



# OMi Management Pack for Microsoft SharePoint Server

Software Version: 1.00

Operations Manager i for Linux and Windows® operating systems

## Installation Guide

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# Chapter 1: Introduction

The OMi Management Pack for Microsoft SharePoint Server (OMi MP for Microsoft SharePoint Server) works with Operations Manager i (OMi) and enables you to monitor components of your Microsoft SharePoint Server environment. The OMi MP for Microsoft SharePoint Server includes the following components for monitoring performance and availability of SharePoint Servers in your environment:

- Microsoft SharePoint Aspects
- Parameters
- Run-time Service Model (RTSM) Views
- Event Type Indicators (ETIs)
- Health Indicators (HIs)
- Configuration Item (CI) and Configuration Item Types (CITs)
- Tools

For more information about the components, see the *OMi Management Pack for Microsoft SharePoint Server Online Help* or *User Guide*.

## Abbreviations Used in this Manual

Abbreviations	Expansion
OMi	Operations Manager i
RTSM	Run-time Service Model
OMi MP	OMi Management Pack
OMi MP for Microsoft SharePoint Server	OMi Management Pack for Microsoft SharePoint Server

## Related Documentation

For more information about OMi MP for Microsoft SharePoint Server, see the following documents:

- OMi MP for Microsoft SharePoint Server - *Release Notes*
- OMi MP for Microsoft SharePoint Server - *User Guide*

## Licensing

The OMi MP licenses are available in a pack of 25 license units. Each license can be used per OS instance, irrespective of the application type. For example, the license pack can contain 5 licenses of OMi MP for Microsoft Skype for Business Server, 10 licenses of OMi MP for Oracle Database with any other combination of supported applications.

There are three types of licenses:

- Evaluation: A license with a fixed trial period of up to 60 days. This type of license is available only until a Time Based or Permanent license is purchased. Once purchased, the trial period immediately terminates.
- Term: A license that has a time-based expiration date.
- Perpetual: A license that does not expire.

To procure the license for the Entitlement Order Number (EON), go to <http://enterpriselicense.hpe.com> and log on using your HPE Passport credentials to redeem the license.

For information about applying the license, see "[Applying the License](#)".

# Chapter 2: Installing OMi MP for Microsoft SharePoint Server

This section provides information about installing OMi MP for Microsoft SharePoint Server on BSM 9.2x or OMi 10.x (Linux or Windows) servers.

## Installation Package

The following section provides information about the installation media for OMi MP for Microsoft SharePoint Server . The OMi MP for Microsoft SharePoint Server English locale is available through the electronic media (e-media) at the following location .

<https://marketplace.saas.hpe.com/itom/content/omi-management-pack-microsoft-sharepoint-server>

The e-media contains the software and the product documentation. In a distributed environment, it must be installed on all OMi 10.x - Data Processing Servers (DPS) and Gateway Servers (GWS).

The following table provides information about the documentation available in the package:

Document	Location	Purpose
Online Help	On BSM 9.2x console <b>Help</b> menu.  From the BSM console, go to <b>Help &gt; BSM Help &gt; Application Administration &gt; Operations Management &gt; OMi Management Pack for Microsoft SharePoint Server</b>  On OMi 10.x console <b>?</b> menu.  From the OMi console, go to <b>? &gt; General Help &gt; Administration Guide &gt; Management Packs &gt; OMi Management Pack for Microsoft SharePoint Server</b> .	To provide information about the following: <ul style="list-style-type: none"><li>• Using Microsoft SharePoint Aspects and Policy Templates</li><li>• Using Indicators - HIs and ETIs</li></ul>
User Guide	<b>DOCUMENTATION\en\guides</b>	
Installation Guide	<b>DOCUMENTATION\en\guides</b>	
Release Notes	<b>DOCUMENTATION\en\releasenotes</b>	To provide information about the following: <ul style="list-style-type: none"><li>• Salient Features</li></ul>

Document	Location	Purpose
		<ul style="list-style-type: none"> <li>Installation Notes</li> </ul>

## Installation Prerequisites

The following section lists the hardware and software prerequisites for installing OMi MP for Microsoft SharePoint Server on BSM (Linux and Windows) and OMi (Linux and Windows).

## Software Requirements

Before installing OMi MP for Microsoft SharePoint Server, the following components must be installed and configured on the BSM or OMi Servers.

### Server

Component	Version
BSM	9.23 or higher*
Operations Manager i	9.23 or higher*
Monitoring Automation	9.23 or higher*

**Note:** For large scale environments, it is recommended to use BSM 9.24 or higher.

### Managed Node

Component	Version
Operations Agent	11.12 or higher*

**Note:** \* For more information about compatible software applications, see the Support Matrix at <https://softwaresupport.hpe.com/km/KM323488>.

## Installation Checklist

Ensure that the installation tasks described in the following table are completed in the specified order:

If you have already installed OMi 10.x, skip to [Task 6](#).

## Server

Serial	Task	Reference
1	Check the installation prerequisites for BSM	See the <i>General Prerequisites</i> section in the <i>Business Service Management Installation Guide</i> .
2	Install BSM version 9.23 or higher	See the <i>Install BSM 9.20</i> and <i>Install the latest BSM 9.2x Minor Minor Release and Patch</i> chapters in the <i>Business Service Management Installation Guide</i> .
3	Install Monitoring Automation version 9.23 or higher	See the <i>Installing Monitoring Automation</i> section in the <i>Operations Manager i Monitoring Automation Installation Guide</i> .
4	Verify the Monitoring Automation installation	See the <i>Verifying the Monitoring Automation Installation</i> and <i>Using Monitoring Automation</i> chapters in the <i>Monitoring Automation for Operations Manager i Installation Guide</i> .
5	Install Additional Software Update for Monitoring Automation 9.23  <b>Note:</b> If you are installing OMi MP for Microsoft SharePoint Server on BSM 9.23, you must install additional software update for Monitoring Automation 9.23.	See the " <a href="#">Installing Additional Software Update for Monitoring Automation 9.23</a> " section.
6	Install OMi MP for Microsoft SharePoint Server 1.00	See the " <a href="#">Installing OMi MP for Microsoft SharePoint Server BSM 9.2x or on OMi 10.x Server</a> " section.
7	Apply the License	See the " <a href="#">Applying the License</a> " section.

## Managed Node

Task	Reference
Install Operations Agent 11.12 or higher	See the <i>Installing the Operations Agent 11.12</i> chapter in the <i>Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide</i> .



## Installing Additional Software Update for Monitoring Automation 9.23

**Note:** You must install additional software update for Monitoring Automation 9.23 only for BSM 9.23.

Before installing OMi MP for Microsoft SharePoint Server , you must install an additional software update for Monitoring Automation 9.23. If you are using Monitoring Automation 9.24 or a later version, you do not need to install this additional software update. The additional software update for Monitoring Automation 9.23 (HPOprMA\_update.zip) is available in the e-media or MPDVD , under the folder HPOprMA\_update.

For more information about installing the update software, see ["Installing Monitoring Automation 9.23 Software Update"](#).

## Installing OMi MP for Microsoft SharePoint Server BSM 9.2x or on OMi 10.x Server

You can use the e-media to install the OMi MP for Microsoft SharePoint Server on the BSM 9.2x or OMi 10.x (Linux or Windows) server. The following section provides the installation instructions:

### On Linux

**Note:** In a BSM 9.2x or OMi 10.x distributed environment, OMi MP for Microsoft SharePoint Server must be installed on all BSM 9.2x or OMi 10.x servers, including DPS and GWS.

Follow these steps:

1. Log on as root user.

**Note:** If OMi is configured as a non-root user, then log on as an OMi non-root.

2. Set the umask by typing the command `umask 022`.

3. Copy and extract the `OMi_MP_for_MSPS_<version>.zip` file to a *<Temp folder>* on BSM 9.2x or OMi 10.x servers.
4. Run the following command:  

```
<TEMP Folder>/mpinstall.sh -i
```
5. To accept the End User License Agreement (EULA), type **Yes** or **Y** and to decline the license agreement, type **No** or **N**.

After the installation is complete, a message appears stating: OMi Management Pack Installation Finished.

## On Windows

**Note:** In a BSM 9.2x or OMi 10.x distributed environment, OMi MP for Microsoft SharePoint Server must be installed on all BSM 9.2x or OMi 10.x servers, including DPS and GWS.

Follow these steps:

1. Copy and extract the `OMi_MP_for_MSPS_<version>.zip` file to a *<Temp folder>* on the BSM 9.2x or OMi 10.x servers.
2. Open the command prompt, change the directory to the *<Temp folder>*, and run the following command:  

```
cscript /nologo mpinstall.vbs -i
```
3. To accept the End User License Agreement (EULA), type **Yes** or **Y** and to decline the license agreement, type **No** or **N**.

After the installation is completed, a message appears stating: OMi Management Pack Installation Finished.

## Applying the License

This section provides information about updating and activating the license.

**Note:** For more information about procuring the license, see the "[Licensing](#)" section.


To update your deployment with a new license and to activate the license, follow these steps:

1. Navigate to the License Management pane:

On BSM 9.2x, click **Admin > Platform > Setup and Maintenance > License Management**.

On OMi 10.x, click **Administration > Setup and Maintenance > License Management**.

The License Management provides details about the name, license type, days left to expiry of license, expiration date, capacity, and capacity details.

2. Click  to open the Add License dialog box where you can search for the relevant .dat file.

**Note:** You can download .dat file from <http://enterpriselicense.hpe.com>.

## Verifying the OMi MP for Microsoft SharePoint Server Installation

This section provides information about verifying the installation of OMi MP for Microsoft SharePoint Server on BSM 9.2x or OMi 10.x (Linux and Windows) servers.

You can perform any one of the following checks to verify the OMi MP for Microsoft SharePoint Server installation:

- Check the log files for any errors on GWS (BSM 9.2x or OMi 10.x), DPS (BSM 9.2x or OMi 10.x), and typical servers (BSM 9.2x or OMi 10.x) at the following locations:

**For Linux:**

`/opt/HP/BSM/log/mpinstall.log`

**For Windows:**

`%TOPAZ_HOME%\log\mpinstall.log`

**Note:** The OMi logs are available on both (BSM 9.2x or OMi 10.x) GWS and (BSM 9.2x or OMi 10.x) DPS at the following location:

On BSM < or = 9.25

**Linux:** `/opt/HP/BSM/log/EJBContainer/opr-configserver.log`

**Windows:** `%TOPAZ_HOME%\log\EJBContainer\opr-configserver.log`

On BSM > or =9.26 and OMi 10.x

**Linux:** /opt/HP/BSM/log/jboss/opr-webapp.log

**Windows:** %TOPAZ\_HOME%\log\jboss\opr-webapp.log

- Check the following location BSM 9.2x or on the OMi 10.x console:
  - On BSM 9.2x, click **Admin > Operations Management > Setup > Content Packs**.  
The **OMi Management Pack for Microsoft Sharepoint Server** must appear in the Content Pack Definitions pane.
  - On OMi 10.x, click **Administration > Setup and Maintenance > Content Packs**.  
The **OMi Management Pack for Microsoft Sharepoint Server** must appear in the Content Pack Definitions pane.
- To list the OMi MPs installed on the BSM 9.2x or OMi 10.x server, run the following command on BSM 9.2x or OMi 10.x GWS:

**For Linux:**

```
/opt/HP/BSM/bin/ContentManager.sh -l -username <username> -password <pwd>
```

**For Windows:**

```
%TOPAZ_HOME%\bin\ContentManager.bat -l -username <username> -password <pwd>
```

**Note:** The ContentManager.bat or ContentManager.sh command lists the Content Pack name and version.

## Chapter 3: Getting Started


The following section provides information about the tasks required to monitor SharePoint Servers using OMi MP for Microsoft SharePoint Server.

### Task 1: Adding Nodes to BSM 9.2x or OMi 10.x Console

**Note:** If the Microsoft SharePoint Server that you want to monitor is already being monitored by Smart Plug-in (SPI) for Microsoft Enterprise Servers, then remove the SPI artifacts and data sources from the managed node hosting the Microsoft SharePoint Servers before proceeding.

**Note:** If the Node already exists in Run-time Service Model (RTSM), you can skip this step and proceed to Task 2.

Before you begin monitoring, you need to add the nodes by following these steps:


1. Open the Monitored Nodes pane from Administration:  
On BSM 9.2x, click **Admin > Operations Management > Setup > Monitored Nodes**.  
On OMi 10.x, click **Administration > Setup and Maintenance > Monitored Nodes**.
2. In the **Node Views** pane, click **Predefined Node Filters > Monitored Nodes**, and then click , and then click **Computer > <select the OS type>**. The Create New Monitored Nodes dialog box opens.
3. Specify the Primary DNS Name and verify the IP Address.
4. Specify the Operating System and Processor Architecture of the node from the drop-down list, and then click **OK**.

The newly created node is saved as a CI instance in RTSM.

**Note:** The node with HPE Operations agent needs to be activated on HPE OMi Server and certificate must be granted.

## Task 2: Enabling the Enrichment Rule

To enable the Enrichment Rule, follow these steps:

1. Open the Enrichment Manager:  
On BSM 9.2x, click **Admin > RTSM Administration > Modeling > Enrichment manager**.  
On OMi 10.x, click **Administration > RTSM Administration > Modeling > Enrichment manager**.
2. In the Enrichment Rules pane, select **SoftwareElementDisplayLabelForNewHost** from the list.
3. Right-click and select **Properties**. The Enrichment Rule Properties window appears.
4. Click **Next**.
5. Select **Rule is Active**.
6. Click **Finish**.
7. Select the **SoftwareElementDisplayLabelForExistingHost** rule, and repeat the steps 3 to 6.
8. Select the **SoftwareElementDisplayLabelPopular** rule, repeat the steps 3 to 6.
9. In the Enrichment Rules pane, click  to save the changes.

## User Privileges

To monitor Microsoft SharePoint Servers, provide user credentials with the following privileges:

- SharePoint Administrator
- Local Administrator

For an Exchange Edge Server, provide user credential with the following privilege:

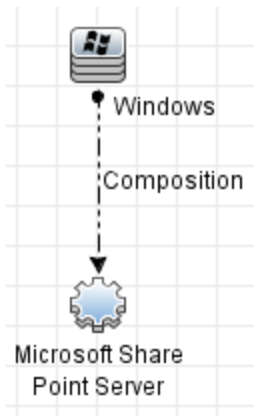
- Local Administrator of SharePoint Server

## Task 3: Deploying the Sharepoint Discovery and Config Aspect

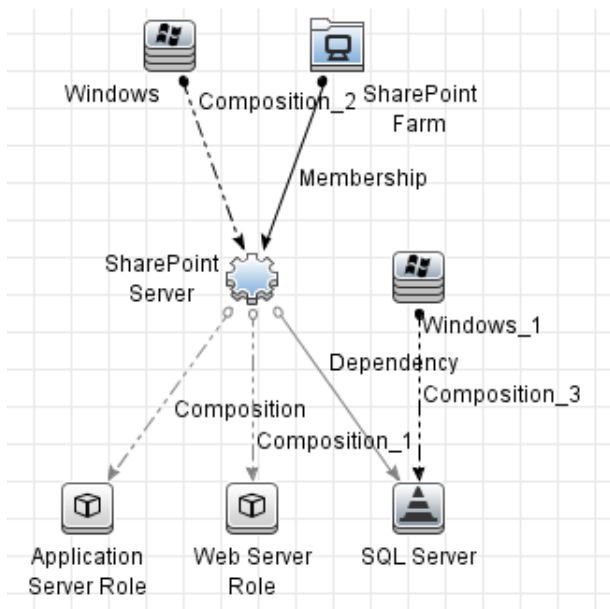
To discover all the Microsoft SharePoint Server CIs on the added managed nodes, you must deploy both the SharePoint Discovery Aspect and SharePoint Extended Discovery Aspect respectively to a Computer CI.

The Aspects that must be deployed and the corresponding CIs that are discovered are as follows:

1. Deploy the SharePoint Discovery Aspect where the following CIs of the following CI types (CITs) are discovered:
  - Microsoft SharePoint Server
  - Computer



2. After deploying the SharePoint Extended Discovery Aspect, the remaining CIs of the following (CITs) are discovered:
  - SharePoint Farm
  - Application Server Role
  - Web Server Role
  - SQL Server



To deploy the SharePoint Discovery and SharePoint Extended Discovery Aspects, follow these steps:

1. Open the Management Templates & Aspects pane:
  - On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
  - On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. In the Configuration Folders pane:
  - Click **Configuration Folders > Microsoft Application Management > Microsoft SharePoint Server > Aspects**.
3. Follow one of the methods to assign and deploy the Aspect. In the Management Templates & Aspects pane:
  - Select the **SharePoint Discovery** or **SharePoint Extended Discovery** Aspect, and then click .
  - Right-click the **SharePoint Discovery** or **SharePoint Extended Discovery** Aspect, and then click **Assign and Deploy Item**.  
The Assign and Deploy Wizard appears.
4. In the **Configuration Item** tab, select the **Windows** managed node CI and then click **Next**.
5. In the **Required Parameters** tab, follow the steps:





- If you are deploying **SharePoint Discovery** Aspect, click **Next**.

**Note:** The SharePoint Discovery Aspects do not have mandatory parameters. You will get a notification stating the following message: There are no parameters that require editing for this Assignment.

- If you are deploying **SharePoint Extended Discovery** Aspect, follow these steps:

**Note:** To deploy the Sharepoint Discovery and Config Aspect, you must have the **SharePoint Administrator** and **Local Administrator** privileges.

- Select the **USERNAME** parameter in the list, and then click . The USERNAME dialog box opens.
  - Specify the value and then click **OK**.  
For domain users, specify the username in the `<domain>\<username>` format.  
For non-domain users, specify the username in the `<username>` format.
  - Select the **PASSWORD** parameter in the list, and then click . The PASSWORD dialog box opens.
  - Click **Value** and type a value in the **Password** field.
  - In the **Verify Password** field and type the same password and then click **OK**.
  - Click **Next** to go to **Parameter Summary**.
6. (Optional). In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, click **Next**.

**Note:** The SharePoint Discovery and SharePoint Extended Discovery Aspects do not have any parameters. You will get a notification stating the following message: There is no parameter available for this assignment.

7. (Optional). If you do not want to enable the assignment immediately, follow the step:

On BSM 9.2x, clear the **Enable Assigned Objects** check box.

On OMi 10.x, clear the **Enable Assignment(s)** check box.

You can then enable the assignment later using the Assignments & Tuning pane.

8. Click **Finish**.

**Note:** After the SharePoint Discovery and SharePoint Extended Discovery Aspects are deployed, the following message appears: Assignment and deployment jobs created. To check the

status of the deployment job, go to

On BSM 9.2x, **Admin > Operations Management > Monitoring > Deployment Jobs**.

On OMi 10.x, **Administration > Monitoring > Deployment Jobs**.

## Task 4: Verifying Discovery

After you deploy the SharePoint Discovery and SharePoint Extended Discovery Aspects, you must verify if the CIs are populated in the View Explorer.

To view the CIs discovered, follow these steps:

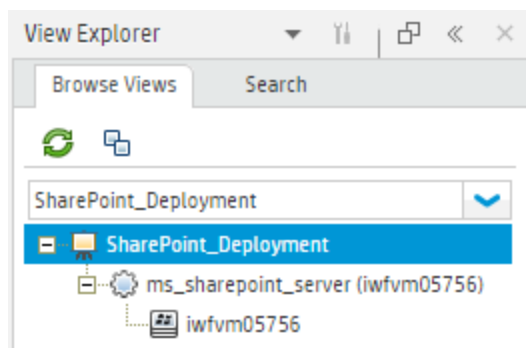
1. Open the Event Perspective pane:

On BSM 9.2x, click **Applications > Operations Manager > Event Perspective**.

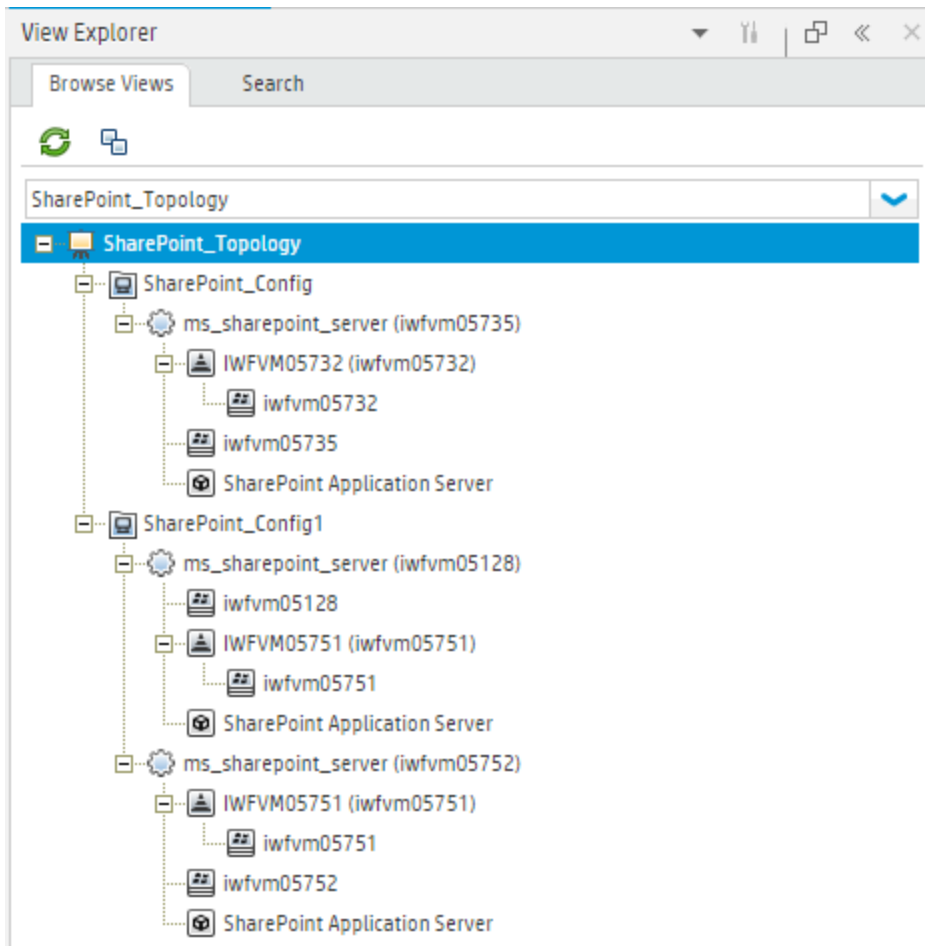
On OMi 10.x, click **Workspaces > Operations Console > Event Perspective**.

2. In the **Browse Views** tab, follow the steps:

For verifying SharePoint Discovery Aspect deployment, select the **SharePoint\_Deployment** View.



For verifying SharePoint Extended Discovery Aspect deployment, select the **SharePoint\_**

**Topology View.**

## Task 5: Deploying the other SharePoint Aspects

OMi MP for Microsoft SharePoint Server contain following SharePoint Aspects apart from the SharePoint Discovery and SharePoint Extended Discovery Aspects:

- SharePoint Collection Schedule
- SharePoint Databases
- SharePoint Event Logs
- SharePoint Logical Services
- SharePoint Performance
- SharePoint Services

## Management Pack Data Collection Process

The frequency (polling interval) at which each policy must be monitored is predefined with a default value in a specific frequency parameter. Frequency parameter is an expert parameter that is defined for each of the metrics regardless of whether they are for generating events or logging data.

Following are the four predefined frequency parameters:

Scheduler Frequency	Default value
Very High	5 mins
High	15 mins
Medium	1 hour
Low	24 hours


After Aspects are deployed, collector is triggered based on the parameter value in a specific policy. You can modify the default value of the parameter at following two levels:

- During deployment of the Aspects using the Management Templates & Aspects pane.
- After deployment using the Assignments & Tuning pane.

For more information about how to modify the parameter values, see the section *Editing Parameters* in the *OMi Management Pack for Microsoft SharePoint Server 1.00 User Guide*.

To deploy the other SharePoint Aspect, follow these steps:

1. Open the Management Templates & Aspects pane:
  - On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
  - On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.
2. In the Configuration Folders pane:
  - Click **Configuration Folders > Microsoft Application Management > Microsoft SharePoint Server > Aspects**.
3. Follow one of the methods to assign and deploy the Aspect. In the Management Templates & Aspects pane:

- Select the required Aspect, and then click .
- Right-click the required Aspect, and then click **Assign and Deploy Item**.

The Assign and Deploy Wizard appears.

4. In the **Configuration Item** tab, select the required managed node CI and then click **Next**.
5. *(Optional)*. In the **Required Parameters** tab, click **Next**.
6. *(Optional)*. In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** on OMi 10.x, click **Next**.
7. *(Optional)*. If you do not want to enable the assignment immediately, follow the step:
  - On BSM 9.2x, clear the **Enable Assigned Objects** check box.
  - On OMi 10.x, clear the **Enable Assignment(s)** check box.
 You can then enable the assignment later using the Assignments & Tuning pane.
8. Click **Finish**.

**Note:** After the Aspect is deployed, the following message appears: *Assignment and deployment jobs created*. To check the status of the deployment job, go to the following location:

On BSM 9.2x, **Admin > Operations Management > Monitoring > Deployment Jobs**.

On OMi 10.x, **Administration > Monitoring > Deployment Jobs**.


## Checking Topology Synchronization Settings

**Note:** It is recommended to check the Topology Synchronization settings if a Node or a CI is monitored by Operations Manager.

If you are using Smart Plug-in for Microsoft Enterprise Servers with Operations Manager, perform following steps to forward topology data from the HPOM Server to OMi Server.

For more information about the Topology Synchronization, see the *OMi Administration Guide*.

To check the Topology Synchronization settings, follow these steps:

1. Open the Infrastructure Settings pane from the Administration:  
On BSM 9.2x, click **Admin > Platform > Setup and Maintenance > Infrastructure Settings**.  
On OMi 10.x, click **Administration > Setup and Maintenance > Infrastructure Settings**.
2. In the Infrastructure Settings Manager, select **Applications > Operations Management**.
3. To verify the availability of toposync package to be synchronized, go to **Operations Management – HPOM Topology Synchronization Settings** and check if **HP OprSps** is available.
4. If the package is not available, add the toposync package by following these steps:
  - a. In the **Packages for Topology Sync**, click .
  - b. In **Value**, add **HP OprSps** and click **Save**.

# Appendix A: Installing Monitoring Automation

## 9.23 Software Update

This section provides detailed information about installing the software update in a distributed BSM environment.

If you do not have a distributed BSM environment, you can skip to the section "[Installing Additional Software Update in a Typical BSM Environment](#)".

### Installing Additional Software Update in a Distributed BSM Environment

In a distributed BSM environment, the BSM DPS and BSM GWS are available on different systems. The additional software update needs to be installed on both the BSM DPS and BSM GWS.

#### Installing Additional Software Update on BSM DPS

To install the additional software update on BSM DPS running in a distributed BSM environment, follow these steps:

1. Run the following commands to check the version of the current `opr-config-content-server.war` file:

**On Linux:**

```
cd /opt/HP/BSM/opr/webapps
/opt/HP/BSM/opr/support/what.sh ./opr-config-content-server.war
```

**On Windows:**

Go to the drive where BSM is installed:

```
cd /d %TOPAZ_HOME%\opr\webapps
cscript %TOPAZ_HOME%\opr\support\what.vbs opr-config-content-server.war
```

**Note:** If the version number is lower than 09.23.174, then proceed to the next step. If the version number is 09.23.174 or higher, then the current BSM installation already contains the required software update and you do not need to perform the remaining steps in this section.

2. Run the following command to stop the BSM services running on BSM DPS:

**On Linux:**

```
/opt/HP/BSM/scripts/run_hpbsm stop
```

**On Windows:**

```
%TOPAZ_HOME%\bin\SupervisorStop.bat
```

3. Take a backup of the existing `opr-config-content-server.war` file, which exists in the following folder:

**On Linux:**

```
/opt/HPBSM/opr/webapps
```

**On Windows:**

```
%TOPAZ_HOME%\opr\webapps
```

The `opr-config-content-server.war` file must be backed up to a different folder.

4. Extract the `HP0prMA_update.zip` to a temporary folder and copy `opr-config-content-server.war` to the following folder:

**On Linux:**

```
/opt/HPBSM/opr/webapps
```

**On Windows:**

```
%TOPAZ_HOME%\opr\webapps
```

5. Run the following command to deploy the new WAR file from the extracted ZIP file:

**On Linux:**

```
/opt/HP/BSM/opr/bin/oprcfg-configuration.sh -setup omi -noGW
```

**On Windows:**

```
cscript %TOPAZ_HOME%\opr\bin\oprcfg-configuration.vbs -setup omi -noGW
```

6. Run the following command to start the BSM services:



**On Linux:**

```
/opt/HP/BSM/scripts/run_hpbsm start
```

**On Windows:**

```
%TOPAZ_HOME%\bin\SupervisorStart.bat
```

## Installing Additional Software Update on BSM GWS

To install the additional software update on BSM GWS running in a distributed BSM environment, follow these steps:

1. Run the following commands to check the version of the current `opr-config-server.war` file:

**On Linux:**

```
cd /opt/HP/BSM/opr/webapps
/opt/HP/BSM/opr/support/what.sh ./opr-config-server.war
```

**On Windows:**

Go to the drive where BSM is installed:

```
cd /d %TOPAZ_HOME%\opr\webapps
cscript %TOPAZ_HOME%\opr\support\what.vbs opr-config-server.war
```

**Note:** If the version number is lower than 09.23.174, then proceed to the next step. If the version number is 09.23.174 or higher, then the current BSM installation already contains the required software update and you do not need to perform the remaining steps in this section.

2. Run the following command to stop the BSM services running on BSM GWS:

**On Linux:**

```
/opt/HP/BSM/scripts/run_hpbsm stop
```

**On Windows:**

```
%TOPAZ_HOME%\bin\SupervisorStop.bat
```

3. Take a backup of the existing `opr-config-server.war` file which exists in the following folder:

**On Linux:**

```
/opt/HPBSM/opr/webapps
```

**On Windows:**

```
%TOPAZ_HOME%\opr\webapps
```

The `opr-config-server.war` file must be backed up to a different folder.

4. Extract the `HPoprMA_update.zip` to a temporary folder and copy `opr-config-server.war` to the following folder:

**On Linux:**

```
/opt/HPBSM/opr/webapps
```

**On Windows:**

```
%TOPAZ_HOME%\opr\webapps
```

5. Run the following command to deploy the new WAR file from the extracted ZIP file:

**On Linux:**

```
/opt/HP/BSM/opr/bin/oprcfg-configuration.sh -setup omi
```

**On Windows:**

```
cscript %TOPAZ_HOME%\opr\bin\oprcfg-configuration.vbs -setup omi
```

6. Run the following command to start the BSM services:

**On Linux:**

```
/opt/HP/BSM/scripts/run_hpbsm start
```

**On Windows:**

```
%TOPAZ_HOME%\bin\SupervisorStart.bat
```

## Installing Additional Software Update in a Typical BSM Environment

In a typical BSM environment, the BSM DPS and BSM GWS are available in the same system. To install the additional software update in a typical BSM environment, perform the following steps:

1. Run the following commands to check the version of the current `opr-config-server.war`:

**On Linux:**

```
cd /opt/HP/BSM/opr/webapps  
  
/opt/HP/BSM/opr/support/what.sh ./opr-config-server.war
```

**On Windows:**

Go to the drive where BSM is installed:

```
cd /d %TOPAZ_HOME%\opr\webapps  
  
cscript %TOPAZ_HOME%\opr\support\what.vbs opr-config-server.war
```

**Note:** If the version number is lower than 09.23.174, then proceed to the next step. If the version number is 09.23.174 or higher, then the current BSM installation already contains the required software update and you do not need to perform the remaining steps in this section.

2. Run the following command to stop the BSM services running on BSM Server:

**On Linux:**

```
/opt/HP/BSM/scripts/run_hpbsm stop
```

**On Windows:**

```
%TOPAZ_HOME%\bin\SupervisorStop.bat
```

3. Take a backup of the existing `opr-config-server.war` file which exists in the following folder:

**On Linux:**

```
/opt/HPBSM/opr/webapps
```

**On Windows:**

```
%TOPAZ_HOME%\opr\webapps
```

The `opr-config-server.war` file must be backed up to a different folder.

4. Extract the `HP0prMA_update.zip` to a temporary folder and copy `opr-config-server.war` to the following folder:

**On Linux:**

```
/opt/HPBSM/opr/webapps
```

**On Windows:**

```
%TOPAZ_HOME%\opr\webapps
```

5. Run the following command to deploy the new WAR file from the extracted ZIP file:

**On Linux:**

```
/opt/HP/BSM/opr/bin/oprcfg-configuration.sh -setup omi
```

**On Windows:**

```
cscript %TOPAZ_HOME%\opr\bin\oprcfg-configuration.vbs -setup omi
```

6. Run the following command to start the BSM services:

**On Linux:**

```
/opt/HP/BSM/scripts/run_hpbsm start
```

**On Windows:**

```
%TOPAZ_HOME%\bin\SupervisorStart.bat
```

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