HP Service Health Reporter

for the Windows® operating system

Software Version: 9.20

Troubleshooting Guide

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Troubleshooting HP Service Health Reporter

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 and Business Application or HP Operations Manager (HPOM) Node Group perspective to the underlying infrastructure. It also displays 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.

Like any other enterprise application, SHR can experience problems in any IT environment. These problems occur because of the complex behavior of the application, changing hardware and software demands, and infrastructure changes. Troubleshooting SHR means identifying and diagnosing problems with the aim of keeping the application functioning optimally.

About this guide

This guide covers the common problems that you might encounter while using SHR and provides steps to troubleshoot them. Each problem is documented with a problem statement and the solution steps. The cause of the problem, if any, is explained in the solution.

When to use this guide

Use this guide when:

- You have problems configuring and operating SHR.

- You cannot view any data in the reports.

- You notice alerts in the SHR Administration Console related to database connection, data collection, job streams, or services.

How to use this guide

This guide is organized into the following sections:

- Troubleshooting Installation

- Troubleshooting report-related problems

- Troubleshooting administration problems

Target audience and prerequisites

The target audience for this guide is users who are working with SHR on a regular basis and administrators who are responsible for maintaining the product. The use of this guide assumes some prerequisite knowledge. Readers must have a high-level understanding of SHR and the various features and functions. They are expected to have read the following documents included with the product:

- Installation and Configuration Guide

- Concepts Guide

- Online Help for Administrators

- Online Help for Users

- Release Notes

Introducing SHR log files

This section covers the following two topics;

- Configuring DEBUG levels in SHR log files

- SHR log file inventory

Configuring DEBUG levels in SHR log files

Before you can effectively use a log file to troubleshoot a problem, you must have detailed information about that problem to be logged in the specific log file. By default, the log file only displays INFO, ERROR, or FATAL types of messages. For detailed information, you can configure SHR to log DEBUG or ALL types of messages in the log file. A DEBUG type of message provides additional information about a particular error that occurred rather than just a simple error or warning message. To set the DEBUG level for a log file, follow these steps:

1. Open the `BSMRLogConfigClient.xml` file from the `%PMDB_HOME%\Config` folder.

2. Search for a particular log file name. For example, to modify the level of the `transform.log` file, first search for the `transform.log` file. Each log file in SHR is associated with an Appender[1] component in the `BSMRLogConfigClient.xml` file. Searching for the log file displays the `<appender>` tag for that log file. For the `transform.log` file, the following Appender component appears:

```
<appender name="transformAppender" class="com.hp.bto.bsmr.util.logger.BSMRRollingFileAppender">
        <param name="File" value="${pmdb.home}/log/transform.log"/>
        <param name="Append" value="true"/>
        <param name="MaxFileSize" value="4MB"/>
        <param name="MaxBackupIndex" value="10"/>
        <layout class="org.apache.log4j.PatternLayout">
                <param name="ConversionPattern" value="%d{ISO8601} %5p, %C.%M, %m%n"/>
        </layout>
</appender>
```

3. Note the appender name for the log file. For example, for the `transform.log` file, the appender name is **transformAppender** as shown in the preceding example.

4. Search for the appender name string in the file. The Logger component for the specified appender name is displayed. For example, for the transformAppender, the following Logger component appears:

```
<logger name="com.hp.bto.bsmr.transform" additivity="false">
        <level value="INFO"/>
        <appender-refref="transformAppender"/>
        <appender-refref="errorAppender"/>
</logger>
```

5. In the `<logger>` tag of the string, change the `<level value>` from **INFO** to **DEBUG**.

6. Save the changes and close the file.

---

[1] A logging framework generates output for multiple destinations, such as outputting the trace statements to the console or serializing it into a log file. In SHR logs, a component called Appender is used to define this output medium. These components append themselves to the Logger component and relay the output to an output stream.

SHR Log file inventory

SHR uses the **log4j** API for logging purposes. It maintains a log file for each of its modules, which is placed in the `%PMDB_HOME%\log` folder. The following table lists the log files available in SHR.

The following table lists the installation log files and the locations.

SR #	Log File	Location on Disk	Description
1	activemq.log	%PMDB_HOME%\log\	Log file for PMDB Platform Message Broker. This log file is located in the %PMDB_HOME%\activemq\data folder.
2	Admin*.log	%PMDB_HOME%\adminServer\logs	Admin*.log
3	Aggregate.log	%PMDB_HOME%\log\	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. Appender: aggregateAppender
4	audit.log	%PMDB_HOME%\log\	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.
5	backend.log	%PMDB_HOME%\log\	Contains log information for all the data processing job steps. Appender: backendLogAppender
6	BOEInstall_0.log	<SAP BOBJ Install Directory>\BusinessObjects Enterprise 12.0\Logging\BOEInstall_0.log <SAP BOBJ Install Directory>\BusinessObjects Enterprise 12.0\Logging\BOE_FP_3_5_Install_0.log	SAP Business Objects Installation log files.
7	BSMRApp.log	%PMDB_HOME%\log\	Application-wide log file that contains error messages from all the SHR modules except data processing. Appender: bsmrappender
8	BSMRCollectionService.log	%PMDB_HOME%\log\	Log file for the PMDB Platform Collection Service.
9	BSMRDBLoggerService.log	%PMDB_HOME%\log\	Log file for the PMDB Platform DB Logger Service.
10	bsmrfrontend.log	%PMDB_HOME%\log\	Contains log messages related to the Administration Console UI web application. Appender: BSMRFrontEndAppender
11	Bsmrim.log	%PMDB_HOME%\log\	Contains log messages related to the internal monitoring of data processing job streams, Sybase IQ database, Performance Management database (PMDB) platform, and Content Packs. Appender: BSMRIMAppender
12	BSMRIMService.log	%PMDB_HOME%\log\	Log file for the PMDB Platform IM Service.
13	BSMRService.log	%PMDB_HOME%\log\	Log file for the PMDB Platform Administrator

SR #	Log File	Location on Disk	Description
			service.
14	Catalina*.log	%PMDB_HOME%\adminServer\logs	Contains log messages about the tomcat server
15	collections.log	%PMDB_HOME%\log\	Contains collection framework-related log messages such as data sources configured collection job scheduling and maintenance information. Appender: collectionAppender
16	collectStep.log	%PMDB_HOME%\log\	Contains log messages related to the collect step which moves data from {PMDB_HOME}/collect directory to {PMDB_HOME}/stage directory Appender: collectAppender
17	cpDataMigrate.log	%PMDB_HOME%\log\	cpDataMigrate.log Appender: cpDataMigrateAppender
18	cpPatchAppender	${pmdb.home}/log/cppatch.log	Patch installation log file.
19	customgroup.log	%PMDB_HOME%\log\	Contains log messages related to importing of custom groups defined in a XML file. Appender: customgroupAppender
20	dbcollector.log	%PMDB_HOME%\log\	Contains log messages related to database collection. Appender: dbCollectorAppender
21	downtimeutility.log	%PMDB_HOME%\log\	Contains log messages related to configuring downtime and enriching the performance data with configured downtime information. Appender: downtimeAppender
22	dw_abclauncher.log	%PMDB_HOME%\log\	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. Appender: abclauncher-RollinglogFileAppender
23	Host-manager*.log	%PMDB_HOME%\adminServer\logs	Host-manager*.log
24	hpacollector.log	%PMDB_HOME%\log\	Contains log messages related to HP Performance Agent collection. Appender: hpaCollectorAppender
25	IQ15Console.log	%USERPROFILE%\IQ15Console.log	If you have installed Sybase IQ remotely, the log file is available at the following location on the remote system: %temp%\..\HPOvInstaller\HP-SHR-SybaseIQ_9.20\
26	Jakarta_service_*.log	%PMDB_HOME%\adminServer\logs	Jakarta_service_*.log
27	License.log	%PMDB_HOME%\log\	Contain messages for license-related tasks. Appender: licenseAppender
28	loader.log	%PMDB_HOME%\log\	Contains log messages related to data loading from the stage area to the data store. Appender: LoaderAppender
29	Localhost*.log	%PMDB_HOME%\adminServer\logs	Contains log messages related to Server Access
30	Manager*.log	%PMDB_HOME%\adminServer\logs	Manager*.log
31	mapperStep.log	%PMDB_HOME%\log\	Contains log messages related to transformation of collected data. Transformation includes pivot transform, rows filtering, etc. Appender: mapperAppender

SR #	Log File	Location on Disk	Description
32	metadata.log	%PMDB_HOME%\log\	Contains log messages related to metadata repository persistence, access, and modification. Appender: MetadataRepositoryAppender
33	myBsm.log	%PMDB_HOME%\log\	Contains log messages related to launching of SHR reports from MyBSM console.
34	OvInstallerLog.txt	%temp%\..\HPOvInstaller\HP-SHR_9.20\HP-SHR_9.20_<timestamp>_HPOvInstallerLog.html %temp%\..\HPOvInstaller\HP-SHR_9.20\HP-SHR_9.20_<timestamp>_HPOvInstallerLog.txt.	This folder also stores log files for each component of SHR such as LCore components, OVPerl, and so on.
35	packagemanager.log	%PMDB_HOME%\log\packagemanager.log	Appender: pkgmgrAppender
36	Pmdb.iqmsg	<Sybaseiq DB path>	SybaseIQ log file information
37	Postgresql-<date and time>.log	Postgresql-<date and time>.log	PostgreSQL log file information
38	Postgresql-<date and time>.log	%PMDB_HOME%\log\	Log file for the PostgreSQL service.
39	postinstallconfig.log	%PMDB_HOME%\log\	Details on database schema creation on Sybase IQ, details on SHR Management database schema creation on Postgresql. Appender: postinstallAppender
40	reconcileStep.log	%PMDB_HOME%\log\	Contains log messages related to reconciliation of collected data. Appender: reconcileAppender
41	reloadAppender	${pmdb.home}/log/reload.log	Log file for the contrib utility (reload.exe) that handles reload of failed data.
42	shiftmaint.log	%PMDB_HOME%\log\	Contains log messages related to populating the shift fact tables based on shift configured in Admin UI. Appender: shiftMaintAppender
43	stage.log	%PMDB_HOME%\log\	Contains log messages related to data staging, and purging of staging area. Appender: stageAppender
44	Stderr*.log	%PMDB_HOME%\adminServer\logs	Contains messages logged to standard error by the tomcat server
45	Stdout*.log	%PMDB_HOME%\adminServer\logs	Contains messages logged to standard output by the tomcat server
46	SybaseService.log	%PMDB_HOME%\log\	Log file for the PMDB Platform Sybase Service.
47	SybaseService.log	%PMDB_HOME%\log\	Contains error/log messages related to starting of Sybase IQ database from windows service manager
48	topologycollector.log	%PMDB_HOME%\log\	Contains log messages related to topology collection. Appender: topologyCollectorAppender
49	trend.log	%PMDB_HOME%\log\	Contains messages for all of SHR's back-end processes. Each message specifies the start and end times for the logged process.
50	Trend.log	%PMDB_HOME%\log\	Log file for PMDB Platform Timer service.
51	Trendtimer_dbg.log	%PMDB_HOME%\log\	Contains log messages related to SHR timer service.
52	VC_collector/collector.log	${pmdb.home}/log/VC_collector/collector.log	VC Collector logfiles Appender: vcAppender

Troubleshooting Installation

This section of the guide covers the possible problems that can cause the SHR installation to fail and how you can troubleshoot them.

Symptom: Installation fails with BO Rebrand error

Description: Installation fails with BO Rebrand Error.

Cause1: Postgres install failed with non-zero error code.

Ensure you are have local admin user rights and are not logged into the system as a domain user.

Symptom: Installation failure caused by SAP BOBJ error

Description: While running the HP Software Installer, the installation fails and the following error message is displayed:

```
SAP BusinessObjects is installed on the system. Please Uninstall
it before installing HP SH Reporter.
```

Resolution: If you have any component of SHR (such as SAP BOBJ or Sybase IQ), pre-installed or not cleanly uninstalled in a previous un-install on your system, the SHR installation will fail as the Installer tries to install the components that are bundled with the product.

To resolve this problem, you must clean up the existing components from the system and re-run the Installer again (in case it is a virtual system, it is recommended to re-image the VM if feasible).

Symptom: Unable to bring up SHR Services after successful Installation

Description: If SHR is installed on a virtual machine that is not restarted after the installation, the environment variables set by the installer will not be available to the user. As a result, SHR services will not start despite multiple retries.

Resolution: After installing SHR, ensure you restart the virtual machine.

Symptom: Remote Sybase IQ database creation fails

In the HP Service Health Reporter Configuration wizard, while trying to create the Sybase database file on a remote system, the post-installation procedure fails and the following error message appears:

```
<time stamp>,018 ERROR,
com.hp.bto.bsmr.dao.helper.CreateSybaseIQDatabase.executeSQL,
Could not connect to the database.

<time stamp>,049 ERROR,
com.hp.bto.bsmr.dao.helper.CreateSybaseIQDatabase.executeSQL ,
Specified database not found
```

Resolution 1: This error occurs if the database file location specified in the HP Service Health Reporter Configuration Wizard includes space in the file path. To resolve this problem, on the remote system, make sure that the specified database file location exists on the remote system. In addition, make sure that the path provided in the Post-Install wizard does not contain any spaces.

Resolution 2: This error can occur in case there is no adequate disk space on the drive. The installer does not warn in the remote database scenario. Increasing the disk space should help you resolve the issue.

Resolution 3: Apply the hotfix SHR_92_HF_REMOTE_SYBASE_SERVICE for creating the Sybase IQ as a Windows service.

Symptom: Database schema creation takes a long time (post-installation Step 3)

Description: During the post-installation configuration stage, on the Create Database Schema page of the Administration Console, clicking the Next button after typing the required values has no effect and the users have to wait for a long time for the process to complete.

Resolution 1: Clear the web browser cache, reload the page, and perform the steps again.

Resolution 2: If the database is on a remote system, apply the hot-fix 'SHR_92_HF_REMOTE_SYBASE_SERVICE' for creating the Sybase IQ as a Windows service.

## Symptom: Unable to log on to the Administration console

Description: After typing in the user credentials in the Administration console Login screen and clicking the Log in button, the following error message appaers:

Resolution: Clear the web browser cache, reload the page, and perform the steps again.

Symptom: Error seen in the Administration console

Description: At times, the Administration console does not work properly. After opening the console, the following Windows error message appears:
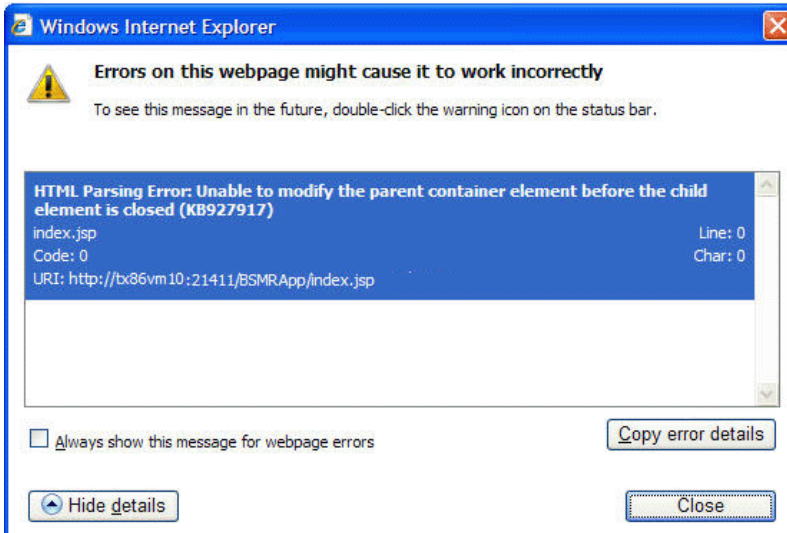
Resolution: Clear the web browser cache, reload the page, and perform the steps again.

Symptom: Content Pack uninstallation fails

Description: When removing the Content Packs, the uninstallation process fails and the following error message is displayed in %PMDB_HOME%\log\trend.log:

```
SQL Anywhere Error -210: User 'pmdb_admin' has the row in
'<table_name>' locked
```

This failure occurs when one or more database connections have a shared lock on a database stage table.

Resolution: Follow these steps:

To verify if the tables are locked, perform the following steps:

1. Click Start > Programs > Sybase > Sybase IQ 15.3 > Interactive SQL Java. The Interactive SQL Java console opens.

2. In the Connect dialog box, on the Identification tab, select Supply user ID and password.

3. Type the user name and password and then press OK.

4. Under SQL Statements, type sp_iqlocks, and then click the Execute all SQL statement(s) button to run the command.

If there are locked tables, there could be a other SQL sessions open that you should close. If there are no locked tables, you can proceed with the removal of the Content Packs.

Symptom: SHR uninstallation fails

Description: Uninstalling of SHR may not have un-installed Sybase IQ Server cleanly.

Resolution: Uninstall Sybase IQ Server Suite 15.3 (64-bit) manually and restart your system.

Troubleshooting report-related problems

SHR provides an interactive user interface—the SAP BOBJ InfoView interface that runs on your browser—to view the available reports. The reports are generated by running a query on the underlying data. At times, if the data is missing or there is a problem with SAP BOBJ, the report might not display any data.

This section of the guide covers the possible problems that lead to missing data in the reports and how you can troubleshoot them.

## Symptom: Report opens with a "No Data" pop-up message

Description: After opening a report and specifying the prompts, a window appears with a message `"No data to retrieve in the following Queries."` For example, consider a WebLogic report such as WebLogic EJB Top 10 Pool report. The following figure shows the message that appears.
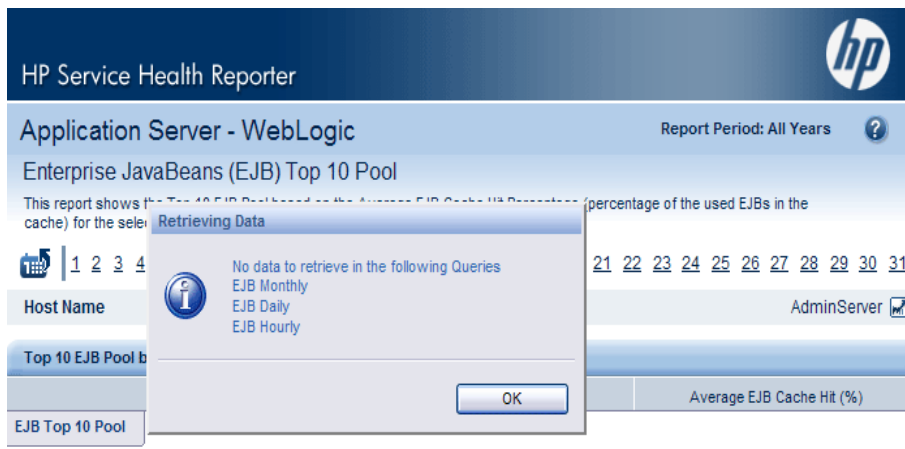
Resolution: This problem could be due to issues at the ETL layer (Extract, Transform, and Load) or due to issues with data not being available in the data source itself.

The following flow chart below provides you the steps you will need to follow to troubleshoot the possible causes for no data in reports error.
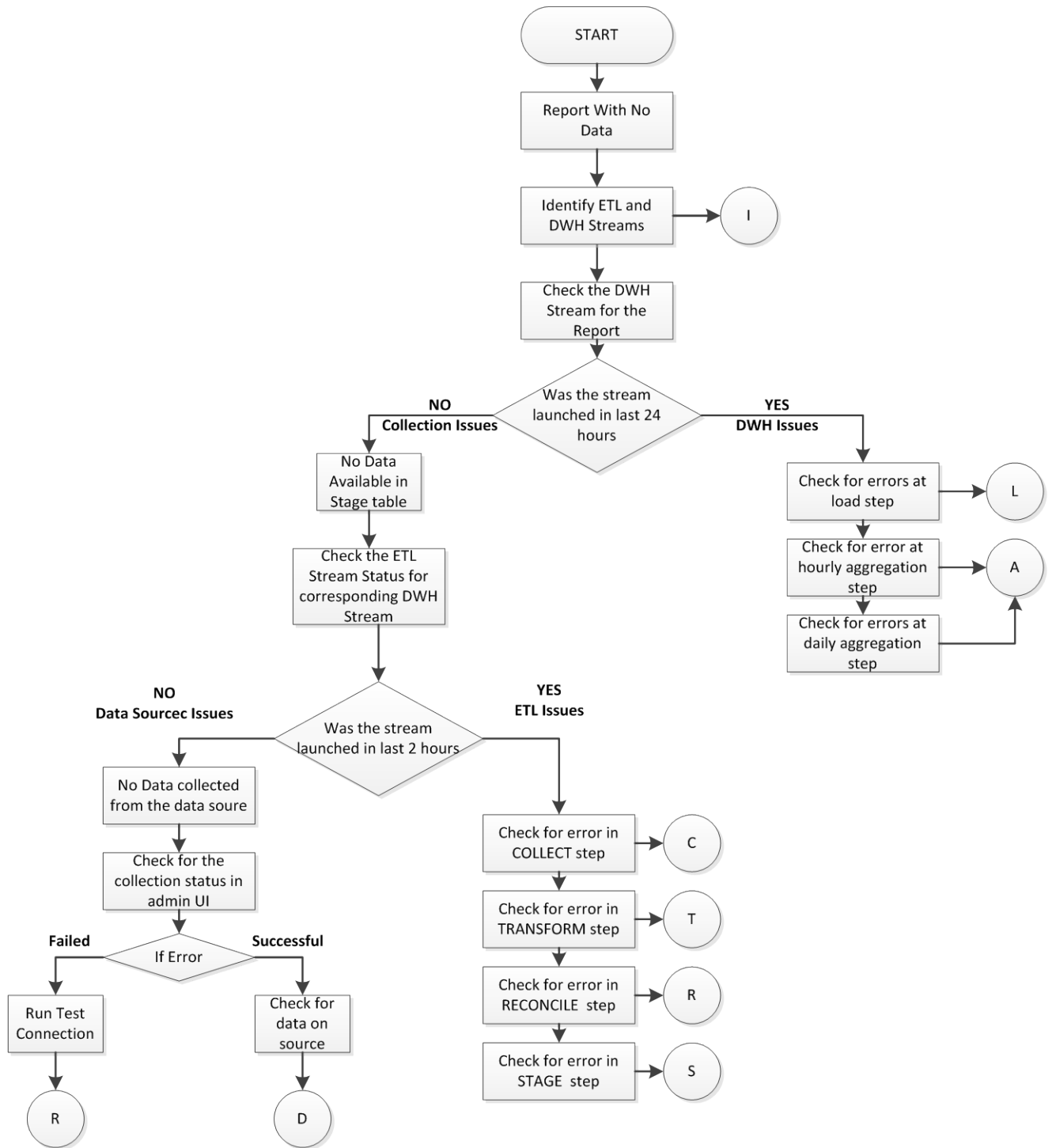
P (Ping)	If test connection failed then the reach ability to the data source needs to be verified. Check if all the required services on the source are running. Refer to Data source Troubleshooting section. If test connection is successful, refer to "D".
D (Datasource)	There is no data available on the source. Refer to Data source Troubleshooting section.
C (Collect)	**Symptom**: The COLLECT step for the stream shows ERROR (Red icon) and files are getting piled up in {PMDB_HOME}/collect folder.

|	
	Contact HP Support if this is your scenario. There are no known cases when this should fail.
T (Transform)	**Symptom**: The TRANSFORM step for the stream shows ERROR (Red icon) and relevant files are getting piled up in {PMDB_HOME}/failed_to_tranform folder. Refer to Appendix to identify the metadata for the step of a stream. Contact HP Support if this is your scenario. There are no known cases when this should fail.
R (Reconcile)	**Symptom**: The RECONCILE step for the stream shows ERROR (Red icon) and relevant files are getting piled up in {PMDB_HOME}/failed_to_reconcile folder. Refer to Appendix to identify the metadata for the step of a stream. **Resolution**: Refer to the Data source Troubleshooting section.
S (Stage)	**Symptom1:** The STAGE step for the stream shows ERROR (Red icon). Drill down detail, the following message is displayed "Database server not found". Also, relevant files are getting piled up {PMDB_HOME}/stage folder. Refer to Appendix to identify the metadata for the step of a stream. **Resolution:** 1. This can be due to temporary loss of connection to database and the next run of the step takes care of reprocessing data. 2. If the files are getting piled up in stage directory check the connectivity to the database. Refer to the Database Alerts Section. **Symptom2:** The STAGE step for the stream shows ERROR (Red icon). Drill down detail, the following message is displayed "You have run out of space in pmdb_user_main DBSpace". Also, files are getting piled up {PMDB_HOME}/stage folder. **Resolution:** 1. Increase the disk space if the drive is running full 2. Increase the pmdb_user_main DB Space manually and start the HP_PMBD_Internal_Monitoring service in case the service is stopped or disabled. **Symptom3:** The STAGE step for the stream shows ERROR (Red icon). Drill down detail, the following message is displayed "Insufficient buffers for". Also, files are getting piled up {PMDB_HOME}/stage folder. This error is because the temp cache is not adequately provisioned. **Resolution:** You can ignore this error if it's happening occasionally. If the step is failing frequently, consider following options; 1. Refer to the Performance Sizing guide for temp cache configurations. 2. Reduce the number of concurrent jobs to be launched. Refer to the online help for Administrators.

L, A, S (Load, Aggregate, SQL Executor)	**Symptom1:**
	The LOAD/AGGREGATE/EXEC_PROC step for the stream shows ERROR (Red icon). Drill down detail, the following message is displayed "Database server not found".
	Resolution:
	    1. This can be due to temporary loss of connection to database and the next run of the step takes care of reprocessing data.
	
	Symptom2:
	The LOAD/AGGREGATE/EXEC_PROC step for the stream shows ERROR (Red icon). Drill down detail, the following message is displayed "You have run out of space in pmdb_user_main DBSpace".
	Resolution:
	    1. Increase the disk space if the drive is running full
	    2. Increase the pmdb_user_main DB Space manually and start the HP_PMBD_Internal_Monitoring service in case the service is stopped or disabled.
	
	Symptom3:
	The LOAD/AGGREGATE/EXEC_PROC step for the stream shows ERROR (Red icon). Upon Drilling down, the following message is displayed "Insufficient buffers for" and data is stuck in source tables. Refer to reference section to identify the metadata for the step of a stream.
	This error is because the temp cache is not adequately provisioned.
	Resolution:
	You can ignore this error if it is not happening too frequently. If the step is failing frequently, consider following options;
	    1. Refer to the Performance Sizing guide for temp cache configurations.
	    2. Reduce the number of concurrent jobs to be launched. Refer to the online help for Administrators.

I (Identify Streams)	Refer to Report to Stream Mapping to identify the stream associated with the report

Symptom: Unable to refresh a report

Description: You cannot refresh the report to display updated information because the cascading prompt value in the Prompts dialog box is missing. For example, consider a WebLogic report, WebLogic EJB Cache Hit report. The following figure shows the problem that might occur when trying to refresh the report.
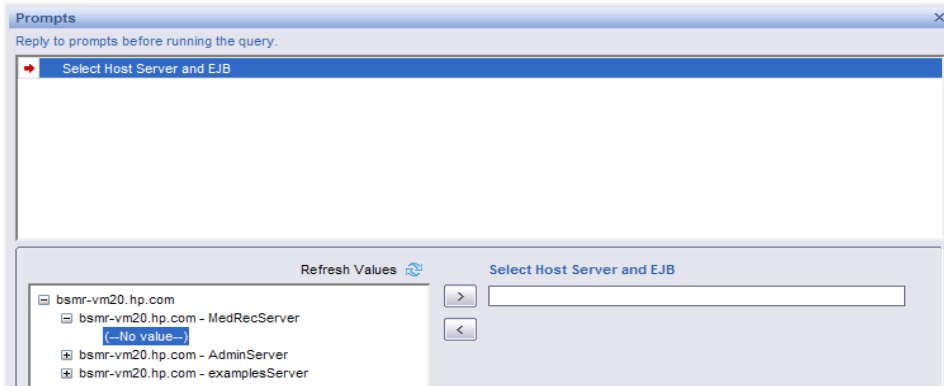
Resolution: This problem occurs because of missing data in the dimension tables for a query. To troubleshoot this problem, follow these steps:

Note: The following steps are performed using the WebLogic EJB Top 10 Pool report as an example but you can perform these steps for any report.

1. Check the dimension table for data for the query:

   a. Click **Cancel** in the Prompts window.

   b. On the report toolbar, click the **Edit** button.

   c. If a Warning - Security message box appears, click **Yes**. The report opens in Edit mode.

   d. On the toolbar, click **Edit Query**.

   e. At the bottom of the report, click **EJB Monthly**, and then click the **View SQL** button. The SQL Viewer dialog box opens, which displays the SQL for that query. Note that EJB Monthly is used as an example here. For any other report, you must edit the respective query.

   f. Identify the dimension table from which the EJB name is fetched. In this example, the dimension table is `K_CI_J2EE_Server`.

2. Access the database on which you want to check the presence of data:

   a. Click **Start > Programs > Sybase > Sybase IQ 15.3 > Interactive SQL Java**. The Interactive SQL window and the Connect dialog box opens.

   b. In the **Connect** dialog box, on the **Identification** tab, type the user ID and password to access the database.

   c. In the **Server name** box, type the name of the database host. Otherwise, click **Find** to search of the database host. The Find Servers dialog box opens.

   d. Select the database that you want to connect to and then click **OK**.

   e. Click **OK**.

3. Run the following command in the Interactive SQL Java window to check for data in the dimension table:

   select * from *<dimension table name>*

In this example, the *<dimension table name>* is K_CI_J2EE_Server.

4. If no data is present in the database, you must verify with the source and if required, debug the collected CSVs and the respective stage tables. For the steps to perform these tasks, see Report displays partial or no data.

Symptom: Report appears blank (after report refresh)

Description: After opening a report and applying the necessary prompts, the report does not display any data. The following figure shows a sample blank report:

Resolution: The report does not display any data because you might not have selected the time-drill filters for the report and you might not have selected the right combination of the Prompts.

To resolve this problem, follow these steps:

1. Select the correct combination of the prompts in the Prompts dialog box:

    a. On the main toolbar, click **Refresh All**. The Prompts dialog box opens.

    b. In the **Reply to prompts before running the query** box, select a prompt, and then in the listed prompt values, select the appropriate value(s).

    c. Perform the above step to each of the displayed prompts. You can try selecting different combination of prompts.

    d. After selecting the prompt values, click **Run Query**.

2. Set the time-drill filters on the Report Filter toolbar, if they are available for the report:

    a. In the **Select Year** list, select a specific year for which you want to view the data.

    b. In the **Select Month** list, select a specific month for which you want to view the data.

    c. If there are context-based filters available on the Report Filter toolbar, select the appropriate value from the drop-down list.

Reports might appear blank because of issues in the database such as missing business keys, table not getting loaded, and so on. To investigate such errors, contact HP Support.

Symptom: Data missing for specific time period

Description: A selected report displays data for a particular time period even when drilled down to the day level, such as 6th September, 2010. However, when the time period is changed to 11th September, 2010, the report does not display any data.

Resolution: This problem occurs because of missing data. You must check each variable used in the report and the corresponding query from where the data is retrieved for the presence of data. Perform the following steps:

1. Identify the queries for the variables in the report:

    a. On the report toolbar, click **Edit**.

    b. If a Warning - Security message box appears, click **Yes**. The report opens in Edit mode.

    c. On the toolbar, make sure that **Edit Report** is selected.

    d. Click the ![fx](icon) icon to display the Formula Toolbar.

    e. To select the variable, in the report pane:

        i. For a tabular report, click the column with missing data. The Formula Editor displays the variable name.

        ii. For a graph, click the **View Structure** button. The variable names are displayed on the report.

    f. On the left pane, on the **Data** tab, double-click the variable name. The Variable Editor opens.

    g. In the **Variable Editor** dialog box, in the Formula box, identify the queries for which the data for the selected variable is retrieved. For example, in the WebLogic EJB Cache Hit report, the formula for the Avg EJB Cache Hit % is:

    ```
    =If(Match([Level];"Year");[EJB Monthly].[avg EJB Cache Hit
    Percent];If(Match([Level];"Month");[EJB Monthly].[avg EJB
    Cache Hit Percent];If(Match([Level];"Day");[EJB Daily].[avg
    EJB Cache Hit Percent];If(Match([Level];"Hour");[EJB
    Hourly].[avg EJB Cache Hit Percent]))))
    ```

    Note that the corresponding query for the Avg EJB Cache Hit % variable is EJB Hourly.

2. Run the SQL query for the query and check for data in the database. If no data is present in the database, you must verify with the source – refer to the Data Source Debugging section for more details.

Symptom: No data on SPI data source reports

Description: This symptom is applicable to Microsoft SQLServer/Oracle/WebSphere/WebLogic reports that do not display any data.

Resolution: This problem is because of data logging issue with *HP Performance Agent* when both HP Operations agent and HP Performance Agent are installed in your environment. The table below consists of the datasources which the content pack uses. It is due to improper summarization of metric Id and value ID, these reports would not show data.

To resolve this, use the HP Operations agent for data logging instead of the HP Performance Agent.

Content Pack Name	Data Sources (HP – Performance Agent)
Oracle	DBSPI_ORA_REPORT; DBSPI_ORA_GRAPH
MS SQL	DBSPI_MSS_REPORT; DBSPI_MSS_GRAPH
WebLogic	WBSSPI_METRICS ;WBSSPI_RPT_METRICS
WebSphere	WLSSPI_METRICS ; WLSSPI_RPT_METRICS
Active Directory	ADSPI
Exchange 2007	EX2007_DATA
Exchange 2010	EXSPI_DATA

For more information and the resolution steps for SQL Server and Oracle reports, see the *Troubleshooting Data Logging with HP Performance Agent* section under Chapter 7 of the *SPI for Databases 12.04 Installation and Configuration Guide.*

For more information and the resolution steps for WebLogic reports, see the *Integrating WebLogic SPI with HP Performance Agent* section under Chapter 3 of the *SPI for WebLogic Application Server 7.04 Installation and Configuration Guide.*

For more information and the resolution steps for WebSphere reports, see the *Integrating WebSphere SPI with HP Performance Agent* section under Chapter 3 of the *SPI for WebSphere Application Server 7.04 Installation and Configuration Guide.*
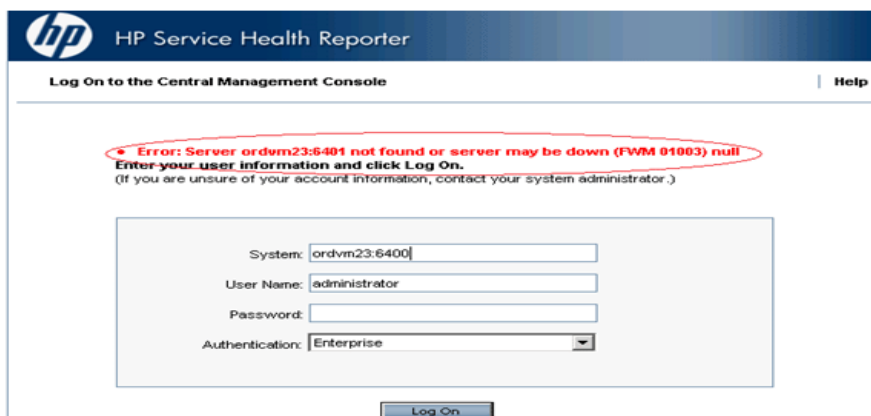
Incase the issue is not resolved – refer to the Data Source Debugging section for more details.

Symptom: SAP BOBJ Errors

This section covers some of the common SAP BOBJ-related errors encountered in SHR and the steps to troubleshoot them. These errors might prevent the reports from opening or showing data. In addition to these errors, SAP BOBJ provides a detailed list of errors for Web Intelligence reports at the following URL, http://help.sap.com/businessobject/product_guides/errors/12/0/en/html/.

SAP BOBJ Central Management Console error

Description: When trying to access the SAP BOBJ Central Management Console, the following error message appears:

Resolution: This error occurs when the specified port, that is, 6400 in the preceding sample image, is locked by another web service. To resolve this issue, you must follow these steps:
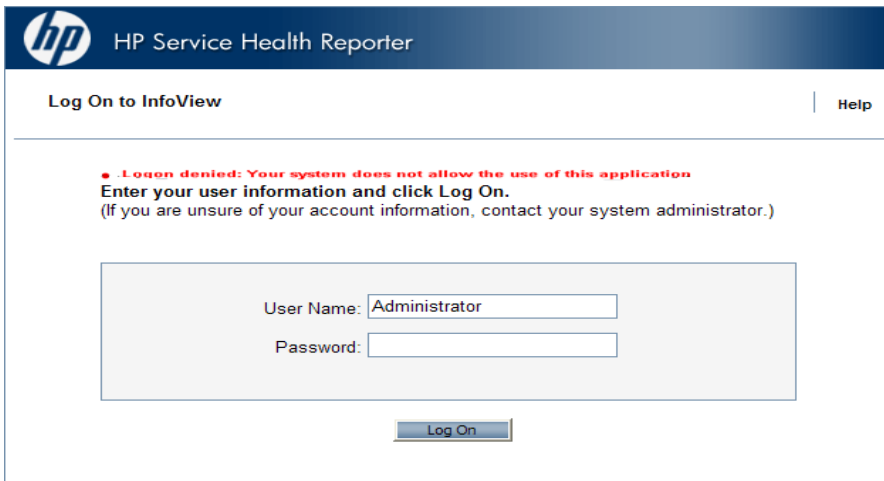
1. Click **Start > Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > BusinessObjects Enterprise Central Management Console**. The Central Management Console page opens.

2. Enter the username and password and click **Log On**. The CMC Home page opens.

3. Under **Organize**, click **Servers**. The Servers page opens.

4. Under **Server Name**, note the servers that are disabled.

5. Right-click the disabled server and then click **Enable Server**. Perform this step for all disabled servers.

SAP BOBJ InfoView login error

Description: On the SAP BOBJ InfoView login screen, after typing the correct user credentials and clicking **Log On**, the following error message appears:


Resolution: This error occurred because your SHR license expired. To check the status of the license, see the Licensing page in the Administration Console. If the license has expired, you must renew the license, apply for a permanent license, or contact HP Support for assistance. For more information, see the "Managing licenses" section in the *Online Help for Administrators* guide.

Report timeout error

Description: While performing an action on an opened report, such as changing the prompts, selecting the filters, or accessing the report tabs, the following error message appears:
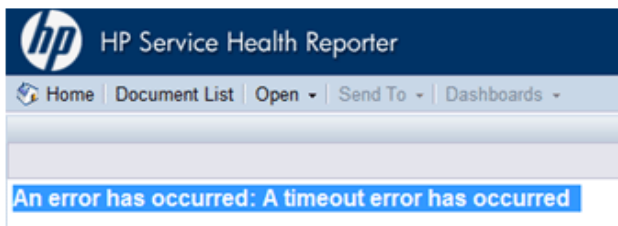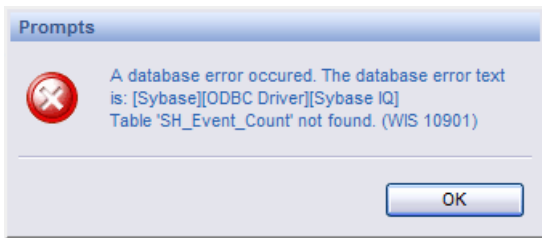

Resolution: This error occurs when a Web Intelligence session is opened and kept idle for a long time. To resolve this, click **Document List** and reopen the required report.

Database error

Description: While opening a report, the following error message appears:
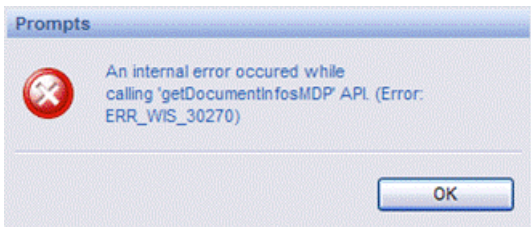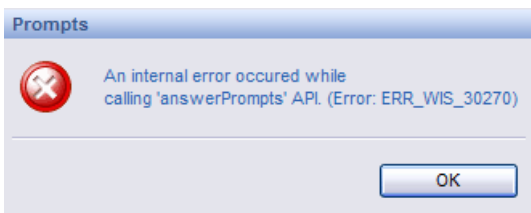
Resolution: This error occurs when the connection parameters for the SAP BOBJ Universe, where the reports are hosted, do not connect to the proper Sybase IQ database instance server. To resolve this issue, make sure that the respective Universe is connected to the proper database. Follow these steps:

1. Click **Start > Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > Designer**. The SAP BOBJ Universe Designer opens.

2. In the **User Identification** dialog box, click **OK**.

3. On the **File** menu, click **Open**. The Open dialog box appears.

4. Select the respective Universe corresponding to the report for which the error was generated. For example, if the report belongs to System Management, select the System Management Universe.

5. Click **Open**.

6. On the **File** menu, click **Parameters**. The Universe Parameters dialog box opens.

7. Click the **Definition** tab

8. Click **Edit** to edit the connection parameters. The Edit <*connection type*> connection dialog box opens.

9. In the **Data source name** field, select **BSMR**.

10. Click **Next** twice and then click **Finish**.
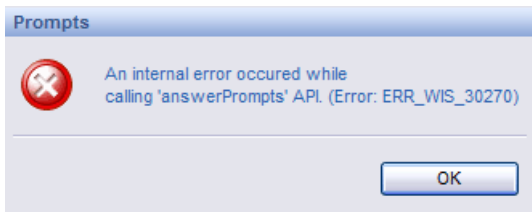
Internal error

Description: While opening a report, one of the following error messages appears:

Resolution: This error occurs because the utilization of the system resources as well as SAP BOBJ internal services was very high at that particular moment when the Web Intelligence report was accessed. The SAP BOBJ services were in a waiting state for that moment when the report was accessed. To resolve this issue, click **OK** in the message box and refresh the report.

Troubleshooting administration problems

The SHR Administration Console is a web-based monitoring tool that you can use to monitor the various components of SHR, such as data collection, data processing, database, services, and so on. In the event of a problem, appropriate alerts are displayed on the Administration Console.

This section of the guide covers how to troubleshoot the alerts that appear on the Administration Console. In addition, this section covers some of the commonly encountered problems during data collection, data reconciliation, data processing, or while performing certain administrative tasks.

The Home page of the Administration Console gives you an overall view of the status of SHR, its associated services, the database, and the host platform.

Figure 1: The Home Page

In the event of a problem with an SHR component, the Home page displays an alert icon, so that you can investigate and take the appropriate action.

This section of the guide covers the following SHR component-related alerts and the steps you must perform to resolve them:

- Understanding data collection alerts

- Understanding ABC alerts

- Understanding service alerts

- Understanding database alerts

Understanding data collection alerts

The Home page of the Administration Console monitors and displays the status of the data collection by SHR from the various data sources, such as Run-time Service Model (RTSM), HP Operations Manager (HPOM), Business Service Management (BSM) database, and HP Performance Agent (PA).

Figure 2: The Collection Status Pane

There are two types of collection status information displayed in the Collection Status pane of the Home page, indicated by the following icons:

- ⊗ Indicates that the collection from the specific data source failed.

- ⦿ Indicates that the collection never started from the specific data source.

For detailed information about the collection status, you can click the hyperlink of the data source type in the Collection Status pane to open the respective data source page. For example, clicking **RTSM** opens the Service Definition page.

This section of the guide explains the possible problems that might cause the collection to fail and the steps you must take to resolve these problems.

Symptom: Data collection has not started or failed

Description: The Collection Status pane on the Home page lists the RTSM or HPOM data source in the ⦿ column. This indicates that the topology collection never started from these data sources.

Resolution: The data source that you are trying to connect to might be down and therefore, no connection is established. To resolve this problem, follow these steps:

1. Check the connection status:

   A. RTSM, HP OM

   In the Administration Console, go to the Topology Source> Service Definition page to check the status for the RTSM or HPOM data source.

   B. ProfileDB, OMi, HPOM

   In the Administration Console, go to the Collection Configuration
   > ManagementDB/ProfileDB page to check the status for the ProfileDB data source. Similarly, for OMi, go to the OMI page and for HPOM, go to the Operations Manager page

   C. Performance Agent

   In the Administration Console, go to the Collection Configuration > PA Data Source page to check the status for the PA data source.

Click Test Connection to test the data source connection (double check the credentials using the configure option). In case the Test Connection fails for any of the above scenarios, refer to the Data source Troubleshooting section.

Understanding ABC Alerts

To troubleshoot data processing-related problems, you can start on the Home page of the Administration Console. The ABC Alerts table on this page displays a list of the 10 latest active data processing alerts encountered by the SHR workflow framework.

Figure 3: ABC Alerts

Stream Name ⇕	Step Name	Message	Time
OM@OM_Facts_MessageCount	Procedure_Daily...	C:\WINDOWS\system32>"E:HP-SHRPMDB/bin/sqlexecutor" -sql...	Jan 18, 2011 3:05:40 PM
Virtual_Env_Management@Facts_LogicalSystem	Procedure_Popul...	C:\WINDOWS\system32>"E:HP-SHRPMDB/bin/sqlexecutor" -sql...	Jan 18, 2011 3:06:09 PM

There are two types of alerts generated by the workflow framework:

- Errors—This alert is generated when an active job stream fails to complete the execution process because of a serious error in a job step. This halts the execution of the job stream.

- Maximum execution time exceeded—This alert is generated when a job step fails to complete running within the defined execution time frame.

Viewing details of the alert

To view details of the displayed alert, click the hyperlink in the **Step Name** column of the table. An alert details window opens.

Figure 4: Alert Details Window

Step Name	Reconcile_data
Process Id	57192
State	FINISHED
Status	WARNING
Detail Message	PID:31892 Send msg Status -> WARNING Ensure that collection service is up and running. Please refer to collections log files for error/warning details.
Log File	E:\HP-SHR\PMDB\log\transform.log
Command	bin/collection_audit -step reconcil -type WLSTransaction -category WLSSPI_RPT_METRICS
Max Retries	8640
Remaining Retries	8640
Max Execution Time (Mins)	60
Start Time	May 9, 2011 9:45:21 AM
End Time	May 9, 2011 9:45:43 AM

OK

In this alert details window, you can view the detailed error message, the command that was run when the error occurred, the remaining and the maximum number of retries, the maximum execution time, and the start and end times. If the job step continues to fail until the maximum number of retries is reached, the status of the stream will remain as error and will no longer be active. During the retry phase, if the maximum execution time is exceeded, the status of the stream changes to MAX_EXEC_TIME_EXCEEDED and will no longer be active. In this situation, the End Time will display NULL as the value.

The alert details window does not appear for those alerts that are caused by maximum execution time exceeded. You cannot click the Step Names for these alerts to open the details window. For more information on these alerts, you must go to the Data Processing page.

Performing additional troubleshooting tasks

- ABC alert - MAX_EXEC_TIME_EXCEEDED

- ABC alert - ERROR

Symptom: ABC alert - ERROR (Max exec time exceeded)

Description: On the Data Processing page of the Administration Console, the Step Status column displays the ERROR indicator for a particular job step. Checking the status of the job step shows the MAX_EXEC_TIME_EXCEEDED alert.

Cause: This alert is generated when the job step failed to complete executing within the defined execution time frame. To troubleshoot this type of error, perform the following steps:
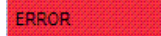
1. On the Data Processing page, click the job step icon in the diagram to open a detailed message box about that job step.

2. Note the Process ID of the job step.

3. Browse to `%PMDB_HOME%\log` folder and open the `dw_abclauncher.log` file.

4. Search for the Process ID in the log file.

5. Note the operating system PID of the job step. For example, an entry in the log file might look like:

   ```
   2010-11-23 02:50:12,522 INFO [com.hp.bto.dw.common.log.DwLog] -
   Started step 'DataLoad_Oracle_DiskSort' of stream
   'Database_Oracle@Facts_DiskSort' with Process ID =
   119615[PID:35408]
   ```

   In this example, the PID for the job step is 35408.

6. Validate this operating system PID with an operating system utility to check whether the process is running or not. For example, you can check for the process in the **Processes** tab of the Windows Task Manager window.

7. If the process is listed as active in the Windows Task Manager, perform any of the following steps:

   ▪ Wait for the job step to complete.

   ▪ If the job step execution does not complete after a day or two or if there is a problem with the job step corresponding to the PID according to the log file, end the process using the operating system utility and contact HP Support for assistance.

8. If the process is not listed in the operating system utility, wait for the workflow framework to rerun the job step. If the status continues to show Error, contact HP Support.

Symptom: ABC alert – ERROR (Max retries exceeded)

Description: On the Data Processing page of the Administration Console, the Step Status column displays the ERROR indicator for a particular job step. Checking the status of the job step shows the ERROR alert.

Resolution: This alert is generated when the job step failed to complete executing because of an error. To troubleshoot this type of error, perform the following steps:

1. On the Data Processing page, click the job step icon in the diagram to open a detailed message box about that job step.

2. Note the **Max Retries** and **Remaining Retries** fields.

3. If the **Remaining Retries** is zero, perform the following steps to abort the job stream:

   a. Click **Start > Run**. The Run dialog box opens.

   b. Type `cmd` in the **Open** field, and then press **ENTER**. The Command Prompt window opens.

c. Type the following command to abort the job stream:

   abcBatchControl -abort -streamId *<stream name>*

   In this instance, *<stream name>* is the name of the job stream.
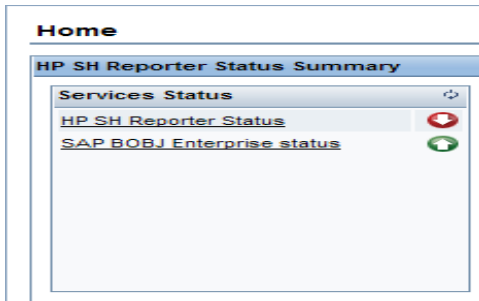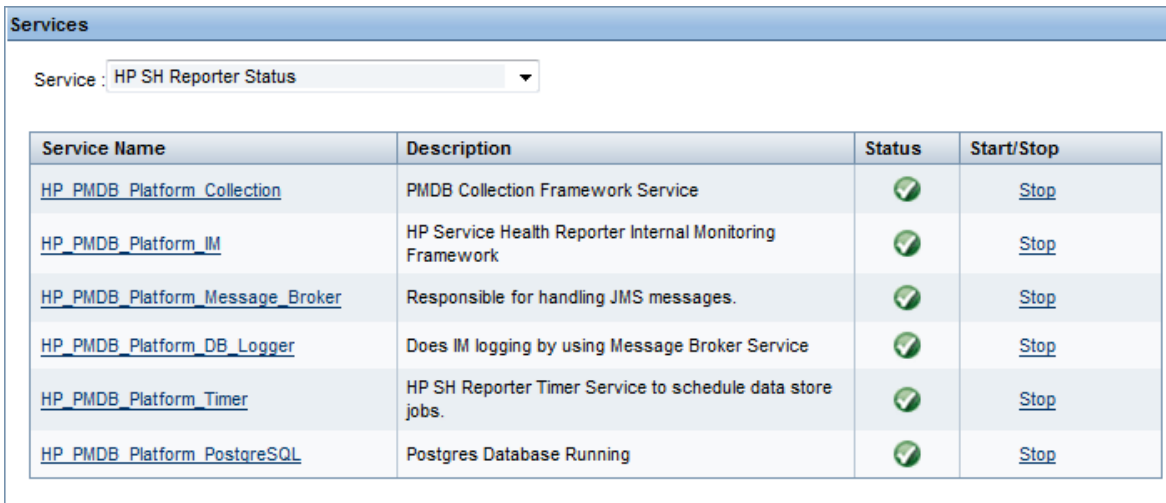
Understanding service alerts

The Service Status pane on the Home page shows the ⬇ icon for the SHR service status. This status indicates that the services are currently not running.

Figure 5: Service Status Pane on the Home Page

To investigate the problem further, you must check the Services page, where you can get the detailed information of the status of each SHR service.

Figure 6: Services Page in the Administration Console

In case of Error/Warning status against the "HP PMDB Platform Collection", ensure you have adequate free disk space on the drive where SHR is installed (at least 15% free space of total disk space).

If any of the service listed above shows error, restart the service from using the Start/Stop link provided or via the Windows Service panel. In case you have trouble restarting the service or in case the service is going down frequently, contact HP Support.

Understanding database alerts

Using the Home page of the Administration Console, you can monitor the status of the SHR database connection, the availability, and space usage of the database. In the event of any problems, appropriate alerts are displayed in the following sections of the Home page:

- Database Status—This pane displays the status of the database connection. In case the connection to the database cannot be established, the ⬇ status icon is displayed.

- Database Alerts—This table displays a list of the database-related warning or errors messages.

  For detailed information about the database, you can check the Database Monitoring page in the Administration Console.

Figure 7: The Database Monitoring Page
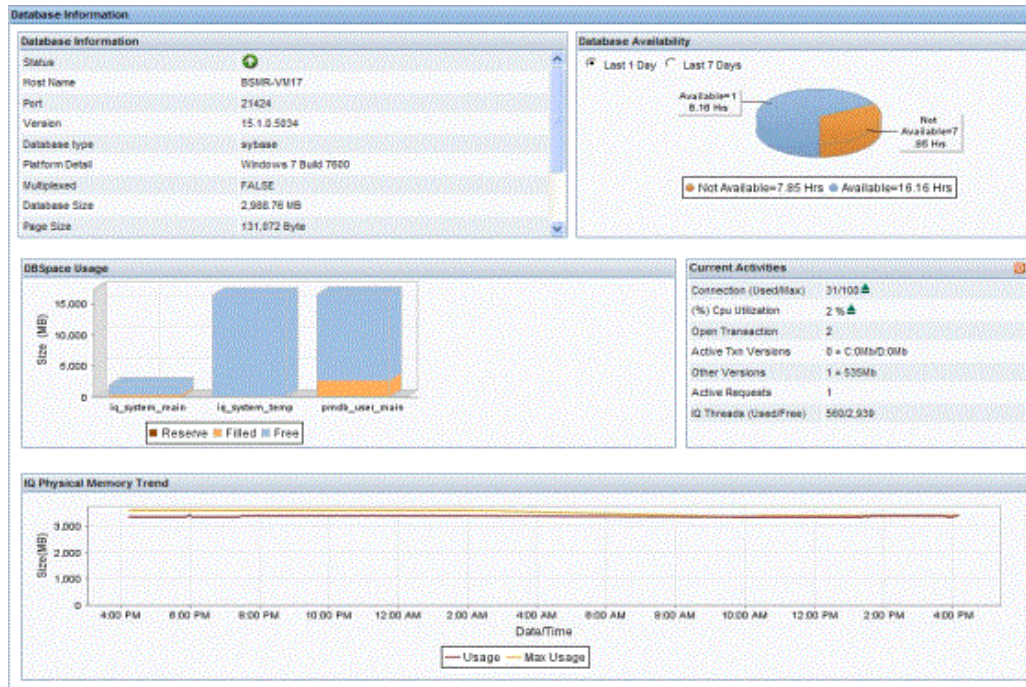
This section explains how to troubleshoot these database-related alerts.

Symptom: Database alert on home page

Description: The Database Alerts table on the Home page displays the message "Error while creating new db space file={0}.iq at the location {1}."

Resolution: When 70 to 85 percent of the database space is used up, a warning message is generated in the Database Alerts table. At the same, SHR automatically resolves this database space issue by creating a new database space file. However, if a problem occurs during the creation of the database space file, this error message is generated.

Currently, the new database file is created in the same folder where the Sybase IQ database files exist. If the drive does not have enough space, the above error occurs. To resolve this problem, check the disk space and add more according to your requirements or manually create the new database file in another drive.

Symptom: Database connection failure

Description: The Database Status pane on the Home page of the Administration Console shows a ○ icon.

Resolution: Restart the database (re-start HP_PMDB_Platform_Sybase service from Windows Service panel). In case you have trouble restarting the service or in case the service is going down frequently, contact HP Support.

**Note**: If Sybase IQ is installed on a remote system, you must perform these steps on the remote system. The name of the Sybase IQ service might be different from the one mentioned in the steps as it depends on the name that was defined when the service was first created in the remote system.

Symptom: Job streams not being loaded or run

Description: After installing the Content Packs and configuring SHR to collect data, you notice that the Data Processing page of the Administration Console does not display any active streams. The job streams are not being loaded or run.

Resolution: Ensure the HP_PMDB_Platform_Timer service is running.

Symptom: Unable to log on to SAP BOBJ InfoView from a virtual machine

Description: After launching the SAP BOBJ InfoView from the Administration Console on a virtual machine, you are not able to log on to it even after providing the correct user credentials.

Resolution: This problem occurs if SHR is installed on a virtual machine and at the time of installation, the host name on the virtual machine is not correctly set. The HP Software installer configured SAP BOBJ using the incorrect host name. However, the installer used correct host name in the %PMDB_HOME%/data/config.prp file. Ideally, the installer should use the same host name across all components.

To resolve this problem, perform the following steps:

1. Click Start > Programs > BusinessObjects XI 3.1 > BusinessObjects Enterprise > Central Configuration Manager. The Central Configuration Manager window opens.

2. Right-click Apache Tomcat 5.5.20, and then click Stop to stop the Tomcat service.

3. Right-click Server Intelligence Agent (HOML01GEATON) and then click Stop to stop the SIA service.

4. Right-click Server Intelligence Agent (HOML01GEATON) and then click Properties. The Server Intelligence Agent (HOML01GEATON) Properties dialog box opens.

5. On the Configuration tab, select the Change Cluster Name to check box, and then type the new name of the virtual or physical machine.

6. Click OK.

7. Right-click Server Intelligence Agent (HOML01GEATON) and then click Start to restart the SIA service first.

8. Right-click Apache Tomcat 5.5.20 and then click Start to restart the Tomcat service next.

9. Close the Central Configuration Manager window.

10. In the Administration Console, click Administration > SAP BOBJ. The SAP BOBJ page opens.

11. Click Launch InfoView. The BusinessObjects InfoView Login page opens.

Symptom: Sybase IQ process still runs after service is stopped

Description: Stopping the PMDB Platform Sybase service when the Sybase IQ database is down does not ensure that the Sybase IQ process (iqsrv15.exe) stops running.

Resolution: To resolve this problem, you must manually stop the Sybase IQ process after stopping the PMDB Platform Sybase service. Perform the following steps:

1. Stop the Sybase IQ process (iqsrv15.exe) from the Task Manager.

    a. On the desktop, right-click the taskbar, and then click Task Manager. The Windows Task Manager window opens.

    b. Click the Process tab.

    c. Select the Show processes from all users check box and then locate the iqsrv15.exe process in the displayed list of processes.

    d. Select the iqsrv15.exe process and then click End Process.

    Note: If Sybase IQ is installed on a remote system, you must perform these steps on the remote system. The name of the Sybase IQ service might be different from the one mentioned in the steps as it depends on the name that was defined when the service was first created in the remote system. For more information, see the *Installation and Configuration Guide* chapter 4, "Configuring SHR."

Symptom: Administration Console web page error

Description: While trying to log in or browse through the Administration Console, the following error message is displayed on the web page:

```
An Error Occurred:

duplicate Id for a component
cp_installed:cp_installed_table:j_id61

about:blank#

java.lang.IllegalStateException: duplicate Id for a component
cp_installed:cp_installed_table:j_id61

at
org.ajax4jsf.application.TreeStructureNode.apply(TreeStructureNode
.java:68)

at
org.ajax4jsf.application.TreeStructureNode.apply(TreeStructureNode
.java:92)
```

Resolution: This error occurs because of duplicate IDs that were created for the same web page. To resolve this, clear the web browser cache and refresh the page.

Troubleshooting data source-related issues

Troubleshooting HP Operations agent data source issues

How to check data availability on the HP Operations agent node using ovcodautil

Set the environment variable in the cmd prompt to get additional options
C:\>SET CODAMAGIC=0x05201993

1. To dump latest data in the datasource for all instances
    Command: ovcodautil –dumpds <datasource>
    Example: ovcodautil –dumpds SCOPE

2. To dump metric list of a data source and a class
    Command: ovcodautil –ds <datasource> –o <class> –n <hostname> -obj
    Example: ovcodautil –ds SCOPE –o CPU –n test.hp.com -obj

3. To dump last data for a data source and a class
    Command: ovcodautil –ds <datasource> –o <class> –n <hostname> -m
    <comma_separated_metrics> -last
    Example: ovcodautil –ds SCOPE –o CPU –n test.hp.com -m BYCPU_ID, BYCPU_STATE
    –last

4. To dump first data for a data source and a class
    Command: ovcodautil –ds <datasource> –o <class> –n <hostname> -m
    <comma_separated_metrics> -first
    Example: ovcodautil –ds SCOPE –o CPU –n test.hp.com -m BYCPU_ID, BYCPU_STATE
    –first

5. To dump last hours summarized (by five min) data for a data source and class
    Command: ovcodautil –ds <datasource> –o <class> –n <hostname> -m
    <comma_separated_metrics_list> -b <mm/dd/yyyy.hh:mi:ss> -e <mm/dd/yyyy.hh:mi:ss> -s
    fivemin
    Example: ovcodautil –ds SCOPE –o CPU –n test.hp.com -m BYCPU_ID, BYCPU_STATE
    -b 07/18/2012.10:00:00 -e 07/18/2012.11:00:00 -s fivemin

6. To dump last hours raw data for a data source and class
    Command: ovcodautil –ds <datasource> –o <class> –n <hostname> -m
    <comma_separated_metrics_list> -b <mm/dd/yyyy.hh:mi:ss> -e <mm/dd/yyyy.hh:mi:ss> -
    raw
    Example: ovcodautil –ds SCOPE –o CPU –n test.hp.com -m BYCPU_ID, BYCPU_STATE
    -b 07/18/2012.10:00:00 -e 07/18/2012.11:00:00 –raw

7. To dump last hours summarized (by five min) data for a data source and class in a CSV
    format
    Command: ovcodautil –ds <datasource> –o <class> –n <hostname> -m
    <comma_separated_metrics_list> -b <mm/dd/yyyy.hh:mi:ss> -e <mm/dd/yyyy.hh:mi:ss> -s
    fivemin -l "," > file.csv
    Example: ovcodautil –ds SCOPE –o CPU –n test.hp.com -m BYCPU_ID, BYCPU_STATE
    -b 07/18/2012.10:00:00 -e 07/18/2012.11:00:00 -s fivemin > cpu.csv

How to troubleshoot connectivity issues

Follow the steps mentioned below to check the reachability and availability of data source for
reporting.

Troubleshooting Guide
Troubleshooting data source-related issues

1. Check that the host is reachable
   ping -n <hostname>
   If ping fails, check the connectivity to the host.
   Note: If the node is behind a firewall, ping might be blocked.

2. Check to see if the agent is up and running using following command.

   ovcodautil -ping -n <hostname>

```
C:\>ovcodautil          test.hp.com
Ping of 'OvBbcCb' at: 'http://test.hp.com:383/Hewlett-Packard/OpenView/BBC/ping' successful
Ping of 'Coda' at: 'http://test.hp.com:383/Hewlett-Packard/OpenView/Coda/' successful

C:\>_
```

   Ping of OvBbcCb and Coda should be successful. But if the ovcodautil ping fails
   check the status of agent by running ovc -status command on the agent system and
   check that all the services are running as shown in sample output below

```
# ovc -status
coda        OV Performance Core            COREXT     (14434)  Running
opcmsgi     OVO Message Interceptor        AGENT,EA   (14444)  Running
ovbbccb     OV Communication Broker        CORE       (14425)  Running
ovcd        OV Control                     CORE       (14424)  Running
ovconfd     OV Config and Deploy           COREXT     (14426)  Running
#
```

How to troubleshoot when there is no CPU data on reports for the past 2 days

Follow the steps mentioned below to debug data availability on source.

1. Check that the host is reachable
   ping -n <hostname>
   If ping fails, check the connectivity to the host.
   Note: If the node is behind a firewall, ping might be blocked.

2. Check to see if the agent is up and running using following command.
   ovcodautil -ping -n <hostname>

```
C:\>ovcodautil -ping -n test.hp.com
Ping of 'OvBbcCb' at: 'http://test.hp.com:383/Hewlett-Packard/OpenView/BBC/ping' successful
Ping of 'Coda' at: 'http://test.hp.com:383/Hewlett-Packard/OpenView/Coda/' successful

C:\>_
```

   Ping of OvBbcCb and Coda should be successful. But if the ovcodautil ping fails
   check the status of agent by running ovc -status command on the agent system and
   check that all the services are running as shown in sample output below

```
# ovc -status
coda        OV Performance Core            COREXT     (14434)  Running
opcmsgi     OVO Message Interceptor        AGENT,EA   (14444)  Running
ovbbccb     OV Communication Broker        CORE       (14425)  Running
ovcd        OV Control                     CORE       (14424)  Running
ovconfd     OV Config and Deploy           COREXT     (14426)  Running
#
```

3. Check to see if there is data collected and logged in OA/PA by running following
   command.
   ovcodautil -ds SCOPE -o CPU -m BYCPU_ID,BYCPU_CPU_TOTAL_UTIL -h -last -n

```
ovcodautil -ds SCOPE -o CPU -m BYCPU_ID,BYCPU_CPU_TOTAL_UTIL -h -last –n
test.example.hp.com
```

Time Stamp	CPU ID	Total CPU %
03/26/12 5:05:00	0	0.78
03/26/12 5:05:00	1	1.92
03/26/12 5:05:00	2	2.33
03/26/12 5:05:00	3	2.07
03/26/12 5:05:00	4	1.19
03/26/12 5:05:00	5	2.45
03/26/12 5:05:00	6	1.17
03/26/12 5:05:00	7	1.10

If you don't see data in last 2 days please contact HP Support

How to troubleshoot data holes on reports

Follow the steps mentioned below to debug data availability on source.

1. Check that the host is reachable
   ping -n <hostname>
   If ping fails, check the connectivity to the host.
   Note: If the node is behind a firewall, ping might be blocked.

2. Check to see if the agent is up and running using following command.
   ovcodautil -ping -n <hostname>

   Ping of OvBbcCb and Coda should be successful. But if the ovcodautil ping fails check
   the status of agent by running ovc -status command on the agent system and check
   that all the services are running as shown in sample output below

```
# ovc -status
coda        OV Performance Core         COREXT    (14434)  Running
opcmsgi     OVO Message Interceptor     AGENT,EA  (14444)  Running
ovbbccb     OV Communication Broker     CORE      (14425)  Running
ovcd        OV Control                  CORE      (14424)  Running
ovconfd     OV Config and Deploy        COREXT    (14426)  Running
#
```

3. Run the following command to check if you have one row every five minutes between
   the given start and end time. Start and end time format are mm/dd/yyyy.hh:mi:ss
   ovcodautil -ds SCOPE -o GLOBAL -m
   GBL_MEM_UTIL,GBL_CPU_TOTAL_UTIL,GBL_DISK_UTIL -h -b
   03/25/2013.10:00:00 -e 03/25/2013.11:00:00 -n test.example.com

```
# ovcodautil -ds SCOPE -o GLOBAL -m GBL_MEM_UTIL,GBL_CPU_TOTAL_UTIL,GBL_DISK_UTIL -h -b 03/25/2013.10:00:00 -e 03/25/2013.11:00:00 -n  piiat1.ind.hp.com
      Time                      Memory
      Stamp          CPU %         %

03/25/13 10:00:00     1.77       88.70
03/25/13 10:05:00     2.00       88.75
03/25/13 10:10:00     1.69       88.74
03/25/13 10:15:00     1.64       88.75
03/25/13 10:20:00     1.65       88.75
03/25/13 10:25:00     1.44       88.75
03/25/13 10:30:00     1.50       88.75
03/25/13 10:35:00     1.66       88.75
03/25/13 10:40:00     1.48       88.75
03/25/13 10:45:00     1.62       88.75
03/25/13 10:50:00     1.53       88.75
03/25/13 10:55:00     1.33       88.75
#
```

How to troubleshoot missing dimensions - SHR shows one instance even if there are multiple instances

Follow the steps mentioned below to debug data availability on source.

1. Check that the host is reachable
    ping -n <hostname>
    If ping fails, check the connectivity to the host.
    Note: If the node is behind a firewall, ping might be blocked.

2. Check to see if the agent is up and running using following command.
    ovcodautil -ping -n <hostname>

    Ping of OvBbcCb and Coda should be successful. But if the ovcodautil ping fails check the status of agent by running ovc -status command on the agent system and check that all the services are running as shown in sample output below

    ```
    # ovc -status
    coda        OV Performance Core         COREXT      (14434)  Running
    opcmsgi     OVO Message Interceptor     AGENT,EA    (14444)  Running
    ovbbccb     OV Communication Broker     CORE        (14425)  Running
    ovcd        OV Control                  CORE        (14424)  Running
    ovconfd     OV Config and Deploy        COREXT      (14426)  Running
    #
    ```

3. Check that there are **KEY** metrics by running following command
    ovcodautil -ds DBSPI_ORA_REPORT -o DBSPI_ORA_REPORT -obj -n
    test.example.com

DBSPI_ORA_REPORT	**KEY**	**UTF8**	**INSTANCENAME**
DBSPI_ORA_REPORT	**KEY**	**R64**	**METRICID**
DBSPI_ORA_REPORT	**KEY**	**R64**	**VALUEID**
DBSPI_ORA_REPORT	GGE	R64	VALUE
DBSPI_ORA_REPORT	**KEY**	**UTF8**	**SYSTEMID**
DBSPI_ORA_REPORT	**KEY**	**UTF8**	**OBJECTID**

    If there are "NON" instead of "KEY" than SPI is not configured for multiple instances data logging to CODA. This would result in data loss. Same step would apply to any Agent SPIs
    To switch the Data logging from DSI and CODA, create following file
    %OVDATADIR\conf\dsi2ddf\nocoda.opt
    Note: By default, nocoda.opt will not be present.

    Presence of nocoda.opt file implies that all the data is getting logged in to CODA (except the datasources that are specified in the nocoda.opt file).
    Absence of the nocoda.opt file implies that all the data is getting logged into DSI. SHR does not support multi-instance data logging to DSI.

4   Check that the last logged data time stamp for each of the instance. Check that all missing instances are listed and there data time stamp is same as with the instance which shows up data in SHR.

    ovcodautil -ds DBSPI_ORA_REPORT -o DBSPI_ORA_REPORT -last -flat -n <hostname>
    C:\>ovcodautil -ds DBSPI_ORA_REPORT -o DBSPI_ORA_REPORT -last -flat -n
    USNYCDBS
    TEST.EXAMPLE.COM
    === 03/26/13 9:15:00 PM
    Instance   : 0
    INSTANCENAME   : p123
    METRICID   : 119.00
    VALUEID   : 1.00

```
VALUE                    : 109.71
SYSTEMID                 : test.example.com
OBJECTID                 : p123


=== 03/26/13 9:15:00 PM
Instance                 : 1
INSTANCENAME             : p123
METRICID                 : 201.00
VALUEID                  : 1.00
VALUE                    : 5.00
SYSTEMID                 : test.example.com
OBJECTID                 : p123
```

How to troubleshoot data collection problems

Description: Data collection in SHR fails with an `Address already in use` error logged in the `topologycollector.log` file.

Resolution: This error occurs when the number of TCP/IP ports used exceeds the default value of 5000. To resolve this problem, you must make some changes in the Windows Registry. Follow these steps:

1. Click **Start > Run**. The Run dialog box opens.

2. In the **Open** box, type `regedit`. The Registry Editor window opens.

3. On the left pane, expand **HKEY_LOCAL_MACHINE**, expand **SYSTEM**, expand **CurrentControlSet**, expand **Services**, expand **Tcpip**, and then click **Parameters**.

4. On the right pane, right-click anywhere, point to **New**, and then click **DWORD Value** to add a new entry. Add the following entries:

    - MaxUserPort = 65535 (decimal)

    - MaxFreeTcbs = 65535 (decimal)

    - MaxHashTableSize = 65535 (decimal)

    - TcpTimedWaitDelay = 30 (decimal)

Restart your system after making the changes in the Registry Editor.

Troubleshooting RTSM Issues

How to troubleshoot RTSM connectivity issues

Resolution: If it's a BSM distributed setup, please ensure that you have provide hostname and port of the Data Processing Server and not of the Gateway Server

How to troubleshoot issues when SHR does not collect data from all RTSM-discovered HP Operations agent nodes

1. Login to BSM console using following URL:
    http://<hostname>/topaz
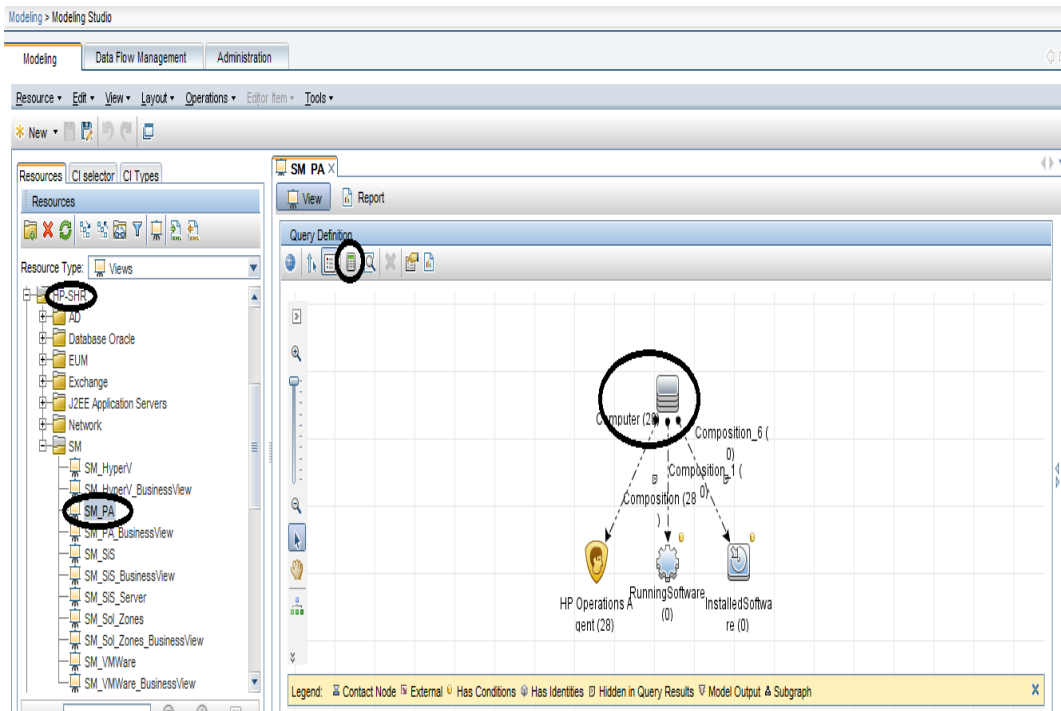2. Navigate to Admin->RTSM Administration.
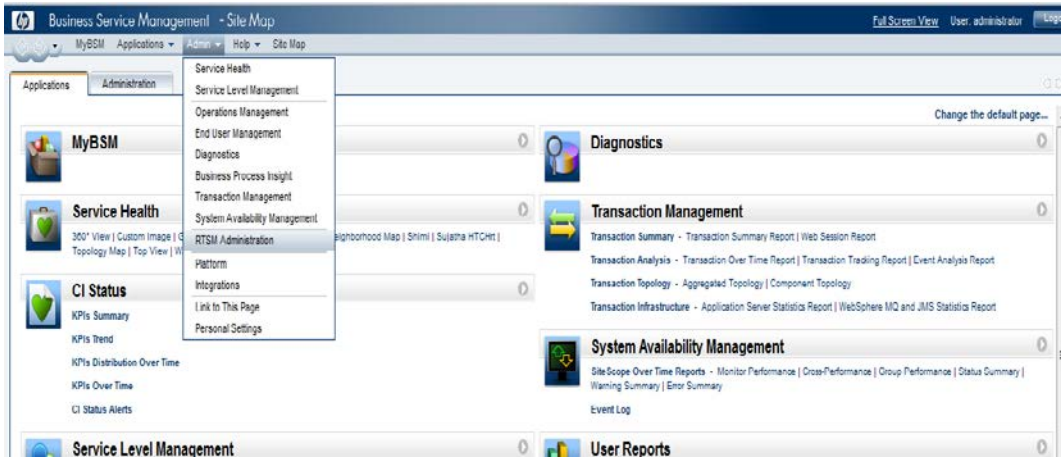
3. Navigate to Modeling Studio.

4. On the modeling studio page, go to the Resources tab, expand HP-SHR folder -> SM -> SM_PA, and then double-click on SM_PA view.
5. In the left pane, the view appears. Click on the calculator icon on the top of the left pane and check how many instances of the CI Type "Computer" are available.

6. In the sample shown above, there are 28 instances of the CI Type "Computer." This means there should be 28 agent data sources from where SHR collects performance metrics and reports on System Infrastructure Management.

How to find attribute value for the "HP Operations Agent" CI type

1. Right click on "Computer" and select "Show Element Instances." You will see a popup window that shows the CIs and their attributes.
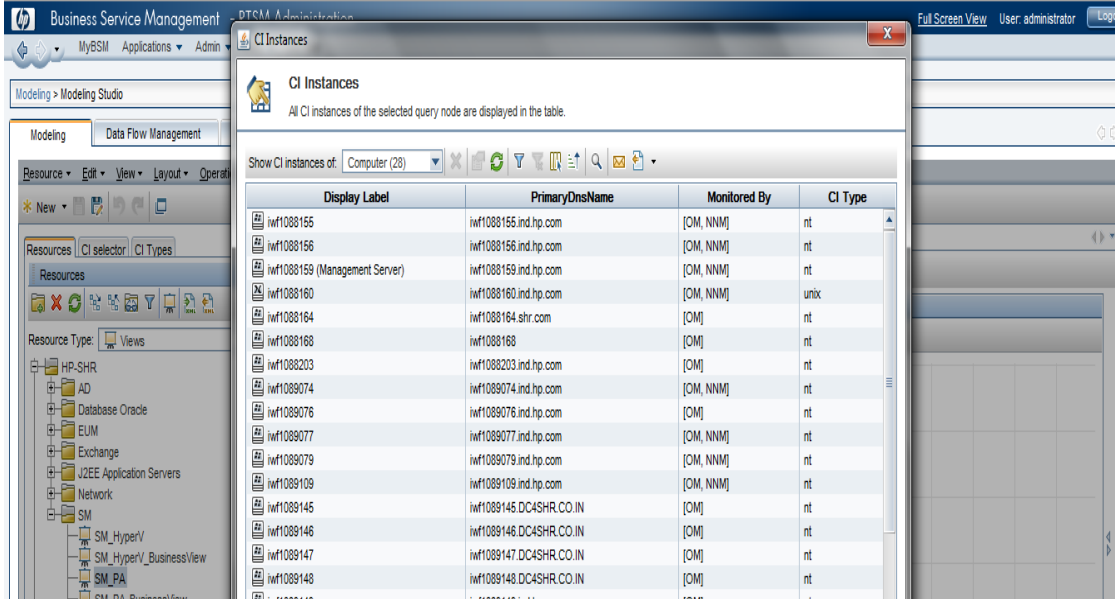
2. If the "PrimaryDnsName" attribute of the "Computer" CI type is blank for a CI (host) in that view , then that CI (or host) will not be configured for performance metrics collection
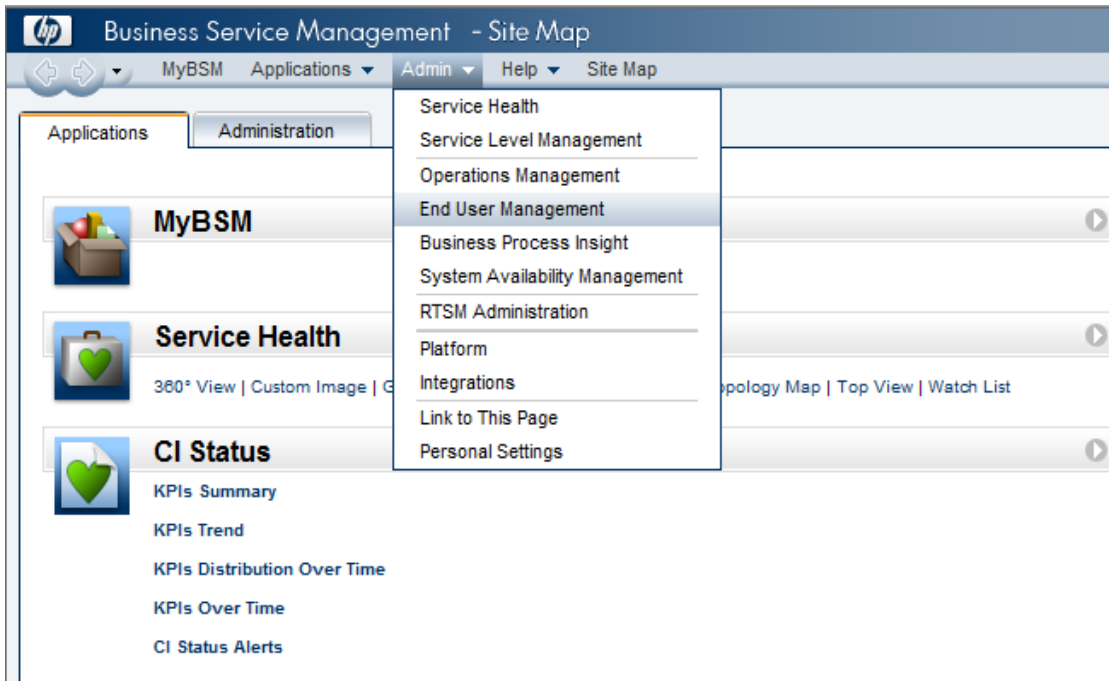
Troubleshooting BPM/RUM issues

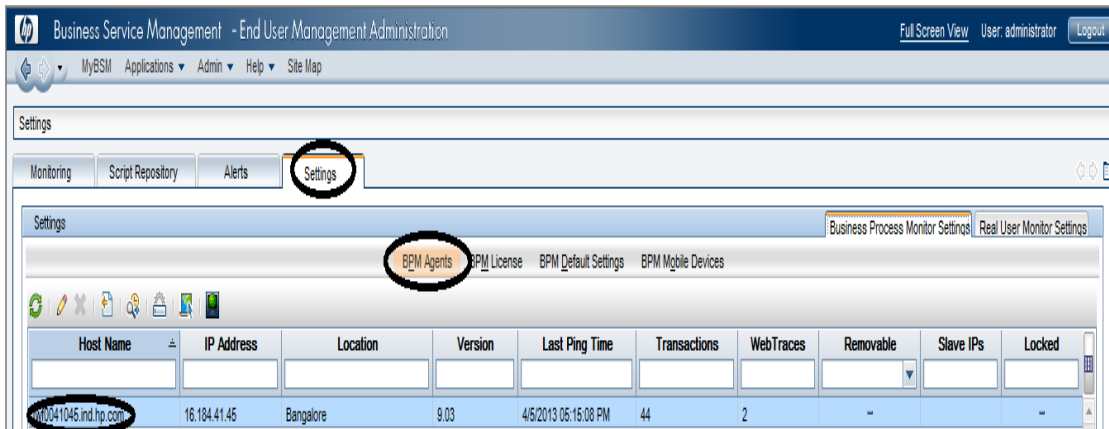## How to check whether BPM agents are configured

1. Login to BSM console using following URL:
   http://<hostname>/topaz

2. Go to Admin-> End User Management

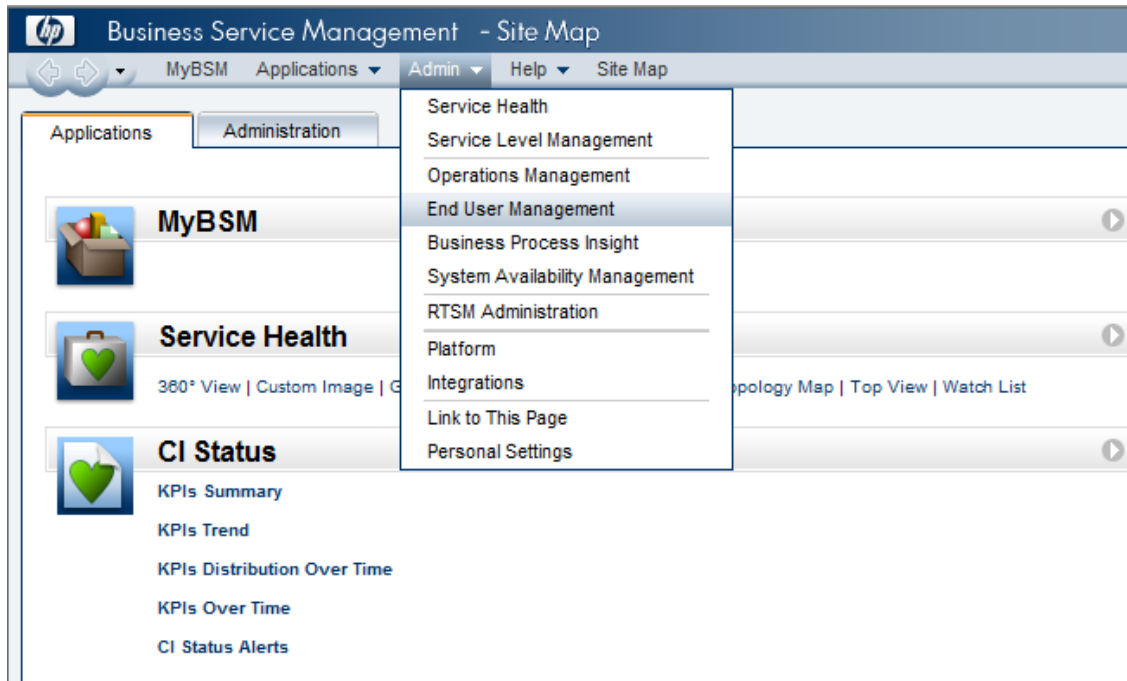3.   Navigate to Settings -> select Business Process Monitor Settings and select BPM Agents.

4.   Check that BPM agents are configured in BSM
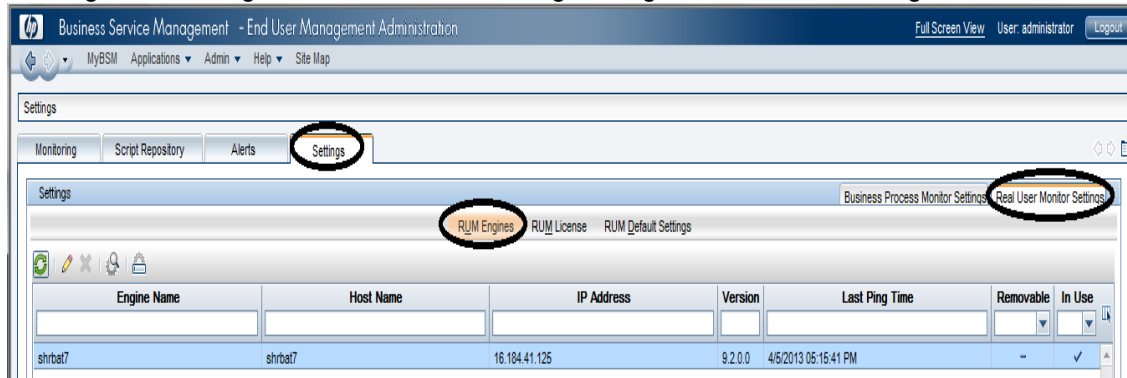
How to check whether RUM agents are configured

1. Login to BSM console using following URL:
     http://<hostname>/topaz
2. Go to Admin-> End User Management

3. Navigate to Settings -> Real User Monitoring Settings and select RUM Engines.

4. Check that the RUM engine is configured in BSM.

How to check data availability for reporting in BPM

SHR collects data for reporting on BPM performance metrics from profile database. So data availability should be checked in profile database.
SHR uses Profile DBCollector to get data from the profile database and generate CSV files that will later be consumed by the ETL streams for transformation and loading. DBCollector has two approaches to query data from source database and generates CSVs.
The collection policy decides on which approach to follow to generate CSVs.

Two-step process to generate CSVs:
   1. The collector queries the profile database and creates a replica of source database tables in SHR's Sybase IQ database.
   2. SHR performs a join query within the source database replica and generates CSVs.
One-step process to generate CSVs:
SHR queries each table individually and incrementally for creating the replica in the SHR Sybase IQ database. For the dimension table, SHR gets full table data, but for the fact tables, SHR uses the incremental data.
SHR uses SAMPLETIME column from all the fact tables/view to perform incremental collection to get two hour worth of data every hour. It queries one hour of duplicate data every hour to

accommodate late-arriving data in the profile database. The SAMPLETIME column in the profile database holds time in UTC (seconds from 1/1/1970 00:00:00).
SHR retains the latest SAMPLETIME column value from each collection cycle for each fact table separately and uses that in the next run as the starting point for collection.
Use following command to generate the queries that SHR fires on the profile database to get data:
shr_utility –getQueries {PMDB_HOME}/lib/bpm_dbcollector.xml
This command generates the queries that you can run on the source profile database to check for availability of data.

How to check data availability for reporting in RUM

SHR collects data for reporting on RUM performance metrics from the profile database. Therefore, the data availability should be checked in the profile database.
SHR uses Profile DBCollector to get data from the profile database and generate CSVs that will later be consumed by the ETL streams for transformation and loading
DBCollector has two approaches to query data from source database and generates CSVs.
The collection policy decides on which approach to follow to generate CSVs.

Two-step process to generate CSVs:
1. The collector queries the profile database and creates a replica of source database tables in SHR's Sybase IQ database.
2. SHR performs a join query within the source database replica and generates CSVs.

One-step process to generate CSVs:
SHR queries each table individually and incrementally for creating the replica in the SHR Sybase IQ database. For the dimension table, SHR gets full table data, but for the fact tables, SHR uses the incremental data.
SHR uses SAMPLETIME column from all the fact tables/view to perform incremental collection to get two hours' worth of data every hour. It queries one hour of duplicate data every hour to accommodate late-arriving data in the profile database. The SAMPLETIME column in the profile database holds time in UTC (seconds from 1/1/1970 00:00:00).
SHR retains the latest SAMPLETIME column value from each collection cycle for each of the fact table separately and uses this in the next run as the starting point for collection.
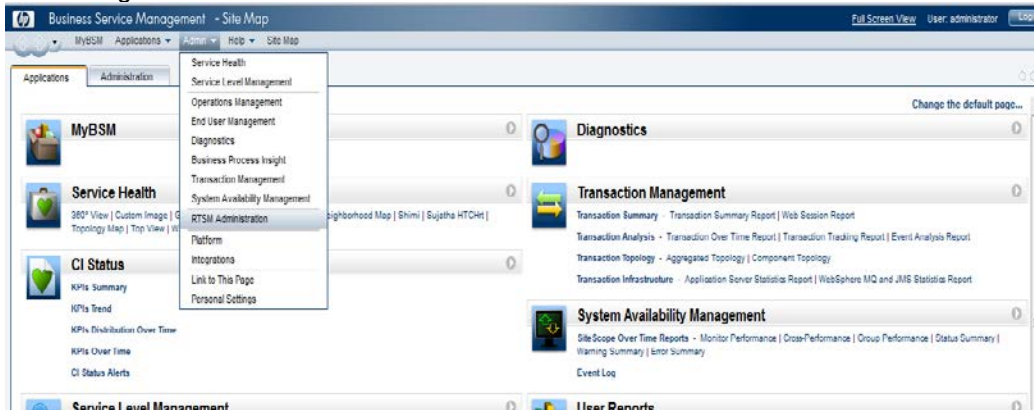Use following command to generate the queries that SHR sends to the profile database to get data:
shr_utility –getQueries {PMDB_HOME}/lib/RUM_dbcollector.xml
This command generates the queries that you can run in the source profile database and check for the availability of data.

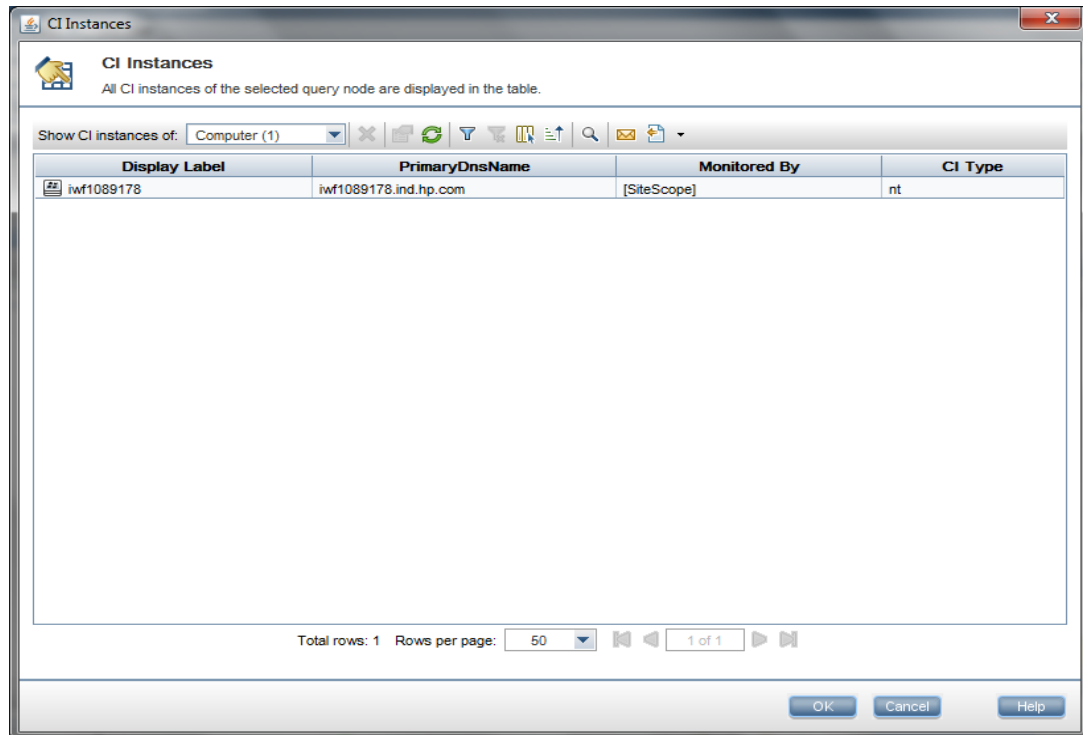# Troubleshooting HP SiteScope Issues

How many Site Scope servers is SHR reporting on?

1. Log on to the BSM admin console by using the following URL:
   http://<bsm_host_name>/topaz
2. Navigate to Admin->RTSM Administration

3. Navigate to Modeling Studio

4. On the modeling studio page, go to the Resources tab and expand HP-SHR folder -> SM -> SM_SiS_Server and double click on SM_SiS_Server view.

5. In the right pane with view details, the instances of CI Type "Computer" indicate the number of Site Scope servers that SHR gets in to for reporting.

6. To check details of SiteScope servers, right-click on the "Computer" CI type, and then select "Show Element Instances." Check the PrimaryDnsName attribute. SHR uses this attribute to configure collection and get the performance metrics of the remote servers configured in SiteScope.

How many servers (Windows/UNIX) does SiteScope monitor?

1. Log on to SiteScope using the following URL:
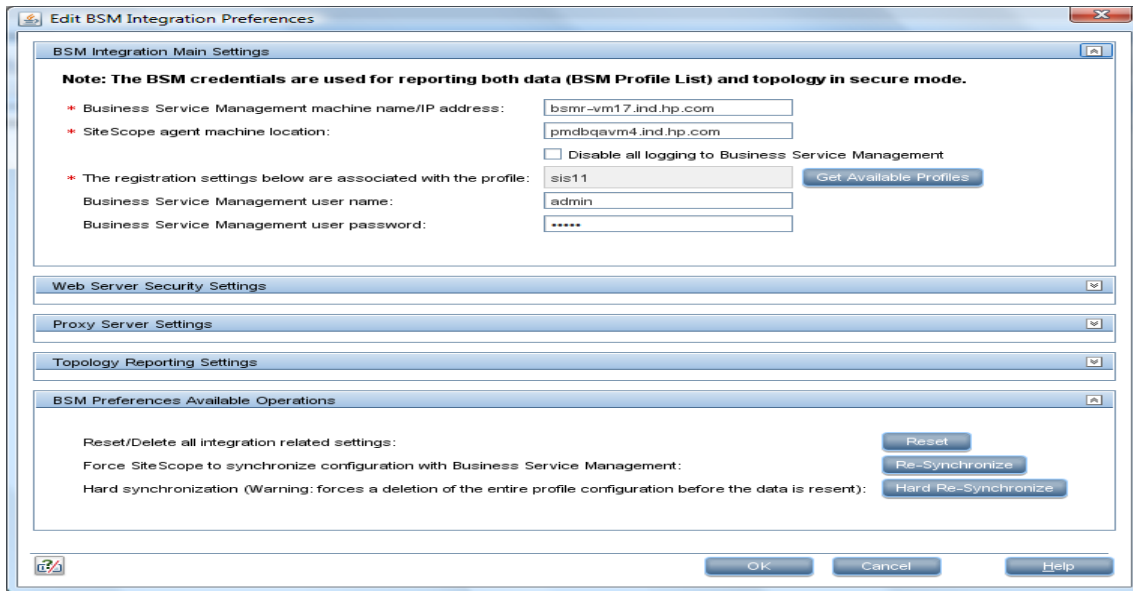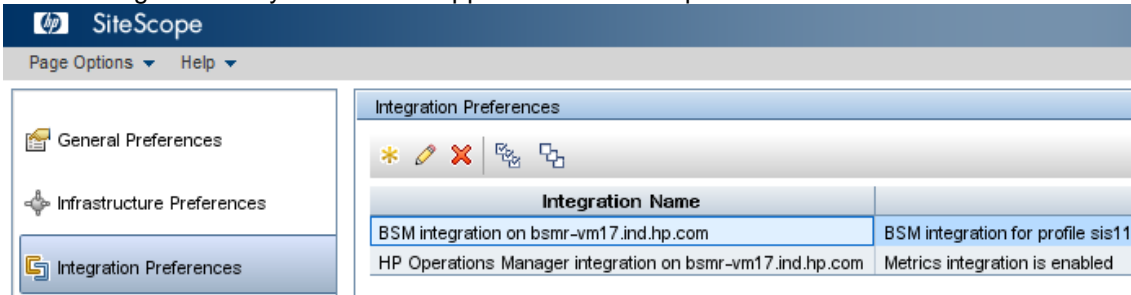   http://<hostname>:8080/SiteScope/servlet
2. Go to Remote Server
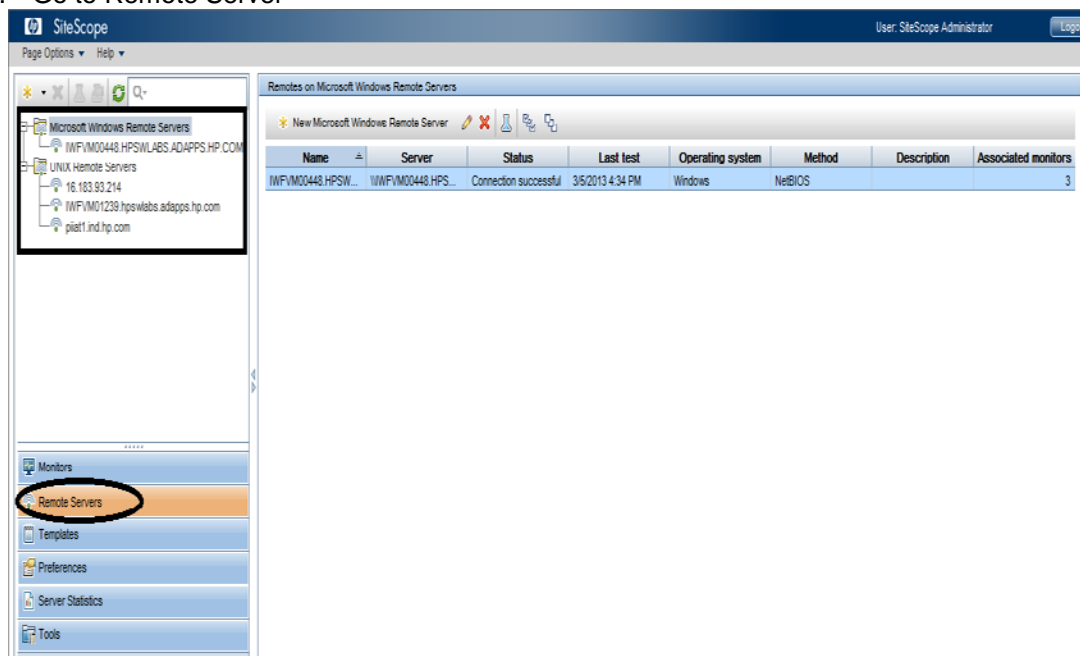
How to check that BSM integration is enabled in SiteScope?

1. Log on to the SiteScope home page.
2. Go to Preferences-> Integration Preferences.

3. An integration entry for BSM will appear once SiteScope is added in BSM.

All managed nodes from SiteScope will be automatically synchronized to BSM once the integration is complete. You can perform the Re-Synchronize or Hard Re-Synchronize action if required.

How to check that CODA integration is enabled in SiteScope

1. Log on to the SiteScope home page.
2. Go to Preferences - Integration Preferences.
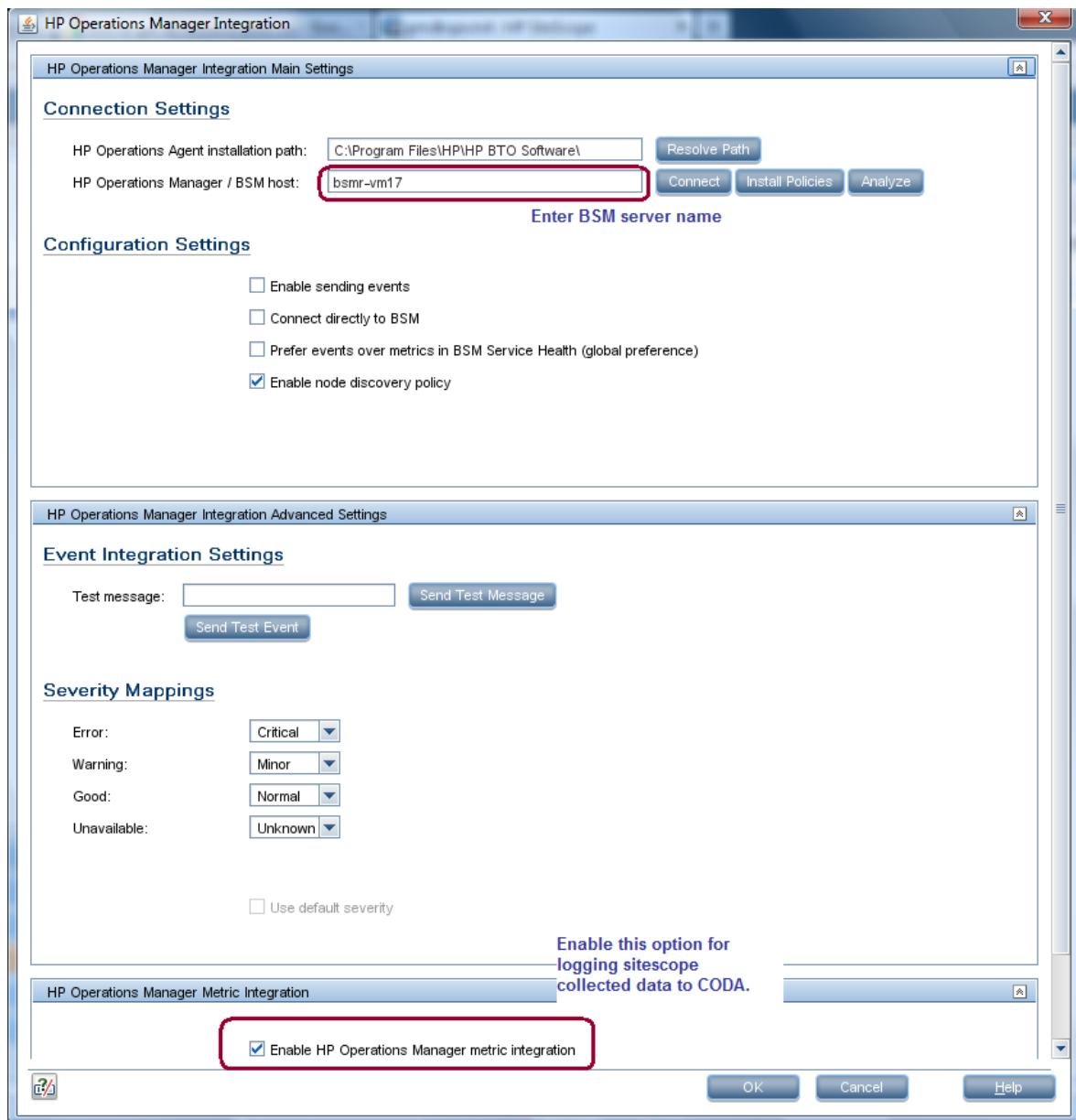3. An integration entry for BSM will appear once SiteScope is integrated with CODA.
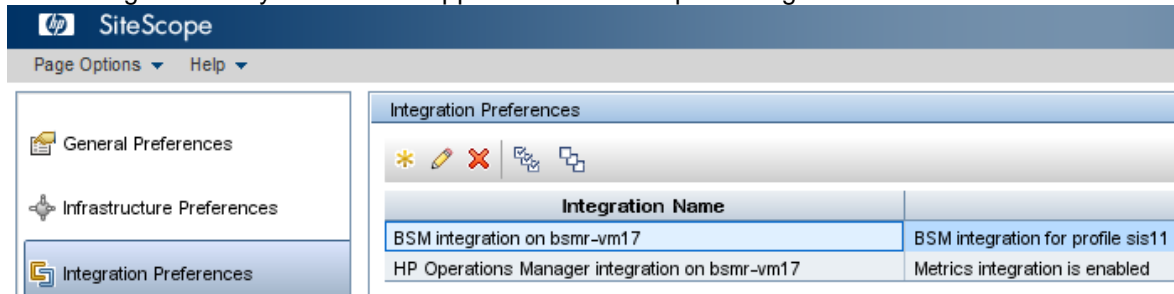
4. If the integration is not listed in the above screen, click on the * icon and select "HP Operations Manager Integration."

   Enable SiteScope to integrate with the HP Operations agent for data logging.

How to check the availability of the SiteScope performance data in CODA

SHR Queries the CODA data store running on Site Scope server to get performance metrics for reporting.
SHR queries the following classes within the "AGENTLESS" data source to get the performance data:

    a. GLOBAL
    b. MEMORY
    c. DISK
    d. SYSTEM
    e. QUEUE__LENGTH
    f. QUEUE__STATISTICS
    g. UPTIME
    h. PHYSICALDISK

Troubleshooting Guide

Troubleshooting data source-related issues

       i.   IO__STATS
       j.   NETIF
       k.   NETWORK__INTERFACE
       l.   NETWORK__STATS
       m. CPU
       n. FILESYSTEM

Refer to **Troubleshooting HP Operations agent data source issues** for details on how to check availability of a class and a data source.

Troubleshooting Guide
Troubleshooting data source-related issues