



# HPE Operations Bridge Reporter

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## Cross-Domain Operations Events Content Pack Reference

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# 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 [Marketplace](#).

# 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, Operations Manager (OM) Node Group or 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 OM servers, this synchronization technique receives discovered topology data from multiple OM 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 OM 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 Operations Agent or SiteScope systems that are configured with OMi.
- **Deployment with Operations Manager** - In this deployment, the topology information is a group of managed nodes defined in OM that are logically combined for operational monitoring. These logical node groups are created by OM users to classify the nodes as specific organizations or entities within their enterprise. For example, a group called Exchange Servers can be created in OM to

organize the specific Exchange Servers and Active Directory nodes for reporting or monitoring purposes. HPE OBR uses the node groups from OM for its topology computation.

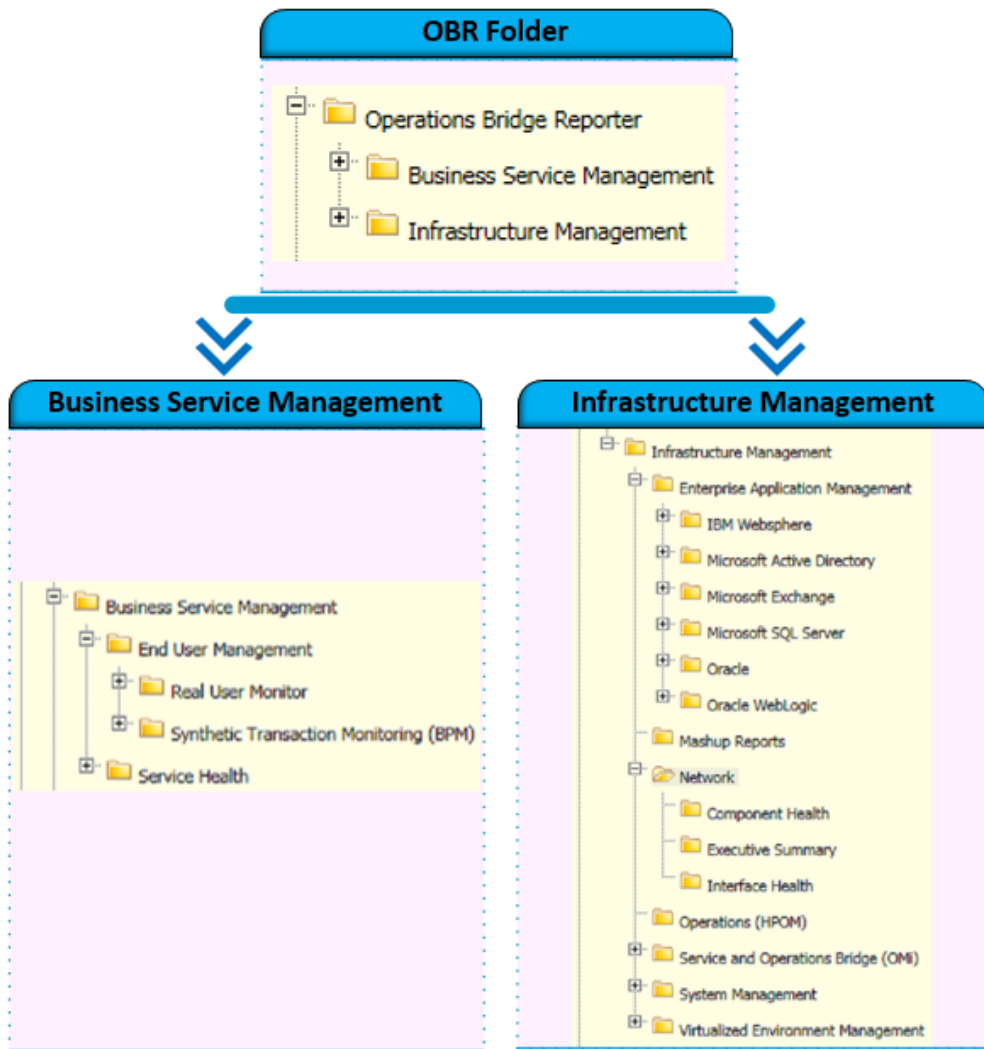
- **Deployment with VMware vCenter** - VMware vCenter is a distributed server-client software solution that provides a central and a flexible platform for managing the virtual infrastructure in business-critical enterprise systems. VMware vCenter centrally monitors performance and events, and provides 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 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( <b>BSM only</b> ) EUM_OMi.zip( <b>OMi 10 only</b> )	%PMDB_ HOME%\packages\EndUserManagement\ETL_BPM.ap\source\cldb_views  %PMDB_ HOME%\packages\EndUserManagement\ETL_BPM_OMi.ap\source\cldb_views  <b>Note:</b> If BSM is the deployment scenario, then deploy only EUM_BSMR.zip view in the BSM server.  If OMi 10 is the deployment scenario, then deploy only EUM_OMi.zip view in the OMi 10 server.
Real User Transaction Monitoring	EUM_BSMR.zip( <b>BSM only</b> ) EUM_OMi.zip( <b>OMi 10 only</b> )	%PMDB_ HOME%\packages\EndUserManagement\ETL_RUM.ap\source\cldb_views  %PMDB_ HOME%\packages\EndUserManagement\ETL_RUM_OMi.ap\source\cldb_views  <b>Note:</b> If BSM is the deployment scenario,

Content Pack	View Name	Location
		<p>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\cldb_views
System Management	SM_BSM9_Views.zip	%PMDB_HOME%\packages\SystemManagement\ETL_SystemManagement_PA.ap\source\cldb_views
Oracle	SHR_DBOracle_Views.zip SHR_DBOracle_OM.zip	%PMDB_HOME%\Packages\DatabaseOracle\ETL_DBOracle_DBSPI.ap\source\cldb_views
Oracle WebLogic Server	J2EEApplication.zip J2EEApplication_OM.zip	<p><b>For OM/SPI:</b> %PMDB_HOME%\packages\ApplicationServer\ETL_AppSrvrWLS_WLSSPI.ap\source\cldb_views</p> <p><b>For OMi/MP:</b> %PMDB_HOME%\packages\ApplicationServer\ETL_AppSrvrWLS_WLSMP.ap\source\cldb_views</p>
IBM WebSphere Application Server	J2EEApplication.zip J2EEApplication_OM.zip	<p><b>For OM/SPI:</b> %PMDB_HOME%\packages\ApplicationServer\ETL_AppSrvrWBS_WBSSPI.ap\source\cldb_views</p> <p><b>For OMi/MP:</b> %PMDB_HOME%\packages\ApplicationServer\ETL_AppSrvrWBS_WBSMP.ap\source\cldb_views</p>
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	<p>%PMDB_HOME%\packages\ExchangeServer\ETL_Exchange_Server2007.ap\source\cldb_views</p> <p>%PMDB_HOME%\packages\ExchangeServer\ETL_Exchange_Server2010.ap\source\cldb_views</p> <p>%PMDB_HOME%\packages\ExchangeServer\ETL_Exchange_Server2013.ap\source\cldb_views</p>
Microsoft Active Directory	SHR_AD_Business_View.zip	%PMDB_HOME%\packages\ActiveDirectory\ETL_AD_ADSPi.ap\source\cldb_views

Content Pack	View Name	Location
	SHR_ ActiveDirectory_ OM.zip	
Virtual Environment Performance	SM_BSM9_Views.zip	%PMDB_ HOME%\packages\SystemManagement\ETL_ SystemManagement_PA.ap\source\cldb_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( <b>BSM only</b> ) EUM_OMi.zip( <b>OMi 10 only</b> )	<b>Business view</b> - \$PMDB_ HOME/packages/EndUserManagement/ETL_ BPM.ap/source/cldb_views  <b>OM view</b> - \$PMDB_ HOME/packages/EndUserManagement/ETL_BPM_ OMi.ap/source/cldb_views  <b>Note:</b> If BSM is the deployment scenario, then deploy only EUM_BSMR.zip view in the BSM server.  If OMi 10 is the deployment scenario, then deploy only EUM_OMi.zip view in the OMi 10 server.
Real User Transaction Monitoring	EUM_BSMR.zip( <b>BSM only</b> ) EUM_OMi.zip( <b>OMi 10 only</b> )	<b>Business view</b> - \$PMDB_ HOME/packages/EndUserManagement/ETL_RUM_ OMi.ap/source/cldb_views  <b>OM view</b> - \$PMDB_ HOME/packages/EndUserManagement/ETL_RUM_ OMi.ap/source/cldb_views  <b>Note:</b> If BSM is the deployment scenario, then deploy only EUM_BSMR.zip view in the BSM server.

Content Pack	View Name	Location
		If OMi 10 is the deployment scenario, then deploy only EUM_OMi.zip view in the OMi 10 server.
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	<b>For OM/SPI:</b> \$PMDB_HOME/packages/ApplicationServer/ETL_AppSrvrWLS_WLSSPI.ap/source/cmdb_views <b>For OMi/MP:</b> \$PMDB_HOME/packages/ApplicationServer/ETL_AppSrvrWLS_WLSMP.ap/source/cmdb_views
IBM WebSphere Application Server	J2EEApplication.zip J2EEApplication_OM.zip	<b>For OM/SPI:</b> \$PMDB_HOME/packages/ApplicationServer/ETL_AppSrvrWBS_WBSSPI.ap/source/cmdb_views <b>For OMi/MP:</b> \$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_	\$PMDB_HOME/packages/ActiveDirectory/ETL_AD_ADSPI.ap/source/cmdb_views

Content Pack	View Name	Location
	OM.zip	
Virtual Environment Performance	SM_BSM9_Views.zip	\$PMDB_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	

## BSM Server

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

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

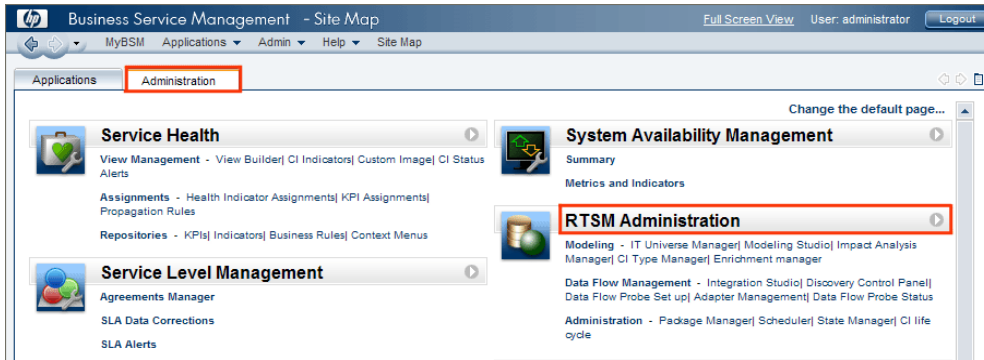
`http://<BSM system FQDN>/bsm`

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

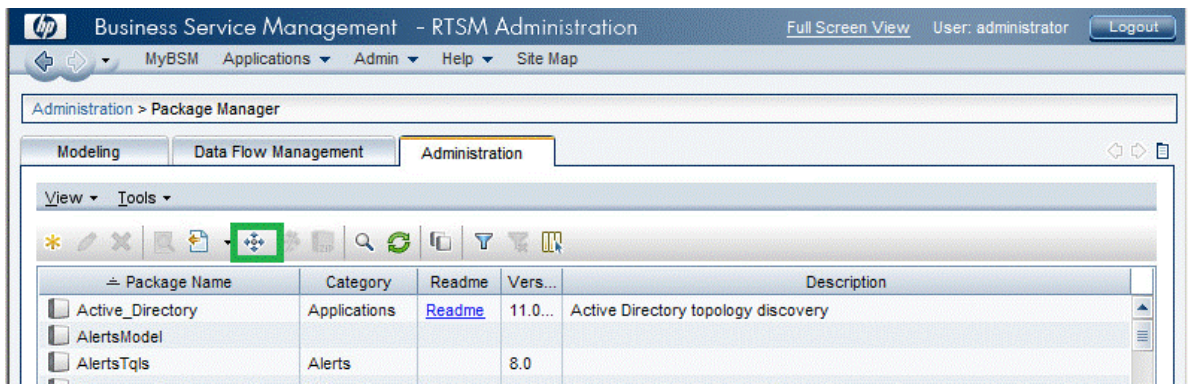
**Note:** You can launch the BSM server from a system where HPE OBR is installed or any other local system. If you are launching from local system, ensure that you browse to the location mentioned in [List of Content Pack and Topology Views to Deploy](#) and copy the required views to your local system.

The Business Service Management Login page appears.

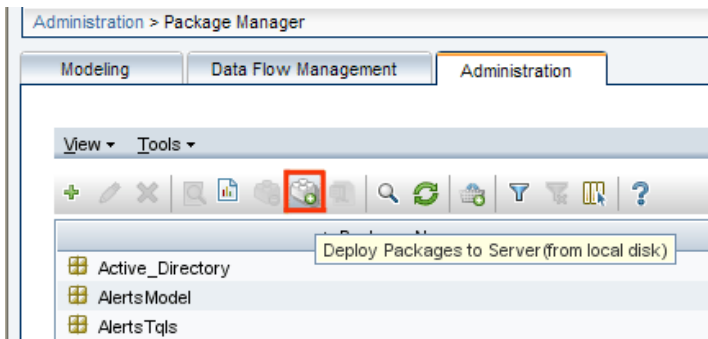
2. Type the login name and password and click **Log In**. The Business Service Management - Site Map appears.
3. Click **Administration > RTSM Administration**. The RTSM Administration page appears.



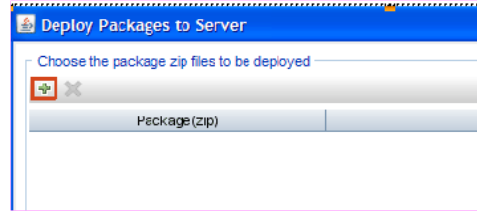
4. Click **Administration > Package Manager**. The Package Manager page appears.



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



6. Click the **Add** icon.



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

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

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

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

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

## OMi 10 Server

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

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

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

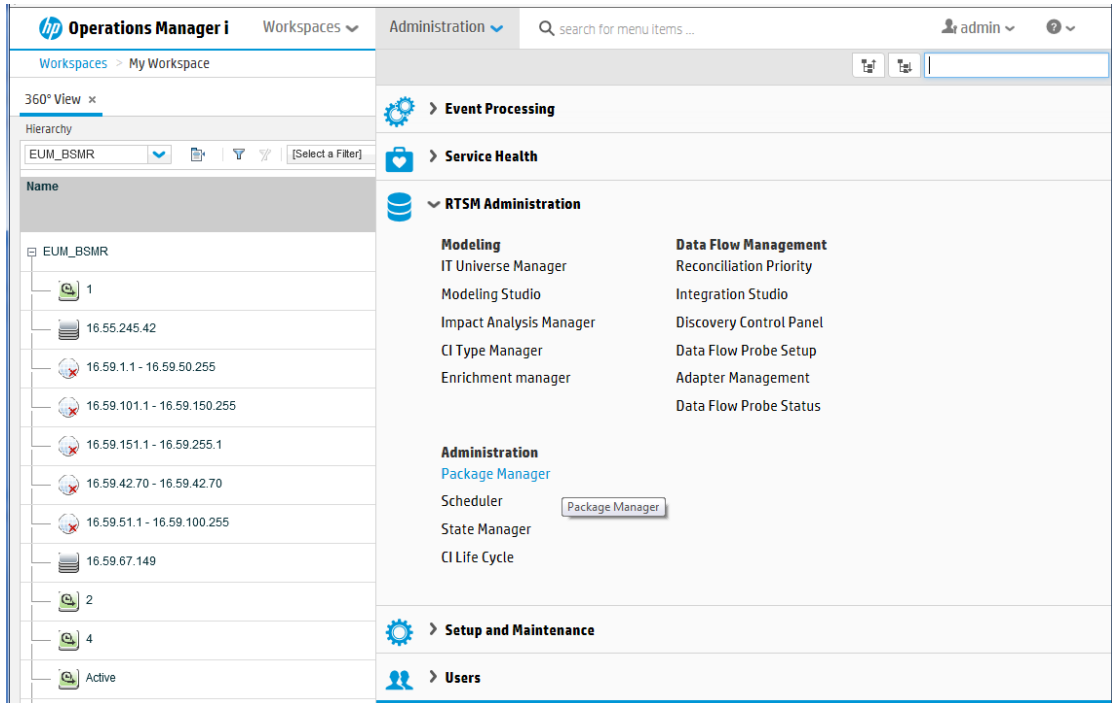
where, <OMi system FQDN> is the FQDN of the OMi server.

**Note:** You can launch the 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.

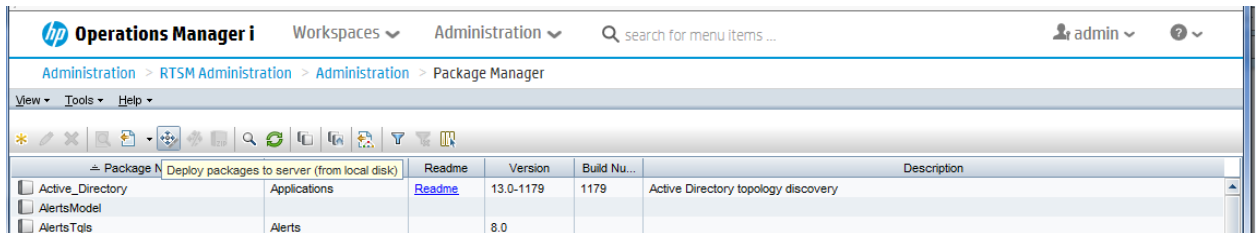
2. Type the login name and password and click **Log In**. The Operations Manager i Workspace page appears.
3. Click **Administration > RTSM Administration > Package Manager**.



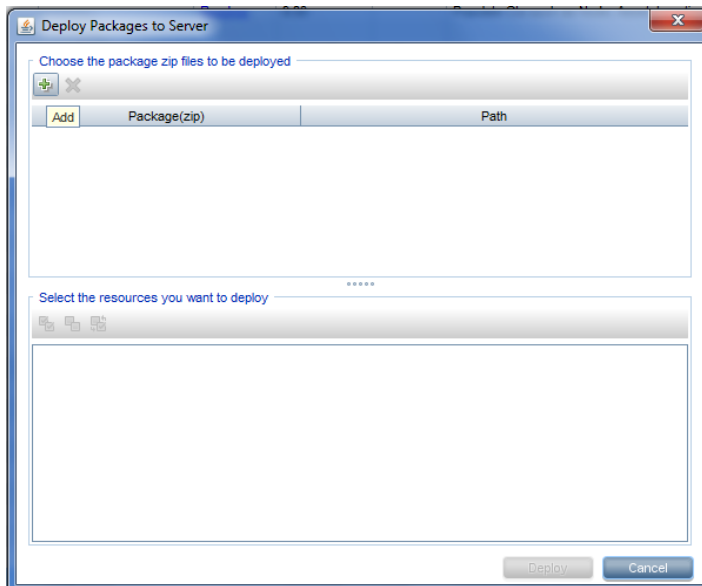


The Package Manager page appears.

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.

**Status Summary**

BSM/OMI Version	Host Name	Connection Status	View Status	Mandatory CI Type Status	Mandatory CI Attributes Status	Number of Duplicate Nodes
Unknown	IWFV/M02277.hpswfabo.adapps.hp.com	✔	✘	✘	✘	0

**Select Views:**

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

**View Summary**

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
J2EE_Deployment	Yes	1	0
SM_HyperV_BusinessView	Yes	1	3
SM_SIS_Server	Yes	1	3
SM_Sol_Zones	Yes	1	1
ORA_Deployment	Yes	1	0
MSSQL_BusinessView	Yes	0	0
ORA_BusinessView	Yes	1	0
SM_Sol_Zones_BusinessView	Yes	0	12
SHR_Network	Yes	0	0
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.

**Node Status Summary**

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

**Select any**

Node Name:  Domains: -- Select All --

**Node Status**

Node Name	ICMP ping	BBC ping	CODA ping	Agent Version	Last Log Time	Number of Missing Policies	Domain	DSI/CODA
<a href="#">IWFMY017.HPSWLABS.HP.COM</a>	<span style="color: green;">✔</span>	<span style="color: red;">✘</span>	<span style="color: green;">✔</span>	11.11.025	09/28/15 13:38:00	1		<span style="color: red;">✘</span>

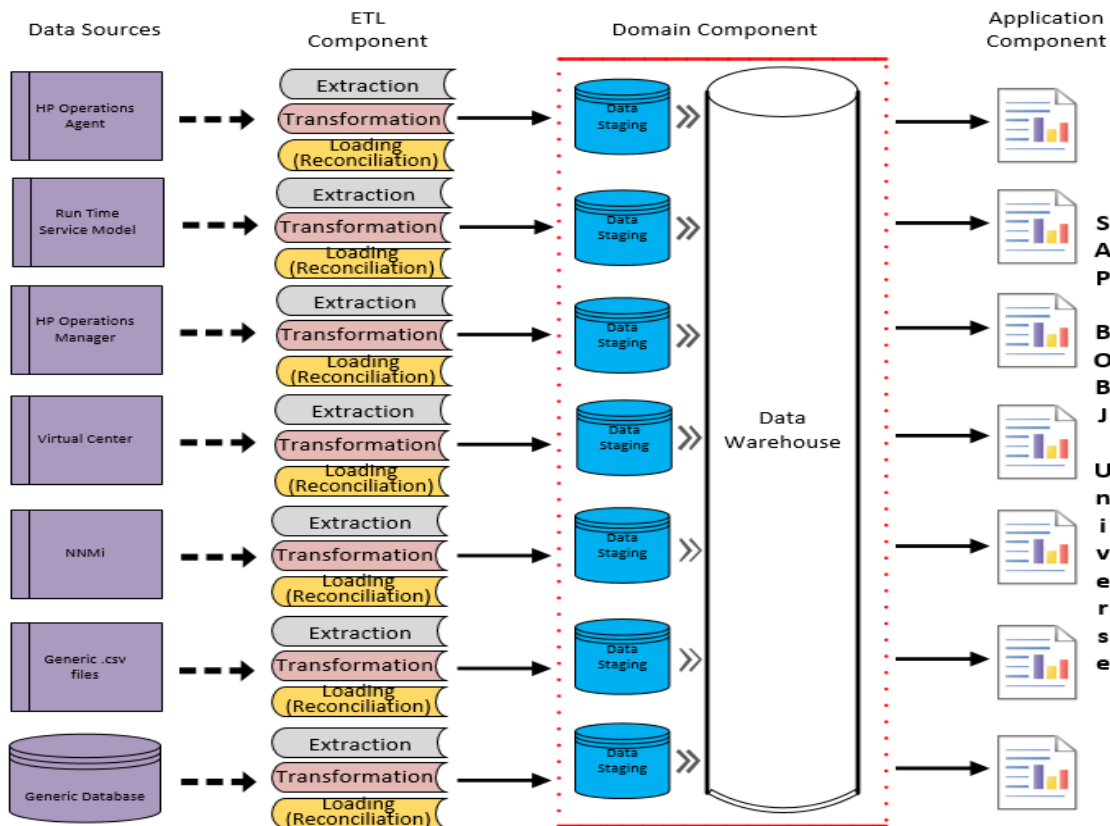
The file displays the following information:

- 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 Operations Agent, you must install the `SysPerf_ETL_PerformanceAgent` component. If you want to collect system performance data from 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

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 **Content Pack Deployment**.

The Content Pack Deployment page is displayed.

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

- CrossOprEvent\_ETL\_OMi
- CrossOprEvent\_ETL\_OMi10x
- CrossOprEvent\_Domain\_Reports
- CrossOprEvent\_ETL\_OMi10x\_Extended
- CrossOprEvent\_ETL\_OMi\_Extended
- CrossOprEvent\_Domain\_Reports\_Extended

**Note:** You must upgrade the *CrossOprEvent\_Domain\_Reports\_Extended* core domain component to the latest version and then install the *CrossOprEvent\_ETL\_OMi10x\_Extended* component. Also, make sure to uninstall the *CrossOprEvent\_ETL\_OMi10\_Extended* component.

After upgrading to the OMi 10.x content pack, the *K\_Event\_PropertyChanges* and *R\_Event\_propertyChanges* tables are retained to store the History of Event Property changes. The Event property change history will be captured within the *K\_Event\_HistoryLine* and *R\_Event\_HistoryLine* tables in compressed xml format. Based on these tables any custom extensions can be designed.

**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.

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

An `Installation Started` status appears in the **Status** column for Content Pack that is currently being installed. The Content Pack Deployment 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 icon  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, Content Pack Deployment page 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

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 **Content Pack Deployment**. The **Content Pack Deployment** page appears.

The **Content Pack Deployment** 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 10.

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

## Configuring the OMi Data Source

If you install the OMi Content Pack, you must configure the 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 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 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 BSM RTSM that was configured as the topology source.

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

1. In the **Administration Console**, click **Data Source Configuration > BSM/APM/OMi > OMi**.
2. Click **Create New** to create a new 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  <b>Note:</b> Select <b>Event</b> for OMi 9.x version and <b>Operations</b> for OMi 10.x and later versions.
Host name	Address (IP or FQDN) of the OMi database server.
Port	Port number to query the OMi database server.
Database instance	System Identifier (SID) of the 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 OMi database administrator.
Database type	The type of database engine that is used to create the OMi database. If you have selected the <b>Data Source</b> as <b>Event</b> then the database type can either be <b>Oracle</b> or <b>MSSQL</b> . If you have selected the <b>Data Source</b> as <b>Operations</b> then the database type can be <b>Oracle</b> , <b>MSSQL</b> , or <b>PostgreSQL</b> .
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 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 OMi database user. If the Windows Authentication option is selected, this field is disabled and appears empty.
Password	Password of the 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

- Click **OK**.

**Note:** You can create only one 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.

- Click **Test Connection** to test the connection.
- Click **Save** to save the changes. A *Saved Successfully* message appears in the Information message panel.

7. To change the 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.

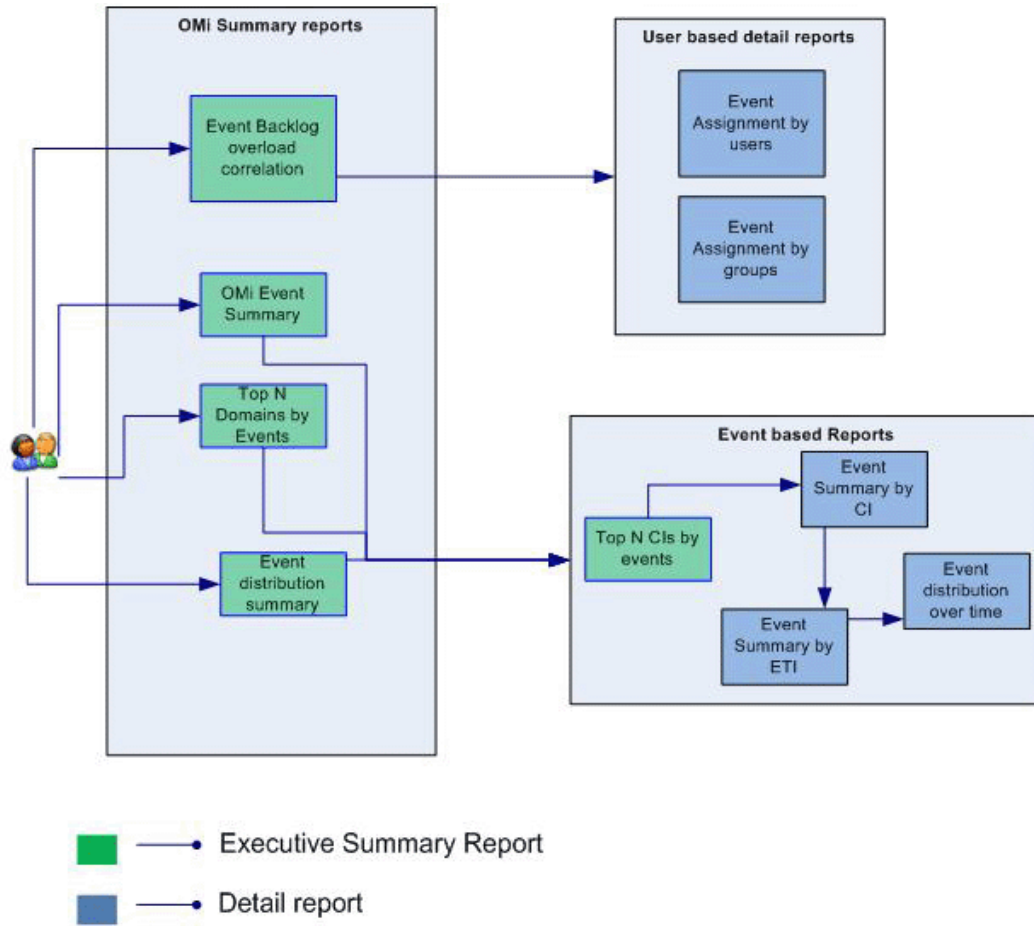
## New Cross-Domain Operations Events Report

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

Description	Report Category	Report Name
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

Domain	RtSM View(s)
	SM_VMWare_BusinessView SM_HyperV SM_HyperV_BusinessView SM_Sol_Zones SM_Sol_Zones_BusinessView
MSSQL	MSSQL_Deployment MSSQL_BusinessView
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

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**Feedback on Cross-Domain Operations Events Content Pack Reference (Operations Bridge Reporter 10.21)**

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](mailto:docfeedback@hpe.com).

We appreciate your feedback!