



OMi Management Pack for Microsoft IIS

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 IIS (OMi MP for Microsoft IIS) works with Operations Manager i (OMi) and enables you to monitor the Microsoft Internet Information Services (Microsoft IIS).

The OMi MP for Microsoft IIS provides out-of-the-box Aspects for monitoring services such as web services, websites, application pools, FTP and SMTP. The OMi MP for Microsoft IIS includes the following components:

- Microsoft IIS Aspects
- Policy Template Groups
- Parameters
- Run-time Service Model (RTSM) Views
- Event Type Indicators (ETIs)
- Health Indicators (HIs)
- Tools
- Graph Templates

For more information about the components, see the *OMi Management Pack for Microsoft IIS 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 IIS	OMi Management Pack for Microsoft IIS

Related Documentation

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

- OMi MP for Microsoft IIS - *Release Notes*
- OMi MP for Microsoft IIS - *User Guide*

Licensing

No separate license is required for OMi MP for Microsoft IIS. For information about licensing options for Monitoring Automation, see the section *Monitoring Automation License Options* in the *Operations Manager i Monitoring Automation Installation Guide*.

Chapter 2: Installing OMi MP for Microsoft IIS

This section provides information about installing OMi MP for Microsoft IIS on the BSM 9.2x and OMi 10.x Servers (Linux and Windows).



Installation Package

The following section provides information about the installation media for OMi MP for Microsoft IIS . The OMi MP for Microsoft IIS 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-iis>

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	Available in the BSM 9.2x console Help menu. From the BSM console, click Help > BSM Help > Application Administration > Operations Management > OMi Management Pack for Microsoft IIS Available in the OMi 10.x console  menu. From the OMi console, click  > General Help > Administration Guide > Management Packs > OMi Management Pack for Microsoft IIS	To provide information about the following: <ul style="list-style-type: none">• Using Microsoft IIS Aspects and Policy Templates• Using Indicators - HIs and ETIs
Installation Guide	DOCUMENTATION\en\guides	
User Guide	DOCUMENTATION\en\guides	
Release Notes	DOCUMENTATION\en\releasenotes	To provide information about the following: <ul style="list-style-type: none">• Salient Features• Installation Notes

Installation Prerequisites

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

Software Requirements

The following components must be installed and configured on the BSM 9.2x and OMi 10.x Servers before you install the OMi MP for Microsoft IIS version 1.00.

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 Support Matrix, see <https://softwaresupport.hpe.com/km/KM323488>.

Installation Checklist

Ensure that the installation tasks described in the following table are completed in the specified to enable you to monitor OMi MP for Microsoft IIS:

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

Server

Serial	Task	Reference
1	Check the Installation Prerequisites for BSM 9.2x	See the chapter <i>General Prerequisites</i> in the <i>BSM Installation Guide</i> .
2	Install BSM version 9.23 or higher	See the following chapters in the <i>BSM Installation Guide</i> : <ul style="list-style-type: none"> • <i>Install BSM 9.20</i> • <i>Install the latest BSM 9.2x Minor Minor Release and Patch</i>
3	Install Monitoring Automation version 9.23 or higher	See the chapter <i>Installing Monitoring Automation</i> in the <i>Operations Manager i Monitoring Automation Installation Guide</i> .
4	Verify the Monitoring Automation installation	See the chapters <i>Verifying the Monitoring Automation Installation</i> and <i>Using Monitoring Automation</i> in the <i>Monitoring Automation for Operations Manager i Installation Guide</i> .
5	Install Additional Software Update for Monitoring Automation 9.23 Note: If you are installing OMi MP for Microsoft IIS on BSM 9.23, you must install additional software update for Monitoring Automation 9.23.	See the section " Installing Additional Software Update for Monitoring Automation 9.23 ".
6	Install OMi MP for Microsoft IIS 1.00	See the section Installing OMi MP for Microsoft IIS 1.00 on BSM or OMi .

Managed Node

Task	Reference
Install Operations Agent 11.12 or higher	See the chapter <i>Installing the Operations Agent 11.12</i> 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 IIS , 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 IIS on OMi 10.x Server

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

On Linux

Note: In a OMi 10.x distributed environment, OMi MP for Microsoft IIS must be installed on all 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_IIS_<version>.zip` file to a *<Temp folder>* on 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 OMi 10.x distributed environment, OMi MP for Microsoft IIS must be installed on all OMi 10.x servers, including DPS and GWS.

Follow these steps:

1. Copy and extract the `OMi_MP_for_IIS_<version>.zip` file to a *<Temp folder>* on the 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.

Verifying the OMi MP for Microsoft IIS Installation

This section provides information about verifying the installation of OMi MP for Microsoft IIS 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 IIS 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 on the OMi 10.x console:
 - On OMi 10.x, click **Administration > Setup and Maintenance > Content Packs**.

The **OMi Management Pack for Microsoft IIS** 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

This section provides step-by-step information about deploying the components of OMi MP for Microsoft IIS for monitoring the web services, Application Pools, FTP, SMTP, and websites for the availability and performance.


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

Console

Note: If the Microsoft IIS that you want to monitor is already being monitored by Smart Plug-in for Microsoft Internet Information Services (SPI for Microsoft Internet Information Services), then remove the SPI artifacts and datasources from the node hosting the Microsoft IIS before proceeding further.

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, follow these steps to add the nodes.

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**. Then click  and click **Computer > Windows**. The Create New Monitored Nodes dialog box appears.
3. Specify the Primary DNS Name, Operating System, IP Address, Processor Architecture, and a description of the node and click **OK**.
4. Click **OK** in the Monitored Nodes dialog box.

The newly created node is saved as a Configuration Item (CI) instance in the Run-time Service Model (RTSM).


Note: The node with Operations agent needs to be activated to OMi Server and certificate needs to 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.
The Enrichment Rule Properties window appears.
3. Right-click and select **Properties**.
4. Click **Next**.
5. Select **Rule is Active**.
6. Click **Finish**.
7. In the Enrichment Rules pane, click  to save the changes.
8. Select the **SoftwareElementDisplayLabelForExistingHost** rule and repeat steps 3 to 7.
9. Select the **SoftwareElementDisplayLabelPopular** rule and repeat steps 3 to 7.

Task 3: Deploying the IIS Web Server Discovery Aspect

The IIS Web Server Discovery Aspect enables you to discover Microsoft IIS instances in the environment. The IIS Web Server Discovery Aspect deployment discovers the Configuration Item (CIs) of the following CI types (CITs):


- IIS Web Server
- IIS FTP Server
- IIS SMTP Server
- IIS Web Site
- IIS Application Pool

To discover CIs on the added managed nodes, you can deploy the IIS Web Server Discovery 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 > Web Server Management > Microsoft IIS > Aspects**.
3. Perform one of the following methods to assign and deploy the Aspect. In the Management Templates & Aspects pane:
 - Select the **IIS Web Server Discovery** Aspect, and then click .
 - Right-click the **IIS Web Server Discovery** Aspect, and then click **Assign and Deploy Item**.

The Assign and Deploy Wizard appears.

4. In the **Configuration Item** tab, click the Windows Node CI to which you want to deploy the IIS Web Server Discovery Aspect.
5. To accept the CIs, on BSM 9.2x click **All Parameters** tab or on OMi 10.x click **Parameter Summary** tab and click **Next**.
 - a. To change the default values of the parameters, you can select the parameter and then click . The Edit Parameter dialog box opens.
 - b. Click **Value** and specify the value. Click **OK** and click **Next**.
6. *(Optional)*. In the **Configure Options** tab, if you do not want to enable the assignment immediately, clear the **Enable Assigned Objects** check box on BSM 9.2x or clear the **Enable Assignment(s)** check box on OMi 10.x. You can also enable the assignment later using the Assignments & Tuning pane.

Note: In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, you can override the default values of any parameter. You can specify a value for each parameter at the Aspect level. By default, parameters defined as expert parameters are not displayed.

To display expert parameters, click  **Show Expert Parameters**.

7. Click **Finish**.

Note: After the IIS Web Server Discovery Aspect is deployed, a message stating the Assignment and deployment jobs created appears. To check the status of the deployment job, go to the following location:

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

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

Task 4: Verifying Discovery

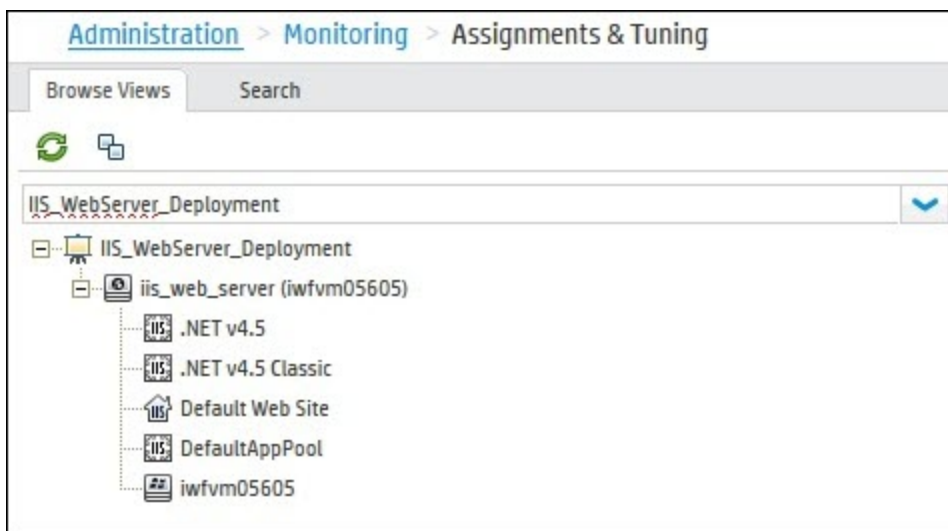
After you deploy the IIS Web Server Discovery Aspect, you can verify if the CIs are populated in the View Explorer.

1. Open the Event Perspective:

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, select the **IIS_WebServer_Deployment** View.



Task 5: Deploying the remaining Microsoft IIS Aspects

The OMi MP for Microsoft IIS contains the following Microsoft IIS Aspects apart from the IIS Web Server Discovery Aspect:

- IIS Web Server Availability
- IIS Web Server Base
- IIS Web Server Error Logs
- IIS Web Server FTP Service Performance
- IIS Web Server Performance
- IIS Web Server SMTP Service Performance
- IIS Web Server WWW Service Performance
- IIS Web Server ASP Service Performance
- IIS Web Server ASP.NET Service Performance

To deploy the other IIS 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 > Web Server Management > Microsoft IIS > Aspects**.

3. Perform one of the following methods to assign and deploy the Aspect. In the Management Templates & Aspects pane:

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

The Assign and Deploy Wizard appears.

4. In the **Configuration Item** tab, click the CI to which you want to deploy the IIS Web Server Discovery Aspect.
5. Click **Finish**.

Note: After the Aspect is deployed, a message stating the Assignment and deployment jobs created appears. 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**.

Topology Synchronization of Smart Plug-in for Internet Information Services

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

If you use the Smart Plug-in for Internet Information Services with Operations Manager, perform the following steps to forward topology data from the OM Server to the BSM or OMi Server. For more information about *Topology Synchronization*, see the *Operations Manager i Administration Guide*.

1. Open the Infrastructure Settings from 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 pane, select **Applications > Operations Management**.
3. To verify if the topology synchronization package to be synced is added, click **Operations Management - HPOM Topology Synchronization Settings**.
4. If the package is not added, in **Packages for Topology Sync**, click .
5. In **Value**, add **HPOpriis.zip** 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 `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
```

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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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!