



HPE Operations Bridge Reporter

Software Version: 10.10

Cross-Domain Operations Events Content Pack Reference

Document Release Date: January 2017
Software Release Date: January 2017

Legal Notices

Warranty

The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

© 2015 - 2017 Hewlett Packard Enterprise Development LP

Trademark Notices

Adobe™ is a trademark of Adobe Systems Incorporated.

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

UNIX® is a registered trademark of The Open Group.

Documentation Updates

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

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

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

Support

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

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

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

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

About this PDF Version of Online Help

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

Contents

| | |
|--|----|
| About This Document | 5 |
| Getting Started | 6 |
| HPE Operations Bridge Reporter (OBR) Overview | 6 |
| Deployment Scenarios | 6 |
| Types of Reports | 7 |
| Cross-Domain Operations Events Content Pack Overview | 9 |
| Target Audience | 9 |
| Data Sources for OMi Data | 10 |
| Deploy Topology Views | 11 |
| List of Content Pack and Topology Views to Deploy | 11 |
| HP BSM Server | 17 |
| HP OMi 10 Server | 19 |
| Install the Content Pack | 22 |
| Check Availability and Integrity of Data Sources | 22 |
| Selecting the Content Pack Components | 25 |
| Install the Content Pack in Deployment Manager | 28 |
| Uninstalling the Content Pack Components | 30 |
| Data Source Collection Configuration | 31 |
| Configuring the HP OMi Data Source | 31 |
| Report Navigation | 34 |
| Use Cases | 35 |
| Appendix | 38 |
| Appendix A: Terminology | 38 |
| Appendix B: Calculate Event Statistics Per Domain | 40 |
| Send documentation feedback | 43 |

About This Document

This document provides an overview of HPE OBR and Cross-Domain Operations Events Content Pack. This document provides details on ready-to-use OMi reports available with the Cross-Domain Operations Events Content Pack. The document lists instructions to install and configure the data source for the Cross-Domain Operations Events Content Pack. It provides information on report navigation and calculate event statistics.

For information on HPE Operations Bridge Reporter tools and contents, go to URL: <https://hpln.hpe.com/product/operations-bridge-reporter>.

Getting Started

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

HPE Operations Bridge Reporter (OBR) Overview

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

Deployment Scenarios

Following are the deployment scenarios supported on HPE OBR:

- **Deployment with BSM/OMi** - In this deployment, Run-time Service Model (RTSM) is the source of topology information. HPE OBR discovers and synchronizes topology information from OMi. In a BSM environment with underlying HPOM servers, this synchronization technique receives discovered topology data from multiple HPOM systems and updates the Configuration Items (CIs) and CI relationships in the RTSM

as soon as changes are discovered. However, you can also use the HPOM D-MoM dynamic topology synchronization technique to discover and synchronize the topology information in RTSM. In an environment with OMi 10.00, HPE OBR uses RTSM to obtain topology information and metrics from HP Operations Agent or HP SiteScope systems that are configured with OMi.

- **Deployment with HP Operations Manager** - In this deployment, the topology information is a group of managed nodes defined in HPOM that are logically combined for operational monitoring. These logical node groups are created by HPOM users to classify the nodes as specific organizations or entities within their enterprise. For example, a group called `Exchange Servers` can be created in HPOM to organize the specific Exchange Servers and Active Directory nodes for reporting or monitoring purposes. HPE OBR uses the node groups from HPOM for its topology computation.
- **Deployment with VMware vCenter** - VMware vCenter is a distributed server-client software solution that provides a central and a flexible platform for managing the virtual infrastructure in business-critical enterprise systems. VMware vCenter centrally monitors performance and events, and provides an enhanced level of visibility of the virtual environment, thus helping IT administrators to control the environment with ease.
- **Other deployments** - Apart from the basic deployment scenarios, you can collect data from the following sources independently:
 - Deployment with NNMi
 - Deployment with a generic database
 - Deployment with other applications using CSV

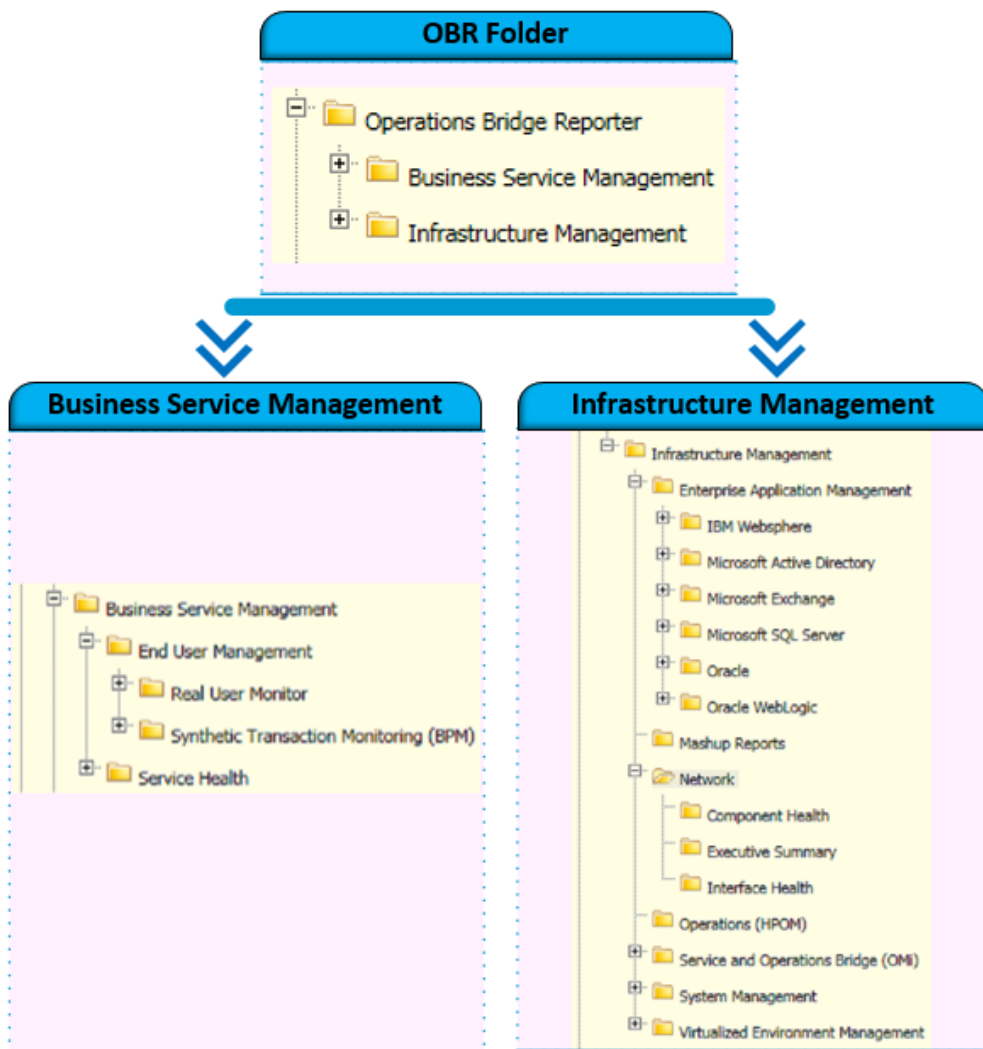
Types of Reports

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

- Business Service Management

- Infrastructure Management

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



To view a map of all the reports available in the Cross-Domain Operations Events Content Pack, see [Report Navigation](#).

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

Cross-Domain Operations Events Content Pack Overview

This section provides an overview of Cross-Domain Operations Events Content Pack, target audience, and supported data sources.

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

BSM Operations Manager is an event management tool for monitoring your business services. A consolidated operations bridge merges all IT infrastructure monitoring in a central event console, and relates the events to the IT services that depend on that infrastructure. It creates a common, structured event-management model that applies the same processes to both business service management and IT infrastructure management.

Target Audience

Target audience for OMi reports are Operations Center Managers and Database Administrators, who help to setup and maintain the IT infrastructure.

OMi reports present the distribution of events by severity, status, and time of resolution that relate to specific domains over a period of time. These reports also help the administrator understand the backlog overload while assigning events / tasks to the subordinates.

Data Sources for OMi Data

OBR integrates with and collects OMi event data from the BSM OMi database at regular intervals. The user and user group details are gathered from BSM Management database. The OMi Content Pack identifies the list of metrics that OBR must collect from each of these data sources. The corresponding topology and CI dimension data is collected from RTSM.

OBR collects data from different data sources at periodic intervals based on the collection policies predefined in the **CrossOprEvent_ETL_OMi Content Pack**. The raw event data and lifecycle state changes are collected from the OMi Event database and stored in the database in raw tables as individual records. The aggregation procedures in OBR derive the count and duration of events by status, severity, users & usergroup and load them to respective hourly tables. Further HPE OBR aggregates the hourly data to daily & loads them to respective daily aggregation tables. This aggregated data is displayed in the reports along with monthly and yearly aggregates that are derived via online aggregation.

Deploy Topology Views

To configure HPE OBR to collect domain-specific data, you need to deploy the topology views for each Content Pack. These topology views contain specific CI attributes that Content Packs use to collect the relevant data. However, these topology views can vary from one Content Pack to another.

List of Content Pack and Topology Views to Deploy

The following table lists the topology views to deploy for Cross-Domain Operations Events Content Pack:

On Windows:

| Content Pack | View Name | Location |
|---|--|--|
| BPM (Synthetic Transaction Monitoring) | EUM_BSMR.zip(BSM only) EUM_OMi.zip(OMi 10 only) | %PMDB_HOME%\packages\EndUserManagement\ETL_BPM.ap\source\cmdb_views %PMDB_HOME%\packages\EndUserManagement\ETL_BPM_OMi.ap\source\cmdb_views Note: If BSM is the deployment scenario, then deploy only EUM_BSMR.zip view in the BSM server. If OMi 10 is the deployment scenario, |

| Content Pack | View Name | Location |
|----------------------------------|---|---|
| | | <p>then deploy only EUM_OMi.zip view in the OMi 10 server.</p> |
| Real User Transaction Monitoring | <p>EUM_BSMR.zip(BSM only)</p> <p>EUM_OMi.zip(OMi 10 only)</p> | <p>%PMDB_HOME%\packages\EndUserManagement\ETL_RUM.ap\source\cmdb_views</p> <p>%PMDB_HOME%\packages\EndUserManagement\ETL_RUM_OMi.ap\source\cmdb_views</p> <p>Note: If BSM is the deployment scenario, then deploy only EUM_BSMR.zip view in the BSM server.</p> <p>If OMi 10 is the deployment scenario, then deploy only EUM_OMi.zip view in the OMi 10 server.</p> |
| Network | SHR_Network_Views.zip | %PMDB_HOME%\packages\Network\ETL_Network_NPS92_RTSM.ap\source\cmdb_views |
| System Management | SM_BSM9_Views.zip | %PMDB_HOME%\packages\SystemManagement\ETL_SystemManagement_PA.ap\source\cmdb_views |
| Oracle | <p>SHR_DBOracle_Views.zip</p> <p>SHR_DBOracle_OM.zip</p> | %PMDB_HOME%\Packages\DatabaseOracle\ETL_DBOracle_DBSPI.ap\source\cmdb_views |
| Oracle WebLogic Server | <p>J2EEApplication.zip</p> <p>J2EEApplication_OM.zip</p> | <p>For OM/SPI: %PMDB_HOME%\packages\ApplicationServer\ETL_AppSrvrWLS_WLSSPI.ap\source\cmdb_views</p> <p>For OMi/MP: %PMDB_HOME%\packages\ApplicationServer\</p> |

| Content Pack | View Name | Location |
|----------------------------------|--|--|
| | | ETL_AppSrvrWLS_ WLSMP.ap\source\cldb_views |
| IBM WebSphere Application Server | J2EEApplication.zip J2EEApplication_OM.zip | For OM/SPI: %PMDB_ HOME%\packages\ApplicationServer\ETL_AppSrvrWBS_ WBSPI.ap\source\cldb_views For OMi/MP: %PMDB_ HOME%\packages\ApplicationServer\ETL_AppSrvrWBS_ WBSMP.ap\source\cldb_views |
| Microsoft SQL Server | SHR_DBMSSQL_Views.zip SHR_DBMSSQL_OM.zip | %PMDB_ HOME%\packages\DatabaseMSSQL\ETL_DBMSSQL_DBSPI.ap\source\cldb_views |
| Microsoft Exchange Server | SHR_Exchange_Business_View.zip SHR_Exchange_OM.zip | %PMDB_ HOME%\packages\ExchangeServer\ETL_Exchange_Server2007.ap\source\cldb_views %PMDB_ HOME%\packages\ExchangeServer\ETL_Exchange_Server2010.ap\source\cldb_views %PMDB_ HOME%\packages\ExchangeServer\ETL_Exchange_Server2013.ap\source\cldb_views |
| Microsoft Active Directory | SHR_AD_Business_View.zip SHR_ActiveDirectory_OM.zip | %PMDB_ HOME%\packages\ActiveDirectory\ETL_AD_ADSPI.ap\source\cldb_views |
| Virtual | SM_BSM9_Views.zip | %PMDB_ |

| Content Pack | View Name | Location |
|--|---------------|--|
| Environment Performance | | HOME%\packages\SystemManagement\ETL_SystemManagement_PA.ap\source\cmdb_views |
| Health and Key Performance Indicators (Service Health) | All the views | |
| Cross-Domain Operations Events | All the views | |
| Operations Events | No views | |

On Linux:

| Content Pack | View Name | Location |
|--|--|---|
| BPM (Synthetic Transaction Monitoring) | EUM_BSMR.zip(BSM only) EUM_OMi.zip(OMi 10 only) | <p>Business view - \$PMDB_HOME/packages/EndUserManagement/ETL_BPM.ap/source/cmdb_views</p> <p>OM view - \$PMDB_HOME/packages/EndUserManagement/ETL_BPM_OMi.ap/source/cmdb_views</p> <p>Note: If BSM is the deployment scenario, then deploy only EUM_BSMR.zip view in the BSM server.</p> <p>If OMi 10 is the deployment scenario, then deploy only EUM_OMi.zip view in the OMi 10 server.</p> |

| Content Pack | View Name | Location |
|----------------------------------|--|---|
| Real User Transaction Monitoring | EUM_BSMR.zip(BSM only) EUM_OMi.zip(OMi 10 only) | <p>Business view - \$PMDB_HOME/packages/EndUserManagement/ETL_RUM_OMi.ap/source/cmdb_views</p> <p>OM view - \$PMDB_HOME/packages/EndUserManagement/ETL_RUM_OMi.ap/source/cmdb_views</p> <p>Note: If BSM is the deployment scenario, then deploy only EUM_BSMR.zip view in the BSM server.</p> <p>If OMi 10 is the deployment scenario, then deploy only EUM_OMi.zip view in the OMi 10 server.</p> |
| Network | SHR_Network_Views.zip | \$PMDB_HOME/packages/Network/ETL_Network_NPS92_RTSM.ap/source/cmdb_views |
| System Management | SM_BSM9_Views.zip | \$PMDB_HOME/packages/SystemManagement/ETL_SystemManagement_PA.ap/source/cmdb_views |
| Oracle | SHR_DBOracle_Views.zip SHR_DBOracle_OM.zip | \$PMDB_HOME/Packages/DatabaseOracle/ETL_DBOracle_DBSPI.ap/source/cmdb_views |
| Oracle WebLogic Server | J2EEApplication.zip J2EEApplication_OM.zip | <p>For OM/SPI: \$PMDB_HOME/packages/ApplicationServer/ETL_AppSrvrWLS_WLSSPI.ap/source/cmdb_views</p> <p>For OMi/MP: \$PMDB_HOME/packages/ApplicationServer/ETL_AppSrvrWLS_WLSMP.ap/source/cmdb_views</p> |

| Content Pack | View Name | Location |
|----------------------------------|--|--|
| IBM WebSphere Application Server | J2EEApplication.zip J2EEApplication_OM.zip | For OM/SPI: \$PMDB_HOME/packages/ApplicationServer/ETL_AppSrvrWBS_WBSSPI.ap/source/cmdb_views For OMi/MP: \$PMDB_HOME/packages/ApplicationServer/ETL_AppSrvrWBS_WBSMP.ap/source/cmdb_views |
| Microsoft SQL Server | SHR_DBMSSQL_Views.zip SHR_DBMSSQL_OM.zip | \$PMDB_HOME/packages/DatabaseMSSQL/ETL_DBMSSQL_DBSPI.ap/source/cmdb_views |
| Microsoft Exchange Server | SHR_Exchange_Business_View.zip SHR_Exchange_OM.zip | \$PMDB_HOME/packages/ExchangeServer/ETL_Exchange_Server2007.ap/source/cmdb_views \$PMDB_HOME/packages/ExchangeServer/ETL_Exchange_Server2010.ap/source/cmdb_views \$PMDB_HOME/packages/ExchangeServer/ETL_Exchange_Server2013.ap/source/cmdb_views |
| Microsoft Active Directory | SHR_AD_Business_View.zip SHR_ActiveDirectory_OM.zip | \$PMDB_HOME/packages/ActiveDirectory/ETL_AD_ADSPI.ap/source/cmdb_views |
| Virtual Environment | SM_BSM9_Views.zip | \$PMDB_HOME/packages/SystemManagement/ETL_SystemManagement_ |

| Content Pack | View Name | Location |
|--|---------------|-------------------------|
| Performance | | PA.ap/source/cmdb_views |
| Health and Key Performance Indicators (Service Health) | All the views | |
| Cross-Domain Operations Events | All the views | |
| Operations Events | No views | |

HP BSM Server

To deploy the topology model views for the Cross-Domain Operations Events Content Pack in the HP BSM server, follow these steps:

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

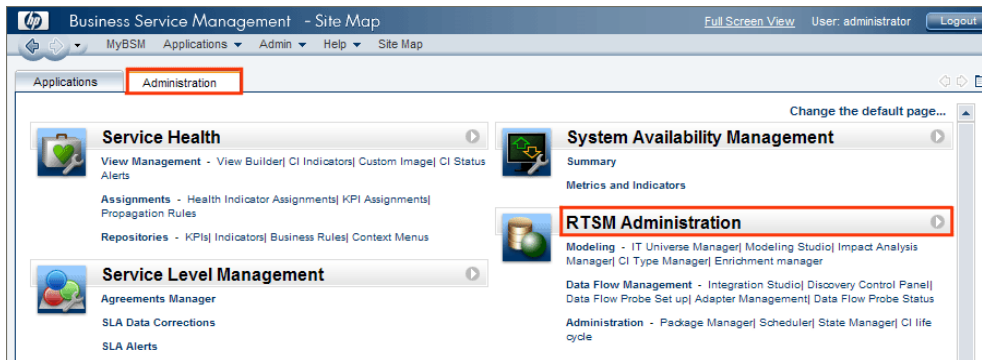
`http://<BSM system FQDN>/bsm`

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

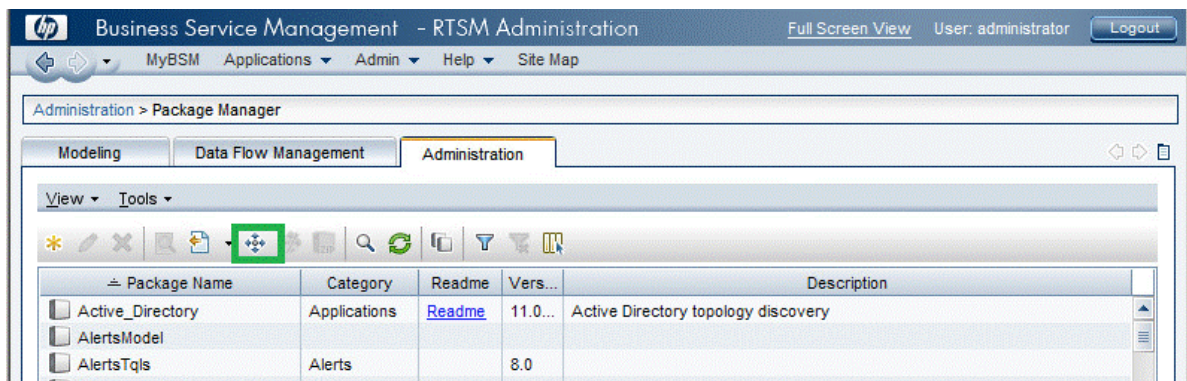
Note: You can launch the HP BSM server from a system where HPE OBR is installed or any other local system. If you are launching from local system, ensure that you browse to the location mentioned in [List of Content Pack and Topology Views to Deploy](#) and copy the required views to your local system.

The Business Service Management Login page appears.

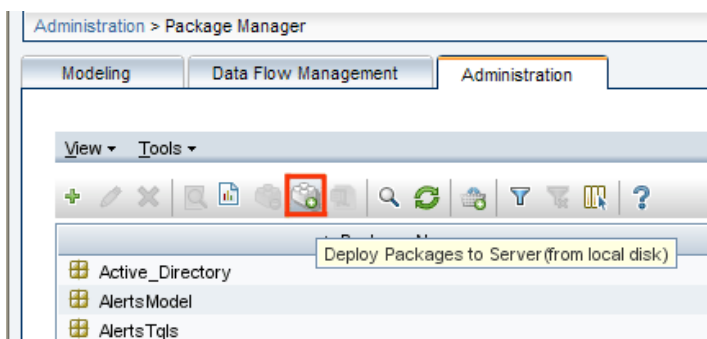
2. Type the login name and password and click **Log In**. The Business Service Management - Site Map appears.
3. Click **Administration** > **RTSM Administration**. The RTSM Administration page appears.



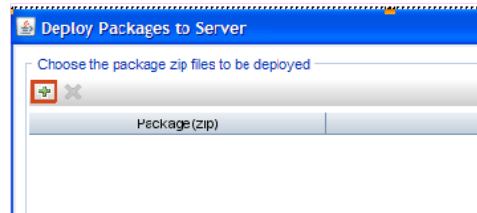
4. Click **Administration** > **Package Manager**. The Package Manager page appears.



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



- Click the **Add** icon.



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

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

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

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

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

HP OMi 10 Server

To deploy the topology model views for the Cross-Domain Operations Events Content Pack in the HP OMi 10 server, follow these steps:

- In the web browser, type the following URL:

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

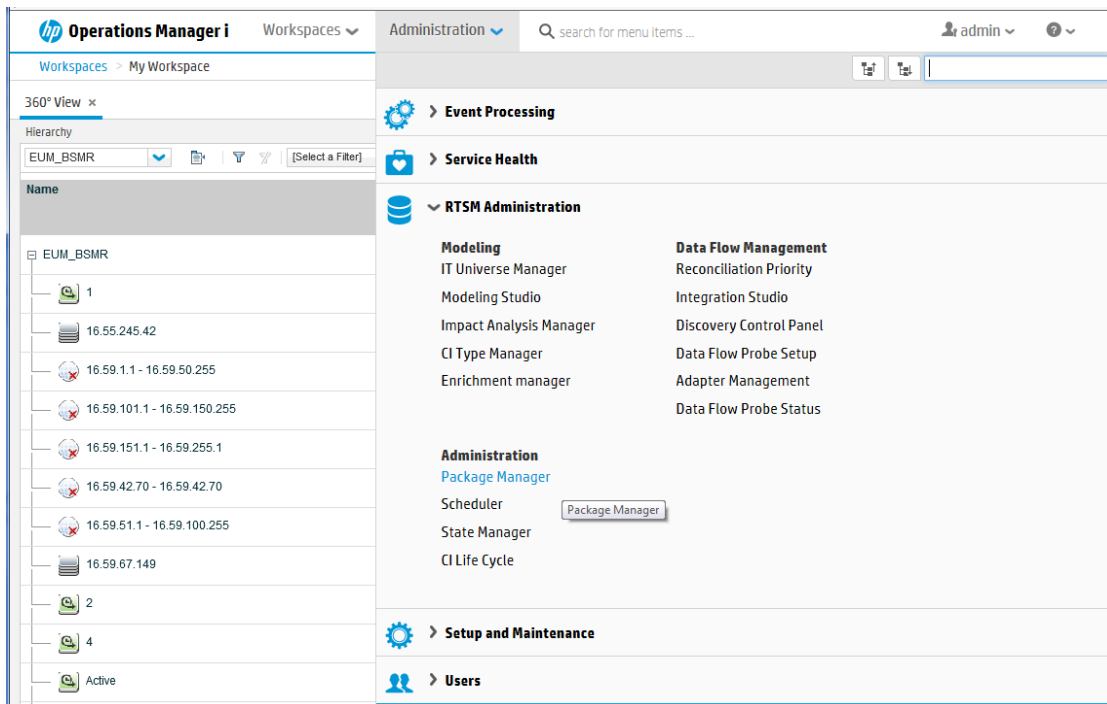
where, <OMi system FQDN> is the FQDN of the HP OMi server.

Note: You can launch the HP OMi server from a system where HPE OBR is installed or any other local system. If you are launching from local system,

ensure that you browse to the location mentioned in [List of Content Pack and Topology Views to Deploy](#) and copy the required views to your local system.

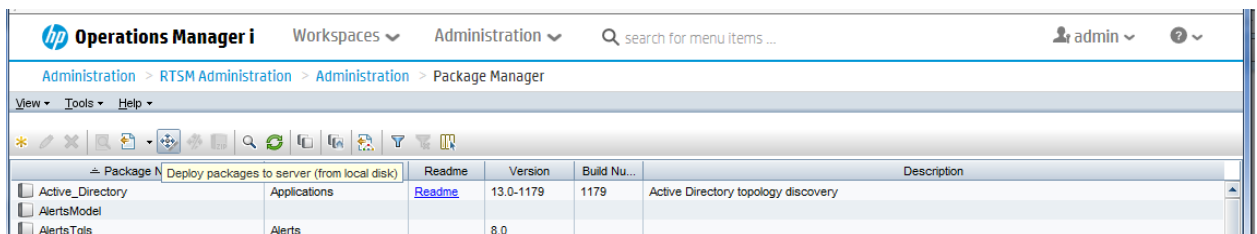
The Operations Manager i Login page appears.

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

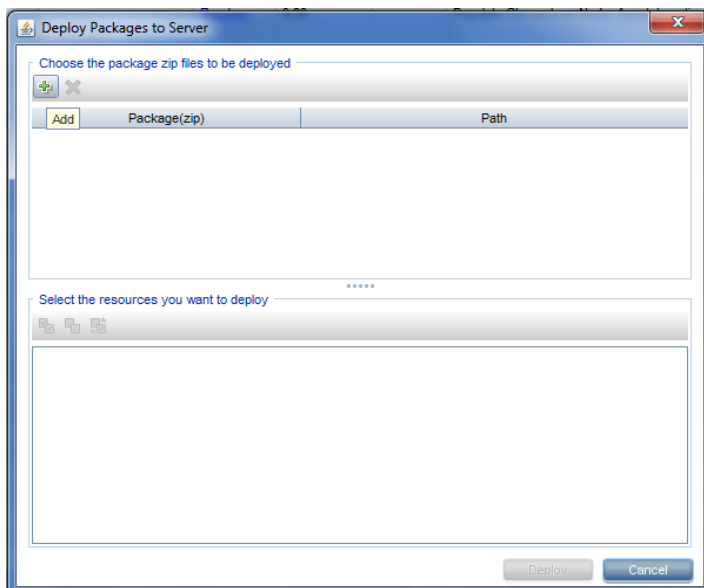


The Package Manager page appears.

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



5. Click the **Add** icon.



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

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

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

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

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

Install the Content Pack

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

Check Availability and Integrity of Data Sources

HPE OBR has Data Source Readiness Check tool that enables you to check the availability and integrity of RTSM and PA data sources before installing Content Packs. The tool is available on Windows and Linux operating systems. You can check the data source readiness using the property file or by database.

Check Data Source Related to RTSM

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

1. Log on to the HPE OBR system.
2. Before you check the data source readiness, ensure the following:
 - a. The **dscheck** folder is available in PMDB_HOME.
 - b. The **dscheckRTSM.sh** script is available in %PMDb_HOME%\dscheck\bin (**On Windows**) and \$PMDb_HOME/dscheck/bin (**On Linux**).
 - c. Property file is created with the following entries:

```
## RTSM DB connection properties
```

rtsm.hostname=<hostname>

rtsm.username=<username>

rtsm.password=<password>

rtsm.port=<port>

3. To check the data source readiness, run the following command in the command prompt:

a. cd {PMDb_HOME}/dscheck/bin

b. Check the data source readiness using:

i. Property file:

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

where, <File_Path> is the path where property file is created.

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

ii. Database:

./dscheckRTSM.sh

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

| BSM/OMI Version | Host Name | Connection Status | View Status | Mandatory CI Type Status | Mandatory CI Attributes Status | Number of Duplicate Nodes |
|-----------------|----------------------------------|-------------------|-------------|--------------------------|--------------------------------|---------------------------|
| Unknown | IWFVM02277.hpswlab.adapps.hp.com | | | | | 0 |

Select Views:

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

| View Name | Available in RTSM? | Mandatory CI Types Missing | Mandatory CI Attributes Missing |
|---------------------------|--------------------|----------------------------|---------------------------------|
| SM_PA | Yes | 0 | 4 |
| SM_SIS_BusinessView | Yes | 1 | 1 |
| Exchange_Site_View | Yes | 0 | 0 |
| JZEE_Deployment | Yes | 1 | 0 |
| SM_HyperV_BusinessView | Yes | 1 | 3 |
| SM_SIS_Server | Yes | 1 | 0 |
| SM_Sol_Zones | Yes | 0 | 1 |
| ORA_Deployment | Yes | 1 | 0 |
| MSSQL_BusinessView | Yes | 0 | 0 |
| ORA_BusinessView | Yes | 1 | 0 |
| SM_Sol_Zones_BusinessView | Yes | 2 | 12 |
| SHR_Network | Yes | 2 | 2 |
| SM_LPAR | Yes | 1 | 1 |
| SM_SIS | Yes | 0 | 1 |

The file displays the following information:

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

Check Data Source Related to PA

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

1. Log on to the HPE OBR system.
2. Before you check the data source readiness, ensure the following:
 - a. The **dscheck** folder is available in PMDB_HOME.
 - b. The **dscheckPA.sh** script is available in %PMDb_HOME%\dscheck\bin (**On Windows**) and \$PMDb_HOME/dscheck/bin (**On Linux**).
 - c. Property file with the entries of PA nodes is created.
3. To check the data source readiness, run the following command in the command prompt:
 - a. `cd {PMDb_HOME}/dscheck/bin`
 - b. Check the data source readiness using:
 - i. **Property file:**
`dscheckPA.sh -propFile <File_Path>/<property_file>`
where, <File_Path> is the path where property files is created.
<property_file> is the name of the PA property file. For example, pa.prp.

ii. **Database:**

`./dscheckPA.sh`

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

The screenshot shows a web interface with two main sections. The top section, titled "Node Status Summary", contains a table with the following data:

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

Below this is a "Select any" section with a "Node Name:" input field and a "Domains:" dropdown menu set to "-- Select All --".

The bottom section, titled "Node Status", contains a table with the following data:

| Node Name | ICMP ping | BBC ping | CODA ping | Agent Version | Last Log Time | Number of Missing Policies | Domain | DSi/CODA |
|---------------------------|-----------|----------|-----------|---------------|-------------------|----------------------------|--------|----------|
| IWFMVS017.HPSWLABS.HP.COM | ✓ | ✗ | ✓ | 11.11.025 | 09/28/15 13:38:00 | 1 | | ✗ |

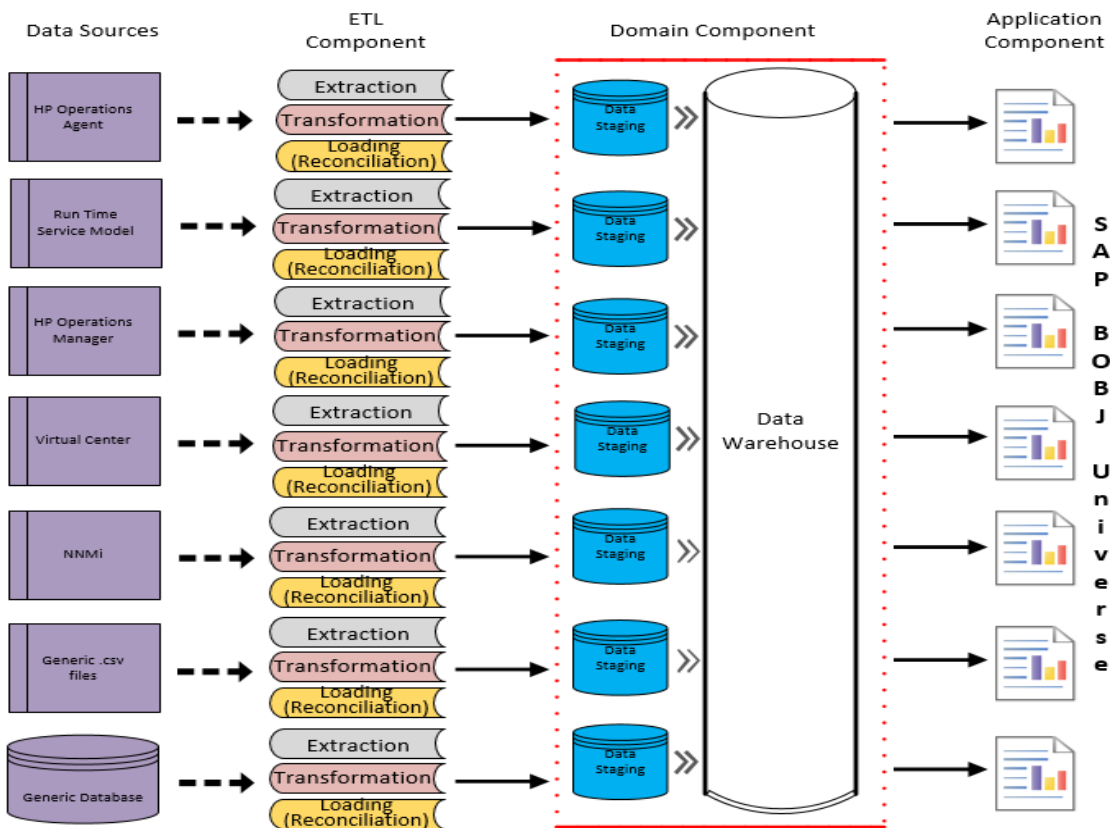
The file displays the following information:

- i. Node status summary
- ii. Node status

Selecting the Content Pack Components

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

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



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

A single data source application can have multiple ETL components. For example, you can have one ETL component for each virtualization technology supported in

Performance Agent such as Oracle Solaris Zones, VMware, IBM LPAR, and Microsoft HyperV. The ETL component can be dependent on one or more Domain components. In addition, you can have multiple ETL components feeding data into the same Domain component.

The ETL Content Pack component is data source dependent. Therefore, for a particular domain, each data source application has a separate ETL Content Pack component. For example, if you want to collect system performance data from the HP Operations Agent, you must install the `SysPerf_ETL_PerformanceAgent` component. If you want to collect system performance data from HP SiteScope, you must install either `SysPerf_ETL_SiS_API` (sourcing data logged in API) or `SysPerf_ETL_SiS_DB` (sourcing data logged in BSM Profile database).

If the topology source is OMi 10, select the `CrossOprEvent_ETL_OMi10` component.

The Content Pack components '`CrossOprEvent_ETL_OMi`' and '`CrossOprEvent_ETL_OMi10`' are mutually exclusive. Ensure that only one of them is selected.

The Content Pack components '`CrossOprEvent_ETL_OMi_Extended`' and '`CrossOprEvent_ETL_OMi10_Extended`' are mutually exclusive. Ensure that only one of them is selected.

Note: Select the Extended ETLs to generate customized reports that involves Event detail attributes.

Note: You have to select one of the Health and Key Performance Indicators ETLs explicitly because Cross-Domain Operations Events Content Pack has a dependency on Health and Key Performance Indicators Content Pack.

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

The list of Content Pack components that you can install depends on the topology source that you configured during the post-install configuration phase of the

installation. Once the topology source is configured, the Deployment Manager filters the list of Content Pack components to display only those components that can be installed in the supported deployment scenario. For example, if RTSM is the configured topology source, the Deployment Manager only displays those components that can be installed in the SaOB and APM deployment scenarios.

Install the Content Pack in Deployment Manager

To install the required Cross-Domain Operations Events Content Pack, follow these steps:

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

`http://<OBR_Server_FQDN>:21411`

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

To install this content pack and to generate reports on data from EVENT database, make the following selections:

- CrossOprEvent_ETL_OMi (10.00.000)
- CrossOprEvent_ETL_OMi10 (10.00.000)
- CrossOprEvent_Domain_Reports (10.00.000)
- CrossOprEvent_ETL_OMi10_Extended (10.00.000)
- CrossOprEvent_ETL_OMi_Extended (10.00.000)
- CrossOprEvent_Domain_Reports_Extended (10.00.000)

Tip: Install the following dependent content packs (and their components) along with this content pack for it to function:

- Core
 - Core_Domain

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

Note: For more details on ETLs, see HPE Operations Bridge Reporter *Content Pack Release Notes*.

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

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

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

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

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

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

Uninstalling the Content Pack Components

Use the Deployment Manager utility to uninstall the Content Pack components.


To uninstall the Content Packs, follow these steps:

1. Launch the Administration Console in a web browser:
 - a. Launch the following URL:
`https://<OBR_Server_FQDN>:21412/`
 - b. Type **administrator** in the **Login Name** field and password in the **Password** field. Click **Log In** to continue. The Administration Console page appears.

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

2. On the left pane, click **Administration**, and then click **Deployment Manager**. The **Deployment Manager** page appears.

The Deployment Manager displays the Content Pack components that are installed in the supported deployment scenario. For the list of Content Pack, see, "[List of Content Pack and Topology Views to Deploy](#)" on page 11.

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

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

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

Data Source Collection Configuration

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

In BSM/OMi deployment scenario, HP SiteScope and HP Operations Agent monitors the physical and virtual nodes. When you configure data source in this scenario, choose HP Operations Agent and/or HP SiteScope as the data source.

Configuring the HP OMi Data Source

If you install the HP OMi Content Pack, you must configure the HP OMi database connection for data collection. You can configure HPE OBR to collect data from the following OMi data repositories:

- **Events database:** The events database stores data obtained from OMi (9.x versions) data source.
- **Operations database:** The operations database stores data obtained from OMi10 (and later versions) data source.

Before you create a new HP OMi data source connection, make sure that a data source connection for the Management database exists on the Management DB / Profile DB page. This data connection is required to retrieve Assigned User/Group information for HP OMi, which is stored in the Management database.

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

To configure the HP OMi data source connections, follow these steps:

1. In the **Administration Console**, click **Data Source Configuration > BSM/OMi > OMi**.
2. Click **Create New** to create a new HP OMi data source connection. The **Connection Parameters** dialog box appears.
3. Specify or type the following values in the **Connection Parameters** dialog box:

| Field | Description |
|------------------------|---|
| Data Source | Event or Operations Note: Select Event for OMi 9.x version and Operations for OMi 10.x and later versions. |
| Host name | Address (IP or FQDN) of the HP OMi database server. |
| Port | Port number to query the HP OMi database server. |
| Database instance | System Identifier (SID) of the HP OMi database instance. If MSSQL Server is configured to use default (unnamed) database instance, leave this field empty. For information about the database hostname, port number and SID, contact your HP OMi database administrator. |
| Database type | The type of database engine that is used to create the HP OMi database. If you have selected the Data Source as Event then the database type can either be Oracle or MSSQL . If you have selected the Data Source as Operations then the database type can be Oracle , MSSQL , or PostgreSQL . |
| Windows Authentication | If you selected MSSQL as the database type, you have the option to enable Windows Authentication for MSSQL; that is, the user can use the same credentials to access SQL Server as that of the Windows system |

| Field | Description |
|--------------------|---|
| | hosting the database. |
| Database name | Name of the database. This field appears only if MSSQL is selected as the database type. |
| User name | Name of the HP OMi database user. If the Windows Authentication option is selected, this field is disabled and appears empty. |
| Password | Password of the HP OMi database user. If the Windows Authentication option is selected, this field is disabled and appears empty. |
| Collection Station | To specify whether it is a Local / Remote Collector |

4. Click **OK**.

Note: You can create only one HP OMi data source connection. After the connection is created, the **Create New** button is disabled by default. Make sure that you type in the correct values.

5. Click **Test Connection** to test the connection.
6. Click **Save** to save the changes. A `Saved Successfully` message appears in the Information message panel.
7. To change the HP OMi data collection schedule for one or more hosts, in the **Schedule Frequency** column, specify a collection time between 1 and 24 hours in the **Hrs** box.
8. Click **Save** to save the changes. A `Saved Successfully` message appears in the Information message panel.

Report Navigation

The OMi reports are categorized into high-level Executive Summary and detailed reports. You can navigate from the higher-level reports to the detailed reports through the various cross launch and hyperlink features. For example, you may start with the Top N Domains by Events for an overall picture of the event summary by domains and then navigate to the detailed reports for event statistics for a specific CI.

The OMi reports display the following information:

- Event assignments for users and groups
- Event summary by business applications, categories, and configuration items (CI)
- Top N report for events assigned for users and groups

Note: OBR handles only the first life cycle of the OMi events. The subsequent life cycles or reopened events will not be considered for analysis. The reopened events, created before start of OBR collection, will be considered as new events since the database will not have sufficient data to decipher their status as reopened events.

Note: OBR does not address changes to the events created prior to the initial collection.

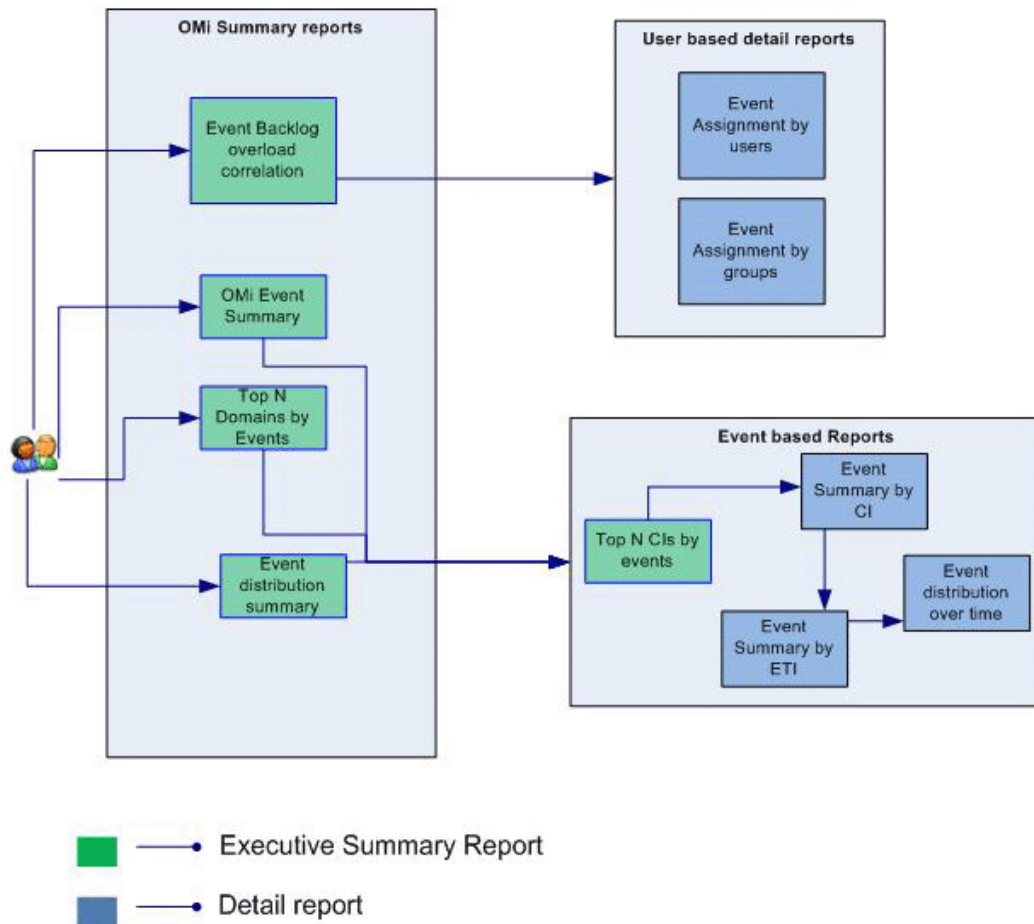
New Cross-Domain Operations Events Report

The following is the new Service and Operations Bridge (OMi) report:

- **OMi Event Forecast Summary** - Helps predict the incoming events from different domains such as Systems, Network, Microsoft SQL, and so on based on past data. This report helps you assess the increasing or decreasing trend of the incoming events per domain and the average event resolution time.

Report Navigation

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



Use Cases

This section provides information on use cases for Cross-Domain Operations Events reports. The following table provides description, user, and report name for the use cases:

| Description | Report Category | Report Name |
|---|-----------------|--|
| To view the balance of workload between staff effectively. Also to understand operator load when assigning events/tasks to subordinates | Event analytics | OMi Event Backlog Overload Correlation |
| To view the distribution events with respect to the domains that are monitored over a period of time | Event analytics | Event distribution by Domain |
| To view the distribution events with respect to the domains that are monitored over a period of time | Event analytics | Top 5 CIs by events |
| To view the distribution of events assignment for a user over a period of time | Event analytics | Event Assignments by Users |
| To view the distribution of event assignment for a usergroup for a period of time | Event analytics | Event Assignments by Users |
| To view the distribution of events over a period of time for a given CI | Event analytics | Event distribution over time |
| To view the distribution of events by severity, status and average time of resolution of various event over a period of time | Event analytics | OMi Event Summary |
| To view the summary of events over a period of time for a given ETI | Event analytics | Event Summary by ETI |
| To view the summary of events over a period of time for a given CI | Event analytics | Event Summary by CI |
| To know the event arrival rate based on the historic trend and see when it is likely to exceed a certain rate | Event analytics | OMi Event Forecast |

Note: Ad-hoc reporting on OMi Events: The CrossOprEvent_Domain_Reports_

Extended component provides BusinessObjects universe containing additional Event attributes that are collected from OMi (Annotations, Event Forwarding Information, Event Correlation rule definitions, Event Custom Message Attributes (CMAs) and Event Property changes over time). The universe can be leveraged for custom report creation involving the extended set of event attributes. A custom universe can also be created based on the OMi extended data model.

For the detailed data model documentation, see *OMi_Extended_MODEL.html* in **{PMDB_HOME}/packages/OMi/OMi_Extended_Reports.ap/doc/** on the HPE OBR server.

Appendix

This section provides information on [Terminology](#) and [Calculating Event Statistics per Domain](#).

Appendix A: Terminology

Average Closure Time for Events in Minutes: The average time taken, in minutes, to close a resolved event. This duration is calculated by taking into consideration the time when the event was created and the time when the event was closed. Log only events are excluded while computing closure time.

Average Responsiveness (Time to Respond in Minutes): The average amount of time, in minutes, to acknowledge an event. It is the time taken for an event, that was opened, to go to the in progress state.

Backlog Overload: The percentage of events the time-to-own of which is greater than twice the average time-to-own events.

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

CauseEventsOpened: The number of events opened which are cause events.

Correlated Events: The number of open events, out of the total events, that are correlated to one or more events.

CriticalCauseEvents: The number of events opened which are cause events and severity is CRITICAL.

CriticalEvents: The number of events opened with severity CRITICAL.

Events Closed: The total number of events closed (excluding log only events).

EventsOpened (Incoming Events): The total Number of Events Opened.

HighPriorityEvents: The number of events opened with priority HIGH/HIGHEST.

MajorCauseEvents: The number of events opened which are cause events and severity is MAJOR.

MajorEvents: The number of events opened with severity MAJOR.

MinorCauseEvents: The number of events opened which are cause events and severity is MINOR.

MinorEvents: The number of events opened with severity MINOR.

MTTR (Average Resolution Time for Events in Minutes): It is the average resolution time, in minutes, for an event. This duration is calculated taking into consideration the time when the event was opened and the time when the event was resolved.

NormalCauseEvents: The number of events opened which are cause events and severity is NORMAL.

NormalEvents: The number of events opened with severity NORMAL.

UnknownCauseEvents: The number of events opened which are cause events and severity is UNKNOWN.

UnknownEvents: The number of events opened with severity UNKNOWN.

WarningCauseEvents: The number of events opened which are cause events and severity is WARNING.

WarningEvents: The number of events opened with severity WARNING.

Appendix B: Calculate Event Statistics Per Domain

HPE OBR collects event lifecycle data per CI instance from the BSM OMi event database. The data across all top-level CI instances in an RtSM view are aggregated as event count/duration measures per View in HPE OBR database. HPE OBR maintains a mapping of RtSM views to generic domains whereby event count/duration measures per View are rolled-up to domain level by means of online aggregation in Business Objects.

The following table lists the mapping between Domains and RTSM views consumed in HPE OBR:

| Domain | RtSM View(s) |
|----------------|---|
| Systems | SM_PA SM_PA_BusinessView SM_SiS SM_SiS_BusinessView |
| Virtualization | SM_VMWare_OM SM_VMWare_SiS SM_VMWare_BusinessView SM_HyperV SM_HyperV_BusinessView SM_Sol_Zones SM_Sol_Zones_BusinessView |
| MSSQL | MSSQL_Deployment MSSQL_BusinessView |

| Domain | RtSM View(s) |
|-------------|---|
| Oracle | ORA_Deployment ORA_BusinessView |
| MS Exchange | Exchange_Mail_View Exchange_Org_View Exchange_Site_View Exchange_Business_View |
| AD | AD_Logical_View AD_Physical_View AD_Business_View |
| AppServer | J2EE_Deployment J2EE_Deployment_BusinessView |
| EUM | EUM_BSMR |
| Network | SHR_Network |

Send documentation feedback

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

Feedback on Cross-Domain Operations Events Content Pack Reference (Operations Bridge Reporter 10.10)

Just add your feedback to the email and click send.

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

We appreciate your feedback!