access to unlimited resources. Selecting this option disables the Resource Count field.
Resource Count	Maximum number of streams that can access the resource concurrently. The maximum value that you can set for this field is 20,000.
Save	Save the changes made.

Use the Data Processing page to:

- [Configure the maximum number of retries and the maximum execution time](#)
- [Configure the stream resource details](#)

## SAP BOBJ

You can use the SAP BOBJ page to create and manage user accounts by using the SAP BusinessObjects CMC, which is integrated with SHR. SAP BusinessObjects InfoView allows you to personalize user experience when viewing the SHR reports by providing interactivity and customization options.

The SAP BOBJ page includes:

Field	Description
Launch CMC	Launch the SAP BusinessObjects CMC.
Launch InfoView	Launch the SAP BusinessObjects InfoView.

Use the SAP BOBJ page to:

- [Access SAP BusinessObjects Central Management Console](#)
- [Access SAP BusinessObjects InfoView](#)
- [Create a password for the Administrator account](#)

**Note:** This page is only visible if SHR is installed on the system.

## Aging

You can use the Aging page to manage the retention time of the data stored in the SHR database tables. You can specify the period for which SHR retains the data in the tables, after which it is purged.

The Aging page includes:

## Aging

Field	Description
Content Pack Component Name	Name of the Content Pack component for which to view aging and archiving details.
Installed Date	Date and time of the Content Pack component installation.
Version	Version number of the Content Pack component.
Status	Status of the Content Pack component installation; the status include: <ul style="list-style-type: none"> <li>• Installed—Indicates that the Content Pack component is installed.</li> <li>• Install failed—Indicated that the Content Pack component installation attempt failed.</li> </ul>
Configure Retention	Options to configure retention policies.

## Configure Retention

Field	Description
Time Type	<p>The type of data table used for storing the collected or summarized data. The types are:</p> <ul style="list-style-type: none"> <li>• As-polled—This table contains the as polled or raw data.</li> <li>• 5-minute—This table contains the summary data collected every five minutes.</li> <li>• Hourly—This table contains the raw or rate data that is aggregated at an hourly level.</li> <li>• Daily—This table contains the hourly data that is aggregated at the daily level.</li> <li>• Monthly—This table contains the daily data that is aggregated at the monthly level.</li> <li>• Yearly—This table contains the monthly data that is aggregated at the yearly level.</li> </ul> <p><b>Note:</b> Monthly table and yearly table are not physical tables in the database for any out-of-the-box (OOTB) content packs.</p>





Field	Description
Active Retention	Period for which SHR retains data. The default values are: <ul style="list-style-type: none"> <li>• Raw or as polled data: 90 days.</li> <li>• Rate or 5-minute data: 90 days</li> <li>• Hourly data: 365 days</li> <li>• Daily data: 1825 days</li> <li>• Monthly data: 1825 days</li> <li>• Yearly data: 1825 days</li> </ul>

Use the Aging page to [configure active retention period](#).

## Services





The Services page displays a list of SHR database and SAP BOBJ Enterprise services.

The Services page includes:

Field	Description
Service	Types of services that are included with SHR; the options include: <ul style="list-style-type: none"> <li>• SHR Status</li> <li>• SAP BOBJ Enterprise status</li> </ul>
Service Name	Name of the service.
Description	Description of the service. For a detailed description, see <a href="#">Managing services</a> .
Status	Status of the service. <b>Legend description:</b>  indicates that the service is up and running.  indicates that the service is not running.  indicates a warning.  indicates that the status of the service is unknown.
Start/Stop	Option to start a service that is not running or stop a service that is running. This option is not available for the SAP BOBJ Enterprise services.

## Service Detail for:

### Service Message Detail tab:

Field	Description
Severity	The severity of the message. <b>Legend description:</b>  indicates that the service is running.  indicates an error.  indicates a warning.  indicates that the status of the service is unknown.
Message	A detailed description of the status.

### Service Dependency

Field	Description
Name	The name of the SHR service that has a dependency on the selected service.
Service Name	The name of the service as displayed in the Services window.
Dependent	Indicates that the displayed service is depends on the selected service.
Depends On	Indicates that the selected service depends on the displayed service.

Use the Services page to:

- [View the status of an SHR service](#)
- [Start or stop an SHR service](#)
- [View the status of a SAP BOBJ Enterprise service](#)

## Shift Management

You can use the Shift Management page to create new time shifts, modify the shift, and expire shifts that are no longer required.

The Shift Management page includes:

## Shift Management

Field	Description
Shift Name	Name of the shift.
Status	The current status of the shift. It can be either ACTIVE or INACTIVE.
Effective From	The date from which shift-based data is collected by SHR.
Expires On	The date when the shift will expire. If a shift is configured to not expire, "Do Not Expire" is displayed.

## Create New Shift

Field	Description
Shift Name	Name of the shift that you want to create such as prime, swing, or graveyard.
Effective From	The date from when you want the shift to be implemented.
Expires On	The date when the shift should expire.
Do Not Expire	Select this check box if you do not want the shift to expire. If you select this option, the shift will remain active until you manually expire it.
Shift Day	The day that you want to include in your shift period.
Start Time	The starting time of the shift. The value must in 24-hour format. The range of the start time is 0 to 23 hours.
End Time	The ending time of the shift. The value must in 24-hour format. The range of the end time is 1 to 24 hours.
Delete	Delete a row.
Add New Row	Add multiple days to the shift period.
Cancel	Cancel the changes.
Save	Save the changes.
Expire Shift	Expire the shift if it no longer required.

## Edit Shift

Field	Description
Shift Name	Name of the shift. This field is disabled by default.
Effective From	The date from when you want the shift to be implemented. This field is disabled by default.
Expires On	The date when the shift should expire. This field is disabled if the Do Not Expire check box is selected.
Do Not Expire	Select this check box if you do not want the shift to expire. If you select this option, the shift will remain active until you manually expire it.
Shift Day	The day that you want to include in your shift period.
Start Time	The starting time of the shift. The value must in 24-hour format. The range of the start time is 0 to 23 hours.
End Time	The ending time of the shift. The value must in 24-hour format. The range of the end time is 1 to 24 hours.
Delete	Delete a row.
Add New Row	Add multiple days to the shift period.
Cancel	Cancel the changes.
Save	Save the changes.
Expire Shift	Expire the shift if it no longer required.

Use the Shift Management page to:

- [View time shifts](#)
- [Create a new time shift](#)
- [Modify the time shift](#)
- [Expire the time shift](#)

## Deployment Manager

You can use the Deployment Manager page to install and remove Content Pack components. In SHR, the Content Packs are structured into the following layers or components:

### Domain Content Pack 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 Content Pack 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. 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. For example, if you want to collect system performance data from the HP Performance Agent and HP SiteScope data source applications, you must install the **SysPerf\_ETL\_PerformanceAgent** and **ETL\_SystemManagement\_SiS** ETL components respectively. 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.

### Report Content Pack component

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

The Deployment Manager simplifies the selection of the Content Pack components by filtering them based on the topology source that you defined in the post-install configuration phase. From the filtered list, you can then select the Content or specific Content Pack components that you want to install. The Deployment Manager performs a silent installation or uninstallation of the Content Pack components while displaying the updated status on the page.

The Deployment Manager page includes:

## ***Deployment Manager***

Field	Description
Content	The type of content or domain for which data is collected by SHR. The list of Content displayed is filtered based on the topology source that is defined, that is, RTSM or HPOM.
Data Source Application	The data sources from where SHR will collect data for the Content.

Field	Description
Content Pack Component Name	<p>Name of the Content Pack component. A Content Pack is typically comprised of three components—domain, ETL, and report. For more information about these Content Pack types, see the <i>HP Service Health Reporter Concepts Guide</i>.</p> <p>The name of the Content Pack component is based on the following syntax:</p> <p><b>AcronymofContentPack_Component_&lt;Technology&gt;_&lt;DatasourceVersion&gt;</b></p> <p>For example, SysPerf_Domain, VirtualEnvPerf_ETL_HyperV_PerformanceAgent, RealUsrTrans_Reports</p> <p>The technology, data source, and version of the data source are optional. The data source and its version will be appended only in the case of the ETL component where the component is data-source dependent.</p>
Version	Version of the Content Pack component.
Status	Displays the status of the installation or uninstallation process. During the installation or uninstallation process, the Deployment Manager page automatically refreshes and displays the updated status of the process.
Remove	Removes an installed Content Pack component.
Deploy	Installs the selected Content Pack components.
Restore Default	Resets the page to the default Content selection. Use this button if you modified the list of Content to be installed or uninstalled and want to go back to the default selection.

## Content Pack Component Status History

Field	Description
Content Pack Component Name	Name of the Content Pack component.
Status	Displays the status of the installation or uninstallation process. During the installation or uninstallation process, the Deployment Manager page automatically refreshes and displays the updated status of the process.

Field	Description
Install Date	The data and time when the selected Content Pack component was installed or uninstalled.
Version	Version of the Content Pack component.
Message	Description of the installation or uninstallation status.

Use the Deployment Manager page to:

- [Install a Content Pack](#)
- [Remove an Installed Content Pack](#)

## Collector Configuration

You can use the Collection Configuration page to create and configure a collector that is installed on a remote system (and not on the SHR system).

### *Collection Summary*

Field	Description
Name	Display name of the user (Note, it cannot be changed once configured)
Enable	To enable or disable the collector that is installed on the remote system.  If a data source has already been assigned to any the collector for data collection, then the application will not allow you to disable the collector.
Connection	To test the connection between SHRsystem and the remote system where the collector is installed.
Install	It indicates whether the collector is installed.
Configuration: Policy	It indicates whether all necessary collection policies are installed on the collector system.  If necessary policies are not present, click the Refresh (🔄) icon.
Configuration: Data Source	It indicates whether any data sources are configured with the collector.

## Configuration Parameters


Field	Description
Name	Display name of the user (Note, it cannot be changed once configured)
Host Name	To enable or disable the remote collector. If any data source has already been assigned to any remote collector for data collection, then the application will not allow you to disable the remote collector.
Communication	To test the connection between SHRcentral server and the remote collector
Install	It indicates whether the remote collector is installed. Note

Use the Collection Configuration Page to perform the following tasks:

- [Configuring a Collector Installed on a Remote System](#)
- [Disabling a Collector Installed on a Remote System](#)

## Content



The Content page allows you to monitor the status of the data in SHR fact tables for each installed content pack. You can verify the health of data flow from data source into the fact tables associated with the dimensions of each content pack.

When a caution status () is indicated in the row labeled "Health", you can drill down to the reports, fact tables, and dimensions or CIs that are impacted by gaps in data.



If the CIs have not logged data, verify if they have been decommissioned. If yes, you can delete those dimensions and their fact tables from SHR. For more information, see *HP Service Health Reporter Administration Guide*.

The Content page includes:

Field	Description
Content Pack Component Name	Name of the content pack.

Field	Description
Health	<p>Indicates the health of data for the content pack.</p> <p><b>Legend description:</b></p> <p> indicates that the data tables have no issues.</p> <p> indicates that the data tables need attention.</p>
Reports Impacted	<p>Indicates the number of reports impacted by data gaps in the corresponding content pack.</p> <p>You can click to view the names of the reports impacted and launch them.</p>
Facts Affected	<p>Indicates the number of fact tables impacted by data gaps in the corresponding content pack.</p> <p>You can click and launch a new pane to drill down for details.</p>

## Content Pack Component Name: Fact Details

Field	Description
Fact	Shows a list of affected hourly and daily fact tables.
Row Count	Total number of rows currently in the fact table.
Last Updated	<p>The time stamp when data was last loaded to the fact table.</p> <p>By default, the caution status () is indicated if:</p> <ul style="list-style-type: none"> <li>Hourly tables have not been updated for 6 hours.</li> <li>Daily tables have not been updated for 24 hours.</li> </ul> <p>You can configure the default period by changing the values in the <code>latency.prp</code> file located at <code>{PMDB_HOME}\adminServer\BSMRApp</code>.</p>
Fact/Dimension	<p>Ratio of the number of dimensions that have fact data against the total number of dimensions in tables.</p> <p>You can click and launch a new pane to view the dimensions or CIs that have not logged data.</p> <p>This ratio is assigned a default threshold value of 90%. So, when more than 10% dimensions do not have fact data, the caution status () is displayed. You can configure the threshold values in the <code>threshold.prp</code> file located at <code>{PMDB_HOME}\adminServer\BSMRApp</code>.</p>

Field	Description
Primary Dimension	The primary dimension associated with the fact table.
Reports Impacted	Indicates the number of reports impacted by data gaps in the corresponding content pack.  You can click to view the names of the reports impacted and launch them.

For more information on troubleshooting data gaps in SHR reports, see section, "*Troubleshooting Reporting Issues*" in the *HP Service Health Reporter Troubleshooting Guide*.

## Data Processing

You can use the Data Processing page to monitor the workflow processes that move data to the data store. You can monitor the status of the job streams of each installed Content Pack component. You can also use this page to view historical execution trends and variations of workload or focus on operational data about the job streams.

The Data Processing page includes:

### ***Stream Details tab***

The Stream Details tab includes:

Field	Description
Content Pack Component name	Name of the Content Pack component.
Number of Streams	Total number of job streams. This value indicates the number of streams that are currently running, or the number of streams that are loaded for execution, or the number of streams that completed in the last run.
Stream Status Details	Status of the job stream. <ul style="list-style-type: none"> <li>• Status include:               <ul style="list-style-type: none"> <li>▪ OK—The number of job streams that completed successfully.</li> <li>▪ Warning—The number of job streams that completed successfully. However, certain job steps in the stream completed with warnings. These warnings, however, do not hinder the execution of the remaining job steps in the stream.</li> <li>▪ Error—The number of job streams that failed to complete. This indicates that a job step in the stream failed its execution process and generated an error. This causes the entire stream stop running until the error state is resolved.</li> </ul> </li> <li>• Total: Total number of streams that are running.</li> </ul>

## Stream Detail for Content Pack

Field	Description
Stream Name	Name of the job stream.
Step Status (Completed/Total)	Status of the job stem in the stream. Completed indicates the number of steps in the job stream that have completed irrespective of whether it was successful or generated a warning or error. Total indicates the total number of job steps in the stream.
Step Status	<p>Status of the job step execution:</p> <p><b>Not Started</b> indicates that the job stream has not started running but has been loaded for execution.</p> <p><b>SUCCESS</b> indicates that all job steps in the stream completed successfully.</p> <p><b>WARNING</b> indicates that some job steps completed with warnings.</p> <p><b>ERROR</b> indicates that a job step in the stream failed to complete and generated an error.</p>
Start Time	Local time when the execution of the job step started.

## Step Detail for Job Step

Field	Description
Step name	The name of the job step.
Process Id	The unique identifier for the job step.
State	<p>The state of the job step. The options include:</p> <ul style="list-style-type: none"> <li>FINISHED—indicates that the job step finished running.</li> <li>WAITING—indicates that the job step is waiting to be run.</li> <li>RUNNING—indicates that the job step is currently running.</li> </ul>

Field	Description
Status	Status of the job step. The options are: <ul style="list-style-type: none"> <li>• SUCCESS—indicates that the job step execution was successful.</li> <li>• WARNING—indicates that the job step completed but generated a warning.</li> <li>• ERROR—indicates that the job step failed to complete and generated an error.</li> <li>• MAX_EXEC_TIME_EXCEEDED—indicates that the job step failed to complete within the defined execution timeframe.</li> <li>• WAITING—indicates that the job step is currently in the waiting state because the preceding job step is yet to complete.</li> </ul>
Detail Message	Displays the execution log of the job step with detailed information on how the warning or error was generated during the execution of the job step. An experienced user can also obtain all the necessary details related to the stream execution status by looking at the relevant dictionary and run-time tables.
Log File	The name of the log file where information about the job step process is logged.
Command	The command that was used to run the job step.
Max Retries	Maximum number of retries for the job step. This field only appears for job steps with error or warning states.
Remaining Retries	The number of remaining retries. This field only appears for job steps with error or warning states.
Max Execution Time (Mins)	Maximum execution time, in minutes, for the job step. This field only appears for job steps with error or warning states.
Start Time	Time when the execution of the job step started.
End Time	Time when the execution of the job step ended.
Audit Details	A summarized view of the data audit information for the job step. The information can include the number of files or rows that were processed, passed, and failed and the time taken for the audit step.

## ***Historical Stream Overview tab***

The Historical Stream Overview tab includes:

Field	Description
Stream Detail	<p>Option to display the list of job stream that ran during a specified period. The options include:</p> <ul style="list-style-type: none"> <li>• Last 1 day</li> <li>• Last 7 days</li> <li>• Last 30 days</li> </ul> <p><b>Note:</b> The workflow framework stores information about the job steps in run-time tables for a maximum period of 30 days, after which the data is automatically purged by the PMDB Platform IM Service.</p>
Content Pack Component name	Name of the Content Pack component.
Number of Streams	Total number of job streams that ran during the specified period of time.
Stream Status Details	<p>Status of the job stream.</p> <ul style="list-style-type: none"> <li>• Status include:           <ul style="list-style-type: none"> <li>▪ OK—The number of job streams that completed successfully.</li> <li>▪ Warning—The number of job streams that completed successfully. However, certain job steps in the stream completed with warnings.</li> <li>▪ Error—The number of job streams that failed to complete. This indicates that a job step in the stream failed its execution process and generated an error. This causes the entire stream stop running until the error state is resolved.</li> </ul> </li> <li>• Total: Total number of streams that are running.</li> </ul>

### ***Stream Detail for Content Pack Component***

Field	Description
Stream name	Name of the job stream.

Field	Description
Stream Status Details	<p>Status details of the stream.</p> <ul style="list-style-type: none"> <li>• Status include:           <ul style="list-style-type: none"> <li>▪ OK—The number of the job steps that have completed successfully.</li> <li>▪ Warning—The number of the job steps that have completed successfully but with warnings.</li> <li>▪ Error—The number of the job steps that failed to complete.</li> </ul> </li> <li>• Total: Total number of job steps that ran.</li> </ul>

### ***Historical Stream Details tab***

Field	Description
CP	Name of the Content Pack component the stream belongs to.
Stream	Name of the job stream.
Severity	<p>The severity option to generate the graph for. The options include:</p> <ul style="list-style-type: none"> <li>• WARNING—displays the number of warning states encountered by the job stream during its execution.</li> <li>• ERROR—displays the number of error states encountered by the job stream during its execution.</li> </ul>
State	<p>Execution state of the job stream. The options include:</p> <ul style="list-style-type: none"> <li>• ALL—all states of the job stream.</li> <li>• FINISH—state where the job stream completed successfully irrespective of the warning or error encountered during its execution.</li> <li>• ABORT—state where the execution of the job stream was aborted by the user because of a job step error.</li> </ul>
Graph	A graphical representation of the number of errors or warnings encountered by a job stream over a period of time.

Use the Data Processing page to:



- [View the number of active data streams](#)
- [View the historical stream details](#)
- [View the historical trend of the streams](#)

## Database Monitoring



You can use the Database Monitoring page to view a detailed status of the health and availability of SHR database. This page displays details about the availability of the database for the past one day and for the past seven days. You can also view information about the database, the database space usage, current activities performed by the database, and the physical memory usage trends. Monitoring the SHR host database helps you to identify potential database performance problems and resolve those problems quickly and efficiently.

The Database Monitoring page includes:




### ***Database Information***

Field	Description
Status	Connection status of the SHR database: <ul style="list-style-type: none"><li>•  indicates that the connection to the database has been successfully established.</li><li>•  indicates that there is no connection to the database.</li></ul>
Host Name	Name or IP address of the database server.
Port	Port number to query the database.
Version	Version number of the database.
Database type	Type of the SHR database.
Platform Detail	Operating system installed on the platform that is hosting the SHR database.
Multiplexed	Multiplexing capability of the database is enabled or not.
Database Size	Size of the database main store in megabytes.
PageSize	Amount of memory allocated for storing database entries.
Last Backup Time	Time at which the database instance was last backed up.
Last Full Backup Time	Time when a full backup was performed on the database.
Last Started	Time at which the database service was last started.
Last DB Polled	Time at which the database was last polled.

## Database Availability

Field	Description
Database Availability	<p>Percentage of time the database was available in the:</p> <ul style="list-style-type: none"> <li>Last 7 days</li> <li>Last 1 day</li> </ul> <p><b>Legend description:</b></p> <ul style="list-style-type: none"> <li> indicates the amount of time, in hours, the database was available.</li> <li> indicates the time, in hours, the database was not available.</li> </ul>



## DBSpace Usage

Field	Description
DBSpace Usage	<p>Graphical representation of the database space, in megabytes, divided between the following dbspaces:</p> <ul style="list-style-type: none"> <li><b>IQ_System_Main:</b> The IQ_System_Main dbspace is created at database creation. IQ_SYSTEM_MAIN is a special dbspace that contains structures necessary for the database to open such as the IQ checkpoint log, IQ rollforward/rollback data for each committed transaction and each active checkpointed transaction, the incremental backup metadata, and database space and identity metadata. IQ_SYSTEM_MAIN is always online when the database is open.</li> <li><b>IQ_System_Temp:</b> The IQ_System_Temp is a single dbspace for the IQ temporary store created when you create a database. It stores the temporary database files.</li> <li><b>PMDB_User_Main:</b> This is the user main dbspace that is used for storing user-defined tables, indexes, and table metadata that is specific to SHR data.</li> </ul> <p><b>Legend description:</b></p> <ul style="list-style-type: none"> <li> indicates reserved space, which is used for storing certain small but critical data structures used during release savepoint, commit, and checkpoint operations.</li> <li> indicates used space, which is used for storing the main user tables and indexes.</li> <li> indicates free space, which is the space available for use.</li> </ul>



## DBSpace Fill Details

Field	Description
DBSpace Usage	Graphical representation of the database space, in megabytes, used by the selected store over a period of time; the time period includes: <ul style="list-style-type: none"> <li>• Last 7 days</li> <li>• Last 1 day</li> </ul>

## Current Activities

Field	Description
Connection (Used/Max)	Number of active user connections to the database and the maximum number of connections the database can handle.
(%) CPU Utilization	Percentage of CPU time that is being used by all the activities in the database.
Open Transaction	Number of transactions that are currently running in the database.
Active Txn Versions	The number of active write transactions and the amount of data they created and destroyed.
Other Versions	Other database versions and the total space consumed.
Active Requests	Number of server threads currently handling a request.
IQ Threads (Used/Free)	Number of threads that are allocated to process queries and data loads and the number of threads that are not in use.
Polling	Click the  icon to start current activity polling. Click the  icon to stop current activity polling.

## IQ Physical Memory Trend

Field	Description
IQ Physical Memory Trend	Graphical representation of the physical memory usage of the Sybase IQ server, in megabytes, for the last one day.  <b>Legend description:</b>  indicates the current physical memory usage trend.  indicates the maximum physical memory usage trend.

Use the Database Monitoring page to [view the database details](#).

## Platform

The Platform page provides a detailed status of the health and availability of the Administration Console's application server.

The Platform page includes:



### *Application Server Information*

Field	Description
Host Name	Name of the Administration Console application server.
Port	Port number to query the Administration Console application server.
Host OS	Operating system installed on the application server.
Server Type	Type of application server.
Virtual Machine Name	Name of the application server host virtual machine.
Virtual Machine Version	Version number of the application server host virtual machine.
Virtual Machine Vendor	Provider of the host virtual machine.



### *Application Server Availability*

Field	Description
Application Server Availability	<p>Graphical representation of the time the application server was available in the:</p> <ul style="list-style-type: none"><li>• Last 7 days</li><li>• Last 1 day</li></ul> <p><b>Legend description:</b></p> <ul style="list-style-type: none"><li>• indicates the time, in hours, the server was available.</li><li>• indicates the time, in hours, the server was not available.</li></ul>

## Latest (%) Heap Memory Usage

Field	Description
Latest (%) Heap Memory Usage	Graphical representation of the percentage of heap memory usage.  <b>Legend description:</b>   indicates that the heap memory usage is within the critical limits.  indicates that the heap memory usage is outside the critical limits.



## Latest (%) NonHeap Memory Usage

Field	Description
Latest (%) NonHeap Memory Usage	Graphical representation of the percentage of non-heap memory usage.  <b>Legend description:</b>   indicates that the non-heap memory usage is within the critical limits.  indicates that the non-heap memory usage is outside the critical limits.

## Memory Usage

Field	Description
Memory Type	Type of memory used, heap or non-heap.
Memory Usage	Maximum available memory and a graphical representation of the amount of Heap and Non-Heap memory used, in megabytes, by the application server in the: <ul style="list-style-type: none"> <li>• Last 7 Days</li> <li>• Last 1 Day</li> </ul>

## Latest (%) CPU Utilization

Field	Description
Latest (%) CPU Utilization	Graphical representation of the percentage of CPU utilization.  <b>Legend description:</b>   indicates that the CPU utilization is within the critical limits.  indicates that the CPU utilization usage is outside the critical limits.

## CPU Usage

Field	Description
CPU Usage	Graphical representation of the percentage of CPU used by the application server in the: <ul style="list-style-type: none"><li>• Last 7 Days</li><li>• Last 1 Day</li></ul>

Use the Platform page to [view the application server details](#).

## About SHR

This page displays the details about the PMDB Platform.

The About page includes:

Field	Description
Version	The version number of the product.
Build Number	The build number of the product.

# We appreciate your 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 Administration Guide (Service Health Reporter 9.31)**

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 Authors: [docfeedback@hp.com](mailto:docfeedback@hp.com).