HPE Operations Bridge Reporter

Software Version: 10.21

Troubleshooting Guide

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Chapter 1: Troubleshooting Operations Bridge Reporter

Operations Bridge Reporter (OBR) 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 Operations Manager (OM) 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, OBR 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 OBR 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 may encounter while using OBR and provide steps to troubleshoot them. Each problem is documented with a symptom, the description about the symptom and resolution for the symptom.

When to use this guide?

Use this guide when you:

- Encounter problems in installing, configuring and operating OBR.
- Notice alerts in the OBR Administration Console related to database connection, data collection, job streams, or services.
- Cannot view any data in the reports.
- Problems in data backup and recovery.

How to use this guide?

This guide is organized into the following sections:

- Troubleshooting Installation Issues
- Troubleshooting Administration Issues
- Troubleshooting Reporting Issues
- Troubleshooting Data Source Issues
- Troubleshooting Client Authentication Certificate Problems
- Troubleshooting Disaster Recovery Issues

Target Audience and Prerequisites

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

- Interactive Installation Guide
- Configuration Guide
- Concepts Guide
- Online Help for Administrators
- Online Help for Users
- Release Notes

Chapter 2: Introducing the OBR Log Files

This section covers the following topics:

Configuring DEBUG Levels in the OBR Log Files

Before you can effectively use a log file to troubleshoot a problem, you must have detailed information about that problem 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 OBR 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, perform the following steps:

1. Open the `BSMRLogConfigClient.xml` file from the following location:

   For Windows: `%PMDB_HOME%\config`

   For Linux: `$PMDB_HOME/config`

2. Search for a particular log file name and note down its appender name.

   For example, to modify the level of the `transform.log` file, first search for the `transform.log` file. Each log file in OBR 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:

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

```
<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>
```

As shown in the preceding example, for the `transform.log` file, the appender name is `transformAppender`.

3. 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>
```

4. In the *<logger>* tag of the string, change the *<level value>* from INFO to DEBUG.
5. Save changes and close the file.

Configure DEBUG Levels for the following log files in the location `{PMDB_HOME}/config`:

- loader
- aggregate
- DR
- customscript
- pollerDataProcessor
- analyzeStat

To configure DEBUG level for the above mentioned log files, follow these steps:

1. Go to the following path:

   On Windows: `%PMDB_HOME%\config`

   On Linux: `$PMDB_HOME/config`

2. Edit the following field in `shrlogger.conf` file for aggregate:

```
log4perl.aggregate.aggregate=DEBUG
```

where, `INFO` is the default level.

You can follow the same steps to configure the DEBUG level for other log files in the `shrlogger.conf` file.

The `ETLLogConfig.xml` can be used to configure the DEBUG level for the collect, mapping and reconcile logs of ETL.

To set the DEBUG level for a log file, perform the following steps:

1. Open the `ETLLogConfig.xml` file from the following location:

   For Windows:`%PMDB_HOME%\config`

   For Linux:`$PMDB_HOME/config`
2. Search for a particular log file name and note down its appender name.
3. Search for the appender name string in the file. The Logger component for the specified appender name is displayed.
4. In the <*logger*> tag of the string, change the <*level value*> from INFO to DEBUG.
5. Save changes and close the file.

OBR Log File Inventory

OBR uses the `log4j` API and `log4perl` for logging information. It maintains a log file for each module placed in the following location:

For Windows: `%PMDB_HOME%\log`

For Linux: `$PMDB_HOME/log`

The following table lists the log files and their location available in OBR:

Log File	Location on Disk	Module	Description
`AdministratorService.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	Administrator Service	Contains log messages related to the service PMDB Platform Administrator.
`aggregate.log`	**Windows:**`%PMDB_`	Aggregate	Contains summarized

Log File	Location on Disk	Module	Description
	HOME%\log\ **Linux:**$PMDB_HOME/log		log messages related to the data from the rate tables to the hourly, daily, and forecast tables, and from the hourly tables to the daily tables.
aggrgen.log	Windows:%PMDB_HOME%\log\ Linux:$PMDB_HOME/log	Aggregate	Contains log messages related to aggregate script generation. Appender:aggrgenAppender
analyseStat.log	Windows:%PMDB_HOME%\log\ Linux:$PMDB_HOME/log	Database	Contains log messages related to Vertica database maintenance.
autopassJ.log	**Windows:** %PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	OBR Licensing	Contain messages for license-related tasks. Appender: AutopassAppender
backend.log	**Windows:** %PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	trendproc, trendtimer	Contains log information for all steps in the data processing job. Appender: backendLogAppender
BOEInstall_0.log BusinessObjects.12.7.log	**Windows:**<SAP BOBJ Install Directory>\Business Objects Enterprise 12.0\Logging\BOEInstall_0.log **Linux:** /opt/HP/BSM/BO/setu	Business Objects	SAP BusinessObjects installation log files.

Log File	Location on Disk	Module	Description
	p/logs		
BSMRAbcservice.log	**Windows:** %PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Orchestration	Contains log messages related to the service PMDB Platform Orchestration. Appender: abclogAppender
BSMRApp.log	**Windows:** %PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	NA	Application-wide log file that contains error messages from all the OBR modules except data processing. Appender: bsmrappender
BSMRCollectionService.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Collector	Contains log messages related to the service PMDB Platform Collection.
BSMRDBLoggerService.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Logger	Contains log messages related to the service PMDB Platform DB Logger.
bsmrfrontend.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Administration Console	Contains log messages related to the Administration Console UI web application. Appender: BSMRFrontEndAppender
bsmrim.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Internal Monitoring	Contains log messages related to the internal monitoring of data processing job streams, Performance Management database

Log File	Location on Disk	Module	Description
			(PMDB) platform, and Content Packs. `Appender: BSMRIMAppender`
`BSMRIMService.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	Internal Monitoring	Contains log messages related to the service PMDB Platform IM.
`bufferSync.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	ETL	Contains log messages related to data flow from collectStep.log, mapperStep.log and reconcileStep.log to stage.log.
`catalina*.log`	**Windows:**`%PMDB_HOME%\adminServer\logs` **Linux:**`$PMDB_HOME/log/`	Administrator Console	Contains log messages about the Apache Tomcat server that is used by Administration Console and SAP BusinessObjects launch pad.
`collections.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	Collector	Contains log messages related to the collection framework such as data sources configured collection, job scheduling, and maintenance. `Appender: collectionAppender`
`collectStep.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	Collect	Contains log messages related to the collect step that moves data from the `{PMDB_HOME}/collect` directory to

Log File	Location on Disk	Module	Description
			the {PMDB_HOME} /stage directory Appender: collectAppender
customer.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Customer Enrichment	Contains log messages on customer enrichment. Appender: CustomerAppender
customgroup.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Custom Group	Contains log messages related to importing of custom groups defined in an XML file. Appender: customgroupAppender
cpPatch.log	**Windows:** ${pmdb.home} /log/cppatch.log **Linux:**$PMDB_ HOME/log/	Content Packs	Patch installation log file. Appender: cpPatchAppender
customgroup.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Custom Group	Contains log messages related to importing of custom groups defined in an XML file. Appender: customgroupAppender
customscript.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Custom Script	Contains log messages related to custom scripts defined for a data process in data warehouse. Appender: customscriptAppender

Log File	Location on Disk	Module	Description
datetime.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Date, Time management	Contains log messages related to date and time maintenance in data warehouse. Appender: datetimeAppender
dbcollector.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Collector	Contains log messages related to database collection. Appender: dbCollectorAppender
dbdelete.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Database	Contains log messages related to purging the data in the database as per retention rules. Appender: DbdeleteAppender
dlc.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Dimension Life Cycle	Contains log messages related to management the Dimension Life Cycle. Appender: DLCAppender
downtime.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Downtime	Contains log messages related to configuring downtime and enriching the performance data with configured downtime information. Appender: downtimeAppender
downtimeutility.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_	Downtime	Contains log messages related to the reprocessing of downtime utility.

Log File	Location on Disk	Module	Description
	HOME/log/		Appender: downtimeutilityAppender
DR.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Disaster Recovery	Contains log messages related to Disaster Recovery.
dw_abclauncher.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Orchestration	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
host-manager*.log	**Windows:**%PMDB_HOME%\adminServer\logs **Linux:**$PMDB_HOME/log/	Administration Console	Contains log messages about the Apache Tomcat server that is used by Administration Console and SAP BusinessObjects launch pad.
enrich.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Location Enrichment	Contains log messages on generic enrichments. Appender: enrichAppender
flink-jobmanager-<system name>.log flink-jobmanager-<system name>.out	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Data Processor	Contains log messages related to the JobManager service.

Log File	Location on Disk	Module	Description
flink-taskmanager-<system name>.log flink-taskmanager-<system name>.out	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Data Processor	Contains log messages related to the TaskManager service.
hpacollector.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Collector	Contains log messages related to Performance Agent collection. Appender: hpaCollectorAppender
hpsacollector.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Collector	Contains log messages related to SA collection. Appender: hpsaAppender
IAEngine.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Internal Alerting	Contains log messages related to Internal Alerts. Appender: iaEngineLogAppender
IAEvent.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Internal Alerting	Contains log messages related to Internal Alerts. Appender: iaEventLogAppender
License.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	License	Contain messages for license-related tasks. Appender: licenseAppender
loader.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_	Loader	Contains log messages related to data loading from the stage area to the data

Log File	Location on Disk	Module	Description
	HOME/log/		store.
localhost*.log	%PMDB_ HOME%\adminServer\logs	Administration Console	Contains log messages related to Administration Console and SAP BusinessObjects launch pad Server Access.
location.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Location Enrichment	Contains log messages from location enrichment. Appender: LocationAppender
manager*.log	%PMDB_ HOME%\adminServer\logs	Administration Console	Contains log messages related to Administration Console and SAP BusinessObjects launch pad Server Access.
mapperStep.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Mapper	Contains log messages related to transformation of collected data. Transformation includes pivot transform, rows filtering, and so on. Appender: mapperAppender
metadata.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Metadata Repository	Contains log messages related to metadata repository persistence, access, and modification. Appender: MetadataRepository Appender
mybsm.log	**Windows:**%PMDB_	MyBSM Integ	Contains log

Log File	Location on Disk	Module	Description
	HOME%\log\ **Linux:**$PMDB_ HOME/log/	ration	messages related to launching of OBR reports from the MyBSM console.
nodefilter.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Collection	Contains log messages related to the node filters.
NRT_ETL.log	**Windows:**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	NRT ETL	Contains log messages related to the HPE_PMDB_ Platform_NRT_ETL service.
OvInstallerLog.txt	%temp%\..\HPOvInstaller\HP-SHR_ 9.30\HP-SHR_9.30_ <timestamp>_ HPOvInstallerLog.html %temp%\..\HPOvInstaller\HP-SHR_ 9.30\HP-SHR_9.30_ <timestamp>_ HPOvInstallerLog.txt.	Installer	Contains log messages related to OBR installer. This folder also stores log files for each component of OBR such as LCore components, OVPerl, and so on.
packagemanager.log	%PMDB_ HOME%\log\packagemanager.log	Package Manager	Contains log messages related to Content Pack deployment. Appender: pkgmgrAppender
pollerDataProcessor.log	**Windows :**%PMDB_ HOME%\log\ **Linux:**$PMDB_ HOME/log/	Collector	Contains logs related to data download from remote collectors to OBR server.
Postgresql-<date and time>.log	<Postgres_install_ directory>/data/pg_log	PostgreSQL	PostgreSQL log file information.

Log File	Location on Disk	Module	Description
postinstallconfig.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Post Install	Contains log messages related to OBR post-install configuration. Details on database schema creation on Vertica, details on OBR Management database schema creation on Postgresql. Appender: postinstallAppender
reconcilStep.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Reconciliation	Contains log messages related to reconciliation of collected data. Appender: reconcileAppender
remotepoller.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Remote Collector	Contains log messages related to configuration and metadata synchronization and data transfer between OBR server and the different collectors configured. Appender: remotepollerAppender
reload.log	${pmdb.home}/log/reload.log	Reload	Log file for the contrib utility (reload.exe) that handles reload of failed data. Appender: reloadAppender
shiftmaint.log	**Windows:**%PMDB_HOME%\log\	Shift Management	Contains log messages related to

Log File	Location on Disk	Module	Description
	Linux:`$PMDB_HOME/log/`		populating the shift fact tables based on shift configured in Administration Console. `Appender: shiftMaintAppender`
`sis_aggregate.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	SiteScope Collector	Contains logs from the SiteScope aggregate process that runs as part of collection service `Appender: sisAggrAppender`
`siscollector.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	SiteScope Collector	Contains logs from the SiteScope collector (for both GDI and DA) `Appender: sisCollectorAppender`
`sqlexecutor.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	Sql Executor	Contains logs related to the custom SQL executions. `Appender: sqlExecutorAppender`
`stage.log`	**Windows:**`%PMDB_HOME%\log\` **Linux:**`$PMDB_HOME/log/`	Stage	Contains log messages related to data staging, and purging of staging area. `Appender: stageAppender`
`stderr*.log`	`%PMDB_HOME%\adminServer\logs`	Administrator Console	Contains messages logged to standard error by the Tomcat server.

Log File	Location on Disk	Module	Description
stdout*.log	%PMDB_HOME%\adminServer\logs	Administrator Console	Contains messages logged to standard output by the Tomcat server.
topologycollector.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Collector	Contains log messages related to topology collection. Appender: topologyCollectorAppender
trend.log	**Windows:**%PMDB_HOME%\log\ **Linux:** $PMDB_HOME/log/	Aggregate, trendproc, trendtimer	Contains messages for all back-end processes of OBR. Each message specifies the start and end time for the logged process.
TrendTimerService.log	**Windows:**%PMDB_HOME%\log\ **Linux:**$PMDB_HOME/log/	Trend Timer	Contains log messages related to the OBR timer service.
VC_collector/collector.log	${pmdb.home}/log/VC_collector/collector.log	VC Collector	VC Collector logfiles Appender: vcAppender
VerticaService.log	**Linux:**$PMDB_HOME/log/	Vertica	Contains log messages related to the Vertica service.

Chapter 3: Troubleshooting Installation Issues

This section covers possible problems that can cause the OBR installation to fail and how you can troubleshoot them and includes the following topics:

OBR Installation Issues

Symptom	**Installation failure caused by SAP BusinessObjects error**
Description	While running the Software installer, the installation fails and the following error message is displayed: `SAP BusinessObjects is installed on the system. Please uninstall it before installing OBR.` If you have any component of OBR (such as SAP BusinessObjects or Vertica) preinstalled or not cleanly uninstalled from previous uninstallation, the OBR installation will fail because the installer tries to install the components that are bundled with the product.
Resolution	To resolve this problem, you must clean up the existing components from the system and rerun the installer. For a virtual system, consider re-imaging if feasible.

Symptom	**Installation with username having special character "&" requires system startup.**
Description	While installing OBR with username having special character **&** then the system requests for startup.
Resolution	Click **Continue** and proceed with your installation.

Symptom	**Installation failure due to missing libraries**
Description	While installing OBR, if there any missing libraries the installation precheck will fail.
Resolution	To resolve this problem, perform the following steps: 1. Go to the following location and get the list of missing libraries: `/tmp/SHR-Missing-Patches.txt` 2. Install the missing libraries. 3. Re-initiate OBR installation. For more information, see the *Installation Prerequisites* section in *Operations Bridge Reporter Interactive Installation Guide*.

Symptom	**Installation stops during pre-check in Linux operating system**
Description	While installing OBR on Linux operating system, before selecting the Typical or Custom option, if the user presses **ctrl+c** the installation gets aborted.
Resolution	To resolve this issue, follow these steps: 1. Go to the location `/tmp/ovii.lck` and delete the entries. 2. Run the command: `ps -ef | grep rpm` Kill the processes that are running.

Symptom	**YUM check warning after OBR installation (Linux only)**
Description	After installing OBR and meeting all the pre-requisites, the following message appears with a list of missing libraries: *Found 42 pre-existing rpmdb problem(s), 'yum check' output follows:*
Resolution	If you get a list of missing libraries while performing the YUM check, you can ignore these libraries as they are not mandatory for OBR. This does not affect the functionality of OBR.

Symptom	**During installation a message appears** *An installation configuration file saved from the last time the installer was run has been found. Do you want to use the values in this file for the current installation? Please enter your choice (Y/N)*
Description	During the previous installation of OBR, if the installer gets aborted for any reason then this message appears when you perform installation the next time.
Resolution	You can continue the installation by selecting `Y`. The same configuration file created by the installer during the previous installation will be used.

Symptom	**Unable to bring up OBR services after successful installation on Virtual machine**
Description	If OBR 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 resulting in OBR services not coming up in spite of multiple retry.
Resolution	After installing OBR, ensure that you restart the virtual machine.

Symptom	**Install in progress, but the Done button is enabled**
Description	This issue may appear while performing OBR installation, upgrade or installing Remote Collectors. The installer progress bar shows that the installation is in process but the **Done** button is enabled. This is because the installer is not refreshed.
Resolution	Click **Done** to complete the process and check the install log files as follows to see if all the components are installed. **Windows:** `%temp%/log` **Linux:** `/tmp/log`

Symptom	**After interrupted installation, unable to continue reinstall with the installed components (Windows only)**
Description	This issue may occur when you accidentally quit the OBR installation wizard and later continue to reinstall with the existing components.
Resolution	Perform the following steps to resolve this problem: 1. Start the installation wizard and review the Pre-Install Summary. 2. Select the **Force repair of already installed component packages** and click **Install**. 3. If the reinstall fails then, click **Rollback** in the pop-up message. The installed components will be removed. 4. Start a new installation.

Symptom	**Installation fails for Management database package while installing as Domain user**
Description	OBR installation fails with domain user during HPPmdbPostgreSQL package installation with the following error in the install log. *C:/HP-SHR/Postgres/data ... initdb: could not change permissions of directory "C:/HP-SHR/Postgres/data": Permission denied in %temp%\install-postgresql.log (or) %temp%\bitrock_installer.log*
Resolution	Uninstall OBR and create a local user that is a member of the Local Administrators group with administrator rights and install OBR again.

Symptom	**Error in install.log - name not found: verticadba** ***Error getting user information: 'getpwnam(): name not found: verticadba***
Description	After successful installation of OBR and Vertica database creation, the `install.log` file has the following error: *ERROR:vertica.system.usergroup.UserGroup:Error getting user information: 'getpwnam(): name not found: verticadba*
Resolution	This error can be ignored and you can move ahead with the post-installation steps.

Symptom	**After installing OBR 10.20, top does not work for the user root**
Description	After installing OBR 10.20, top does not work for the user root.
Resolution	To resolve this issue, follow these steps: 1. Go to the location `$PMDB_HOME/bin/`. 2. Open the file `obrbootenv.sh`. 3. Go to the text `if [ x"${username}" = x"${Vertica_USER}" ] ; then` 4. Scroll down to text `#echo "set postgres path in ld library"` and update the following line with the text marked in bold: `export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:`**`/usr/lib64:`** `/opt/HP/BSM/JRE64/lib/amd64/server:/opt/HP/BSM/JR64/lib/amd64:/opt/HP/BSM/JRE64/lib/amd64:/opt/HP/BSM/JRE64/lib/amd64/xawt:/opt/HP/BSM/Postgres/lib:/opt/OV/lib64:` 5. Save the changes.

Change the Vertica Data Storage location

Symptom	The Vertica Data Storage location current disk is filled
Description	If the current Vertica Data Storage disk is filled, the location of the disk has to be changed.
Resolution	Follow these steps to change the location of the disk: 1. Create a new storage disk. 2. Run the following command to change the owner and group to Vertica user for the newly created storage disk. chown *<Vertica User Name>:<vertica group> <Path of new disk mounted>*

	where, *<Vertica User Name>* is the vertica user name
	<vertica group> is the group vertica user belongs to
	Note: The Vertica group is same as Vertica user name.
	<Path of new disk mounted> is the path where new disk is mounted
	3. Open the sql prompt and run the following command to create the new disk location:
	`CREATE LOCATION '<Path of new disk mounted>' LABEL 'OBR';`
	where, *<Path of new disk mounted>* is the path where new disk is mounted
	4. Run the following command to create the storage policy:
	`SELECT set_object_storage_policy ('<Vertica database name>','OBR');`
	where, *<Vertica database name>* is the name of the created database during post-install.
	To verify the new disk is added, run the following SQL query:
	`select * from disk_storage;`

Using Vertica Service

Following are the commands for Vertica service:

1. To check the current status, go to `etc/init.d` and run the command:

   ```
   service HPE_PMDB_Platform_Vertica status
   ```

2. To start the service, go to `etc/init.d` and run the command:

   ```
   service HPE_PMDB_Platform_Vertica start
   ```

3. To stop the service, go to `etc/init.d` and run the command:

   ```
   service HPE_PMDB_Platform_Vertica stop
   ```

Post Installation Issues

Symptom	**OBR Fails to Create the Vertica Schema during post installation**

Description	The Vertica schema creation step may fail during post-install due to following reasons: • Invalid or incorrect hostname given during the post install step • Vertica database had a sudden shut down while performing the post-install schema creation

Resolution	To overcome this issue, follow these steps:
	1. From the system where OBR is installed, go to `etc/init.d` folder, stop the administrative service by running the following command:
	`service HPE_PMDB_Platform_Administrator stop`
	2. From the system where OBR is installed, go to `/opt/HP/BSM/PMDB/config` and delete `postinstall` folder.
	3. From the Vertica system, drop the database by running the following command:
	`su verticadba -c "/opt/vertica/bin/adminTools -t drop_db -d pmdb"`
	4. Go to the Vertica datafile location and the catalog file location, delete the `pmdb` folder in each using the following commands:
	`rm –rf pmdb in /opt/vertica/<db file name>`
	`rm –rf pmdb in /opt/vertica/<catalog file name>`
	5. Go to `etc/init.d` folder, start the administrative service by running the following command:
	`service HPE_PMDB_Platform_Administrator start`

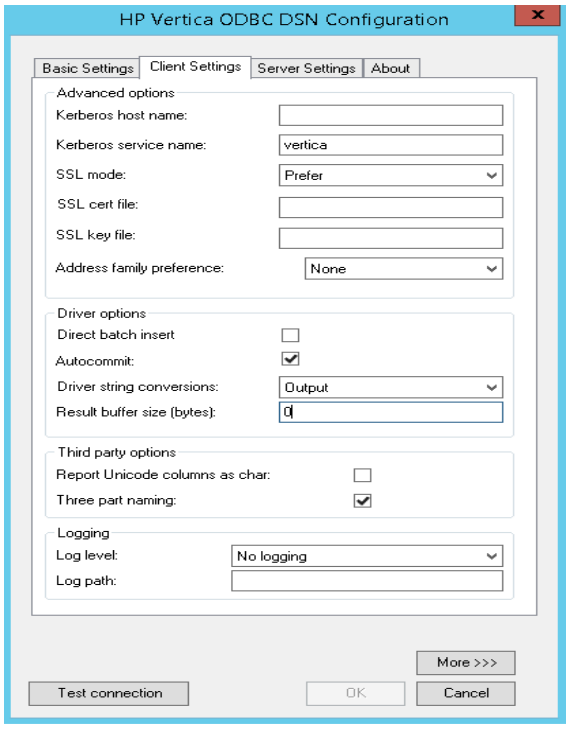
Symptom	**Database schema creation failed**
Description	In a typical installation scenario, after completing the OBR installation, while performing post-install, following error message appears: *"Database schema creation has failed/ Sorry cannot proceed further"* This is because the user has executed the `createverticadatabase.sh` on the system and the vertica database created during the installation gets overwritten.
Resolution	Perform the following to resolve this issue: 1. Go to the location `/opt/vertica/config/` and open the `admintools.conf` file and check if the Database has the pmdb as parameter. This ensures that the database is created. 2. Go to the location `/opt/HP/BSM/` and open the file `ShrDepolyment.conf` and check if the Features Installed parameter has OBR, BO, and Vertica. 3. Run the following commands to stop and drop the database:

	`su <Vertica User Name> -c "/opt/vertica/bin/adminTools -t stop_db -d <Database Name> -p <Vertica Database Password> -F"`
	`su <Vertica User Name> -c "/opt/vertica/bin/adminTools -t drop_db -d <Database Name>"`
	4. Perform the post-installation steps again to create the database.

Symptom	**During post install Vertica database not getting created.**
Description	During post installation, after typing the details to create Vertica database, the browser gets stuck even after clicking **Next**.
Resolution	Clear the web browser cache, reload the page, and perform the post install steps again.

Symptom	**Vertica database is not getting created.**
Description	In typical installation scenario, while performing post installation, the Vertica database is not getting created. In Custom or distributed installation scenario, the `CreateVerticaDatabase.sh` script fails to create the Vertica database. The above issues is because the port 4803 is not free and is used by other applications.

Resolution	To resolve this issue, follow these steps:
	1. Verify if the `/tmp/4803` folder is present or not. If present, check if any other applications are using this port.
	2. If no other application is using this port then stop the database by running the following command as `root` user:
	`su <Vertica Super User> -c "/opt/vertica/bin/adminTools -t stop_db -d pmdb -p <Vertica Database Password> -F"`
	3. Drop the database by running the following command as `root` user:
	`su <Vertica Super User>-c "/opt/vertica/bin/adminTools -t drop_db -d pmdb"`
	4. If the `/tmp/4803` directory is owned by Vertica user remove the directory by running the following command:
	`rm –rf /tmp/4803`
	If the `/tmp/4803` directory is owned by the non-vertica user, check with System Administrator and remove it.
	5. Create the Vertica database using the `CreateVerticaDatabase.sh` script (for distributed scenario) or perform post-installation steps (for typical scenario).

Symptom	**Error: Multiple commands cannot be active on the same connection**
Description	The following error message is seen: *An error occurred during query preparation: Multiple commands cannot be active on the same connection. Consider increasing ResultBufferSize or fetching all results before initiating another command.*
Resolution	To resolve this issue, follow these steps: To edit the DSN configuration, log on to OBR component systems installed on Windows. 1. Click **Start > Control Panel** and then click **System and Security**. 2. Click **Administrative Tools**. 3. Double-click **ODBC Data Sources (64-bit)**. 4. Click **System DNS** tab and then click the DSN that you have configured. 5. Click **Configure**. The Vertica ODBC DSN Configuration window is displayed. 6. Click **Client Settings** tab. 7. In **Driver options**, type the value as `0` for Result buffer size [bytes]. Click **OK**.  To edit the odbc.ini configuration file, log on to OBR system installed on Linux. 1. Go to the location `$PMDB_HOME/config/`.

	2. Open the `odbc.ini` file and add the parameter `ResultBufferSize = 0`. 3. Save and exit the file.

Symptom	**Restarting Postgres service displays warning information in Linux**

Description	While restarting the Postgres service during post install, the following warnings are displayed:
	`Restarting PostgreSQL 9.4:`
	`WARNING --> PERL_INSTALL_PATH is not set in /opt/HP/BSM/Postgres/etc/sysconfig/plLanguages.config file`
	`WARNING --> PYTHON_INSTALL_PATH is not set in /opt/HP/BSM/Postgres/etc/sysconfig/plLanguages.config file`
	`WARNING --> TCL_INSTALL_PATH is not set in /opt/HP/BSM/Postgres/etc/sysconfig/plLanguages.config file`

Resolution	You can ignore the warnings and move ahead with the OBR configurations.

OBR Uninstallation Issues

Symptom	**After Uninstalling OBR, Reinstall Fails (Windows only)**
Description	When you reinstall OBR on a Windows system, the installer fails to launch and displays a `Scripting Host not Found` error.
Resolution	This error is encountered when the path environment variable is corrupted in a Windows system. Add the `%systemroot%\System32` string to the path environment variable by performing the following steps: 1. Right-click **My Computer**, and then click **Properties**. 2. Click the **Advanced system settings**, and then click **Advanced** tab. 3. Click **Environment Variables**. 4. In the System Variable group, select **Path**. 5. Click **Edit** and add the string `%systemroot%\System32` if missing.

Symptom	**After reinstalling a collector on a system, OBR fails to communicate with the collector**
Description	If you uninstall a collector and reinstall it on a system, OBR fails to communicate

	with the collector and error messages appear when you try to configure the collector in the Administration Console. You can occasionally experience this issue even after installing the collector for the first time.

Resolution	To resolve this, manually import the certificate from the OBR system to the collector system by following these steps:
	1. Log on to the collector system.
	2. Run the following command on the command prompt and note down the ID displayed:
	`ovcoreid`
	3. Log on to the OBR system.
	4. Run the following command on the command prompt:
	`ovcm -issue -file <file> -name<node name>-coreid<core_ID>`
	In this instance,
	<file> is the name of the certificate file that you want to manually import to the collector system; you must specify the file name with complete path to the directory where you want to store the file.
	<node name> is the FQDN of the collector system.
	<core_ID> is the ID that you noted in step 2.
	The command prompts for a password. If you do not want to use a password, press Enter without typing anything.
	5. Transfer the certificate file to the collector system.
	6. Log on to the collector system.
	7. Run the following command:
	`ovcert -importcert -file<file>`

Content Pack Installation Issues

Symptom	**Content Pack Installation Fails**
Description	When installing the Content Packs, the installation process fails, with ERROR Code 51 with no information for failure in the logs. This may be because the ovc services are not up and running.
Resolution	Perform the following steps to avoid content pack installation failure: 1. Check status of your ovc services. To check the status, go to command prompt,

type `ovc`.

The following error message is displayed if ovc is down.

```
C:\Users\Administrator>ovc
(ctrl-111) Ovcd is not yet started.
```

2. Start the ovc services which are down.

   To start, type `ovc -start`.

```
C:\Users\Administrator>ovc -start
```

3. Type `ovc`, to ensure the state of ovc is up and running as shown.

```
C:\Users\Administrator>ovc
ovbbccb        OV Communication Broker          CORE        (3696)   Running
ovcd           OV Control                       CORE        (3968)   Running
ovconfd        OV Config and Deploy             COREXT      (3288)   Running
ovcs           OV Certificate Server            SERVER      (4452)   Running
```

Symptom	**Content Packs installation hangs (on Linux only)**
Description	Content pack is in the state of ***Installation Started*** for more than 1 hour.

Resolution	To resolve this issue, the SAPBOBJEnterpriseXI40 service should be restarted. Perform the following steps:
	1. Log on to the OBR system.
	2. Run the following command:
	`Ps –eaf |grep packagemgrSilent`
	3. Note down the process id and run the following command:
	`kill -9 <processid>`
	4. Go to the location `/etc/init.d`.
	5. Run the following commands:
	`service SAPBOBJEnterpriseXI40 stop`
	`service SAPBOBJEnterpriseXI40 start`
	6. Uninstall the Content pack which is in the started mode and start the Content pack installation again.

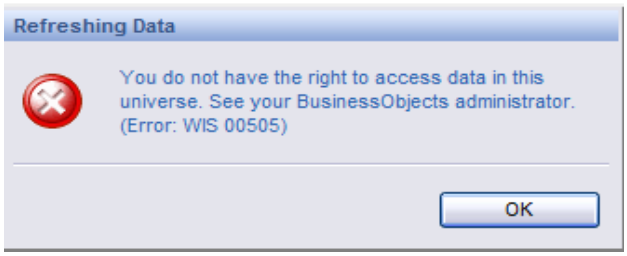
Symptom	**Reinstallation of Content Packs Fails on Windows**
Description	Reinstallation of Content Packs fails on Windows.
Resolution	Follow these steps: 1. Check the `%pmdb_home%/stage/failed_to_load` folder and look for files

	with the names of stage tables related to the Content Pack that you are not able to reinstall. You can find stage table names in the `%pmdb_home%/packages/CoreContentPack.ap/CoreContentPack.sql` file. Identify the files with names that contain the name of a stage table that is related to the Content Pack that you want to reinstall and then delete them. 2. Start the reinstallation process again.

Symptom	**Installation of Content Packs Failed with exit code 25**
Description	If OBR is installed on Windows and the DSN is not configured for Vertica database connection then installing the content packs fails with exit code 25.
Resolution	To configure DSN on OBR system installed on Windows to connect to Vertica database, see *Configuring DSN on Windows for Vertica Database Connection*chapter in *Operations Bridge Reporter Configuration Guide*.

Content Pack Uninstallation Issues

Symptom	**Content Pack Uninstallation Fails**
Description	When uninstalling the Content Packs, the process fails and the following error message is displayed in the `%PMDB_HOME%\log\trend.log` file: `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	To verify if the tables are locked, perform the following steps: 1. Open the Interactive SQL Java console. 2. In the Connect dialog box, on the **Identification** tab, select **Supply user ID and password**. 3. Type the user name and password, click **OK**. 4. Under SQL Statements, type `commit`, click Execute all SQL statement(s) to run the command. 5. Type `sp_iqlocks`, click Execute all SQL statement(s) to run the command. If locked tables still exist, other SQL sessions might be open that you must close. If there are no locked tables, you can proceed with uninstalling the Content Packs.

Symptom	**No right to access data in this Universe error**
Description	When you upgrade an OBR Content Pack, the Universe connections are recreated. If you have specific user access levels enabled, you must re-assign the access after completing the upgrade. By default, the administrator will have complete access to the Universe connections. You may see the following error if the user access levels are not enabled: 
Resolution	If you have applied access restriction at each user or group level other than administrator user, you must grant same access restrictions again for the universe connection. For more information about enabling user access levels, see the SAP BusinessObjects documentation available at *http://<Host DNS>:8080/CmcApp/help/en/administration/html/default.htm*

Chapter 4: Troubleshooting Administration Console Issues

The OBR Administration Console is a web-based monitoring tool that you can use to monitor various components of OBR, such as data collection, data processing, database, services, and so on. If a problem occurs, 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 also covers some of the commonly encountered problems during data collection, data reconciliation, data processing, or while performing certain administrative tasks.

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

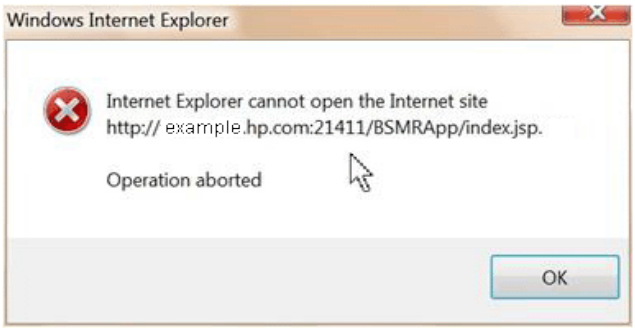
When a problem occurs with any OBR component, the Dashboard displays an alert icon so that you can investigate and take appropriate action.

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

- Administration Console Log on/Launch Issues
- Understanding Data Collection Alerts
- Understanding Service Alerts
- Understanding Database Alerts
- Understanding Orchestration Alerts

Administration Console Log on/Launch Issues

Symptom	**Unable to Log on to the Administration Console**
Description	After entering the user credentials in the Administration Console and clicking **Log in**, the following error message is displayed:

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

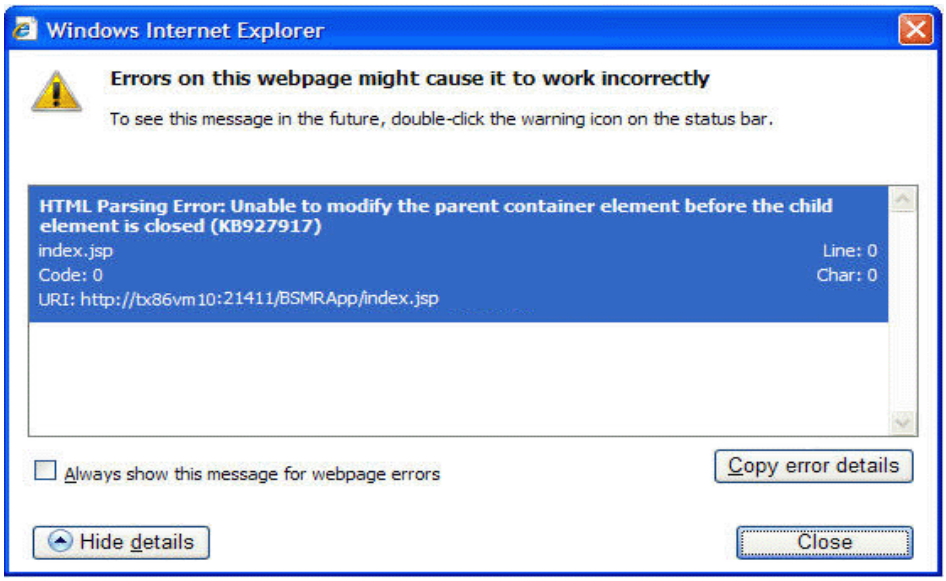
Symptom	**Unable to log on to Administration Console; JRE SIGBUS (0x7) Error**

Description	After installing OBR on Linux Operating System, if you try to log on to the Administration Console, JRE SIGBUS (0x7) Error appears.
	OBR commands when executed display the following error:
	`#A fatal error has been detected by the Java Runtime Environment:`
	`#SIGBUS (0x7) at pc=0x00007f49d0f52ebc, pid=45047, tid=0x00007f49e2b8b700`
	`#JRE version: (8.0_111-b14) (build )`
	`#Java VM: Java HotSpot(TM) 64-Bit Server VM (25.111-b14 mixed mode linux-amd64 compressed oops)`
	`#Problematic frame:`
	`j java.lang.Object.<clinit>()V+0`
	`#########################################`
	This error appears if the `jargs` parameter of the `.ini` files are not set properly.

Resolution	Follow these steps to resolve the issue: 1. Go to the path `$PMDB_HOME/config/startup` 2. Open the `.ini` files 3. Locate the `jargs` parameter, and add **`-Xss1208K`** value as shown below: `jargs= -DBSMR_HOME={bsmr.home} -Dbsmr.home={bsmr.home} -DDPIPE_HOME={bsmr.home} -Dpmdb.home={bsmr.home} -Xms32M -Xmx32M` **`-Xss1208K`** 4. Make sure to edit the jargs parameter in all of the `.ini` files

Symptom	**After installation, user is unable to perform post-install steps**
Description	After installation, when you click **Next** in the console, the subsequent page does not

	load despite enabling JavaScripts to run.
Resolution	This occurs when the system date on the OBR system is much older than that of the ESX (in case of a VM). In such a scenario, the Tomcat server does not allow any requests from the client. Hence, it is always advisable to update the system date to current and install. Perform the following steps: 1. Change system date to current. 2. Apply the permanent license. When the system date is changed by more than three months, the license expires. 3. Restart Administration service, Tomcat and SAP BusinessObjects servers. 4. Log on and perform the post configuration again.

Symptom	**Error Seen in Administration Console**
Description	The Administration Console displays the following Windows error message: 
Resolution	Clear the web browser cache, reload the page, and perform the steps again

Symptom	**Administration Console Web Page Error**
Description	When you log on or browse through the Administration Console, the following error message is displayed on the web page: `500 Internal Server Error:`

Resolution 1	Check the `BSMRApp.log` file for duplicate id exception.
Resolution 2	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.
Resolution 3	Restart the Administrator service as follows: **Windows:** • Go to **Start > Run**, type `services.msc`. • Right-click on **HPE_PMDB_Platform_Administrator** and click **Restart**. **Linux:** Run `service HPE_PMDB_Platfrom_Administrator restart`.

Resolution 4	**On Linux only:** You must make sure that the DISPLAY is not set.
	1. Run the command `env` and check if DISPLAY is set.
	2. If the DISPLAY is set, run the following command:
	`unset DISPLAY`
	3. Run the following commands to stop and start the Administrator service:
	`service HPE_PMDB_Platform_Administrator stop`
	`service HPE_PMDB_Platform_Administrator start`

Symptom	**Unable to log on to Administration Console**
Description	When you log on to the Administration Console with the Administrator privileges, the following error message is displayed on the web page: *Login Error: User does not have permission to access Administration Console.* This may appear if the log on credentials are not typed correctly or `config.prp` file is corrupted.
Resolution	Log on to the Administration Console again by typing the username and password. If the problem still occurs then to resolve this symptom, follow these steps: **Windows:** • Go to **Start > Run**, type `services.msc`. • Right-click on **HPE_PMDB_Platform_Administrator** service and select **Stop**. • Go to the location where you have taken the backup of `config.prp` file and copy the backup to the `config.prp` file location: `%PMDB_HOME%\data\config.prp`. • Go to **Start > Run**, type `services.msc`. • Right-click on **HPE_PMDB_Platform_Administrator** and select **Start**.

	• Log on to the Administration Console.
	Linux:
	• Run the following command:
	`service HPE_PMDB_Platfrom_Administrator stop`
	• Go to the location where you have taken the backup of config.prp file and copy the backup to the config.prp file location: `$PMDB_HOME/data/config.prp`.
	• Run the following command:
	`service HPE_PMDB_Platfrom_Administrator start`
	• Log on to the Administration Console.

Symptom	**Connection to RTSM Server through Administration Console Fails**
Description	When the user changes the application root context in BSM9.2x, test connection fails. `BSMRApp.log` shows following message: Failed to connect with *http://<HostName>:21212/setup1/axis2/services/UcmdbService* for CMDB, org.apache.axis2.AxisFault: Service not found operation terminated.

Resolution	Follow these steps in OBR Server:
	1. Edit `config.prp` file located at `%PMDB_HOME%\data\config.prp` (**Windows**), `$PMDB_HOME/data/config.prp` (**Linux**)
	2. Modify `ucmdbservice.url=/axis2/services/UcmdbService` to `ucmdbservice.url=/setup1/axis2/services/UcmdbService` (assuming new root context is setup1)
	Follow these steps in BSM System:
	1. After you have changed the root context from BSM/jmx-console, stop the server and edit the following configuration files. Assume that your new root context is *setup1*.
	2. Edit the file `..\HPBSM\odb\deploy\axis2\WEB-INF\web.xml` and add the following lines:
	`<init-param>`
	`<param-name>axis2.find.context</param-name>`
	`<param-value>false</param-value>`
	`</init-param>`
	3. Edit the file `..\HPBSM\odb\deploy\axis2\WEB-INF\conf\axis2.xml` and add the following line:
	`<parameter name="contextRoot"`

	locked="false">setup1/axis2</parameter> 4. Restart the server.

Symptom	**Error: Unable to process the request, timeout of 600000 ms exceeded**
Description	While navigating in the Administration Console pages, the following error message appears: `Unable to process the request, timeout of 600000 ms exceeded`
Resolution	Refresh the Administration Console page to resolve this issue.

Symptom	**SAP BusinessObjects BI Launch pad log on from VM Fails**
Description	After launching the SAP BusinessObjects Launch pad from the Administration Console on a virtual machine, log on fails despite providing correct user credentials.
Resolution	This problem occurs if OBR is installed on a virtual machine and at the time of installation, the host name on the virtual machine is not correctly set. The HPE Software installer configured SAP BusinessObjects 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** and type **Central Configuration Manager** in **Search**. 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 (OBR)** and then click **Stop** to stop the SIA service. 4. Right-click **Server Intelligence Agent (OBR)** 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. Click **OK**. 6. Right-click **Server Intelligence Agent (OBR)** and then click **Start** to restart the SIA service first. 7. Right-click **Apache Tomcat 5.5.20** and then click **Start** to restart the Tomcat service next. Close the Central Configuration Manager window. 8. In the Administration Console, click **Administration > SAP BOBJ**. The SAP BusinessObjects page opens. 9. Click **BI Launch pad**. The BusinessObjects Launch pad Login page appears.

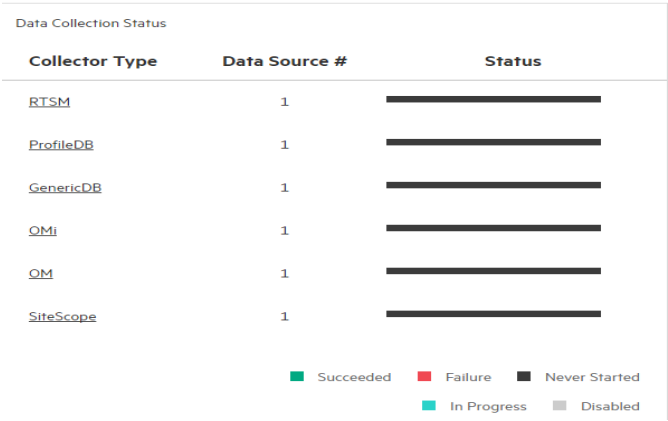
Symptom	**SAP BusinessObjects BI Launch pad and CMC Fails to Launch from Administration Console**

Description	The links provided in the OBR Administration Console fail to launch the OBR Launch pad and Central Management Console (CMC). This might occur because the Fully Qualified Domain Name (FQDN) of the OBR host system was unavailable or failed to update.
Resolution	In the OBR system, perform the following steps: 1. Go to the path `{PMDB_HOME}\data` 2. Open the `config.prp` file and check if the `bo.cms` parameter has the fully qualified name of the OBR system

Understanding Data Collection Alerts

The Dashboard of the Administration Console monitors and displays the status of the data collected by OBR from the various data sources, such as Runtime Service Model (RTSM), Operations Manager (OM), Business Service Management (BSM) database, and Performance Agent (PA).

Following is the image of Collection Status Pane:



Types of collection status information are displayed in the Data Collection Status pane of the Dashboard, as 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 Data Collection Status pane to open the respective data source page. For example, clicking RTSM opens the Service Definition page.

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

Data Collection Issues

Symptom	**Data Collection not Started or Failed**
Description	The Data Collection Status pane on the Dashboard page lists the RTSM or OM data source with the ■ color. 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 no connection is established. To resolve this problem, perform the following steps: 1. Check the connection status: a. RTSM, OM In the Administration Console, go to the **Data Source Configuration > Topology Source** page to check the status for the RTSM or OM data source. b. ProfileDB, OMi, OM In the Administration Console, go to the **Data Source Configuration > BSM/APM/OMi > ProfileDB** page to check the status for the ProfileDB data source. Similarly, for Operations Management i (OMi) software, go to the OMI page and for OM, go to the Operations Manager page. c. Click **Test Connection** to test the data source connection (double check the credentials using the configure option). In case the Test Connection check fails for any of the above scenarios, see the "Troubleshooting Data Source Issues" on page 92 section.

Symptom	**Data Collection Failure across all Configured Nodes**
Description	Data collection in OBR 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 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, *HKEY_LOCAL_MACHINE > SYSTEM > CurrentControlSet*

	> *Services*> *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 the system after making changes in the Registry Editor.

Troubleshooting Data Collection Problems

Symptom	**PostgreSQL Query Performance Degrades due to Lack of Proper Statistics Gathering**
Description	The PostgreSQL slows down and the query performance also degrades due to lack of proper statistics gathering.
Resolution	To resolve this problem, perform the following steps: • From the `{PMDB_HOME}/lib` folder, open the `trendtimer.sched` file. • Enable the following query by removing the # sign: `{PMDB_HOME}/bin/mgmtsqlexecutor -sqlscript {PMDB_HOME} /scripts/vacuum_postgres.sql`

Symptom	**No Data or Metadata Movement in OBR**
Description	Data movement does not occur and a "`corruption detected`" message is displayed when an attempt is made to verify the status (using the `ovc -status check` command).
Resolution	Restart the system.

Symptom	**No Data Collection due to Remote Poller Exception**
Description	Policy Owner reports an issue when Remote Poller is distributing the policy. Remote Poller sync does not occur for the specific domain and data collection does not initiate.
Resolution	Perform the following steps to resolve the issue:

	• Enable DEBUG mode for RemotePoller in the following file: `{PMDB_HOME}/config/BSMRLogConfigClient.xml`
	• Run the following collection configuration command:
	`collection_config -collect {PMDB_HOME}/lib/<*_DBCollector.xml> -cp <ETL Package name>`
	Example
	`collection_config -collect {PMDB_HOME}/lib/OM_DBCollector.xml -cp ETL_OM`
	• Open the RemotePoller log and search for the Header xml that is named in this pattern—shr-xxxxxxxxxxxxxxxx_header.xml— identify the file including its path.
	• Run the following command:
	`ovpolicy -install -file <absolute path of the header xml file> -ovrg server`
	The following output is generated:
	`<Cannot install because owner of the policy is xxx>`
	• Open the header xml and obtain the content of policy owner tag.
	• Run the following command:
	`ovpolicy -setowner -ovrg server -polid <shr-xxxxxxxxxxxxx xxx>`
	• Run the following command in the prompt:
	`ovcreg –add {PMDB_HOME}/config/shr.xml`
	• Run the following collection config command:
	`collection_config -collect {PMDB_HOME}/lib/OM_DBCollector.xml -cp ETL_OM`

Symptom	**No Data Collection from Profile DB/Management DB/OMi Event Data source**
Description	When changes are made to the Profile DB/Management DB/OMi Event database collection configurations for more than once, it leads to piling up db_poller_map (Postgres) table with invalid or old entries. Remote poller sync fails and database domains are not discovered in `{PMDB_HOME}/config/ds/db_0_domainmap_0_local.csv`.
Resolution	To resolve this problem, perform the following steps: • Log on to Postgres database using PgAdmin. • Identify the invalid domain map IDs: `SELECT * FROM db_poller_map where db_fk NOT IN (SELECT db_id FROM dict_db_ds)`

	• Delete the invalid domain map IDs: `DELETE FROM db_poller_map where db_fk NOT IN (SELECT db_id FROM dict_db_ds)` • Run the following local poller utility commands from the console (Linux shell or Microsoft Windows Command Prompt). ◦ `remotepollerutility –syncds –type DB –pollername local` ◦ `remotepollerutility –syncpolicy –type DB –pollername local` • Verify the updated entries in `{PMDB_HOME}/config/ds/db_0_domainmap_0_local.csv`

Symptom	**OBR Reconciliation Infinitely Reprocesses Failed-to-Reconcile Files and Degrades System Performance**
Description	OBR data reconciliation step endlessly reprocesses files that failed to reconcile and utilizes massive system resources.
Resolution	OBR Reconciliation reprocesses files in the `$PMDB_HOME/stage/failed_to_reconcile` folder for three days. After three days, OBR moves the files to the `$PMDB_HOME/stage/failed_to_reconcile/archive` folder and stops reprocessing them. If you want to process the files again, manually move them back to the `$PMDB_HOME/stage/failed_to_reconcile` folder. You can also change the default days in the property values from the folder `$PMDB_HOME/collect/property`. For Example: `dbcollector.fail.files.reprocess.interval.mins=4320` and `reconcile.fail.files.reprocess.interval.mins=4320`

Symptom	**OBR Collector Infinitely Reprocesses Failed-to-Process Files and Degrades System Performance**
Description	OBR Collector reprocesses files in the `$PMDB_HOME/collect/temp` folder for three days. After three days, OBR moves the files to the `$PMDB_HOME/collect/temp/archive` folder and stops reprocessing them. If you want to process the files again, manually move them back to the `$PMDB_HOME/collect/temp` folder.
Resolution	You can also change the default days in the property values from the folder `$PMDB_HOME/collect/property`. For Example: `dbcollector.fail.files.reprocess.interval.mins=4320` and `reconcile.fail.files.reprocess.interval.mins=4320`

Symptom	**Data Gaps in Reports due to no Data Collection from Nodes**
Description	OBR reports show data gaps when data is not collected from a node or when a node

	is a newly added. When collection for a node resumes after an outage (node is down, or connection issues, or connection disable/enable through Performance Agent data source page), the OBR Collector collects data from the last point within the max-history limit. When a new node added to OBR, the OBR Collector collects data based on the *init* history configuration. By default, after the first *init* history data processing, data aggregation processes data for only the last two days.
Resolution	By default, OBR aggregates data from nodes for only the last two days. To aggregate data older than two days, run the hourly and daily aggregation commands manually using the following options: `aggregate config=<xml file name> processall=true execute=true` (The XML file is available in the PMDB_HOME/scripts folder) Example: `aggregate config= %PMDB_HOME%\scripts\SR_SM_CPU_SH_SM_CPU_Hourly_CPU_Details.xml processall=true execute=true`

Symptom	**No Data Collection from Network Performance Server**
Description	Data collection of both topology and fact from Network Performance Server (NPS) stops, but files keep accumulating in the `%pmdb_home%\extract\temp` folder. The `dbcollector.log` file reports the following error: `Error -210: User 'another user' has the row in 'd_ComponentTopology' locked` This occurs because the d_ComponentTopology table is being updated at exactly the same time when OBR queries for data.
Resolution	In NPS, modify the update time of the d_ComponentTopology table to a different value. Otherwise, in OBR, from the `PMDB_HOME/config/collection.properties` file, set the parameter `relative.schedule.type=true` and restart the data collection.

Symptom	**No Data Collection in OM Topology from Host resulting in Empty Reports**
Description	Data collection from a host does not occur even though it is discovered and configured for collection. When OBR is unable to connect to the Performance Agent during the dimension collection run that occurs every 12 hours (720 minutes), fact collection does not occur and reports do not show any data.
Resolution	Decrease the default dimension collection interval value of 12 hours (720 minutes). In the `{PMDB_HOME}/config/collection.properties` file, decrease the value of the `sn.dim.collection.interval.mins` property to a number higher than and a multiple of 60.

Symptom	No Data Collection from Host and Empty Reports
Description	Data collection from a host does not occur even though it has been discovered and configured for collection. The issue might be that the connection to CODA for that host has been lost resulting in data collection failure. In such cases, Collection has a feature called blacklisting that marks a node when connection to the same fails while hourly collection is happening. Once marked, after every 2 retries at a particular run interval, the same is doubled for the next couple of runs. This continues till the run frequency reaches 24 hours after which it remains the same. So collection from that host is initiated once a day only. During these runs, at any time if the host is reachable again, then the run interval is reverted to the initial collection schedule frequency of the host (1 hour by default). Also, the list of blacklisted hosts can be seen at any point by connecting to the Java JMX console for Collection Service at port 21409 under the Collection Administration Mbeans section.
Resolution	Ensure that the node is reachable and responding and also that the CODA services are running on the same. Once done, restart Collection Service on the OBR collector.

Symptom	Error Message in the aggregate.log File for Procedure not found

Description	The `aggregate.log` file (available under the `$PMDB_HOME/log` directory on Linux and the `%PMDB_HOME%\log` directory on Windows shows the following error messages:
	`Procedure 'xxx-xxx-xxxx-xxx' not found`
	`Failed to execute aggregate SQL`
	`Completed aggregate <XML_file> with error`

Resolution	To resolve this problem, log on to the OBR system as administrator or root, and then run the following command: `aggregate config=<XML_file> regenerate=true` where, *<XML_file>* is the file name displayed in the error message.

Symptom	Missing Data Source Metadata Files
Description	Missing Data Source Metadata Files **Windows**: `%PMDB_HOME%\config\ds` folder **Linux**: `$PMDB_HOME/config/ds` folder
Resolution	1. The data source metadata CSV files are of the form `pa*.csv, cmdb*.csv, sn*.csv` and `db*.csv` 2. Ensure that all expected data sources are configured by verifying through the Administration Console.

3. Run the command `ovconfchg -edit` and check whether the following entries are present in the configuration settings page:
   - **Windows:**

     ```
     [sec.cm.client]
     CERTIFICATE_SERVER=<server>
     [sec.core]
     CORE_ID=82553e92-dbd2-7566-0dd9-f9a20a672df8
     [sec.core.auth]
     MANAGER=<server>
     MANAGER_ID=82553e92-dbd2-7566-0dd9-f9a20a672df8
     ```

   - **Linux :**

     ```
     [ctrl.env]
     LD_LIBRARY_PATH=:/opt/HP/BSM/Sybase/IQ-15_
     4/lib64:/opt/HP/BSM/JRE64/lib/amd64/server:/opt/HP/BSM/Sybase/shared/J
     RE-6_0_24_
     64BIT/lib/amd64/server:/opt/HP/BSM/JR64/lib/amd64:/opt/HP/BSM/JRE64/li
     b/amd64:/opt/HP/BSM/JRE64/lib/amd64/xawt:/opt/HP/BSM/Postgres/lib:/opt
     /OV/lib64:
     PATH=/opt/HP/BSM/JRE64/bin:/usr/kerberos/sbin:/usr/kerberos/bin:/usr/
     local/sbin:/usr/local/bin:/sbin:/bin:/usr/sbin:/usr/bin:/opt/HP/BSM/PM
     DB/bin:/opt/OV/bin:/opt/OV/lib64:/opt/HP/BSM/Sybase/IQ-15_
     4/bin64:/root/bin
     PMDB_HOME=/opt/HP/BSM/PMDB
      [sec.cm.client]
     CERTIFICATE_SERVER=<server>
     [sec.core]
     CORE_ID=26e40652-de97-7566-1f14-b683668d176a
     [sec.core.auth]
     MANAGER=<server>
     MANAGER_ID=26e40652-de97-7566-1f14-b683668d176a
     ```

4. If the `ctrl.env` values are not set on Linux, run the following commands:
   a. `/opt/OV/bin/ovconfchg -ns ctrl.env -set LD_LIBRARY_PATH :/opt/HP/BSM/Sybase/IQ-16_ 0/lib64:/opt/HP/BSM/JRE64/lib/amd64/server:/opt/HP/BSM/Sybase/shared/J RE-6_0_24_ 64BIT/lib/amd64/server:/opt/HP/BSM/JR64/lib/amd64:/opt/HP/BSM/JRE64/li`

b/amd64:/opt/HP/BSM/JRE64/lib/amd64/xawt:/opt/HP/BSM/Postgres/lib:/opt/OV/lib64:

b. `/opt/OV/bin/ovconfchg -ns ctrl.env -set PATH /opt/HP/BSM/JRE64/bin:/usr/kerberos/sbin:/usr/kerberos/bin:/usr/local/sbin:/usr/local/bin:/sbin:/bin:/usr/sbin:/usr/bin:/opt/HP/BSM/PMDB/bin:/opt/OV/bin:/opt/OV/lib64:/opt/HP/BSM/Sybase/IQ-16_0/bin64:/root/bin`

c. `/opt/OV/bin/ovconfchg -ns ctrl.env -set PMDB_HOME /opt/HP/BSM/PMDB`

5. Run the command `ovc -status -level 8` and in the output check whether the `shrcb` component is listed.

   shrcb OBR Policy call backs shrcb (3053) Running

   -> START attempted at Tue Apr 30 16:11:52 2013

   -> Entered STARTING state at Tue Apr 30 16:11:52 2013

   -> Entered STARTED state at Tue Apr 30 16:11:52 2013

   > **Note:** The component need not be running, but may be stopped or aborted. However, the listing should include the shrcb component. If this component is not listed, run the following command:
   >
   > **On Linux**: `/opt/OV/bin/ovcreg -add /opt/HP/BSM/PMDB/config/shr_ux.xml`
   >
   > **On Windows**: `%ovinstalldir%\bin\ovcreg -add %PMDB_HOME%\config\shr_win.xml`

6. When the above changes are made, run the `ovc -restart` command.
7. Run the `remotepollerutility -syncds -pollername` local command to sync all collection data sources to the local collector. To sync data sources to other remote collectors configured, run the same command by changing local to the name that was used to configure the remote collector in the Administration Console.

Symptom	**Policy and Data Source Report Collector Error**
Description	Policy and Data Source Report Collector Error
Resolution	1. Check if the collector is reachable. From Administration Console, go to **Data Source Configuration > Operations Agent.** Select a host from the Host name column and click **Test Connection**. 2. Check if the certificate installation is correct by running the `ovcert -check` command.

Symptom	**No Collection due to *OVCONFD* Service not Running**
Description	*OVCONFD* service stops due to disk space full situation and does not start automatically once the space issue is resolved.
Resolution	Run the following command.

	1. Check the status of the service. `ovc –status` 2. Check the status of `ovconfd` in the output. 3. If it is stopped, execute the START command. `ovc -start ovconfd`. This will start the service and collection of data would continue.

Symptom	**Collection not occurring from Collector**
Description	No dimension CSVs or Fact CSVs are available in `%PMDB_HOME%\collect` folder (Windows), `$PMDB_HOME/collect` (Linux). No data is available in the reports for these hosts.
Resolution	1. Check for connection-related issues to the collector from **Additional Configurations > Collectors** page in the Administration Console. 2. Check `%PMDB_HOME%\log\remotepoller.log` file for Windows and `$PMDB_HOME/log/remotepoller.log` for Linux and verify errors during data download from the collectors. 3. Check if `platform_poller_data_process stream` from *PMDB_Platform* is in error state or is yet to process the collected data. Log on to Administration Console and check the status of the above mentioned stream. 4. Check whether the collection policies are installed on the collector system.

Symptom	**Fact Collection is Occurring and Data is Available at extract Folder but not picked by Streams**
Description	Fact CSVs are collected from the source by the collector and available at the following location `%PMDB_HOME%\extract` (Windows), `$PMDB_HOME/extract` (Linux). But the corresponding Orchestration stream in the Administration Console shows the collect step status as not started.
Resolution	The only reason it can happen is because the `platform_poller_data_process` stream from *PMDB_Platform* is in error state or is yet to process the collected data. If the process is running for a longer time, kill the process. If it is in error state, perform the following: 1. Log on to Administration Console and check the status of the above mentioned stream. ABC stream will automatically process it next time.

Symptom	**No Fact Collection despite configuring Service Definition**
Description	Fact CSVs are not available at the following location `%PMDB_HOME%\collect`

	(Windows), `$PMDB_HOME/collect` (Linux).
Resolution	To resolve this problem, perform the following steps: 1. Run `ovpolicy -list` and check whether the Configuration Management Database (CMDB) collection policies are installed on the collector. Alternatively, you can also check for collection policy XMLs in **Windows**: `%PMDB_HOME%\config\collection_policy` folder **Linux**: `$PMDB_HOME/config/collection_policy` folder 2. Verify whether dimension collection is occurring or not and whether there are any `VIEW*NODEDOMAIN*csv` in collect folder. 3. Log on to Administration Console and ensure that the platform_poller_ds_ process stream under PMDB_Platform group is not in error state. This is the stream that brings in all `NODEDMAINMAP csv` from various collectors and then performs PA node distribution among collectors. 4. Also, ensure if any remote collectors are configured. If yes, PA data source distribution is appropriately done via the Administration Console for all collectors. Because, in case of local-only collector, all the PA nodes discovered during topology collection are automatically assigned to the local collector. But, even if a single remote collector is configured, the distribution of nodes is performed based on rules or manual assignment done by the administrator.

Symptom	**No Dimension or Fact Collection despite Configuring Data Sources**
Description	After configuring the respective data source through Administration Console (RTSM/OM), the respective dimension or fact CSVs are not collected by the collector.
Resolution	To resolve this problem, perform the following steps: 1. Check `topologycollector.log` file under the following folder location to check for obvious errors: **Windows**: `%PMDB_HOME%\log` **Linux**: `$PMDB_HOME/log` 2. Check if the appropriate collection policies are installed on the collector by either checking for files in `%PMDB_HOME%\config\collection_ policy` folder (Windows)/ `$PMDB_HOME/config/collection_policy` (Linux) or by running the `ovpolicy -list` command. 3. Check for existence of `cmdb_0_*.csv or sn_0_*.csv` in `%PMDB_HOME%\config\ds` folder for Windows or `$PMDB_HOME/config/ds` for Linux (depending on RTSM and OMSN configuration respectively) and verify that the details of the data source configured is correctly present in these files.

Symptom	**Collection not working after Operations Agent is Uninstalled**

Description	Ensuring Continuous OBR Collection on the System after Operations Agent is Uninstalled from a system where OBR and Operations Agent coexisted

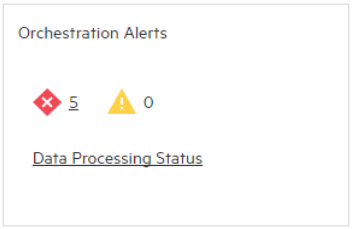
Resolution	If Operations Agent is uninstalled, you must perform the following steps to ensure an error-free collection of data by the OBR system:
	1. On the system where Operations Agent was uninstalled, run the following command:
	`ovcert -certreq`
	2. Run the following command on the OBR system:
	`ovcm -listpending -l`
	Note the request ID.
	3. Run the following command on the OBR system:
	`ovcm -grant <request ID from the earlier step>`
	4. Run one of the following commands:
	a. To verify the connectivity to the OBR local collector:
	`ovdeploy -env PMDB_HOME -ovrg server`
	The value of the PMDB_HOME environment variable from the OBR system appears.
	b. To verify the connectivity to the OBR Remote Collector:
	`ovdeploy -env PMDB_HOME -ovrg server -host <remote collector hostname>`
	The value of the PMDB_HOME environment variable from the OBR Remote Collector appears.

Symptom	**Data not getting processed from collect directory**
Description	After the post install configuration and topology source configiration, data is piled up in the `collect` directory but the data does not get processed.
Resolution	Ensure that the Task Manager service is running.

Understanding Orchestration Alerts

To troubleshoot problems related to data processing, check the Orchestration Alerts table on the Dashboard page of the Administration Console. The latest active data processing alerts encountered by the OBR work-flow framework are displayed.

Figure 3: Orchestration Alerts



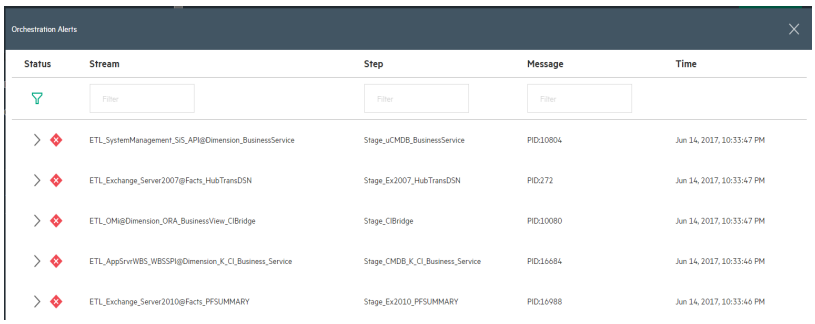
Two types of alerts are generated by this workflow framework:

- Errors: This alert is generated when an active job stream fails to complete the execution process because of a serious error during the job. This halts the execution of the job stream.
- Maximum execution time exceeded: This alert is generated when a job is still running and fails to complete within the defined execution time frame.

Viewing Details of an Alert

To view details of the displayed alert, click the hyperlink next to the alerts. An alert details window opens. Click **>** icon to view more details for each stream.

Figure 4: Alert Details Window



In the alert details window, you can view the detailed error message, the command that was run when the error occurred, remaining and maximum number of retries, maximum execution time, and start and end time. 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 be displayed as NULL.

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

Orchestration Alerts

Symptom	**Orchestration Alert – ERROR (Max Exec Time Exceeded)**
Description	On the **Internal Monitoring > Data Process Status** page of the Administration Console, the Step Status column displays the  indicator for a particular job step. Checking the status of the job step shows the MAX_EXEC_TIME_EXCEEDED alert.
Resolution	This alert is generated when the job step fails to complete executing within the defined execution time frame. To troubleshoot this type of error, perform the following steps: 1. On the Data Process Status page, click the job step icon in the diagram to open a detailed message box about that job step. 2. Note the Process ID (PID) of the job step. 3. Browse to the `%PMDB_HOME%\log` (Windows), `$PMDB_HOME/log` (Linux) folder and open the `dw_abclauncher.log` file. 4. Search for the PID 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 HPE 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 HPE Support.

Symptom	**Orchestration Alert – ERROR (Max Retries Exceeded)**

Description	On the **Internal Monitoring > Data Process Status** page of the Administration Console, the Step Status column displays the  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 Process Status 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 appears. b. Type **cmd** in the Open field, and then press **ENTER**. The Command Prompt window appears. 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.

Symptom	**Orchestration Stream – Stage Always in Warning State**
Description	Status of stage step in Orchestration stream is always in warning state. This occurs when the stage moves CSV files to `%PMDB _HOME%\stage\failed _to_stage` (Windows), `$PMDB_HOME/stage/failed_to_stage` (Linux) if it encounters any error due to wrong data.
Resolution	When you see stage step in WARNING state, correct the data in the CSV files manually and put them back to `%PMDB _HOME%\stage\failed _to_stage` (Windows) ,`$PMDB_HOME/stage/failed_to_stage` (Linux) so that data is moved during next run.

Symptom	**Job Streams not Loading or Running**
Description	After installing the content packs and configuring OBR 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 loading or running.
Resolution	Ensure that the **HPE_PMDB_Platform_Timer** service is running.

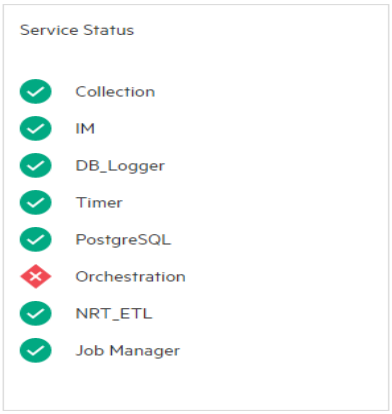
Symptom	**Data piling up in the Collect folder**
Description	Data piling up in the Collect folder with no data movement from the folder. This may

	be because no jobs are running.
Resolution	Follow these steps to resolve the issue: 1. Check if the below services are running: ◦ HPE_PMDB_Platform_TaskManager ◦ HPE_PMDB_Platform_JobManager ◦ HPE_PMDB_Platform_Orchestration 2. If the services are not running, restart the services. 3. If all the services are running, run the following command to check if the job is running: **On Linux:** a. Go to location $PMDB_HOME/../Flink/bin b. Run the command `flink list` **On Windows:** a. Go to location %PMDB_HOME%\..\Flink\bin b. Run the command `flink list` **For example:** On Linux, if the job is running, the following output is displayed: *Retrieving JobManager.* *Using address localhost to connect to JobManager.* *---------- Running/Restarting Jobs ----------* *08.09.2017 11:41:24 : 46b54720a2284a17c14244047f64eb2d : OBR Job Running* *----------* If the job is not running, the following output is displayed: *Retrieving JobManager* *Using address localhost to connect to JobManager.* *No running jobs.* *No scheduled jobs.* *----------* *No scheduled jobs.*

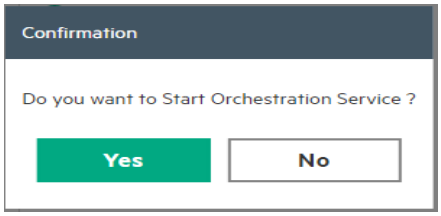
Understanding Service Alerts

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

Figure 5: Service Status Pane on the Dashboard Page



If any of the service listed in the Service Status Pane shows error, click on the icon to Start/Stop the service.



The confirmation dialog box appears. Click **Yes** to confirm.

In case you have trouble restarting the service or in case the service goes down frequently, contact HPE Support.

In case of Error/Warning status against the Service, ensure adequate free disk space on the drive where OBR is installed (at least 15% free space of total disk space).

Understanding Database Alerts

Using the Dashboard page of the Administration Console, you can monitor the status of the OBR database connection. In the event of any problems, appropriate alerts are displayed in the following section of the home page:

- Connectivity Status: This pane displays the status of the Vertica database connection. In case the connection to the database cannot be established, the  status icon is displayed.

This section explains how to troubleshoot database-related alerts.

Database Alerts

Symptom	**Database Connection Failure**
Description	The Connectivity Status pane on the home page of the Administration Console shows the  icon for the database.
Resolution	Restart the Vertica database service from the services window. **Note:** If Vertica is installed on a remote system, you must restart Vertica database service on the remote system. The name of the Vertica 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.

Administrator Console Other Issues

Symptom	**Clicking the Next Button on the Post-Installation Wizard has no Effect**
Description	The post-installation wizard does not respond when you click **Next** after creating database.
Resolution	Click **F5**, and then click **Next** again.

Symptom	**OBR Server and Remote Collector Unable to Communicate Across Networks**
Description	When the OBR server and the Remote Collector are hosted on different networks, they are unable to communicate with each other.
Resolution	Ensure that the outbound connections from both networks are open and inbound connection is restricted to a single port that the communication broker must listen to. Perform the following steps on the OBR server and the Remote Collector to enable communication across networks: On the OBR Remote Collector: 1. From the Command Line Interface (CLI), run the following command: `ovconfchg -edit`

	2. Add the following lines:
	`[bbc.cb]`
	`SERVER_PORT=<port_no>`
	where, *port_no* is the port open for communication.
	3. Restart the bbc service by running the following command:
	`ovc -restart`
	On the OBR server:
	1. From the Command Line Interface (CLI), run the following command:
	`ovconfchg –edit`
	2. Add the following lines:
	`bbc.cb.ports]`
	`PORTS=<server_FQDN-1:port_no>;=<server_FQDN-2:port_no>`
	where, *server_FQDN* is the OBR Remote Collector's Fully Qualified Domain Name (FQDN) and *port_no* is the port open for communication. The port number must be the same as that configured on the OBR Remote Collector. You can configure multiple collectors this way with different port numbers for different OBR servers.
	3. Restart the bbc service by running the following command:
	`ovc -restart`
	After performing the above steps on both the OBR server and the OBR Remote Collector, configure the OBR Collector and add it through the Administration Console. For more information, see the *Operations Bridge Reporter Interactive Installation Guide*.
	Note: Proxy configuration is not required if at least one port is open for inbound communication. Otherwise, you must configure reverse channel proxy (RCP). For more information, refer the whitepaper *Configuring outbound-only communication with OpenView Operations for UNIX 8*.

Symptom	**Content Pack Installation Hangs**
Description	When installing content packs from the Administration Console **Content Pack Deployment** page, the installation does not progress and spikes CPU utilization of the system.
Resolution	If the content pack installation hangs, locate the *datapipe_manager* system process and terminate it. The Administration Console **Content Pack Deployment** page will report that content pack installation had failed. Now, uninstall the content pack and begin installation again.

Symptom	**OBR Administration Console reports Connectivity Issues with Postgres Database**
Description	The Postgres audit measure table is accumulated with millions of records that are not cleaned periodically. OBR Administration Console becomes unresponsive and does not allow monitoring of the job streams details.
Resolution	To resolve this problem, perform the following steps: 1. Log on to Postgres database using PgAdmin. 2. Execute the following SQL statement on weekly basis. `DELETE from audit_measure where md_process_id not in (select md_process_id from job_stream_step_rt)`

Symptom	**SQL Anywhere 12 Server Process Crashes**
Description	The BOE120SQLAW service goes down after trying to insert the 'LONG' data into one of the auditing table columns and SAP BusinessObjects BI Launch pad reports are not accessible.

Resolution	Perform the following steps to resolve this problem:
	Linux:
	1. Log on to the OBR system as root user.
	2. Run the following commands in the prompt:
	◦ `su – SHRBOADMIN`
	◦ `source $BOBJEDIR/setup/env.sh`
	▪ `cd $BOBJEDIR/SQLAW/Bin`
	▪ `dbisqlc`
	3. Log on to the SQL Anywhere AUDIT database with the following credentials:
	`User ID: OBR`
	`Password: <password>`
	`DB name: <HOSTNAME>BOE120_AUDIT`
	`Server: <HOSTNAME>BOE120_OBR`
	where `HOSTNAME` is the system name where OBR is installed
	.
	4. Execute the following query.
	`ALTER TABLE AUDIT_DETAIL ALTER Detail_Text long NVARCHAR`
	Windows:
	1. Log on to the OBR system.
	2. Run the following command in the prompt:

	dbisql
	3. Log on to the SQL Anywhere AUDIT database with the following credentials:
	`User ID: <HOSTNAME> (For example: iwfvm00310)`
	`Password: <password>`
	`DB name: BOE120_AUDIT`
	`Server: BOE120SQLAW_<hostname> (For example: BOE120SQLAW_ iwfvm00310)`
	4. Execute the following query.
	`ALTER TABLE AUDIT_DETAIL ALTER Detail_Text long NVARCHAR`

Symptom	**SAP BOBJ Tomcat Status is Down**
Description	The Connectivity Status section in Administration Console displays the SAP BOBJ Tomcat status as Down while the Tomcat service is actually running on the SAP BusinessObjects system.
Resolution	Restart the SAP BOBJ Tomcat service on the SAP BusinessObjects system.

Symptom	**Failed to save time zone information in database**
Description	After completing the configuration of the remote Vertica database, while verifying the configuration you may get the following error: *"Failed to save time zone information in database"*
Resolution	To resolve this problem, perform the following steps: 1. Connect to Vertica database using the dbisql tool. 2. Execute the following query: For GMT : `insert into SHR_CONFIG(shr_key,shr_value) VALUES ('shr.time.zone','GMT');` For Local: `insert into SHR_CONFIG(shr_key,shr_value) VALUES ('shr.time.zone', local);`

Symptom	**Auto discover does not update the FQDN of Profile database**
Description	During the data source configuration with BSM, on clicking Discover Database the hostname of Profile database does not get updated with FQDN .
Resolution	While performing the data source configuration for the Management database, ensure that you have typed a fully qualified domain name for the hostname. For more information on Management Database data source configuration, see *Operations Bridge Reporter Configuration Guide*.

Symptom	**Administration service goes down during Content Pack deployment**
Description	While Content Pack deployment is in progress, OBR Administration service goes down.
Resolution	If there are any package manager process running, follow these steps to kill the process: 1. `ps -ef | grep packagemgrsilent` 2. `kill -9 <processid>` 3. Select the content packs again and stat the installation.

Chapter 5: Troubleshooting Reporting Issues

OBR provides an interactive user interface—the SAP BusinessObjects BI Launch pad 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 BusinessObjects, the report might not display any data.

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

SAP BusinessObjects Errors

This section covers some of the common errors related to SAP BusinessObjects encountered in OBR and the steps to troubleshoot them. These errors might prevent the reports from opening or showing data.

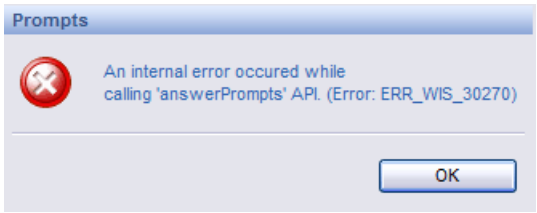
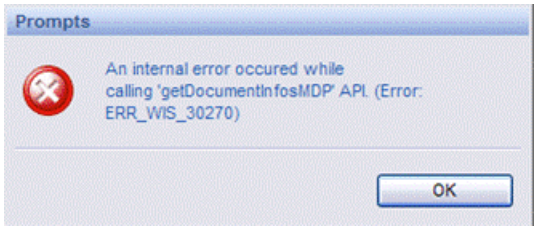
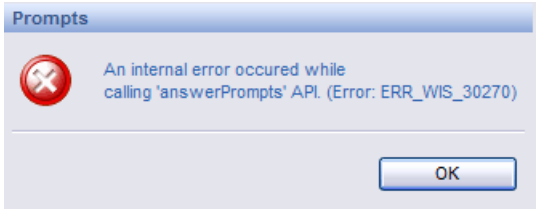
In addition to these errors, SAP BusinessObjects provides a detailed list of errors for Web Intelligence reports at the following URL, http://help.sap.com/businessobject/product_guides/errors/12/0/en/html/.

Symptom	**SAP BusinessObjects Central Management Console Error**
Description	When trying to access the SAP BusinessObjects Central Management Console, the following error message appears: `Error: Server <server name> not found or server may be down null`
Resolution	This error occurs when the specified port 6400 is locked by another web service.

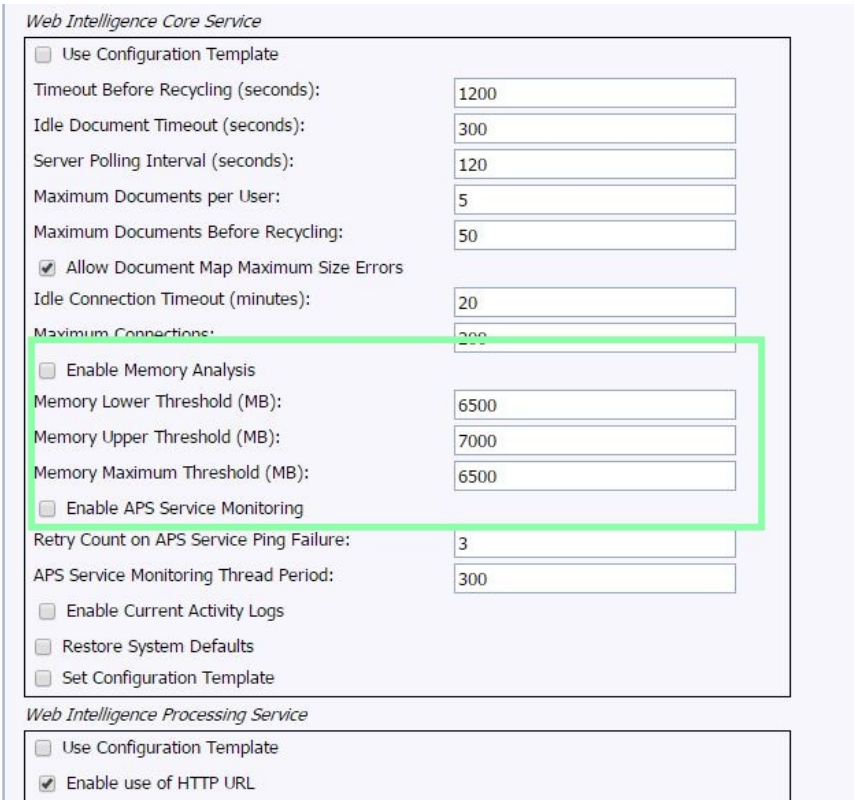
Symptom	**SAP BusinessObjects BI Launch pad Log in Error**
Description	On the SAP BusinessObjects Launch pad log on screen, type the user credentials and click Log On. The following error message appears: `Logon denied: Your system does not allow the use of this application` This error occurs due to any one of the following issues: 1. OBR license expiry 2. Poor BusinessObjects services 3. BusinessObjects crashes

Resolution	The user can perform one of the following: 1. User can check for the license validity. 2. Administrator can log on to CMC/CCM and check for the status of servers if they are up and running. **Note:** CMC is available for both Windows and Linux platforms whereas CCM is available only on Windows platform. Perform the following steps through CMC: 1. Click **Start** and type **Central Management Console** in **Search**. The Central Management Console page appears. OR Log on to CMC from the following url: `https://<HPE OBR_System_FQDN>:8443/CMC` 2. Enter the Username and Password and click **Log On**. The CMC window opens. 3. Click **Servers**, under Organize. The server window appears. 4. Note the servers which are disabled under Server Name. 5. Right-click the disabled server, then click **Enable Server**. **Note:** This step has to be performed on all disabled servers. Perform the following steps through CCM: You can verify this from the OBR machine. 1. Click **Start** and type **Central Management Console** in **Search**. The Central Management Console page opens. 2. Select Server Intelligent Agent and click **Manage Server** icon on the tool bar. 3. Enter the Admin Username and Password and click **Connect**. 4. Check for the current status of BusinessObjects servers from the newly opened window. 5. Enable the down/disable servers if any and start the server. 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 HPE Support for assistance. For more information, see the *Managing licenses* section in the *Operations Bridge Reporter Administration Guide*.

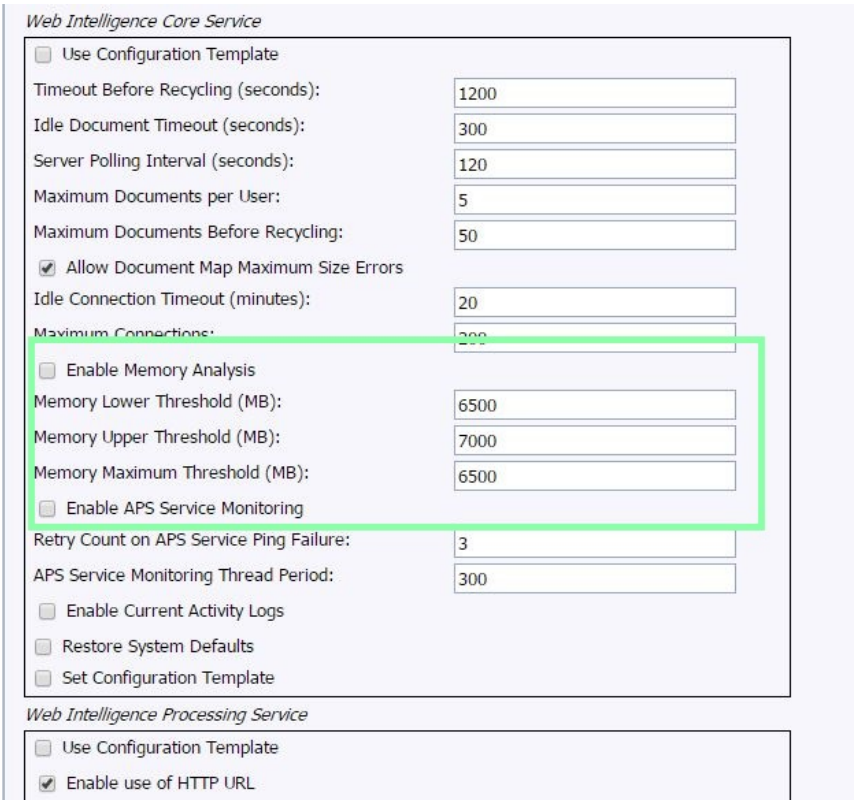
Symptom	Report Timeout Error
Description	While performing an action on an open report, such as changing the prompts, selecting the filters, or accessing the report tabs, the following error message appears: `An error has occurred: A timeout error has occurred`
Resolution	This error occurs when a Web Intelligence session is opened and kept idle for a long time. To resolve this, click Document List and reopen the required report.

Symptom	Internal Error
Description	While opening a report, one of the following error messages appear:   
Resolution	This error occurs because the utilization of the system resources as well as SAP BusinessObjects internal services was very high at that particular moment when the Web Intelligence report was accessed. The SAP BusinessObjects 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.

Symptom	Server Memory is full - SAP BusinessObjects Reports Error

Description	SAP BusinessObjects Reports displays a error message server memory is full.
Resolution	To resolve this issue the memory must be increased manually. Follow these steps: 1. Log on to CMC from the following url: `https://<HPE OBR_System_FQDN>:8443/CMC` 2. From the drop-down list select **Servers**. 3. Click on **Servers List** on the left pane. 4. Select **AdaptiveProcessServer** and right-click and click **Stop Server**. 5. Right-click **AdaptiveProcessServer** and click **Select Services**. 6. Move the services listed to the left pane to Add Services. Click **OK**. 7. Right-click **AdaptiveProcessServer** and click **Properties**. 8. In the Command Line Parameters replace `Xmx2g` with `Xmx4g`. Click **Save & Close**. 9. Right-click **AdaptiveProcessServer** and click **Start Server**. 10. Select **WebIntelligenceProcessingServer** and right-click and click **Stop Server**. 11. Right-click **WebIntelligenceProcessingServer** and click **Properties**. 12. Edit the parameters as shown in the following image: 

	Click **Save & Close**. 13. Select **WebIntelligenceProcessingServer**, right-click and click **Start Server**.

Symptom	**Server is busy - SAP BusinessObjects Reports Error**
Description	SAP BusinessObjects Reports displays a error message server is busy.
Resolution	To resolve this issue the memory must be increased manually. Follow these steps: 1. Log on to CMC from the following url: `https://<HPE OBR_System_FQDN>:8443/CMC` 2. From the drop-down list select **Servers**. 3. Click on **Servers List** on the left pane. 4. Select **WebIntelligenceProcessingServer** and right-click and click **Stop Server**. 5. Right-click **WebIntelligenceProcessingServer** and click **Properties**. 6. Clear **Enable Memory Analysis** and **Enable APS Service Monitoring** as shown in the following image: 

	Click **Save & Close**. 7. Select **WebIntelligenceProcessingServer**, right-click and click **Start Server**.

Symptom	**Error: Illegal access to viewer please use a valid url**
Description	This error appears while a new report is opened or a existing report is refreshed. This is because the web intelligence server and connecting server is in failed state. To resolve this issue perform any one of the following resolution.
Resolution 1	Follow these steps to overcome this issue: 1. Click **Start** and type **Central Management Console** in **Search**. The Central Management Console page appears. 2. Enter the Username and Password and click **Log On**. 3. Click **Servers**, under Organize. The server window opens. 4. Click **Servers List** from the left pane. 5. Right-click on **OBR.WebIntelligenceProcessingServer** and click **Properties**. The properties page appears. 6. In **Web Intelligence Core Service**, clear **Enable Memory Analysis**. 7. Click **Save & Close**. 8. Start the SAP BusinessObjects service as follows: **On Windows:** ◦ Go to **Start > Run**, type `services.msc`. ◦ Right-click on **Business Objects Webserver** and click **Stop**. ◦ Right-click on **Business Objects Webserver** and click **Start** **On Linux:** ◦ Go to the location `/etc/init.d`. ◦ Run the command `service SAPBOBJEnterpriseXI40 stop` ◦ Run the command `service SAPBOBJEnterpriseXI40 start`

Resolution 2	1. Go to the following location:
	`/opt/HP/BSM/BOE4/setup/`
	2. Run the following command to verify the size of `boconfig.cfg`:
	`ls –sh`
	3. If the size of `boconfig.cfg` is 0 KB, copy the `boconfig.cfg` file from working system to the same location OR Contact HPE Support.
	4. Log on to CMC from the following url:

	`https://<HPE OBR_System_FQDN>:8443/CMC` 5. Enter the Username and Password and click **Log On**. 6. Click **Servers**, under Organize. The server window opens. 7. Click **Servers List** from the left pane. 8. Right-click on **OBR.WebIntelligenceProcessingServer** and click **Restart Server**. 9. Right-click on **OBR.ConnectionServer** and click **Restart Server**.

Enabling BI Launch Pad to Authenticate Users

Steps to enable BI Launch pad to authenticate through LDAP or Active Directory or Enterprise

Steps

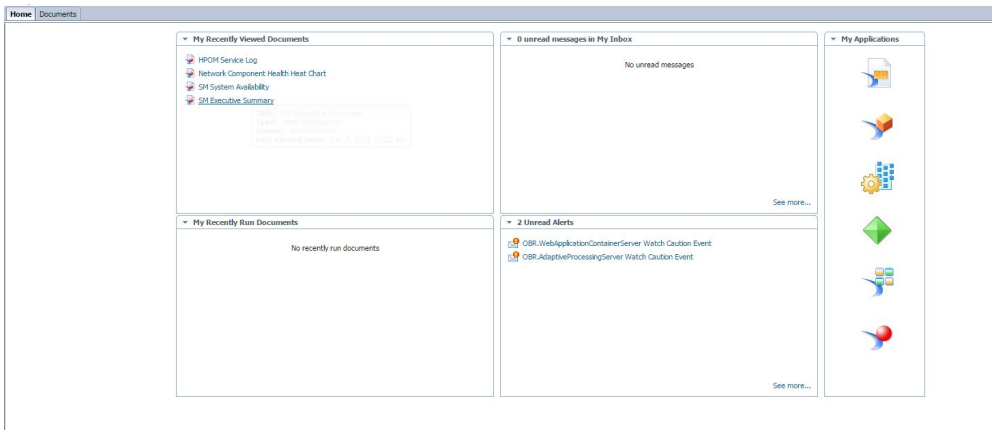
1. Create a file `BIlaunchpad.properties` in `%PMDB_HOME%\BOWebServer\webapps\BOE\WEB-INF\config\custom` with the following entries:
   a. `authentication.visible`
   b. `authentication.default`
2. Set the value of the `<authentication.visible>` parameter to `true`.
3. Set the value of the `<authentication.default>` parameter as follows:

Authentication Through	Value
LDAP	`secLDAP`
ActiveDirectory	`secWinAD`
Enterprise	`secEnterprise`

4. Save and close the file.
5. Restart the web application server.

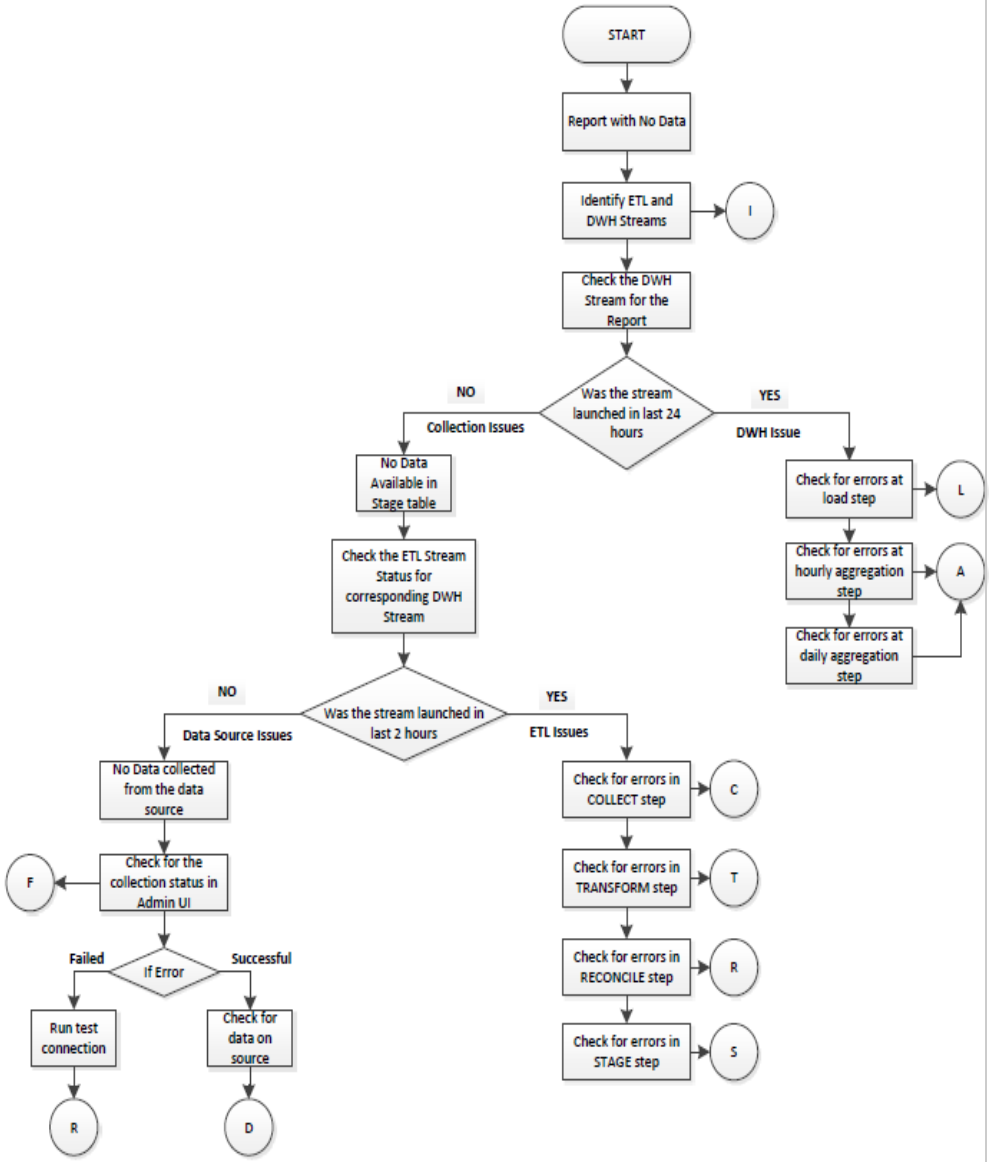
BI Launch Pad Landing Page Alerts

Solution	To enable BI launch pad landing page Alerts, as shown in the following image:

	
Steps	For information to set the Alerts, see *How to set alerts for Watchlist in BI 4.0* document located at URL: https://softwaresupport.hpe.com/ Also, for information on metrics available to all servers, see *Explanation of Server Monitoring Metrics for SAP BusinessObjects Business Intelligence 4.0* document located at URL: https://softwaresupport.hpe.com/

Reports Issues

Symptom	**No Data Retrieved for Reports**
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 for a EJB Dailyreport.
Resolution	This problem could be due to any one of the following issue: 1. Incorrect prompt selection 2. No data available for the selected dimension 3. ETL issues 4. Aggregation issues 5. Source issue/not monitoring the nodes The following flow chart provides the steps you must follow to troubleshoot the possible causes:



D (Datasource)	If test connection failed then the reachability to the data source needs to be verified. Check if all the required services on the source are running. See the "Troubleshooting Data Source Issues" on page 92 section. There is no data available on the source. See the"Troubleshooting Data Source Issues" on page 92 section.
C	**Symptom**:

(Collect)	The COLLECT step for the stream shows ERROR (Red icon) and files are piling up in the `{PMDB_HOME}/collect` folder. Contact HPE 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 piling up in the `{PMDB_HOME}/failed_to_tranform` folder. Contact HPE 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 piling up in the `{PMDB_HOME}/failed_to_reconcile` folder. **Resolution**: See "Troubleshooting Data Source Issues" on page 92 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 piling up in the `{PMDB_HOME}/stage` folder. **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 connectivity to the database. See the "Understanding Database Alerts" on page 58 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 piling up in the `{PMDB_HOME}/stage` folder.

		Resolution: 1. Increase the disk space if the drive is running full. 2. Increase the `pmdb_user_main database` space manually and start the `HPE_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 piling up in the `{PMDB_HOME}/stage` folder. This error occurs because the temporary cache is not adequately provisioned. **Resolution**: You can ignore this error if it occurs occasionally. If it occurs frequently, consider the following option: 1. Reduce the number of concurrent jobs you launch. See the *Operations Bridge Reporter 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 `Database server not found` message is displayed. **Resolution**: 1. This can be due to temporary loss of connection to database; the next run of the step should resolve the reprocessing the data. **Symptom2**: The LOAD/AGGREGATE/EXEC_PROC step for the stream shows ERROR (Red icon). Drill down detail, the `You have run out of space in pmdb_user_main DBSpace` message is displayed. **Resolution**: 1. Increase the disk space if the drive is running full.

		2. Increase the pmdb_user_main database space manually and start the HPE_PMBD_Internal_Monitoring service if the service is stopped or disabled. **Symptom3**: The LOAD/AGGREGATE/EXEC_PROC step for the stream shows ERROR (Red icon). Upon drilling down, the `Insufficient buffers` message is displayed and data is stuck in source tables. This error occurs because the temp cache is not adequately provisioned. **Resolution**: You can ignore this error if it occurs occasionally. If it occurs frequently, consider the following option: 1. Reduce the number of concurrent jobs you launch. See the *Operations Bridge Reporter Online Help for Administrators*.
	F (Schedule Frequency)	To check the Collection Status and the Schedule Frequency, log on to the Administrator Console, select **Collection Configuration**. Select a data source to see the Collection Status and the Schedule Frequency.
	I (Identify Streams)	See the "Unable to Refresh a Report" on the next page or "Generating Reports to Stream Mapping Information" on page 136 section to identify the stream associated with the report.

Symptom	**BI Launch pad reports *session expire* message**
Description	While working on the BI Launch pad reports the session expire message pop-up appears as shown in the following image: 
Resolution	Follow these steps increase the launch pad session timeout pages: 1. Stop the Tomcat server:

	On Windows: Go to **Start > Run**, type `services.msc`, right-click **Business Objects Webserver** service and click **Stop**.
	On Linux: Go to the location `/opt/HP/BSM/PMDB/BOWebServer/bin` and run the command: `./shutdown.sh`
	2. **On Windows:** Go to the location `%PMDB_HOME%\BOWebServer\webapps\BOE\WEB-INF`.
	On Linux: Go to the location `/opt/HP/BSM/PMDB/BOWebServer/webapps/BOE/WEB-INF`.
	3. Open the `web.xml` and locate the following:
	`<session-config>`
	`<session-timeout>20</session-timeout>`
	`</session-config>`
	4. Edit the session-timeout value for more than 20 minutes.
	For example: to set the session timeout to 60 minutes.
	`<session-config>`
	`<session-timeout>60</session-timeout>`
	`</session-config>`
	5. Start the Tomcat server:
	On Windows: Go to **Start > Run**, type `services.msc`, right-click **Business Objects Webserver** service and click **Start**.
	On Linux: Go to the location `/opt/HP/BSM/PMDB/BOWebServer/bin` and run the command: `./startup.sh`

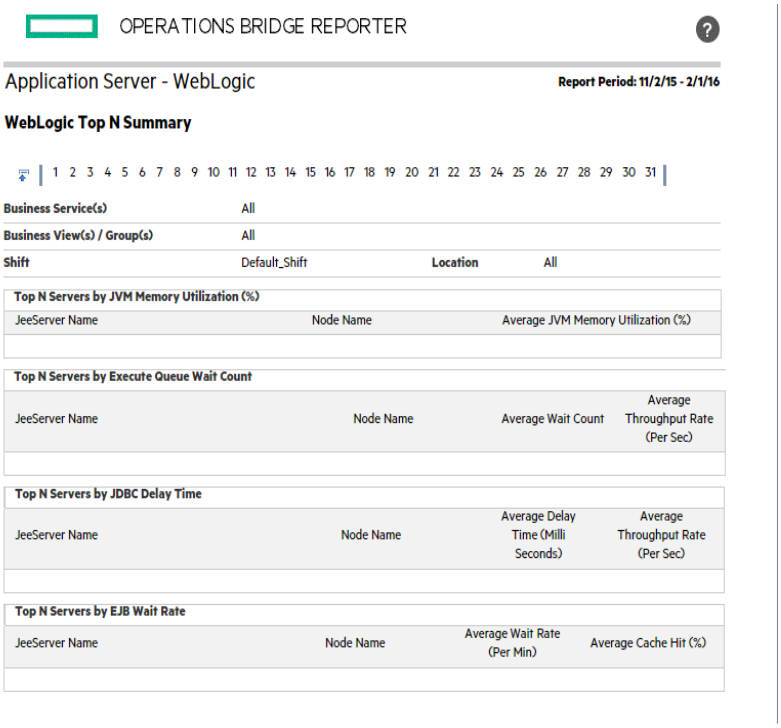
Symptom	**Reports take longer time to display details or Internal Error occurs**
Description	While working on the BI Launch pad, few reports (for example, SM reports) take longer time to display details or Internal Error occurs. This may happen due to connectivity issues in the SAP BusinessObjects server.
Resolution	Refresh the report to resolve this issue.

Symptom	**Unable to Refresh a Report**
Description	You cannot refresh a report to display updated information because the cascading prompt value in the Prompts dialog box is missing.
Resolution	This problem occurs because of missing data in the dimension tables for a query. To troubleshoot this problem, perform the following steps:

	Note: The following steps are performed using the WebLogic EJB Cache Hit report as an example but you can perform these steps for any report. 1. Check the dimension table for data pertaining the query: a. Click **Cancel** in the Prompts window. b. On the report toolbar, click **Edit**. 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 Daily**, and click **SQL** in the Report toolbar. The SQL Viewer dialog box opens, which displays the SQL for that query. Note that EJB Daily 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_JEE_Server. To identify the table perform the following: 1. Log on to the Administration console, click **Internal Monitoring > Content Health Status**. The Content Health Summary is displayed. 2. Click the **Reports Impacted** link. You can check the **Affected Reports** on the right hand pane. For more information, see *Operations Bridge Reporter Administrator Guide*.

Symptom	**Report Appears Blank after Refreshing**
Description	After opening a report and applying the necessary prompts, the report does not display any data.
Resolution	The report appears blank due to any one of the following issue: 1. Incorrect entry of measurable object (memory util, cpu util). 2. No data is displayed if the report is generated for the first section in a section based report. The section is displayed in alphabetical order by default. The report does not display any data because you might not have selected the time-drill filters for the report. To resolve this problem, perform the following: • Set the time-drill filters on the Report Filter toolbar, if they are available for the report. • If context-based filters are 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 loading, and so on. To investigate such errors, contact HPE Support.

Symptom	**Missing Data for Specific Time Period**
Description	A selected report displays data for a particular time period even when drilled down to the day level. However, when the time period is changed to different week, the report does not display any data.  OPERATIONS BRIDGE REPORTER Application Server - WebLogic Report Period: 11/2/15 - 2/1/16 WebLogic Top N Summary 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 Business Service(s): All Business View(s) / Group(s): All Shift: Default_Shift Location: All Top N Servers by JVM Memory Utilization (%) JeeServer Name | Node Name | Average JVM Memory Utilization (%) Top N Servers by Execute Queue Wait Count JeeServer Name | Node Name | Average Wait Count | Average Throughput Rate (Per Sec) Top N Servers by JDBC Delay Time JeeServer Name | Node Name | Average Delay Time (Milli Seconds) | Average Throughput Rate (Per Sec) Top N Servers by EJB Wait Rate JeeServer Name | Node Name | Average Wait Rate (Per Min) | Average Cache Hit (%)
Resolution	This problem occurs because of missing data which could be due to one of the following issues: 1. ETL issues - See"Reports Issues" 2. Aggregation - See "Reports Issues" 3. No metric collection for selected time period - Check the retention period for the selected time period. 4. No particular SPI.

Symptom	**Data Missing from Reports**
Description	This problem occurs if the data is stuck in `{PMDB_HOME}/stage/transform_cache`

	folder and data flow is not happening.

Resolution	To resolve this issue, perform the following steps:
	1. Go to the location `{PMDB_HOME}/config/collection.properties`
	2. Change the `mapper.cache.key.retry.count=4` to the following value:
	`mapper.cache.key.retry.count=1`
	The above change will make mapper dump the incomplete records immediately instead of waiting for 4 cycles.
	OR
	Change the `mapper.cache.key.retry.count=false` to the following value:
	`mapper.cache.key.retry.count=true`
	With the above change, mapper will not wait for incomplete records across multiple files it has to processes in single run.

Symptom	**Irrelevant Information in Customer and Location Enrichment Log Files**
Description	The following messages are logged in `customer.log` file without `customerenrich.xml` created in the `PMDB_HOME/config` folder: *2016-05-28 15:44:23,911 DEBUG, com.hp.bto.shr.enrichment.customer.service.CustomerService.execute , [ABCBatchID:203, ABCStreamID:PMDB_Platform@CustomerDefinition, ABCStepID:CustomerDefinition, ABCProcessID:204] Customer enrich definition files to process =0* *2016-05-28 15:44:23,912 WARN, com.hp.bto.shr.enrichment.customer.service.CustomerService.flushAndCloseDimCustCSVWriter , [ABCBatchID:203, ABCStreamID:PMDB_Platform@CustomerDefinition, ABCStepID:CustomerDefinition, ABCProcessID:204] Failed to move fileC:\HPE-OBR\PMDB\temp\Core_0_Stage_K_Customer_0_stage.csv* *2016-05-28 15:46:23,356 INFO, com.hp.bto.shr.enrichment.customer.command.CustomerEnrichCommand.executeSpecific , [ABCBatchID:220, ABCStreamID:PMDB_Platform@CustomerDefinition, ABCStepID:CustomerDefinition, ABCProcessID:221] Command line details :* The following messages are logged in `location.log` file without `locationenrich.xml` created in the `PMDB_HOME/config` folder: *2016-06-02 18:19:56,557 DEBUG, com.hp.bto.shr.enrichment.location.service.LocationService.initLocation , [ABCBatchID:100315, ABCStreamID:PMDB_Platform@platform_poller_registry_build, ABCStepID:LocationEnrichment, ABCProcessID:100317]*

	Location enrich relaton files to delete =0 *2016-06-02 18:19:56,584 DEBUG, com.hp.bto.shr.enrichment.location.service.LocationService.execute , [ABCBatchID:100315, ABCStreamID:PMDB_Platform@platform_poller_registry_ build, ABCStepID:LocationEnrichment, ABCProcessID:100317] Location enrich definition files to process =0* *2016-06-02 18:19:56,585 WARN, com.hp.bto.shr.enrichment.location.service.LocationService.flushAndClos eDimLocCSVWriter , [ABCBatchID:100315, ABCStreamID:PMDB_ Platform@platform_poller_registry_build, ABCStepID:LocationEnrichment, ABCProcessID:100317] Failed to move fileC:\HPE-OBR\PMDB\temp\Core_0_ Stage_K_Location_0_stage.csv* *2016-06-02 18:19:56,585 DEBUG, com.hp.bto.shr.enrichment.location.service.LocationService.deleteOldRel ationfiles , [ABCBatchID:100315, ABCStreamID:PMDB_Platform@platform_ poller_registry_build, ABCStepID:LocationEnrichment, ABCProcessID:100317] No relation files to delete* *2016-06-02 18:23:07,824 INFO, com.hp.bto.shr.enrichment.location.command.LocationEnrichCommand.execut eSpecific , [ABCBatchID:100345, ABCStreamID:PMDB_Platform@platform_ poller_registry_build, ABCStepID:LocationEnrichment, ABCProcessID:100347] Running location enrichment* *2016-06-02 18:23:07,840 INFO, com.hp.bto.shr.enrichment.location.command.LocationEnrichCommand.execut eSpecific , [ABCBatchID:100345, ABCStreamID:PMDB_Platform@platform_ poller_registry_build, ABCStepID:LocationEnrichment, ABCProcessID:100347] Command line details :*
Resolution	If you have not created the `customerenrich.xml` and `locationenrich.xml`, you can ignore these messages. For steps to create new `customerenrich.xml` and `locationenrich.xml`, see *Operations Bridge Reporter Online help for Administrators*.

Symptom	**Unable to export a report in csv format from SAP BusinessObjects BI Launch pad**
Description	Unable to export a report in csv format from SAP BusinessObjects BI Launch pad this is because the binary output size has reached the maximum limit.
Resolution	To resolve this issue, follow these steps: 1. Log on to Central Management Console (CMC) as Administrator with Enterprise authentication mode from the follwoing link: `http://<OBR_System_FQDN>:8080/CMC`

	OR `https://<HPE OBR_System_FQDN>:8443/CMC` where, *<OBR_System_FQDN>* is the fully qualified domain name of the OBR system. 2. Click **Servers**. 3. From the **Service Categories**, click **Web Intelligence**. 4. Double-click on **Web Intelligence Processing Server**. The Properties page appears. 5. Increase the **Binary Stream Maximum Size** (Default value=50 MB; Maximum value = 65535 MB). 6. Click on **Save and close** 7. Select the **Web Intelligence Processing Server** and click the Restart server icon  to restart the Web Intelligence server.

Symptom	**No Data in Smart Plugin (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 occurs because of data logging issue with Performance Agent when both Operations Agent and Performance Agent are installed in your environment. The table below consists of the data sources that the content pack uses. Due to improper summarization of metric ID and value ID, these reports fail to show data. To resolve this, Operations Agent must be used for data logging instead of Performance Agent.

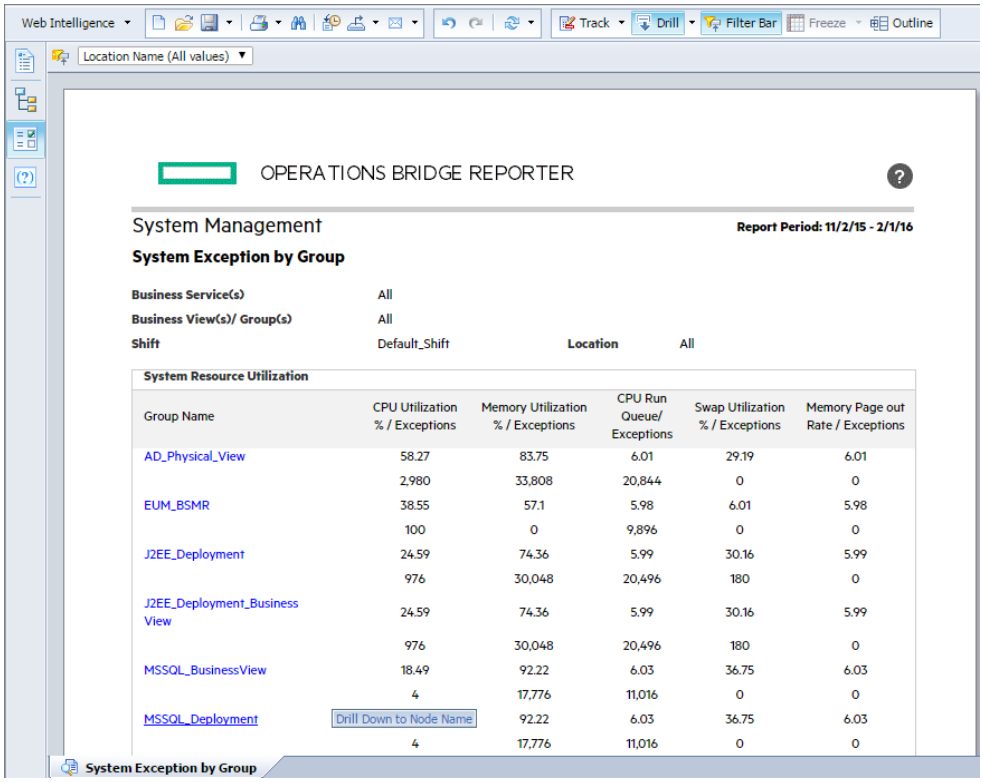
Content Pack Name	Data Sources (Performance Agent)
Oracle	DBSPI_ORA_REPORT; DBSPI_ORA_GRAPH
MS SQL	DBSPI_MSS_REPORT; DBSPI_MSS_GRAPH
WebLogic	WBSSPI_METRICS; WBSSPI_RPT_METRICS
WebSphere	WLSSPI_METRICS ; WLSSPI_RPT_METRICS
Active Directory	ADSPI
Exchange 2007	EX2007_DATA
Exchange 2010	EXSPI_DATA

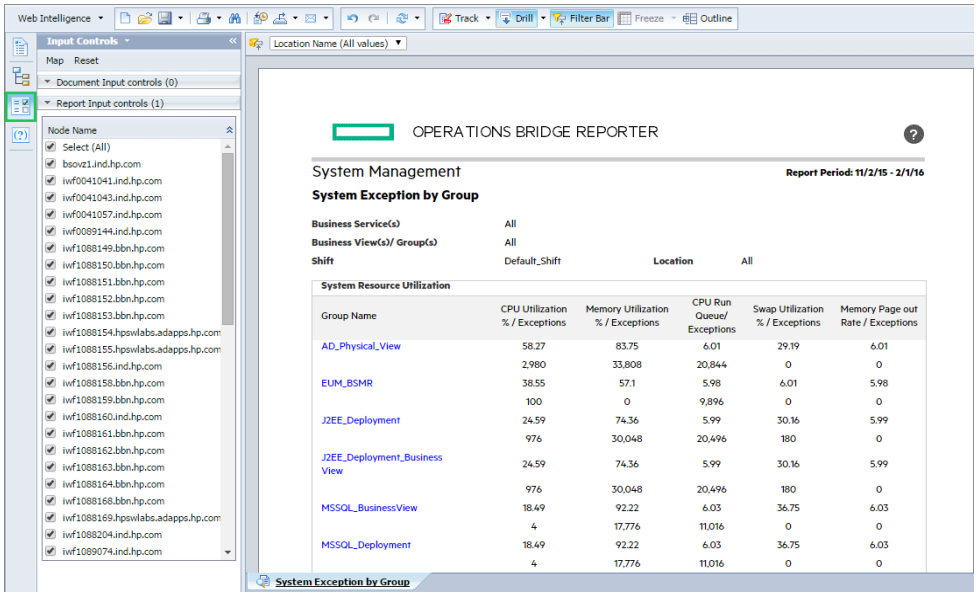
For more information and the Resolution steps for SQL Server and Oracle reports, see the *Troubleshooting Data Logging with Performance Agent* section of the *SPI for Databases 12.04 Installation and Configuration Guide*.

	For more information and the Resolution steps for WebLogic reports, see the *Integrating WebLogic SPI with Performance Agent* section 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 Performance Agent* section of the *SPI for WebSphere Application Server 7.04 Installation and Configuration Guide*.

Symptom	**Tooltip not working in Firefox 10.0.3**
Description	Tooltip not working in Firefox 10.0.3
Resolution	Upgrade the browser to a minor version like Firefox 10.0.6 or a major version like Firefox 11.

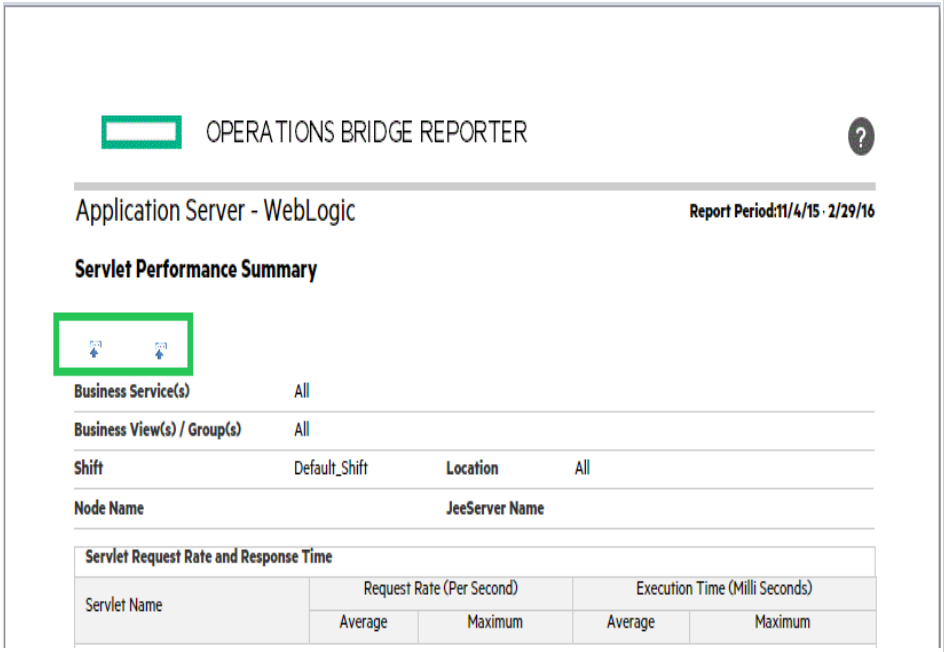
Symptom	**Internet Explorer Hangs when Zoom Level is 90–95%**
Description	Internet Explorer Hangs when Zoom Level is 90–95%
Resolution	You must set the zoom level of the reports to any number except between 90–95%.

Symptom	**Missing Input Controls Pane in Report**
Description	After opening a report, user is unable to find input controls (wherever applicable). 

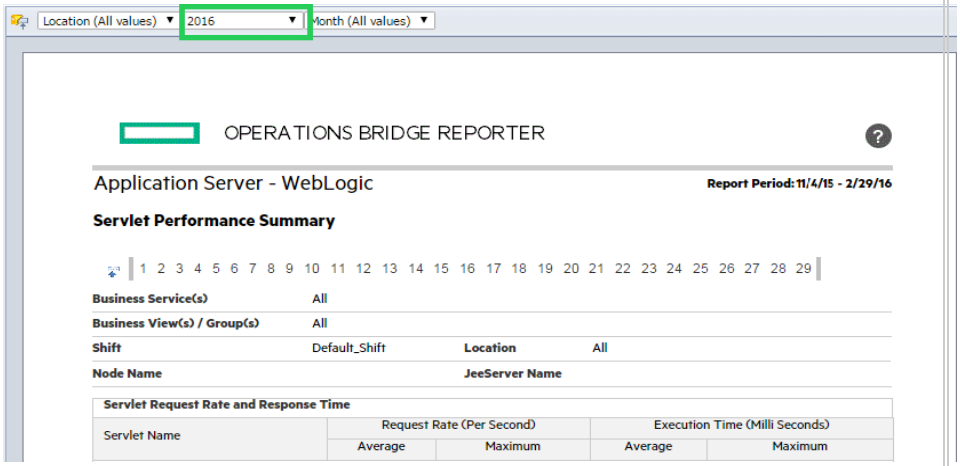
Resolution	Click the Input Control icon in the left pane to get the list of input controls available for the report as shown in the following image: 

Symptom	**Select/Unselect Input Control Data and then Drill Down from Current Level give Improper Results**
Description	After opening a report, if you select/unselect input controls (wherever applicable) and then drill down from the current level, you get improper results.
Resolution	If this issue occurs intermittently, perform the following steps: 1. Select/unselect desired values from input control. 2. Drill up to first level (for example, up to all years in out of the box OBR reports). 3. Drill down so that data syncs up properly with the selected dimensions from input controls.

Symptom	**Only Drill Icon Appears when Date Range is Across Years**
Description	After refreshing a report for the selected dates which they span across years, only the drill icon appears in the drill bar section of the report with missing dates.
Resolution	1. When the report is refreshed for a selected date range that spans across years as follows only drill icon appears:



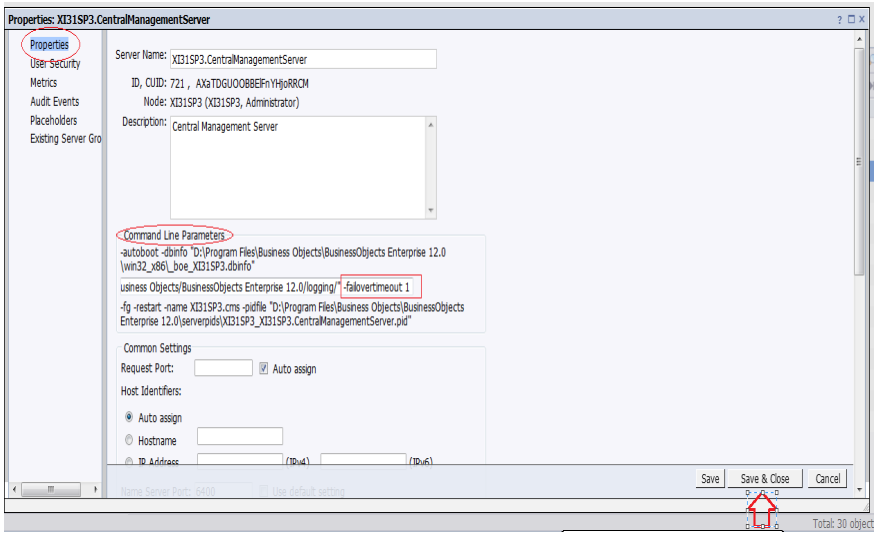
2. Selecting the required Year in the analysis context (as displayed in the following image) solves this issue and the report can be drilled down/up for further analysis.



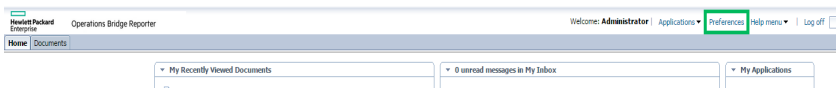
Symptom	**Refreshing a Single-Day Data Report Returns Inaccurate Data**
Description	When the report is refreshed for a single day, the report shows data only for the first hour instead of all 24 hours
Resolution	1. When a report is refreshed, for example: for 1-Aug-2012, the report shows data only for the first hour. 2. To fetch data for all 24 hours of a single day, refresh the report with Select Start Date as 1-Aug-2012 and Select End Date as 2-Aug-2012. Now data for all 24 hours of 1-Aug-2012 is shown.

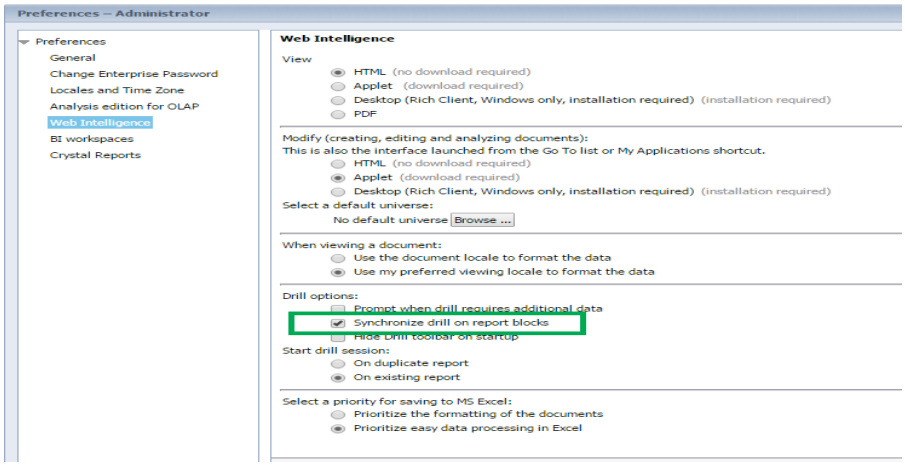
Symptom	SAP BusinessObjects BI Launch pad Page Timeout Error
Description	SAP BusinessObjects BI Launch pad Page Timeout Error

Resolution	The following steps will resolve the Launch pad page timeout error.
	1. In the `web.xml` file, set the variables.
	`logontoken enable=false,`
	`session-timeout=120` (You must set these variables in all web.xml files of installed applications; you can set session timeout over 120 minutes too, but up to maximum 8 hours).
	`[<Install DIR>Program Files (x86)\Business Objects\Tomcat55\webapps\CmcApp\WEB-INF`
	`[<Install DIR>Program Files (x86)\Business Objects\Tomcat55\webapps\InfoViewApp\WEB-INF`
	`[<Install DIR>Program Files (x86)\Business Objects\Tomcat55\webapps\InfoViewAppActions\WEB-INF`
	`[<Install DIR>Program Files (x86)\Business Objects\Tomcat55\webapps\CmcAppActions\WEB-INF`
	`[<Install DIR>Program Files (x86)\Business Objects\Tomcat55\webapps\AnalyticalReporting\WEB-INF`
	`[<Install DIR>Program Files (x86)\Business Objects\Tomcat55\webapps\OpenDocument\WEB-INF`
	2. Add -failovertimeout 1 to the command line parameter of CMS for CMC.
	3. Log on to CMC server.
	4. Right-click **Central Management Server** and append the command line with the switch.
	5. To add the switch, right-click **Central Management Server**.
	6. Go to the command line, enter a space and append the switch.

	 Log on to Launch pad and wait for 121 min to get web session and enterprise session timeout.

Symptom	**Unable to save a report to a file system (On Linux only)**
Description	The SAP BusinessObjects scheduling feature for reports from Launch pad requires R package. This package is not installed by default.
Resolution	To get the scheduled reporting output to a file system, follow these steps: 1. Install and configure the R package (for example: `rexec` and `rsh` client and servers) to the system where SAP BusinessObjects component is installed. 2. Enable `rsh` for the SHRBOADMIN user.

Symptom	**Issue in Setting the Sync Drill on Blocks**
Description	After refreshing a report, when the report is drill down to “Hour” level dimension, entire report is not in sync at the same dimension, such as the first block on which drill was executed shows data at “Hour” level but the remaining blocks shows data at “Day” level.
Resolution	This problem occurs because preferences are not set for the drill option. Perform the follow steps to set them: 1. Click **Preferences** in Launch pad.  2. Under Web Intelligence, from the Drill options section, select **Synchronize drill on report blocks** as follows:



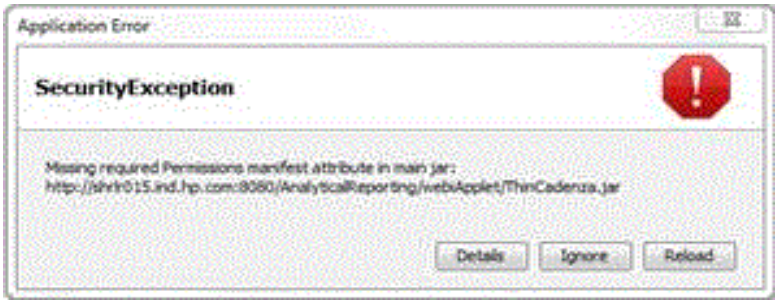
3. Click **OK**, log out and log on again to Launch pad. If the report is drilled down to hourly level, even the other blocks will get synchronized accordingly.

Symptom	**Some System Management Reports Fail in VMware vCenter Deployment**
Description	When OBR is logging data from VMware vCenter, some System Management reports are empty or fail to generate.
Resolution	When VMware vCenter is the data source for OBR, only the following System Management reports are populated: • SM Executive Summary • SM System Availability Summary • SM System Forecast Summary • SM System Inventory • SM Top and Bottom 5 Systems • SM System Availability Detail • SM System Availability

Symptom	**SPI Availability Report Show higher-than-expected “Unknown Time”**
Description	OBR sources the data from the respective classes such as DBSPI_ORA_REPORT, EX2007_AVAILABILITY and so on. To compute availability, a post-collection procedure populates the data in the content packs (such as Exchange, WebLogic, WebSphere, Oracle, and Microsoft SQL). The “Unknown Time” is marked when OBR has not received a valid data sample from the agent for a certain period (5 minute sample in SR_ tables).
Resolution	The issue can occur in the following scenarios. **Scenario 1**:

	If duplicates exist in the dimension table (such as K_CI_Oracle, K_CI_Exchange_ Server, and so on), then "Unknown Time" occurrence is possible. In case of duplicates (say two instances), one CI would be old and the other new. The old CI would not have logged data after the new CI entered the system. This duration of the old CI is marked as *Unknown Time* because no valid data is received from source. Perform the following steps to resolve this issue: 1. If you have previous version of OBR, upgrade it to the latest version. 2. Use the *Dimension Life Cycle Manager* tool to delete the duplicate CIs. For more information on deleting duplicate CIs, see section *Managing Dimensions* in the *Operations Bridge Reporter Online help for Administrators.*
Resolution	**Scenario 2**: If CODA is facing issues, data logged from Agents will not have the complete set of samples (12 samples per hour). This results in unknown time showing up in OBR reports. For example, although the SPI policy for availability is configured to log data every 5 minutes, the Agent fails to log the complete set of samples every 5 minutes. To fix issues with missing data in CODA, log a case with HPE Support for the Agent module.
Resolution	**Scenario 1**: If the SPI policies pertaining to availability are not configured to log the data every 5 minutes, (and instead logging data for say every 10 minutes), then for an hour OBR will have only 6 samples as against 12 from Agent. This can report 50% unknown time. To resolve this issue, configure the SPI policies to log availability data every 5 minutes. **Note:** Any other mode of logging will report erroneous availability and also unknown time.

Symptom	**Errors when Creating or Modifying OBR Reports**
Description	You notice errors which say the required permissions and manifest attributes are missing. Or you encounter the following security exception error when you try to modify the OBR reports.

	 These issues can occur when a higher version of the Java Development Kit (JDK) is installed on the system. Or when the security settings in Java are rigid and do not allow running applications that are unsigned, self-signed (not signed by trusted authority), and when the applications are missing permission attributes.
Resolution	To resolve this problem, try the following options: 1. Verify that you have the Java Development Kit (JDK) version 1.6 installed on the system. Higher versions of JDK might cause compatibility issues. 2. Go to **Control Panel** > **Java** . The Java Control Panel window appears. 3. Click the **Security** tab. 4. If your policies allow, lower the security setting by moving down the slider to **Medium**. 5. Add the URL of the OBR host system to the Exception Site List. a. Click **Edit Site List**. The Exception Site List pane appears. b. Click **Add**. c. Enter the URL of the OBR host system. (For example, *http:///<hostname>:8080/AnalyticalReporting/*. Click **OK**. 6. Click **Apply**. 7. Click **OK**. 8. Restart the browser.

Symptom	**Error Message Appears while Refreshing Audit Reports**
Description	The following error message appears when you refresh audit reports by using browser's refresh button: `An error occurred while creating a sub-process in the processing server.`
Resolution	Import the `BOaudit.biar` file on the SAP BusinessObjects system. The `BOaudit.biar` file is available in the following location: • **Windows**: `%PMDB_HOME%\contrib` • **Linux**: `$PMDB_HOME/contrib`

	Use SAP BusinessObject's import utility to import the `BOaudit.biar` file. **On Windows** Click **Start** and type **Import Wizard** in **Search**. The Import Wizard Screen appears. Click on **Next** to open source and destination screens. To Deploy the BIAR file: 1. Choose Business Intelligence Archive Resource (BIAR) File as Source. 2. Select the BIAR file from the file system (you can browse to the file path) and click **Next**. 3. Choose Destination Environment (CMS Name) as the BO server (OBR Application Server). 4. The BIAR file name. 5. Click **Next**. 6. Select Clear all, and then check only required objects: ◦ Import Application Folders & Objects ◦ Import Repository Objects ◦ Import Universe, then click **Next**. 7. Choose **Update destination object, in case of name conflict, rename it** and Click **Next**. 8. Check all options and then click **Next**. 9. Click **Next**. 10. Select the folders and objects then click **Next**. 11. Click **Next** on the **Select application folders and objects** screen. 12. Select the 3rd option from **import options for universe and connections**, and then click **Next**. 13. Select the universe(s) from the **Universe folder and Universes** screen. 14. Select **Import recipients...**, and then click **Next**. 15. Click on **Finish** to complete the deployment. 16. Click on View Detail Log to see the status of deployment, and then click **Done**. **On Linux** When OBR is installed on Linux, install the SAP BusinessObjects client tool on a Windows system (`BusinessObjectsXI-3.1-Clienttools.zip`; available in the `packages/BO` directory on the OBR Linux media) and follow the steps to import the BIAR file on Windows.

Symptom	**Weblogic CSVs are stuck in Collect folder**

Description	Weblogic CSVs are stuck in Collect folder due to issues in Orchestration.
Resolution	To resolve this issue, follow these steps: **On Windows:** 1. Go to **Start > Run**, type `services.msc`. 2. Right-click **HPE_PMDB_Platform_Orchestration** and click **Restart**. **On Linux:** Run the following command: `service HPE_PMDB_Platform_Orchestration restart`

Chapter 6: Troubleshooting Data Source Issues

This section covers the possible Data Source issues and how you can troubleshoot them.

Operations Agent Data Source Issues

Symptom	Checking Data Availability on Operations Agent using JCODAUTIL?
Resolution	Set the environment variable in the command prompt to get additional options. `C:\>SET CODAMAGIC=0x05201993` 1. To dump latest data in the data source for all instances, run the following command in the system where Agent is installed: **For Windows**: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –dumpds <datasource>` Example: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –dumpds SCOPE` **For Linux**: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –dumpds <datasource>` Example: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –dumpds SCOPE` 2. To dump metric list of a data source and a class, run the following command in the system where OBR is installed: **For Windows**: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –n <hostname> -obj` Example: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –n pihpt1. example.domain.com –obj` **For Linux**: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –n <hostname> -obj` Example: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –n pihpt1. example.domain.com -obj` 3. To dump last data for a data source and a class: **For Windows**: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –ds <datasource> –o <class> –n <hostname> -m <comma_separated_metrics> -last`

Example: %ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID,BYCPU_STATE –last

For Linux: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –ds <datasource> –o <class> –n <hostname> -m <comma_separated_metrics> -last

Example: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID,BYCPU_STATE –last

4. To dump first data for a data source and a class:

   For Windows: %ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –ds <datasource> –o <class> –n <hostname> -m <comma_separated_metrics> -first

   Example: %ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID,BYCPU_STATE –first

   For Linux: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –ds <datasource> –o <class> –n <hostname> -m <comma_separated_metrics> -first

   Example: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID,BYCPU_STATE –first

5. To dump last hours' summarized (by five min) data for a data source and class:

   For Windows : %ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –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: %ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID,BYCPU_STATE -b 07/18/2012.10:00:00 -e 07/18/2012.11:00:00 -s fivemin

   For Linux: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –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

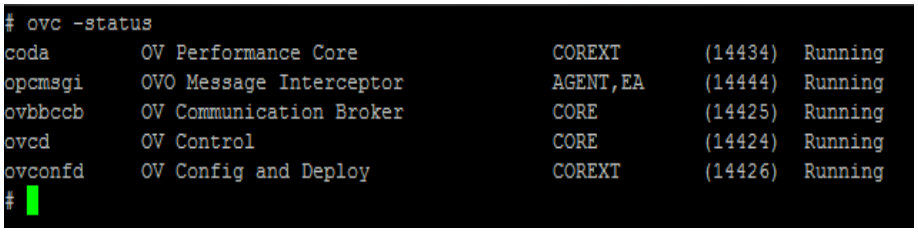
   Example: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID,BYCPU_STATE -b 07/18/2012.10:00:00 -e 07/18/2012.11:00:00 -s fivemin

6. To dump last hours' raw data for a data source and class:

   For Windows: %ovinstalldir%/jre64/bin/java -jar

	%OVINSTALLDIR%/java/jcodautil.jar –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: %ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID,BYCPU_STATE -b 07/18/2012.10:00:00 -e 07/18/2012.11:00:00 –raw **For Linux**: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –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: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.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: **For Windows**: %ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –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: %ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID,BYCPU_STATE -b 07/18/2012.10:00:00 -e 07/18/2012.11:00:00 -s fivemin > cpu.csv **For Linux**: /opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar –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: /opt/HP/BSM/JRE64/bin/java-cp/opt/OV/java/-jar /opt/OV/java/jcodautil.jar –ds SCOPE –o CPU –n pihpt1.example.domain.com -m BYCPU_ID, BYCPU_STATE -b 07/18/2012.10:00:00 -e 07/18/2012.11:00:00 -s fivemin > cpu.csv

Symptom	**Operations Agent Connectivity Issues**
Description	Operations Agent Connectivity Issues, check the reachability and availability of data source for reporting.

Resolution	Perform the following steps: 1. Check that the host is reachable. **For Windows**: `-ping <hostname>` **For Linux**: `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: **For Windows**: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar -ping <hostname>` **For Linux**: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar -ping -n <hostname>` Ping of OvBbcCb and CODA should be successful. But if the jcodautil 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 the following sample output: 

Symptom	**Empty CPU Data for Last Two Days**
Description	No data availability on source
Resolution	Perform the following steps: 1. Check that the host is reachable. **For Windows**: `-ping <hostname>` **For Linux**: `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 the following command: **For Windows**: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar -ping -n <hostname>`

For Linux: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar -ping -n <hostname>`

Ping of OvBbcCb and CODA should be successful. But if the jcodautil 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 the following sample output:

```
# 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 data is being collected and logged in Operations Agent by running the following command:

   For Windows: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar -ds SCOPE -o CPU -m BYCPU_ID,BYCPU_CPU_TOTAL_UTIL -last -n <hostname>`

   Example: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar -ds SCOPE -o CPU -m BYCPU_ID,BYCPU_CPU_TOTAL_UTIL -last –n piiat1. example.domain.com`

   For Linux: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar -ds SCOPE -o CPU -m BYCPU_ID,BYCPU_CPU_TOTAL_UTIL -last -n <hostname>`

   Example: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar -ds SCOPE -o CPU -m BYCPU_ID,BYCPU_CPU_TOTAL_UTIL -last –n piiat1. example.domain.com`

Time	**CPU**	**Total**
Stamp	ID	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 for the last two days, contact HPE Support.

Symptom	Data Holes in Reports
Description	No data availability on source

Resolution	Perform the following steps:
	1. Check that the host is reachable.
	For Windows: `-ping <hostname>`
	For Linux: `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:
	For Windows: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar -ping -n <hostname>`
	For Linux: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar -ping -n <hostname>`
	Ping of OvBbcCb and Coda should be successful. But if the jcodautil 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 the following sample output:
	`# 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.
	For Windows: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar -ds SCOPE -o GLOBAL -m GBL_MEM_UTIL,GBL_CPU_TOTAL_UTIL,GBL_DISK_UTIL -b 03/25/2013.10:00:00 -e 03/25/2013.11:00:00 -n piiat1. example.domain.com`
	For Linux: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar -ds SCOPE -o GLOBAL -m GBL_MEM_UTIL,GBL_CPU_TOTAL_UTIL,GBL_DISK_UTIL -b 03/25/2013.10:00:00 -e 03/25/2013.11:00:00 -n piiat1. example.domain.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
#
```

Symptom	**Missing Dimensions – OBR Displays One Instance when Multiple Instances Exist**
Description	No data availability on source.

Resolution	Perform the following steps:
	1. Check that the host is reachable.
	For Windows: `-ping <hostname>`
	For Linux: `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 the following command:
	For Windows: `%ovinstalldir%/jre64/bin/java -jar %OVINSTALLDIR%/java/jcodautil.jar -ping -n <hostname>`
	For Linux: `/opt/HP/BSM/JRE64/bin/java -cp /opt/OV/java/ -jar /opt/OV/java/jcodautil.jar -ping -n <hostname>`
	Ping of OvBbcCb and Coda should be successful. But if the jcodautil 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 the following sample output:
	`# 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 the availability and integrity of data sources by performing the following

steps:

a. Launch the following page:

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

b. To check the data sources in the Operations Agent, click **PA**.

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

4. Check the last logged data time stamp for each instance. Check that all missing instances are listed and that the time stamp is the same as with the instance that displays data in OBR.

```
%ovinstalldir%/jre64/bin\java -jar
%OVINSTALLDIR%\java\jcodautil.jar -ds DBSPI_ORA_REPORT -o DBSPI_
ORA_REPORT -last -n <hostname>
```

```
C:\> %ovinstalldir%/jre64/bin\java –jar
%OVINSTALLDIR%\java\jcodautil.jar -ds
```

```
DBSPI_ORA_REPORT -o DBSPI_ORA_REPORT -last -n  USNYCDBS
```

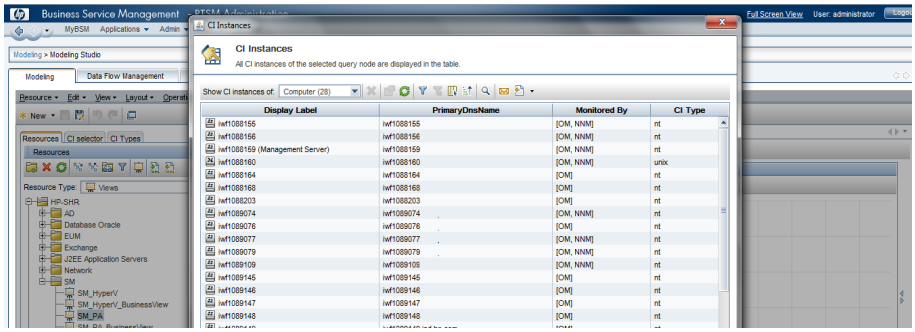
```
example.test.com
```

=== 03/26/13 9:15:00 PM	
Instance	0
INSTANCENAME	p123
METRICID	119.00
VALUEID	1.00
VALUE	109.71
SYSTEMID	example.test.com
OBJECTID	p123
=== 03/26/13 9:15:00 PM	
Instance	1
INSTANCENAME	p123
METRICID	201.00
VALUEID	1.00
VALUE	5.00
SYSTEMID	example.test.com
OBJECTID	p123

Symptom	**Microsoft SQL servers take up a new CIID when data sources are recreated in OM**
Description	The collection module obtains same Microsoft SQL server instance with a different CIID when data sources are recreated on the OM because the instance key metrics of SPI is used to generate the CI_UID. When DSI logging is enabled (default mode) on the SPI source instead of the OM, no metrics are marked as key metrics. But, if it is changed, the instance_name becomes a key metric which generates a different CI_UID.
Resolution	Create the `%OVDATADIR\conf\dsi2ddf\nocoda.opt` file in Windows and the `/var/opt/OV/conf/dsi2ddf/nocoda.opt` file in Linux to make the SPI log to OM instead of DSI (on recreation) so that OBR always obtains the key metrics.

Symptom	**Data loading into OBR fails due to NaN values**
Description	When data collection from Operations Agent attempts to load Not a Number (NaN) values into the numeric columns of fact tables, data type conversion errors are seen. The error can be viewed from the Administration Console **Internal Monitoring > Data Process Status** Content Pack Component Name (SysPerf_Domain) where a count of errors is listed.
Resolution	Browse to the `{PMDB.HOME}/config/collection.properties` file and add the following property: `pa.metric.default.metric.list=10,13`. Restart the **HPE_PMDB_Platform_Collection** service. All NaN values are replaced and data loading occurs properly. **Note:** This workaround might impact performance because each metric collected from the Operations Agent data source undergoes validation.

Symptom	**Finding Attribute Value for the CI Type – Operations Agent**
Description	Finding Attribute Value for the CI Type – Operations Agent.
Resolution	Perform these steps: 1. Right-click Computer and select Show Element Instances. A pop up appears with the CI instances and their attributes.



2. If the PrimaryDnsName attribute of Computer CI Type is blank for a CI's (host) in that view, it will not be configured for collecting performance metrics.

   To verify whether the same number of data sources is discovered in OBR, follow the steps:

   a. Log on to the Administration Console:

      `http://<hostname>:21411/OBRApp`

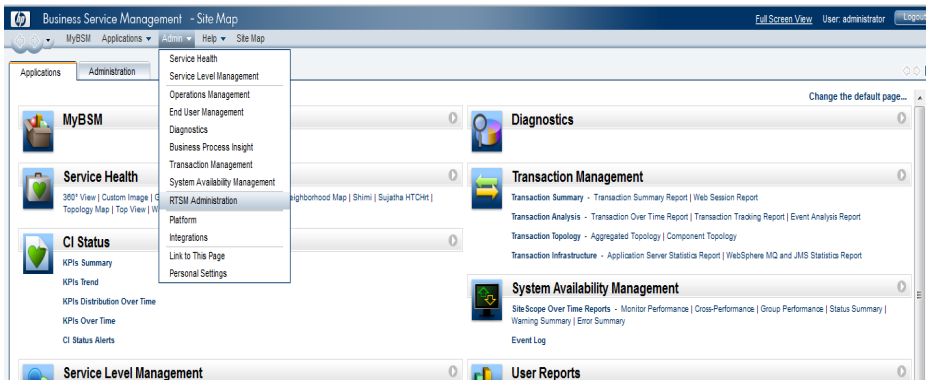
   b. Navigate to the **Data Source Configuration** page.

   c. Click **Operations Agent** to verify the number of data sources.

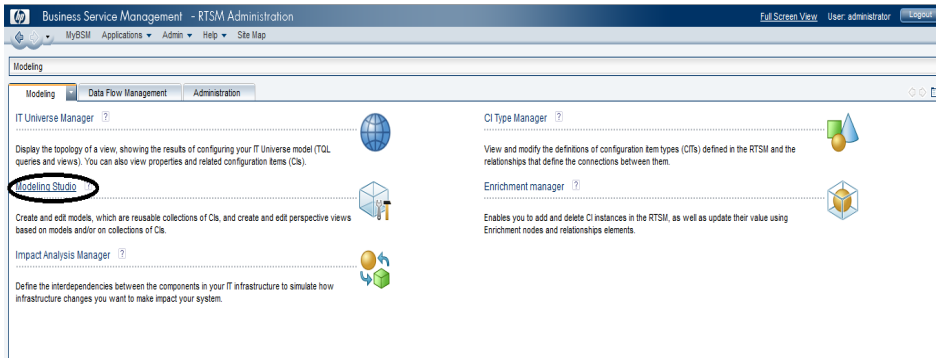
RTSM Data Source Issues

Symptom	**Test Connection on Administration Console to RTSM Fails**
Description	Test Connection on Administration Console to RTSM Fails
Resolution	For a BSM distributed setup, ensure that you have provided the hostname and port of the Gateway Server. Also, for the distributed BSM deployment with multiple gateway servers and load balancer configured, type the virtual IP address of the load balancer as the hostname.

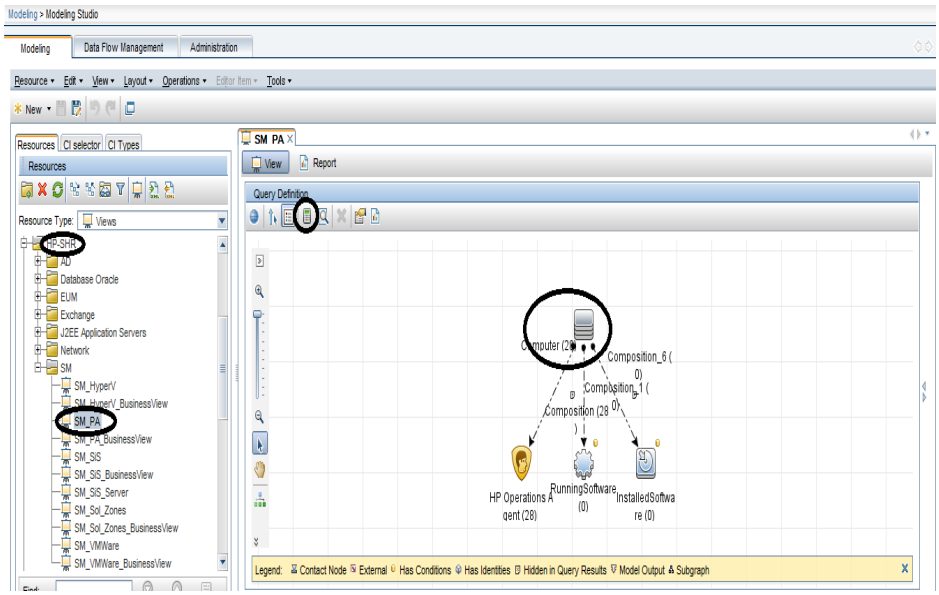
Symptom	**Data Collection from RTSM - discovered Operations Agent Nodes Fails**
Description	Data Collection from RTSM - discovered Operations Agent Nodes Fails
Resolution	Perform these steps: 1. Log on to BSM console from the URL `http://<bsm_host_name>/topaz`. 2. Navigate to **Admin > RTSM Administration**.



3. Navigate to Modeling Studio.



4. On the **Resources** tab, expand **HP-SHR > SM > SM_PA** and double-click **SM_PA view**.
5. On the right hand pane, the view appears. Click the calculator icon and check the number of instances of Configuration Item (CI) Type Computer.

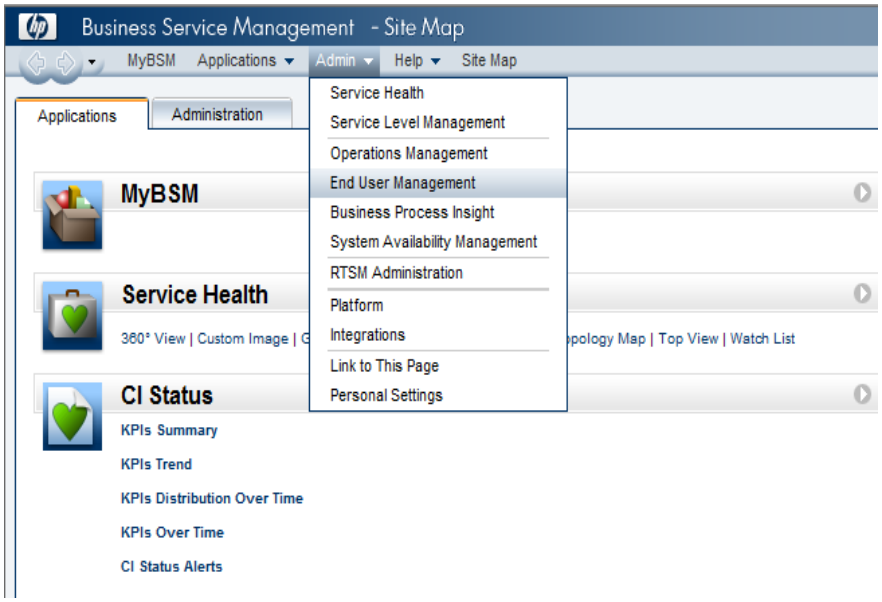


	In the preceding sample, there are 28 instances of CI Type Computer. This indicates that there must 28 agent data sources from where OBR collects performance metrics and reports on System Infrastructure Management.

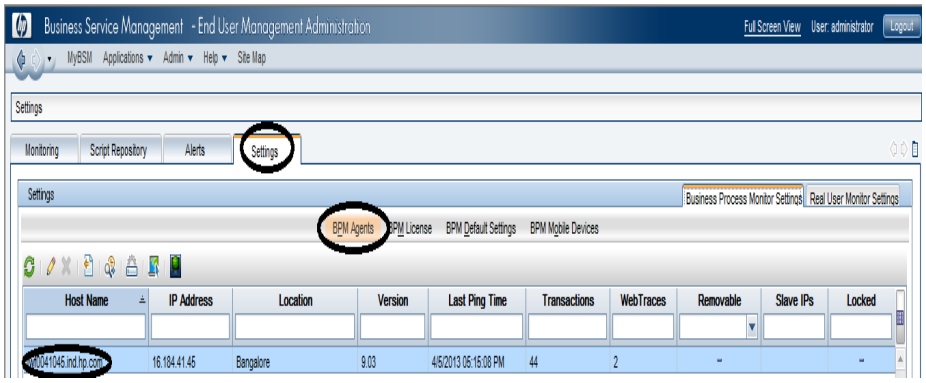
Symptom	**Getting Number of objects visited by compound link calculation is [200000001], while the limit is configured to [200000000] with large RTSM setup**
Description	The *Number of objects visited by compound link calculation limit by default is configured to [200000000]* in the `tql.compound.link.max.visited.objects` property. You may get *Number of objects visited by compound link calculation is [200000001]*, while the limit is configured to *[200000000]*.
Resolution	To resolve this issue, perform these steps: 1. Log on to the JMX console on the DPS server. 2. Go to **UCMDB:Service=Settings Services** 3. Modify the **setSettingValue** a. customerID: `1` b. name: `tql.compound.link.max.visited.objects` c. value: `400000000` 4. Restart the OBR collection service and verify the `topologycollector.log` for errors.

BPM and RUM Data Source Issues

Symptom	**Checking Whether BPM Agents are configured**
Description	Checking Whether BPM Agents are configured
Resolution	Perform the following steps: 1. Log on to BSM console from the URL `http://<bsm_host_name>/topaz`. 2. Go to **Admin > End User Management**.

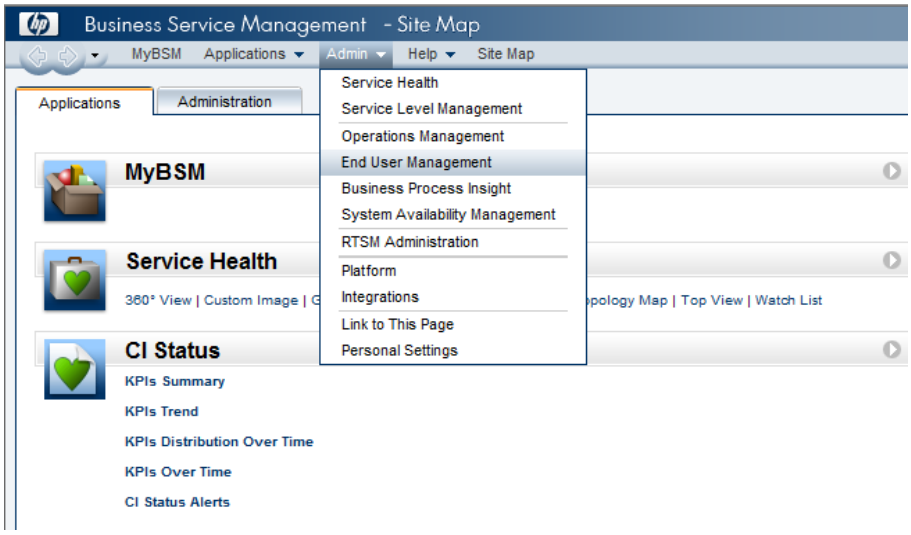


3. Navigate to **Settings > select Business Process Monitor Settings** and select **BPM Agents**.

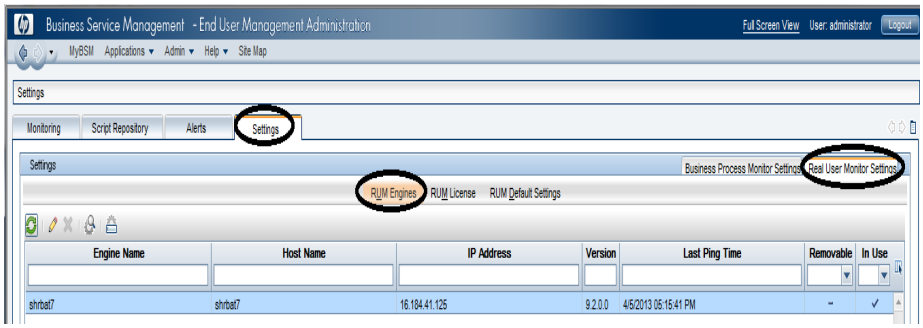


4. Verify that BPM Agents are configured in BSM.

Symptom	**Checking Whether RUM Agents are configured**
Description	Checking Whether RUM Agents are configured
Resolution	To check whether Real User Monitor (RUM) agents are configured, perform the following steps: 1. Log on to BSM console from the URL `http://<bsm_host_name>/topaz`. 2. Go to **Admin > End User Management**.



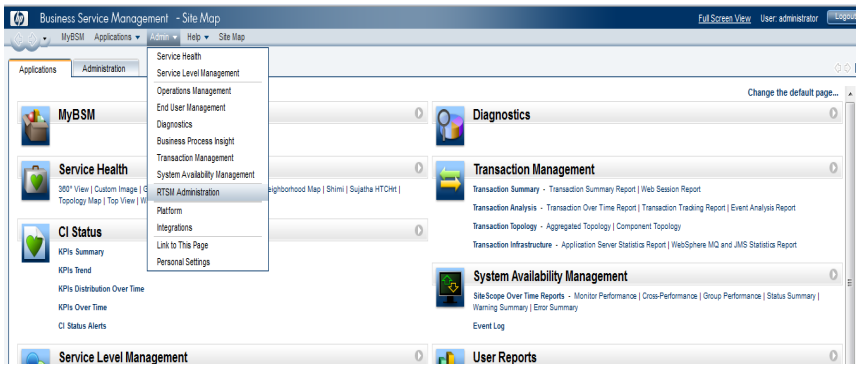
3. Navigate to **Settings > Real User Monitoring Settings** and select **RUM Engines**.



4. Verify whether RUM engine is configured in BSM.

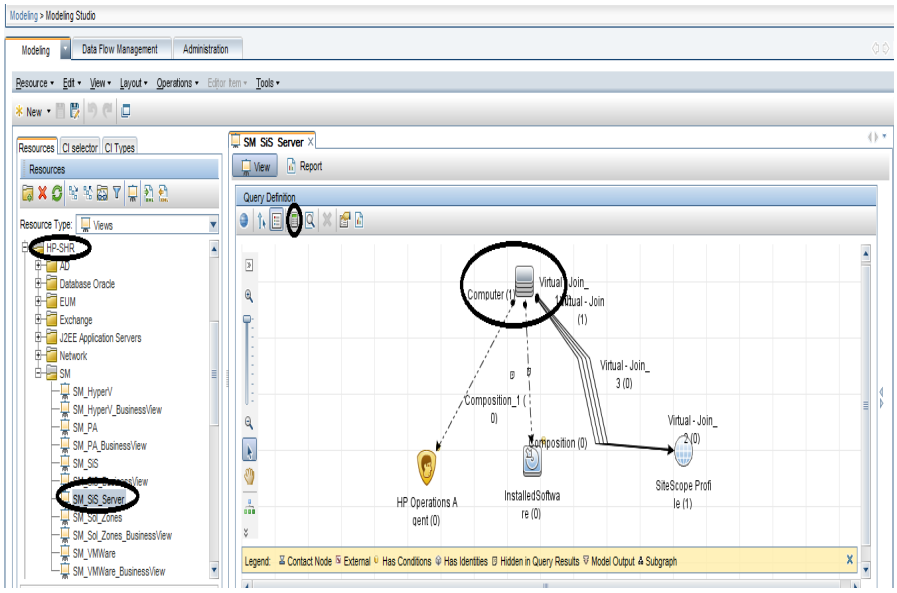
SiteScope Data Source Issues

Symptom	**How many SiteScope servers is OBR reporting on?**
Resolution	1. Log on to BSM admin console from the URL `http://<bsm_host_name>/topaz`. 2. Navigate to **Admin > RTSM Administration**.

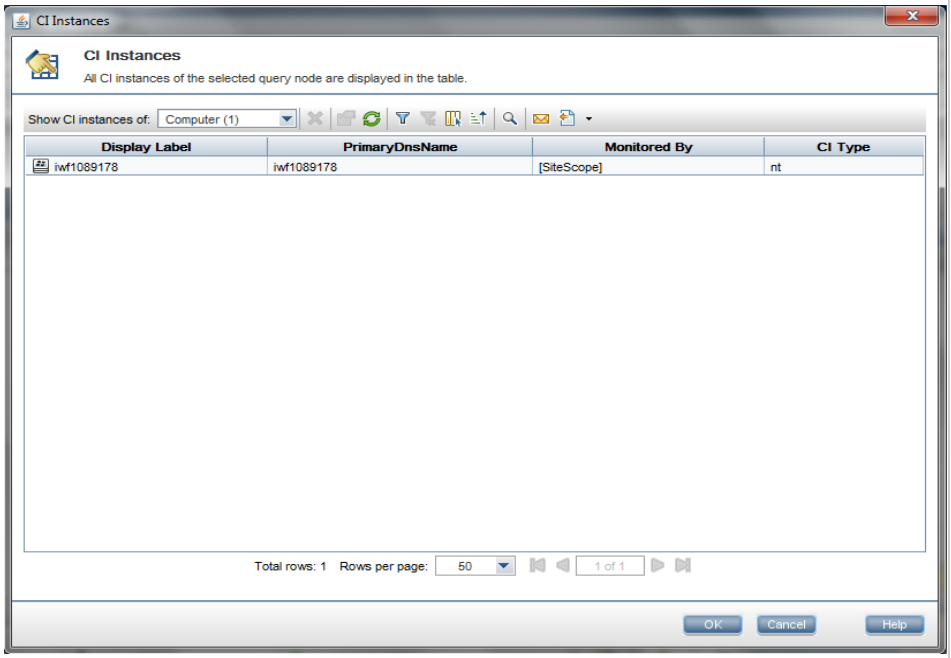


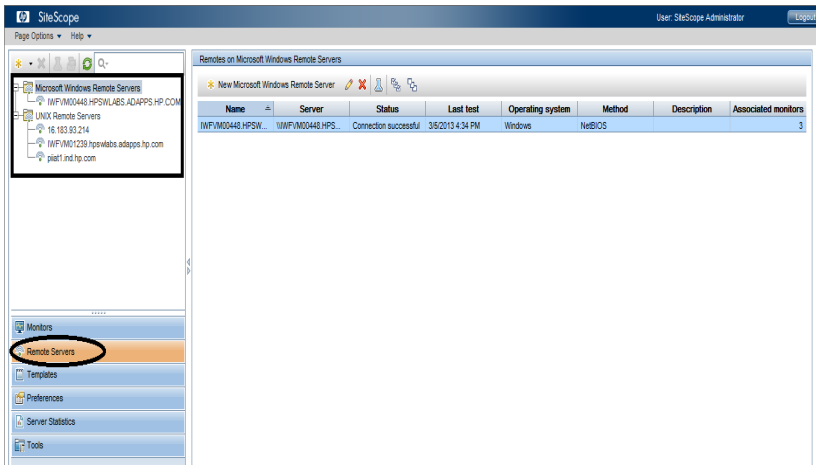
3. Navigate to Modeling Studio.

4. From the **Resources** tab, expand **HP-SHR > SM > SM_SiS_Server** and double-click **SM_SiS_Server view**.
5. On the right-hand pane with view detail, the instances of CI Type *Computer* are the number of SiteScope Servers that OBR reports on.

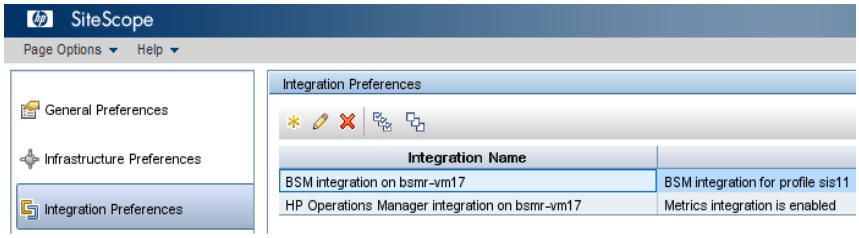
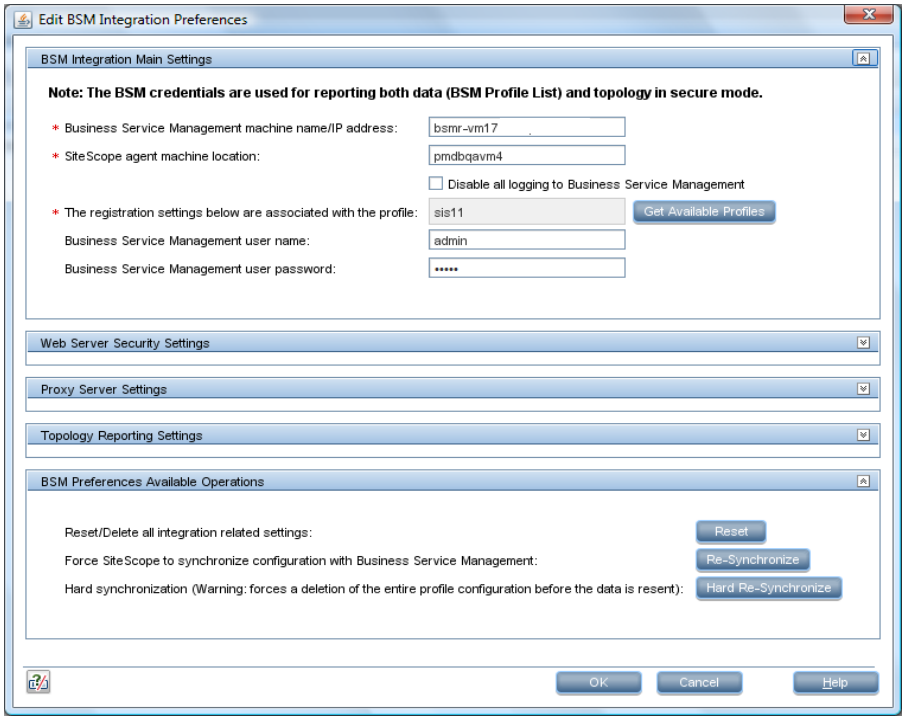


6. To check the SiteScope servers, right-click on the **Computer CI** type and select

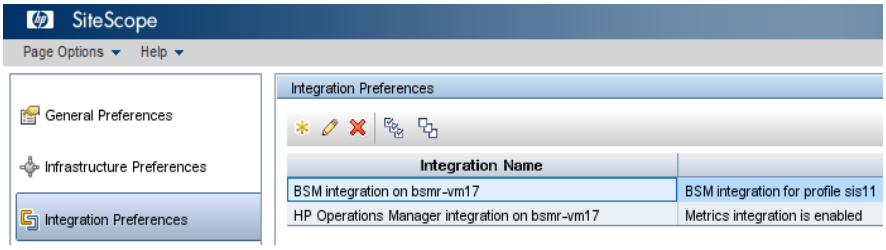
	Show Element Instances. Check the PrimaryDnsName attribute. OBR uses this attribute to configure collection and get the performance metrics about the remote servers configured on SiteScope. 

Symptom	**How many Servers (Windows/UNIX) does SiteScope Server Monitor?**
Resolution	1. Log on to SiteScope server using the following URL: `http://<hostname>:8080/SiteScope/servlet` 2. Go to Remote Server. 

Symptom	**Checking Whether BSM Integration is enabled on the SiteScope Server**

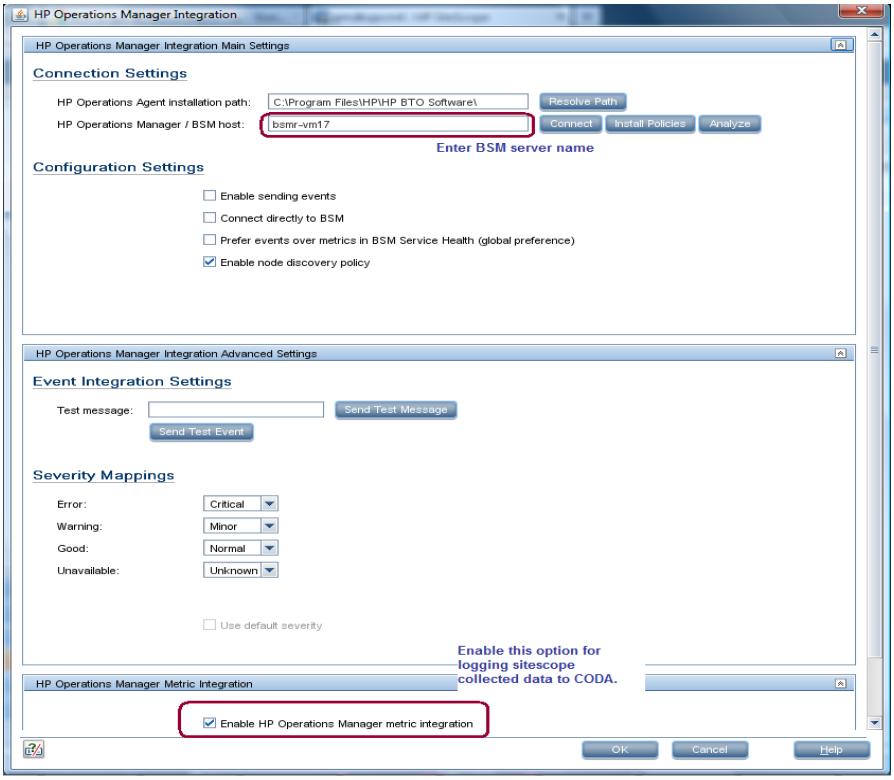
Resolution	1. Log on to SiteScope home page. 2. Go to **Preferences > Integration Preferences**. 3. An integration entry for BSM appears when SiteScope is added in BSM.   All managed nodes from SiteScope are automatically synced to BSM when the integration is complete. You can perform a Re-Synchronize or Hard Re-Synchronize operation if required.

Symptom	**Checking Whether CODA Integration is enabled on the SiteScope Server**
Resolution	1. Log on to SiteScope home page. 2. Go to **Preferences > Integration Preferences**. 3. An integration entry for BSM appears when SiteScope is integrated to CODA.



4. If integration is not listed in the above screen, Click on the * icon and select **HP Operations Manager Integration**.

   Enable SiteScope to integrate with Operations Agent for data logging. For more information, see the *Working with Operations Manager and BSM Using the Operations Agent* chapter of the *Using SiteScope Guide*.



Symptom	Checking Data Availability for SiteScope Performance Metrics in CODA
Resolution	1. OBR queries CODA data store running on SiteScope server to get performance metrics for reporting. 2. The data source that OBR queries to get SiteScope data is AGENTLESS. 3. OBR queries follow classes within AGENTLESS data source to get performance data.

	a. GLOBAL b. MEMORY c. DISK d. SYSTEM e. QUEUE__LENGTH f. QUEUE__STATISTICS g. UPTIME h. PHYSICALDISK i. IO__STATS j. NETIF k. NETWORK__INTERFACE l. NETWORK__STATS m. CPU n. FILESYSTEM 4. See the *Troubleshooting Operations Agent Data Source Issues* for details on how to check availability for a class and data source.

Symptom	**Mapper (data transformation step) crashes when collecting data from SiteScope Profile Database**
Description	When OBR collects system performance data (initial history) from the SiteScope profile database, the mapper crashes due to low system memory.
Resolution	Browse to the `{PMDB.HOME}/config/collection.properties` file. Edit this property--`mapper.memory.map.size=30000`. The default value is 30,000. Decrease the value (for example: 20000) until mapper runs smooth with available memory.

Symptom	**Out of Memory Error with Mapper during SiteScope/Reporter Data Processing**
Description	Mapper goes "out of memory" when processing data from SiteScope/Reporter when all metrics expected by OBR are not being logged with valid data.
Resolution	You can tune the following parameters to handle this issue: • Add or update `mapper.incomplete.data.dump.batch=30000` in the `{PMDB_HOME}/config/collection.properties` file to batch the data in chunks for handling high load scenarios. • Add or update `mapper.incomplete.data.indicator=true` in `{PMDB_HOME}/config/collection.properties` file to indicate mapper to take up the preceding batching logic. • Update `mapper.cache.key.retry.count=2` in `{PMDB_HOME}`

	`/config/collection.properties` file to indicate mapper to wait only for a couple of runs for processing late arriving data.

Symptom	**Files are getting piled up in {PMDB_HOME}/extract folder**
Description	1. The XML files are getting piled up in `{PMDB_HOME}/extract/extract_sis/gdi/xml` 2. The data is piling up in `{PMDB_HOME}/extract/extract_sis/gdi/data/<sis_metric_monitor_folders>`
Resolution	1. To resolve the issue in Description 1, contact the SiteScope support for the hotfix for the SiteScope versions 11.30, 11.31, 11.32. 2. To resolve the issue in Description 2, go to `{PMDB_HOME}/config` folder, add the following parameters to `collection.properties` file: ◦ `sis.aggregate.thread.count=100` The default value is 50. Setting the value to 100 helps to process more data. ◦ `sis.aggregate.reload.interval.mins=0` The default value is 5. Setting the value to 0 helps to process the batch one after the other without any wait. ◦ `sis.data.extract.maintjob.freq=15` The default value is 5. This parameter controls the outflow from XML. ◦ `sis.rolling.file.batchsize=100000` This parameter controls the outflow from XML. Restart the `HPE_PMDB_Platform_Collection` service as follows: **On Windows:** a. From the Run dialog box, type `services.msc`, and then press Enter. The Services window opens. b. On the right pane, right-click `HPE_PMDB_Platform_Collection`, and then click Restart. **On Linux** a. Go to `/etc/init.d` and run the following command: `service HPE_PMDB_Platform_Collection restart`

OM Data Source Issues

Symptom	**OM Policy for alerts on Linux does not exist**
Description	The OM policies shipped with the product in `$PMDB_HOME/config` folder were installed as per instructions provided. This is done to monitor services through OM policies. The expectation is to receive alerts on OM when OBR services on Linux go down. To test the policy, services were brought down manually but no alert was sent to OM. A Linux version of OM Policies for alerts is required.

Resolution	To resolve this issue, perform these steps:
	
	List of Policy:
	
	`SHR_collection_pause`
	
	`SHR_collection_jobs`
	
	`SHR_hourly_tables`
	
	`SHR_daily_tables`
	
	`SHR_insufficient_vm`
	
	`SHR_streams`
	
	`SHR_boinfoview_connectivity`
	
	`SHR_dwh_connectivity`
	
	`SHR_mgmt_connectivity`
	
	`SHR Windows Collector Service`
	
	`SHR Windows Service`
	
	`SHR ABC Process Count`
	
	`SHR PostgreSQL Database Process`
	
	`SHR Sybase IQ Database Process`
	
	1. Perform these steps on OM server to extract the policies:
	a. Copy the `SHR_OM_Policies.zip` to a temp folder and extract it.
	b. Go to *<temp_folder>*`\SHR_OM_Policies` folder.
	2. Perform these steps on OM server to install the policies:
	a. Go to *<temp_folder>*
	b. Run following command:
	
	On Windows: `ovpmutil cfg pol upl <full_path_to_temp_folder>/SHR_OM_Policies/PolicyConfig_0.xml`

On Linux: `/opt/OV/bin/OpC/utils/opcpolicy -upload dir=<full_path_to_temp_folder>/SHR_OM_Policies mode=replace`

On a successful run of the preceding command, OM displays the policies with version `0920.0` under `Policy Groups/SHR_SelfMonitoring` in the OM console.

3. You will see the following on OBR server:
   - Following entries in `%PMDB_HOME%\lib\trendtimer.sched`
   - #Every 3 hours monitoring jobx

     ```
     03:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name dwh_connectivity -l {PMDB_HOME}/temp -sendomevent

     03:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name mgmt_connectivity -l {PMDB_HOME}/temp        -sendomevent

     03:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name boinfoview_connectivity -l {PMDB_HOME}/temp -sendomevent

     03:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name collection_pause -l {PMDB_HOME}/temp -sendomevent

     03:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name collection_job -l {PMDB_HOME}/temp -sendomevent
     ```

   - #Every 6 hours monitoring jobx

     ```
     06:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name hourly_tables -l {PMDB_HOME}/temp -sendomevent
     ```

   - #Every 6 hours monitoring jobx

     ```
     24:00+1:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name daily_tables -l {PMDB_HOME}/temp -sendomevent

     24:00+1:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name streams -l {PMDB_HOME}/temp -sendomevent

     24:00+1:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -name insufficient_vms -l {PMDB_HOME}/temp -sendomevent
     ```

4. Perform these steps on OBR server to configure email alerts once a day:
   - Following entries are found in the location `%PMDB_HOME%\lib\trendtimer.sched`

     ```
     24:00+1:00 - - {PMDB_HOME}/bin/shr_utility -systemcheck -l {PMDB_HOME}/temp -sendemail
     ```

   - Edit `%PMDB_HOME%/data/config.prp` and add following properties to send email:

     ```
     email.to=

     email.from=

     email.host=
     ```

	email.port=25 email.auth=false

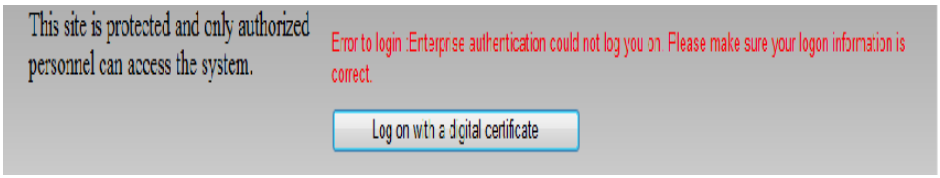
Chapter 7: Troubleshooting Client Authentication Certificate Problems

Client Authentication Certificate Issues

Symptom	Unable to Logon to OBR after Enabling Client Authentication Certificate

Description	**Administration Console:**
	Log file location: Check the log file located at the following location:
	• **Windows:**
	Check the logs located at `%PMDB_HOME%/adminServer/logs`
	`catalina.<YYYY-MM-DD>.log`
	`hpshreporter-stderr.<YYYY-MM-DD>.log`
	`hpshreporter-stdout.<YYYY-MM-DD>.log`
	• **Linux:**
	Check the `Catalina.out log` file located at `$PMDB_HOME/adminServer/logs`.
	Launch pad Console:
	• **Windows:**
	Check the logs located at `%PMDB_HOME%/BOWebServer/logs`
	`catalina.<YYYY-MM-DD>.log`
	`boe120tomcat-stderr.<YYYY-MM-DD>.log`
	`boe120tomcat-stdout.<YYYY-MM-DD>.log`
	• **Linux:**
	Check the `Catalina.out log` file located at `$PMDB_HOME/BOWebServer/logs`
	You will see the following error message in the log file:
	`PKIX path validation failed .Could not determines revocation status.`
	This occurs when the CRL URL configured for certificate revocation is not reachable through the configured HTTP proxy host/port or HTTPS proxy host/port. To identify this issue, enable Certificate Path Tracing as follows.

Resolution	1. Change the HTTP proxy host or HTTPS proxy host so that CRL URL is reachable. Make changes in the respective configuration files as specified in the *Client Authentication Certificate for OBR* section of the *Operations Bridge Reporter Configuration Guide*. 2. Stop the service. 3. Execute the PERL command as mentioned in the *Client Authentication Certificate for OBR* section of the *Operations Bridge Reporter Configuration Guide*. 4. Start the service.

Symptom	**Login to Administration Console Fails after Enabling Client Authentication Certificate**
Description	After selecting the certificate, Administration Console checks for the username extracted from the certificate in SAP BusinessObjects Central Management Console under Administrator group. If the user does not exist, the following message is displayed. 
Resolution	Perform these steps: 1. Log on to SAP BusinessObjects Central Management Console. 2. Create the User as per the Username Extraction configured in the `server.xml` file. 3. Assign it to the Administrators group.

Symptom	**Administration Console Prompts for Username/password after Configuring Client Authentication Certificate**
Description	It happens when the properties of config.prp are not set properly as mentioned in the *Client Authentication Certificate for OBR* section of the *Operations Bridge Reporter Configuration Guide*.
Resolution 1	Check the following properties from the `config.prp` file located at `%PMDB_HOME%\data` (Windows), `$PMDB_HOME/data` (Linux) 1. `shr.loginMethod is set to certbased` 2. `shr.auth.classes is set to com.hp.bto.bsmr.security.auth.BOTrustedAuthenticator`
Resolution	1. Check the date of the `logon.jsp` file located at `%PMDB_`

2	HOME%\BOWebServer\webapps\InfoViewApp\logon.jsp 2. If the current system date does not reflect, change to it.

Symptom	**Administration Console Log on Failure**
Description	After enabling Client Authentication Certificate, log on to Administration Console fails. The log file displays the following message: SEVERE: Exception invoking periodic operation: java.lang.OutOfMemoryError: GC overhead limit exceeded • **Windows:** hpshreporter-stderr.<YYYY-MM-DD>.log and catalina.<YYYY-MM-DD>.log located at %PMDB_HOME%\adminServer\logs. • **Linux**: Catalina.out located at $PMDB_HOME/adminServer/logs This issue occurs when the list of the certificates to be downloaded from the CRL distribution point for the verification of certificate revocation is too large.
Resolution	To overcome this issue, Java heap space needs to be included. Perform the following steps to increase the heap space: **Windows:** 1. Go to **Start > Run**, type services.msc. Right-click **HPE_PMDB_ Platform_Administrator** service and click **Stop**. 2. Edit service.bat located at %PMDB_HOME%\adminServer\bin Edit -XX:MaxPermSize=256m, --JvmMx 256 : Increase the value as per the size of the CRL URL. 3. Increase MaxpermSize as per the requirement. 4. Recreate the service. Go to %PMDB_HOME%\adminServer\bin, service .bat remove C:\HPE-OBR\ service.bat install C:\HPE-OBR\ **Linux:** 1. Run the command service HPE_PMDB_Platform_Administrator stop. 2. Edit the catalina.sh located at $PMDB_HOME/adminServer/bin folder. 3. Edit the MaxPermSize argument -XX:MaxPermSize=256m of JAVA_OPTS 4. Run the command service HPE_PMDB_Platform_Administrator start.

Enabling Certificate Processing Trace

Solution	The system property `-Djava.security.debug=certpath` of the Java Runtime Environment (JRE) can be set to enable the tracing of certificate processing. The output is very useful for developers and support validation of the user certificate, including the processing of the certificate revocation.

Steps	Perform the following steps to enable certificate path tracing:
	Windows:
	1. Go to **Start > Run**, type `services.msc`.
	2. Right-click **HPE_PMDB_Platform_Administrator** service and click **Stop**.
	3. Edit `service.bat` located at `%PMDB_HOME%\adminServer\bin`
	Include `-Djava.security.debug=certpath` as part of JVM Arguments.
	4. Recreate the service.
	Go to `%PMDB_HOME%/adminServer/bin`,
	`service.bat remove C:\HPE-OBR\`
	`service.bat install C:\HPE-OBR\`
	Linux:
	1. Run the command `service HPE_PMDB_Platform_Administrator stop`.
	2. Edit the `catalina.sh` located at `$PMDB_HOME/adminServer/bin`
	Include `-Djava.security.debug=certpath` as part of JVM Arguments.
	3. Run the command `service HPE_PMDB_Platform_Administrator start`.

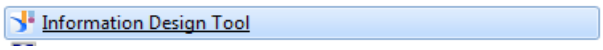
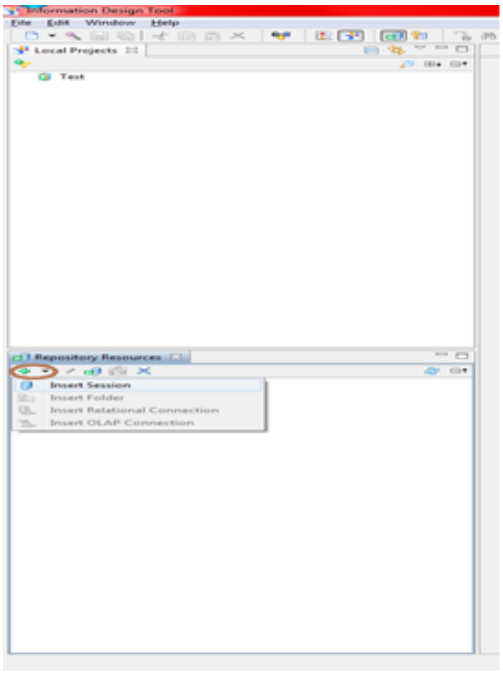
Chapter 8: Troubleshooting Disaster Recovery Issues

Symptom	**Deleting Server Intelligence Agent failed**
Description	While restoring the SAP BusinessObjects Database and File Store in Windows, deleting Server Intelligence Agent using the command `sc delete boe120sia<name>` there may be several causes which lead to the service being stuck in “marked for deletion” and you may get the following message: *[SC] DeleteService FAILED 1072:* *The specified service has been marked for deletion.*
Resolution	To resolve this problem, perform the following: To ensure all instances are closed, run `taskkill /F /IM mmc.exe`.

Symptom	**Reports not accessible after restoring the SAP BusinessObjects Database and File Store**
Description	After restoring the SAP BusinessObjects Database and File Store in Windows, the user is not able to access the reports the following message is displayed: *The document can't be retrieved from repository server WIS 30951.*
Resolution	To resolve this problem, perform the following: 1. From the Start menu, type **Central Management Console** in **Search**. The Central Management Console page appears. OR Log on to CMC from the following url: `https://<OBR_System_FQDN>:8443/CMC` 2. Log in to CMC with Administrator account. 3. Click **Servers**. 4. Right-click on **InputFileRepository** server. 5. Click on **Properties**. 6. Set the Temporary Directory path. (For Example: *<installation directory of BOE>*`:\Program Files\Business Objects\BusinessObjects Enterprise12.0\FileStore\Input\Temp`) 7. Set the File Store Directory path. (For Example: *<installation directory of BOE>*`:\Program Files\Business Objects\BusinessObjects Enterprise12.0\FileStore\Input`).

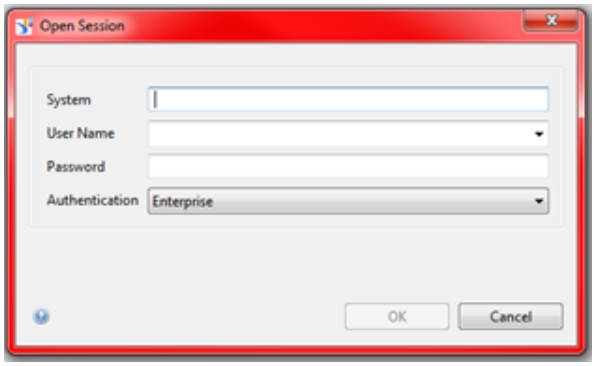
	8. Click **Save & Close**. 9. Restart the **InputFileRepository** server. 10. Perform the steps from 4 to 9 for **OutputFileRepository** server.

Chapter 9: Troubleshooting High Availability (HA) Issues

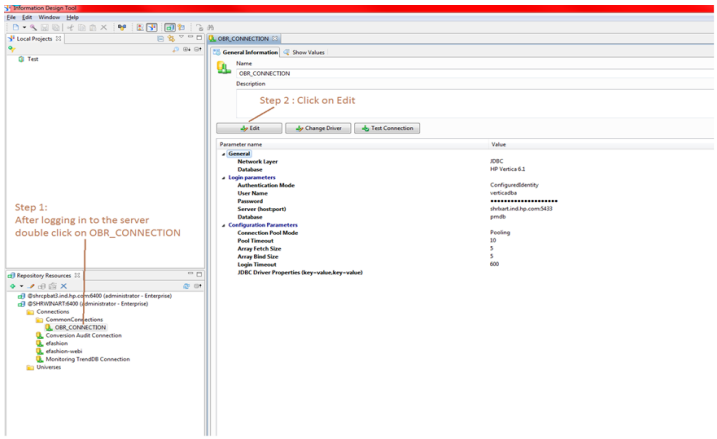
Symptom	OBR_connections to be updated
Description	After installation of new content packs in HA, the JDBC driver properties of OBR_CONNECTION is missing. This issue is because on installing the new content packs the JDBC driver properties of OBR_CONNECTION gets over-written.
Resolution	To resolve this issue, perform these steps: Install the SAP BusinessObjects Client Tools on the Windows system from the following location: *<OBR-10.00.000-*.tar Extracted location>*/packages/BusinessObjects_Client_tools.ZIP 1. From the Start menu, open Information Design Tool.  2. Under Repository Resources pane, select **Insert Session**.  The Open Session tab appears. 3. Enter the following information and click **OK**:

- System: *<BOS1 Server name>*
- User Name: *<BOS1 User name>*
- Password: *<BOS1 password>*

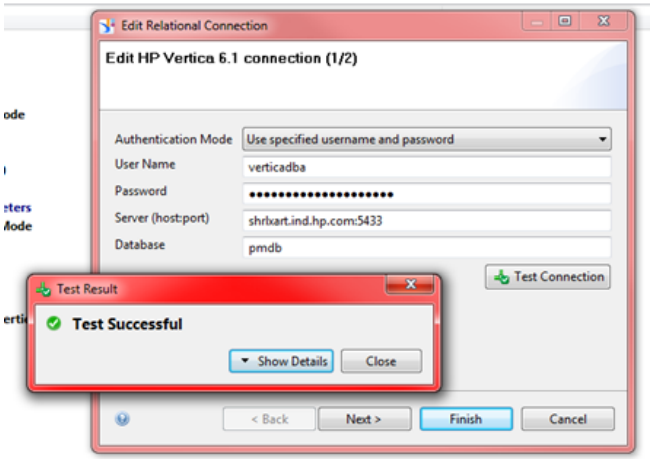
where, *BOS1* is the primary SAP BusinessObjects server installed system.



4. Double-click on **OBR_CONNECTION** on the left pane and then click **Edit** as shown in the following image:



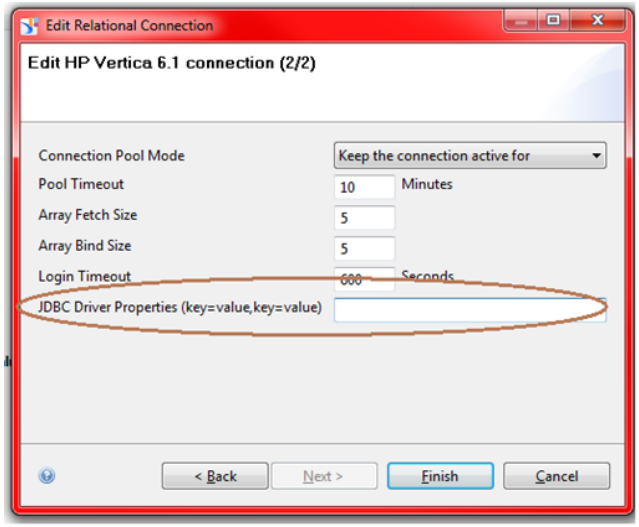
5. Click **Test Connection** to verify the connection as shown in the following image:



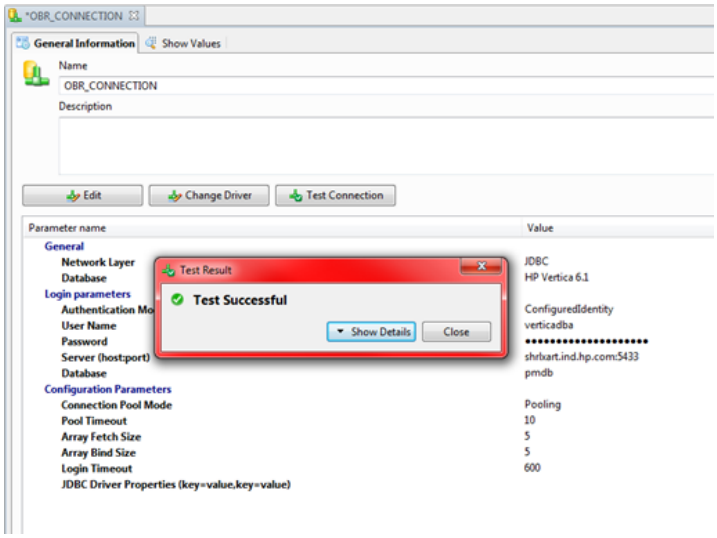
The Test result is displayed. Click **Close** and **Next**.

6. Under **JDBC Driver Properties** type the following and click **Finish**:

```
user=<Vertica User
Name>,ConnectionLoadBalance=1,BackupServerNode=<VS2
FQDN>:5433,BackupServerNode=<VS3 FQDN>:5433
```



7. Click **Test Connection** after making changes to ensure that the connection is successfully updated.



8. Click the save icon to save the changes.

Symptom	**OBR_HA_Setup.pl Errors during Execution**
Description	OBR_HA_Setup.pl located at `%PMDB_HOME%\HA\Veritas\Windows\SetupScripts` for Windows, `$PMDB_HOME/HA/Veritas/Linux/SetupScripts` for Linux errors out at execution.
Resolution	Make sure Shared drive is available and re-run the script.

Symptom	**Unable to log on to OBR Administration Console after completing High Availability configuration**
Description	After completing High Availability configuration, user is not able to log on to OBR Administration Console. This happens when the services are stopped and started again after High Availability configuration as the SAP BusinessObjects CMC process are not started properly.

Resolution	Perform the following steps to resolve the issue:
	1. Log on to SAP BusinessObjects Server on both primary and secondary servers.
	2. Run the following commands:
	`su - shrboadmin`
	`sh /opt/HP/BSM/BOE4/sap_bobj/stopservers`
	Wait for few minutes (approximately 5 minutes) for the servers to stop.
	3. Run the following command to check if the pid is running:

	`cd /opt/HP/BSM/BOE4/sap_bobj/serverpids`
	`rm -rf *.pid`
	4. Check if any SIA and CMS process are running and kill the processes that are running. Run the following commands to find the running processes:
	`ps -ef | grep 6410`
	`ps -ef | grep 6400`
	Kill the process that is running.
	5. Run the following command to start the server:
	`sh /opt/HP/BSM/BOE4/sap_bobj/startservers`

Symptom	**OBR_HA_Setup.pl Fails to Initialize in Second Node**
Description	OBR_HA_Setup.pl fails to initialize in the second node when using default file located at the `%PMDB_HOME%/data` folder.
Resolution	Copy `config.prp` from the first node to the `%PMDB_HOME%/data` folder of second node and rerun the script.

Symptom	**OBR_HA_Setup.pl Returns the "Not able to update ovcert" Error Message**
Description	OBR_HA_Setup.pl returns the "Not able to update ovcert" Error Message
Resolution	1. Check the output of the following command: `ovcert –status` to see if all servers are running. 2. Run the `ovc –check` command. If any of the mentioned services fails to provide the required output, execute the following commands: ◦ `ovc –kill` ◦ `ovc –start`

Symptom	**Service status appears to be "Fault" in VERITAS Service due to PostgreSQL.**
Description	VERITAS shows the service as faulted. PostgreSQL server fails to start when it encounters permission issues on its data folders. The corresponding error message "Permission denied on any of the files/folders in postgres data directory" is observed in the log at `%pmdb_home%/../Postgres/data/log` folder.
Resolution	Change the owner of both the folders under `<shareddrive>/HPE-OBR/PostgreSQL` folder to administrator and run the following command: `CACLS <shareddrive>\HPE-OBR\PostgreSQL\data /T /E /P <hostname>\postgres:F`

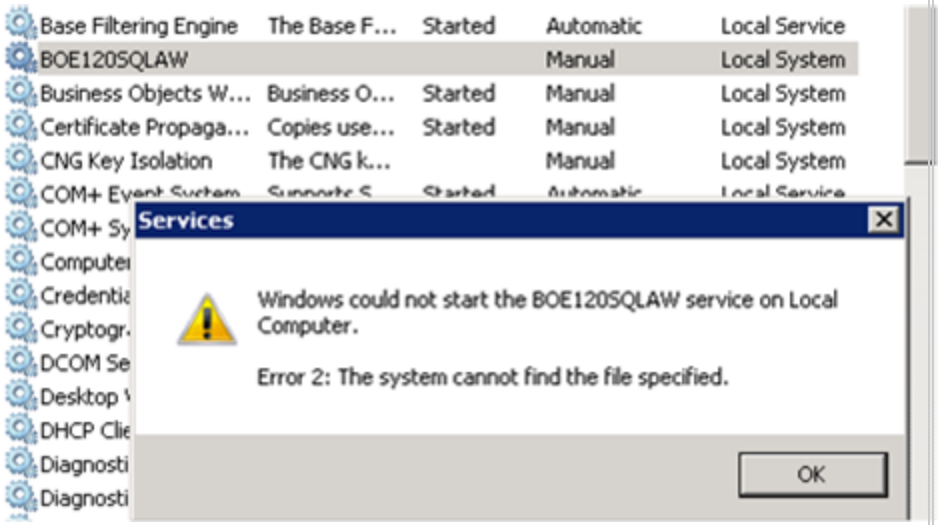
	Following symptoms and solutions are specific to HA (Windows) environment.

Symptom	**Connection Failure to Administration Console, Launch pad, and CMC using Logical Name of Cluster**
Description	Connection Failure to Administration Console, Launch pad, and CMC using Logical Name of Cluster
Resolution	1. Check whether the logical name is DNS resolved. 2. Run the following command: `nslookup <logical IP>` or `ping -a <ip>` 3. Check whether the logical name is present in `config.prp`. 4. In case the hostname is not DNS resolved, it can be replaced with IP address as workaround.

Symptom	**IP Resource in VERITAS not coming up**
Description	IP Resource in VERITAS not coming up.
Resolution	1. Check that the logical IP, subnet mask, primary node name, secondary node name, and their MAC address is correctly configured in VERITAS. 2. Check that the logical IP is not present in the network settings.

Symptom	**During Failover to other Node, Tomcat Service does not Stop Gracefully**
Description	During Failover to other Node, Tomcat Service does not Stop Gracefully
Resolution	This happens very intermittently. It takes lot of time and hangs while stopping. Kill the process manually from Task Manager.

Symptom	**Failed to start SQLAnywhere service on a HA node**
Description	Sometimes you may get the following error when the SQLANYs_BOE120SQLAW service fails to start on the HA node. The issue is because the link is not created to shared drive when you execute the HA script.

	
Resolution	Check for the link in `<bodrive>/program files x(86) /businessobjects/sqlanywhere12/bin` directory. If link is not available, create a link manually and try to start the SQLAnywhere service. Execute following command to create the link: `mklink /D bin`*<Shared disk bin location>* For example: `C:\Program Files (x86)\Business Objects\SQLAnyWhere12>mklink /D bin`*G:\HPE-OBR\BusinessObjects\SQLAnyWhere12\bin*.

Chapter 10: Reference

The Capture Tool

The Capture tool helps you capture useful configuration and run-time information from OBR systems that can be used for advanced troubleshooting. The Capture tool is not installed on the OBR system by default. You can install it on the OBR system, as well as on the system where the Vertica database for OBR is installed.

To install the Capture tool:

Prerequisites

- All necessary Content Packs should be installed.
- The HPE_PMDB_Platform_Administrator process must be running.

1. Log on as root/administrator and run the following command:

   On Windows

   `%PMDB_HOME%\contrib\Supportability\capture_tool\capture_toolInstall.bat`

   On Linux

   `$PMDB_HOME/contrib/Supportability/capture_tool/capture_toolInstall.sh`

2. Using the command prompt, change to the following directory:

   On Windows

   `%PMDB_HOME%\adminServer\webapps\birt`

   On Linux

   `$PMDB_HOME/adminServer/webapps/birt`

3. Run the following command:

   On Windows

   `updatePasswd.bat <management database password for user pmdb_admin>`

   On Linux

   `updatePasswd.sh <management database password for user pmdb_admin>`

Executing the Capture Tool

The capture tool ships with an out of the box default configuration XML to captures the required information. This XML contains the targets that have set of commands to run.

The capture configuration file `shr_capture_tool_options.xml` is located at `{pmdb_home}\contrib\Supportability\capture_tool\perl\`.

Run the following command to execute the capture tool:

For Windows:

```
%pmdb_home%\contrib\Supportability\capture_tool\perl\capturetool.bat
```

For Linux:

```
$PMDB_HOME/contrib/Supportability/capture_tool/perl/capturetool.sh
```

The data gets collected is in the location `{pmdb_home}/capture_output`

> **Note:** If the folder `{pmdb_home}/capture_output` already has some data, then post execution the Capture Tool will overwrite the data in that folder.

Interpreting Results

The out-of-the-box configuration file captures the following information:

- System configuration
- Product configuration
- PostgreSQL database
- Log File
- Installed Content packs
- Data source
- OBR service status
- Data flow
- Orchestration stream status

These reports can be accessed from the link: `http://<hostname>:21411/birt/report.jsp`

> **Note:** By default all the information captured will be in any one of the following format:
>
> - CSV
> - Text
> - HTML

Disable HTTPS Configuration

OBR has two console interfaces, the Administration console and the SAP BusinessObjects BI launch pad. It is possible to run both the consoles in a secured environment with HTTPS network protocol or in a non-secured environment with HTTP network protocol. The default protocol for both the consoles is HTTPS. However, you can disable HTTPS default configuration for Administration Console and SAP BusinessObjects BI launch pad console.

> Operations Bridge Reporter recommends to use HTTPS as the default network protocol.

For the Administration Console of OBR

To disable a secure connection for the Administrations Console of OBR:

Task 1: Stop the HPE_PMDB_Platform_Administrator service

To stop HPE_PMDB_Platform_Administrator service, follow these steps:

- **On Windows**
  a. Go to **Start > Run**, type `services.msc`.
  b. Right-click **HPE_PMDB_Platform_Administrator**, and then click **Stop**.
- **On Linux**

  Run the following command:

  ```
  service HPE_PMDB_Platform_Administrator stop
  ```

Task 2: Edit the server.xml file

> **Tip:** Take a backup of the `server.xml` file before editing.

Comment the SSL Connector tag that has the port value set to `21412`.

Task 3: Comment the security constraint in web.xml

1. Browse to the following folder:
   - **On Windows**

   ```
   %PMDB_HOME%\adminServer\webapps\BSMRApp\WEB-INF
   ```

- **On Linux**

  `$PMDB_HOME/adminServer/webapps/BSMRApp/WEB-INF`

2. Open `web.xml` with a text editor.
3. Comment the following lines:

   ```
   <Connector port="21412" protocol="org.apache.coyote.http11.Http11Protocol"
   maxHttpHeaderSize="8192" connectionTimeout="20000"
   maxThreads="150" minSpareThreads="25" maxSpareThreads="75"
   enableLookups="false" disableUploadTimeout="true"
   acceptCount="100" scheme="https" secure="true"
   clientAuth="false" sslProtocol="TLS" SSLEnabled="true" keyAlias="OBR"
   keystoreFile="../keystore/OBR_CERT_HTTPS.jks" keystorePass="shradmin"
   keystoreType="JKS" xpoweredBy="false" server="OBR"/>
   ```

Task 4: Start the HPE_PMDB_Platform_Administrator service

- **On Windows**

  To start HPE_PMDB_Platform_Administrator service:

  a. Go to **Start > Run**, type `services.msc`.

  b. Right-click **HPE_PMDB_Platform_Administrator**, and then click **Start**.

- **On Linux**

  Run the command

  ```
  service HPE_PMDB_Platform_Administrator start
  ```

Task 5: Verify the configuration.

To verify the configuration, log on to the Administration Console using the following URL:

`http://<hostname>:21411`

where, *<hostname>* is the name of the OBR system.

For the SAP BusinessObjects BI launch pad Console of OBR

To disable HTTPS communication for SAP BusinessObjects BI launch pad Console of OBR:

> **Note:** In a custom installation of OBR, perform the following tasks on the system where SAP BusinessObjects is installed.

Task 1: Stop the SAP BusinessObjects Webserver service

To stop the SAP BusinessObjects WebServer service:

- **On Windows**
  a. Go to **Start > Run**, type `services.msc`.
  b. Right-click **BusinessObject WebServer**, and then click **Stop**.
- **On Linux**
  a. Go to `/opt/HP/BSM/PMDB/BOWebServer/bin`
  b. Run the following command:

```
./shutdown.sh
```

Task 2: Edit the server.xml file

> **Tip:** Take a backup of the `server.xml` file before editing.

To edit the file, follow these steps:

1. Open the `server.xml` file located at `{PMDB_HOME}/BOWebServer/conf`.
2. Edit the connector ports value from `8443` to `8080` and remove the `redirectPort="8443"` tags from the <*Connector port* lines.

   Following is an example of edited `server.xml` file <*Connector port* lines:

```
<Connector port="8080" protocol="org.coyote.http11.Http11Protocol"

<Connector port="8080" protocol="org.coyote.http11.Http11Protocol"
maxHttpHeaderSize="8192" connectionTimeout="1000000"

<Connector port="8009" protocol="AJP/1.3" />
```

Task 3: Start the SAP BusinessObjects WebServer

To stop SAP BusinessObjects WebServer service:

- **On Windows**
  a. Go to **Start > Run**, type `services.msc`.
  b. Right-click **BusinessObject WebServer**, and then click **Start**.
- **On Linux**
  a. Go to `/opt/HP/BSM/PMDB/BOWebServer/bin`
  b. Run the following command:

  ```
  ./startup.sh
  ```

Task 4: Verify configuration

To verify whether the configuration is successful, follow these steps:

1. Log on to `http://<hostname>:8080/BI`

   where, <*hostname*> is the name of the OBR system.
2. Log on to `http://<hostname>:8080/CMC`

   or

   `https://<hostname>:8443/CMC`

   where, <*hostname*> is the name of the OBR system.

Generating Reports to Stream Mapping Information

Follow the commands described in the `readme.txt` packaged along with it to install the utility. Run the following command to get the streams associated with a report:

```
shr_utility – rept –name <name of the report> -l <output location>
```

This command generates a `ReportToStreamMapping.html` file.

Exporting Web Intelligence documents in different formats and purpose

SAP BusinessObjects Web Intelligence provides the functionality to export data to PDF, Excel, Text, or CSV (comma separated values).

Users can save these Web Intelligence documents as three different file formats, and the purpose these formats are different from one another.

The different Web Intelligence documents formats and their purpose are as follows:

1. PDF
    - This format is useful to provide other users with the document information in a printable format.
    - The page layout and formatting of the Web Intelligence report is retained in the PDF file.
    - The PDF file is the exact copy of the document/report and can be shared to other users (non-BO users) via email, shared location
    - The data in the PDF cannot be modified by anyone.
2. Excel
    - This format is useful if you want to combine the information in Web Intelligence document with other data in an Excel spreadsheet.
    - Unlike Web Intelligence documents, the Excel files are not connected to the database. You cannot refresh the data in the Excel file. To display up-to-date data in Excel format, refresh the Web Intelligence document and then save it as a new Excel file.
    - Each report within the Web Intelligence document converts to a separate Excel worksheet within the Excel file.
    - The formatting and grouping of the Web Intelligence report is retained in the Excel worksheet.
    - This format does not include the header and footer displayed in the Web Intelligence report.
    - This format allows to use the functions in Excel.
    - The charts are converted to images not actual charts.
3. Text file
    - The groupings and columns of the Web Intelligence report is retained in the Text file. But the formatting (for example: Header row color) is not retained.

- In page mode, the report elements are exported page by page.
- The separator used is a tab space.
- The charts and images doe not get exported.
- Export size limit for text file is defined in the CMC. The default value is 5 MB. An error message appears if the size limit is exceeded.
- If several reports are selected, they are appended one after another in the same text file.

4. CSV file
   - The formatting and grouping of the Web Intelligence report is not retained in the CSV file.
   - Best choice for 'raw data' as its export data from microcube/data provider.
   - This format dumps the full content of all columns were retrieved from the database into the CSV file.
   - The computations and filters applied in WebI report are not applied in the CSV file.
   - Data providers doesn't result any output, users may see special chars due to object names used in the data providers.
   - The following properties can be configured:
     - Text qualifier
     - Column Delimiter
     - Charset
5. CSV Archive
   - This format generates an archive file (.zip) that contains data from the document.
   - This format contains one CSV file per report from the document. Each CSV file contains the report data without any headers, footers or charts.
   - This format supports all or only some of the reports to export in the CSV archive file.
   - This format is supported only from Rich Client and the SAP BusinessObjects Web Intelligence Launch pad. This format does not support Scheduling.
   - The exported data will be separated using comma, and text qualifier
   - The following properties can be configured:
     - Text qualifier
     - Column Delimiter
     - Charset

Checking if Data is stuck in Source Table

Launch PostgreSQL interface (**Start > Program Files > PostgreSQL 9.3 > pgAdmin III**

Run the following SQL:

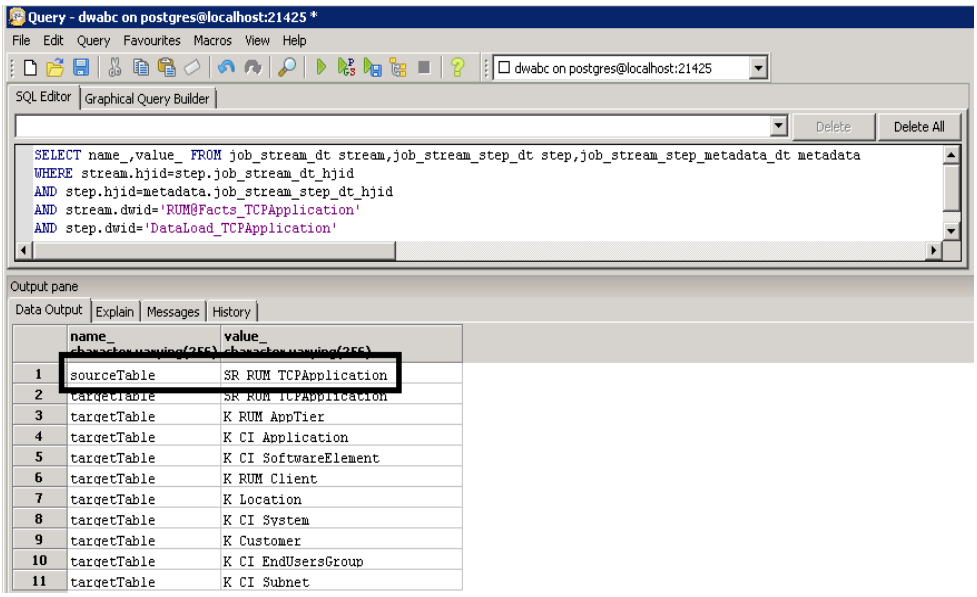
SELECT `name_,value_ FROM job_stream_dt stream,job_stream_step_dt step,job_stream_step_metadata_dt metadata`
WHERE `stream.hjid=step.job_stream_dt_hjid`
AND `step.hjid=metadata.job_stream_step_dt_hjid`
AND `stream.dwid='<stream name>'`

AND `step.dwid=’<step name>’`

AND `name_=’targetTable’`

In the generated output, there is a key value pair. It represents metadata associated with the step. Look up the generated output for a key called *sourceTable* and *targetTable* (Value_ preceding with SR_) as show in the following figure.

Query max (ta_period) from source and target tables and check that the difference does not exceed six hours.



CLI Reference Information

This section provides reference information of key command line utilities provided by OBR.

Orchestration Module (ABC)

The Orchestration Module (ABC) - Audit, Balance and Control utility is used to control data flow of the following streams to respective data warehouse tables:

- ETL stream to the stage tables
- DWH stream from stage tables

The streams that load data into data warehouse cubes are called as DWH stream. DWH stream are responsible for moving data from stage table to DWH tables and aggregations. DWH stream has steps like LOAD, HOURLY_AGGREGATE, DAILY_AGGREGATE and EXEC_PERL.

ETL stream transforms the collected data from the data sources to stage tables. ETL stream contains steps like COLLECT, TRANSFORM, RECONCILE and STAGE.

For information, see *Architecture* chapter in *Operations Bridge Reporter Concepts Guide*.

abcImportDef

This command is responsible for importing/updating/deleting the stream definition in the platform. Importing of stream definitions takes place during the Content Pack installation.

Usage	`abcimportdef [-help] [-verbose] [-xmlfile <xmlfile>] [-xmlfile <xmlfile> -delete]`
	• To import the definition files:
	`abcimportdef -xmlfile <xmlfile>`
	where, *<xmlfile>* is the name of the stream definition file.
	• To delete the stream:
	`abcImportDef –delete -xmlfile <xmlfile>`
	where, *<xmlfile>* is the same stream definition file that is imported.

Options	• `delete` - delete stream • `help` - print this help message • `verbose` - verbose output

	• `xmlfile` - load the XML file into the metadata repository • `returns` - 0 for success 1 for success with warning(s) >1 for error(s)

Example	• To import the definition files:
	`abcimportdef -xmlfile ..\sampledata\sample.xml`
	• To delete the stream:
	`abcimportdef -delete -xmlfile..\sampledata\sample.xml`

Log File	`{PMDB_HOME}/log/dw_abclauncher.log`

abcAdminUtil

This command can be used to perform the following tasks:

- Set the maximum number of retries per job step.
- Set the maximum execution time per job step.
- Set the pool count for a resource type.
- To abort all or a particular stream that is running.

Usage	`abcAdminUtil -setMaxRetries [-streamId <stream name> -stepId <step name> -value <number>] | -setMaxExecTime [-streamId <stream name> -stepId <step name> -value <number>] | -setResourceCount [-resourceType <resource type> -value <pool count>] | -pause | -resume | -abort [-streamId <stream name> | -all]` • To set maximum retries: `abcAdminUtil -setMaxRetries -streamId <stream name> -stepId <step name> -value <number>` • To set maximum execution time: `abcAdminUtil -setMaxExecTime -streamId <stream name> -stepId <step name> -value <number>` • To set resource count: `abcAdminUtil -setResourceCount -resourceType <resource type> -value <pool count>` • To pause the Orchestration operation: `abcAdminUtil -pause`

	This command can be used to pause a running stream temporarily.
	• To resume the Orchestration operation:
	`abcAdminUtil -resume`
	This command can be used to resume a paused stream.
	• To abort the specified stream:
	`abcAdminUtil -abort [-streamId <stream name>]`
	This command can be used to abort a specific running stream.
	• To kill all currently running streams:
	`abcAdminUtil -abort [-all]`
	This command can be used to abort all running streams.
	• Reset all the steps with Running and Starting state to waiting state:
	`abcAdminUtil -resetSteps`
	This command can be used to reset streams to waiting state.

Options	• `help` - print usage • `pause` - to pause the Stream operations • `resetSteps` - to reset all the steps with Running and Starting state to Waiting State. • `resume` - to resume the stream operations • `setMaxExecTime` - to set maximum execution time for specified step ◦ `stepId <stepId>` - step ID of the stream for which a value need to be set ◦ `streamId <streamId>` - stream ID of the stream for which a value need to be set ◦ `value <value>` - value that need to be set • `setMaxRetries` - to set maximum retries for specified step ◦ `stepId <stepId>` - step ID of the stream for which a value need to be set ◦ `streamId <streamId>` - stream ID of the stream for which a value need to be set ◦ `value <value>` - value that need to be set • `setResourceCount` - to set resource count for specified resource type ◦ `resourceType <resourceType>` - resource type for which a value need to be set ◦ `value <value>` - value that need to be set • `abort` - Admin Operation to ABORT ◦ `streamId <streamId>` - stream ID of the stream for which a value need to be set ◦ `all` - Admin Operation to ABORT ALL STREAMS

abcMonitor

You can use this command to analyze the state of the data processes. This command is responsible for monitoring and displaying the stream details along with the stream steps, current and historical status of the streams and steps in its database schema.

Usage	`abcMonitor -streamdef | -stream <streamFilter> [ -step <stepFilter> -export <csv_file_location> ] | -log <logFilter> | help | -runtimeRefresh`
	• To display all the Imported stream:
	`abcMonitor -streamdef`
	• To display details of all stream:
	`abcMonitor -stream ID=ALL`
	• To generate a .csv file that has details of all stream including all steps:
	`abcMonitor -stream ID=ALL -step ID=ALL -export <location of csv>`
	• To display all the step of a stream that completes with warning:
	`abcMonitor -stream ID=<streamID> -step ID=ALL,status=warning`
	• To display all execution log of step that completes with error:
	`abcMonitor -log stepID=<stepID>,Severity=error,Detail=true`

Options	• `streamdef` - print imported streams
	• `help` - print usage
	• `log <logFilter>` - Display log detail based on following log filter seperated by comma.
	`<stepID|processID=<stepid/processid>,Severity=WARN|ERROR,Detail=true>`
	• `runtimeRefresh` - Refresh run-time table
	• `step <stepFilter>` - Display step detail based on following step filter seperated by comma:
	`<ID=stepID|All, state=WAITING|RUNNING|FINISHED,status=ERROR|MAX_EXECUTION_TIMEEXCEEDED|WARNING|NA|SUCCESS >`
	• `stream <streamFilter>`- Display stream detail based on following stream filter seperated by comma.
	`<ID=streamID|All, state=ACTIVE|ABORTED|FINISHED,status=ERROR|WARNING|NA|OK >`
	◦ `export <csv_file_location>` - write output to given .csv file
	◦ `step <stepFilter>` - Display step detail based on following step filter seperated by comma:

	<ID=stepID|All, state=WAITING|RUNNING|FINISHED,status=ERROR|MAX_EXECUTION_TIMEEXCEEDED|WARNING|NA|SUCCESS >
Example	• To generate a .csv file (C:/pmdbStreamSteps.csv) that has details of all stream including all steps: abcMonitor -stream ID=ALL -step ID=ALL -export C:/pmdbStreamSteps.csv • To display all the step of stream *Test@3* that completes with warning: abcMonitor -stream ID=Test@3 -step ID=ALL,status=warning • To display all execution log of step *Test3_C* that completes with error: abcMonitor -log stepID=Test3_C,Severity=error,Detail=true

abcStreamRunner

This command can be used to reload the stream and run it.

Usage	abcStreamRunner [-streamId <stream name>] [-forceLoad] [-skipPrecheck] [-varArgs <var Args file name>]
Options	• forceLoad - Force loads a stream. • help- print usage • skipPrecheck - Skips the precheck for the stream. • streamId <streamId> - The stream ID of the stream for which a value need to be set. • varArgs <varArgs> - The variable arguments file to be used for sending arguments to the steps.
Example	To run the stream with dwid Core@Dim_K_Person: abcStreamRunner -streamId Core@Dim_K_Person

DWH

Aggregation

This module is responsible for carrying out hourly and daily aggregation of performance metrics collected from different sources. The aggregation is governed by aggregation definitions, which are designed by the Content Pack developer and the initialization of these definitions takes place at the

time of installing the Content Pack. The initialization process involves creation of the temp table used by the aggregate definition file.

Aggregate looks up *aggregate_control* table in PostGreSQL and determines the time beyond which data has to be processed in the current invocation. This *aggregate_control* table has two fields, **last execution time** and **last process time**. Last execution time is used by daily aggregation to control the frequency of execution (By default daily aggregates run once every 12 hours). Last process time is used by both the hourly and daily aggregation procedures to perform incremental aggregation.

Source Table	Rate/Hourly Table
Destination Table	Hourly/Daily Table
Failure Directory	Rate/Hourly Tables (Data is retained in the source table on failures)
Log File	{PMDB_HOME}/log/aggregate.log
Usage	• config=<Aggregate Definition File> [The aggregate definition file name is <source_table>_<target_table>_<cubename>.xml in {PMDB_HOME}/scripts] • init=true/false [Invoking the loader definitions initialization]

Loader

This module is responsible for moving data from stage table to DWH table. Loader does the processing that involves resolving surrogate key and loading. The loader is governed by loading definitions, that the content pack developer designs. The loader definitions are initialized as part of content pack installation. Initialization process involves creation of temp table used by loader.

All the *Rate* and *dimension* in OBR has corresponding stage table. Stage table name will generally be rate/dimension table name followed by an _. If the DWH table name is *SR_SM_NODE_RES* than the stage table name for this DWH table will be *SR_SM_NODE_RES_*.

Loader looks up stage_control table in PostGreSQL and determines the time beyond which data has to be processed in the current invocation. This module also purges data older than time mentioned in this *stage_control* table.

Source Table	Stage Table
Destination Table	DWH Rate/Dimension table
Failure Directory	{PMDB_HOME}/failed_to_load

Log File	{PMDB_HOME}/log/reconcileStep.log
Usage	• config=<Loader Definition File> [The name of the definition File will generally be <DWH_Table_ Name>.xml and will be under {PMDB_HOME}/lib directory • init=true/false [Invoking the loader definitions initialization] • perfLog=true/false [Creates a performance log file containing performance statistics of the current loader execution]

ETL Modules

These modules are responsible for extracting data from the data sources, transforming, reconciling and staging them into stage tables. ETL content pack consume these modules to carry out data movement to staging area.

Collect

This module is responsible for moving data from `{PMDB_HOME}/collect` directory to `{PMDB_HOME}/stage` directory. This does merging of files with same type and category into a single file of configurable size (Default 25MB), unless there are left over files from the previous cycle. This identifies the batch of data, which the streams picks up for processing.

Source Directory	{PMDB_HOME}/collect
Destination Directory	{PMDB_HOME}/stage
Failure Directory	None, files are left in the {PMDB_HOME}/collect folder
Log File	{PMDB_HOME}/log/collectStep.log
Usage	collect [-category <*category*>] [-type <*type*>] • category - Specify the category of the collected data • type -Specify the type of the collected data • help - Provides Help message

Collection_Config

This module is responsible for importing/updating/deleting the ETL artifacts. ETL artifacts that are imported by collection_config are:

- Collection policies [PA, CMDB, SN, DB]
- Transformation Rules
- Reconciliation Rules

The imported rules are stored in the PostGreSQL management database. A cached copy of these policies is stored in the `{PMDB_HOME}/etl_rules` folder. All OBR ETL modules use rules from this cached folder instead of connecting to PostGreSQL.

Every time the collection_config module is executed, the cached copy is refreshed.

Usage
• collection_config -collect <Full path to collection policy xml file name> -cp <contentpack name> • collection_config -transform <Full path to transformation policy xml file name> -cp <contentpack name> • collection_config -reconcile <Full path to reconciliation policy xml file name> -cp <contentpack name> • collection_config -delete -cp <contentpackName> • collection_config -refreshCache -transformRules • collection_config -refreshCache –reconcileRules

Mapper

This module is responsible for transforming the data and preparing it for loading to staging area. This module supports different types of transformation functions like, string functions, arithmetic functions, duplicate removal functions, pivot transfer functions and so on. These transformation function on the input data is defined by the content pack developer and imported during content pack installation.

Source Directory	{PMDB_HOME}/stage
Destination Directory	{PMDB_HOME}/stage
Failure Directory	{PMDB_HOME}/failed_to_transform
Log File	{PMDB_HOME}/log/mapperStep.log
Usage	mapper [-category <category>] [-type <type>] [stepid

	<id>] • category - Specify the category of the collected data • type -Specify the type of the collected data • stepId <step ID> - Specify the step id. Uses this argument to build the output file name • help - Provides Help message

Reconcile

Reconciliation is a two-step process for checking the performance metrics and their dimensions discovered from topology sources. This involves:

1. Building Registry

   This process involves building a registry for reconciliation. This registry has a key and a value for each dimension discovered from a topology source. The key is the concatenated business key and value is the global unique identifier. The rule specifies the column to be used for building the keys from the dimension CSVs.

2. Reconciliation of the performance metrics

   This process is responsible for associating the global unique identifier with a dimension. This is governed by the reconciliation rules, which define the reconciliation registry to be used for the type and category of data. This also defines the CSV columns from the collected data that can be used to build a key, to look into the reconciliation registry of the identified type, and get its matching global unique identifier.

Source Directory	{PMDB_HOME}/stage
Destination Directory	{PMDB_HOME}/stage
Failure Directory	{PMDB_HOME}/failed_to_reconcile
Log File	{PMDB_HOME}/log/reconcileStep.log
Usage	reconcile buildRegistry [-category <category] [-type <type>] [-stepid <step ID>] • buildRegistry - Build the registry • category -Specify the category of the collected data • type - Specify the type of the collected data • stepId <step ID> - Specify the step id. Uses this

	argument to build the output file name • help - Provides Help message

Stage

This module is responsible for loading the collected, transformed and reconciled data to staging tables. The stage module is driven by stage rules that specifies how to move data from source CSV to stage tables. All the *Rate* and *dimension* in OBR has corresponding stage table. No summarization tables will have an associated stage table. Stage table name will generally be rate/dimension table name followed by an _. If the DWH table name is *SR_SM_NODE_RES*, then the stage table name for this DWH table will be *SR_SM_NODE_RES_*.

Staging involves following two modes of execution,

1. Compiling the stage rules

   In this mode, Stage module compiles and generates the compiled stage based on input stage rules designed by the content pack developer. The stage rule compilation occurs as part of content pack installation.

   Compiled stage rules are stored in `{PMDB_HOME}/stagerules` folder and the XML equivalent to this compiled stage rules is stored in `{PMDB_HOME}/stagerules_source` folder.

2. Executing the data load from CSV to stage table.

   In this mode, Stage modules takes the input as compiled stage rule and moves the data from the CSV file to stage table. The information on the CSV file patterns to be picked and the stage table to load the data, is mentioned in the compiled stage rule.

   There is some amount of processing that happens in the staging area. Important one is to perform column merge across different fact CSV's and move the resultant data to stage table.

Source Directory	{PMDB_HOME}/stage
Destination Directory	{PMDB_HOME}/stage/archive
Failure Directory	{PMDB_HOME}/failed_to_stage
Log File	{PMDB_HOME}/log/stage.log
Usage	
To Compile Stage Rule	• compile=true [To invoke compilation mode. Default is false.] • stagerule=<Stage Rule> [Full path to the file that

	has stage definitions] • interface=<Interface XML> [Full path to the stage interface XML] • outputLocation=<Output Directory> [Directory where the compiled stage rule is stored]
To Execute Stage table loading	• config=<Compilied Stage Rule> [Path to the compiled stage rule] • printSourceFile=true [Generated XML version of compiled stage rule. Provides mapping between CSV columns and stage table columns. Default value is false] • debugOutputLoc= <Folderpath> [Location where the XML equivalent of compiled stage rule is placed]

Platform_modules

datapipe_manager

This module is responsible for creating/dropping the data warehouse tables in Vertica. Along with creating or dropping table, the utility registers or deregisters the tables in the metadata maintained by OBR.

This module will be generally invoked for creating/dropping tables for Content Pack installation and uninstallation activities.

> **Note:** Stage tables are not part of data warehouse tables, and therefore, are not created or dropped by the Content Pack installation/uninstallation process.

Log File	• {PMDB_HOME}/log/trend.log
Usage1:To Create a table	• datapipe_manager -p create -a <path_to_ schema_definition_file> -d <debug_level>
Usage2:To Drop a table	• datapipe_manager -p delete -t <table> -d <debug_level>
p [create|delete]	*create* for creating table and *delete* for deleting a table
a	Full path to schema definition file. This file has a

	property format called as TEEL and is created by CDE by reading the model XML,
d	Level of debugging information to be generated. The data is logged to trend.log. Supported debug logging levels are 1, 2, 3.
t	The name of the table to be dropped.

extract

OBR Collectors are launched from the windows service *HPE PMDB Collection Service*. This module is responsible for launching standalone collector outside the windows service.

This module reads information about what to collect from the policy file and run the collection for the data source type specified as input. This module also takes the list of data source, for which you want to run the data collection as input .

This can be used as a good data source troubleshooting module to isolate whether a problem is due to data source or some thing else.

Log File	• {PMDB_HOME}/log/collection.log • {PMDB_HOME}/log/hpaCollector.log • {PMDB_HOME}/log/topologyCollector.log • {PMDB_HOME}/log/dbCollector.log
Usage	• config - Specify the full path to the configuration file • help - Provides Help message • policy - Full path to collection policy file(s) (multiple files to be separated by comma(,))) • type - Specify the collector type that needs to be run PA|CMDB|DB|SN
Content of config.properties file for individual stand-alone collectors	
PA	hostname=<hostname> init.history=<collection interval in minutes – default to 60>
CMDB	hostname=<hostname> username=<rtsm username> password=<rtsm password>

	port=<rtsm port>
DB	hostname=<hostname> username=<DB username> password=<DB password> port=<DB port> instance.name=<DB instance name> db.name=<DB name> use.windows.auth=<true|false> db.type=<database type oracle|mssql|Sybase> datasource.type=<datasource type generic|profile_database|OM|Omi>
SN	hostname=<hostname> username=<OM username> password=<OM password> port=<OM port> instance.name=<OM instance name> db.name=<OM DB name> use.windows.auth=<true|false> protocol=https type=<OM type OMW|OMU|OML>

packagemgrSlient

This module is responsible for deploying or undeploying a content pack. This module is invoked from the Admin UI deployment manager page. At any given point, only one instance of packagemgrSilent should be running. This is enforced by the deployment manager page. Deployment manager will not let user deploy/undeploy a content pack(s) when already deployment or undeployment is in progress.

Not just only one instance of packagemgrSilent should be running at a given point but also there should not be any OBR processes running at the time of invocation. Even this is taken care by the Deployment Manager page in Admin UI.

This module takes a file containing a list of content packs as input ,to be deployed or to be undeployed. Since there can be dependency between the content packs, the input file is expected to have content

pack names in an order such that the dependency is met. Again, Deployment manager takes care of building the ordered list of content packs based on their dependency and invoke the packagemgrSilent.

Based on type of the content pack, a typical content pack installation involves

1. Placing artifacts in the PMDB directory to be consumed at run time by various OBR processes
2. Creating a schema in the Vertica DWH (Domain CP)
3. Importing the ETL artifacts (ETL CP)
4. Importing the stream definitions (ETL CP)
5. Initializing the loading procedures (Domain CP)
6. Initializing the aggregate procedures (Domain CP)
7. Compiling the staging procedures (ETL CP)
8. BIAR Deployment (Application CP)

Log File	• {PMDB_HOME}/log/packagemgr.log • {PMDB_HOME}/log/trend.log • {PMDB_HOME}/log/collections.log • {PMDB_HOME}/log/stage.log • {PMDB_HOME}/log/loader.log • {PMDB_HOME}/log/aggregate.log

sqlexecutor

OBR content uses stored procedure to carry out few data processing, which are not possible using standard out of the box modules. Or they might have a specific use case for aggregations. This module is also used as part of content pack installation to create stage tables. This module is responsible for executing any stored procedure. There are two modes of operations

1. To execute sql script

   In this mode the module takes a file containing SQL commands as input and executes them.

2. Run/Drop for already created procedures

   In this mode, the module executes the procedure passing required arguments.

Log File	• {PMDB_HOME}/log/backend.log
Usages 1	• sqlexecutor -sqlscript <sqlscript Name>

Usages 2	• Sqlexecutor -execproc | -dropproc <procedure Name> -procArgs
sqlscript	File name that contains SQL commands
dbisql	Additional options that are supplied for script execution
execproc	To execute the procedure specified as value for this option
dropproc	To drop the procedure specified as value for this option
help	Command line help

Known Limitations in OBR Reports

System Management and Virtualization Reports

When data is gathered from SiteScope (data collection from RTSM/BSM Profile database), certain known limitations or gaps exist in OBR reports of Systems and Virtualization content packs.

System Management

The following table lists the known gaps in OBR reports when data is sourced from SiteScope (BSM Profile database):

Report	Known Limitations
SM Heat Chart	No data available in *Physical Disk* and *Network* tabs
SM System Usage Detail	No data available in *Physical Disk* and *Network* tabs

For more information about System Management Reports, see *Appendix D* in *Operations Bridge Reporter Configuration Guide*.

Virtualization

The following table lists the known gaps in OBR virtualization reports when data is sourced from SiteScope (BSM Profile database):

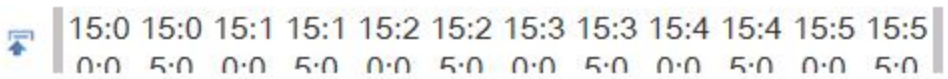
> **Note:** Only VMware virtualization is supported by SiteScope integration with OBR. Hence, only this virtualization technology appears across the reports when data is sourced from SiteScope.

Report	Metrics that are unavailable in reports with SiteScope integration
SM Virtualization Host Inventory	Processor Architecture, Disk Count, VM Count
SM Virtualization Logical System Inventory	State, Number of Disk, Number of LAN, Minimum CPU Entitlement, Maximum CPU Entitlement
SM Virtualization Logical Systems Performance Summary	Logical System Physical CPU Utilization
SM Virtualization Top and Bottom N Logical Systems	OS Type, Average Physical CPU Utilization (%), Average Physical Memory Utilization (%)
SM Virtualization Top and Bottom N Nodes	Processor Architecture, Number of Logical Systems, Average Grade of Service

Report	Metrics that are unavailable in reports with SiteScope integration
SM Virtualization Virtual Infrastructure Inventory	Logical System OS
SM Virtualization Logical System Performance Details	Physical CPU Utilization
SM Virtualization VMware ESX Server Detail Inventory	Number of disks, Number of network interfaces
SM Virtualization VMware Cluster Detail Inventory	CPU Capacity, Number of Network Interfaces unavailable in VMware ESX Node inventory VMware ESX Resource Pool Inventory tab will be empty CPU Limit, Number of disks, Number of network interfaces unavailable in Logical System Inventory
SM Virtualization VMware Inventory	Number of disks, Number of network interfaces, CPU Unreserved
SM Virtualization VMware Logical System Memory Bottleneck Details	Average Physical Memory Utilization Percentage
SM Virtualization VMware Top and Bottom N ESX Servers	Average Swap Utilization (%)
SM Virtualization VMware Top and Bottom N Logical System	Average Physical CPU Utilization (%), Average Physical Memory Utilization (%)

Network Component Health and Network Interface Health Reports

In the Network Component Health Overview and Network Interface Health Overview Reports, if the user drill downs to 5 minute level, the time drill in hours, minutes and seconds appears as shown in the following image:



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Feedback on Troubleshooting Guide (Operations Bridge Reporter 10.21)

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