



OMi Management Pack for Oracle WebLogic

Software Version: 1.01

Operations Manager i for Linux and Windows® operating systems

Installation Guide

Document Release Date: June 2017

Software Release Date: December 2014



Hewlett Packard
Enterprise

Legal Notices

Warranty

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

The information contained herein is subject to change without notice.

Restricted Rights Legend

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

Copyright Notice

© 2014 - 2017 Hewlett Packard Enterprise Development LP

Trademark Notices

Adobe™ is a trademark of Adobe Systems Incorporated.

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

UNIX® is a registered trademark of The Open Group.

This product includes an interface of the 'zlib' general purpose compression library, which is Copyright © 1995-2002 Jean-loup Gailly and Mark Adler.

Documentation Updates

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

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

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

Support

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

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

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

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

Contents

Chapter 1: Introduction	5
Abbreviations Used in this Manual	5
Related Documentation	6
Licensing	6
Chapter 2: Installing OMi MP for Oracle WebLogic	7
Installation Package	7
Installation Prerequisites	8
Software Requirements	8
User Privileges	9
Installation Checklist	9
Installing Additional Software Update for Monitoring Automation 9.23	11
Installing OMi MP for Infrastructure version 1.10	11
Configuring Library Path on a Solaris Managed Node	11
Installing OMi MP for Oracle WebLogic 1.00	12
On a Linux BSM Server	13
On a Windows BSM Server	14
Installing OMi MP for Oracle WebLogic version 1.01	15
Installing OMi MP for Oracle WebLogic using Command line	16
Installing Operations Orchestration (OO) Flows	16
Uploading OO Flows	17
Applying the License	17
Chapter 3: Getting Started	19
Task 1: Adding Nodes to BSM 9.2x or OMi 10.x Console	19
Task 2: Enabling the Enrichment Rules	19
Task 3: Deploying WebLogic Discovery Aspect	20
Task 4: Verifying Discovery	22
Task 5: Deploying the WebLogic Management Templates or WebLogic Aspects	23
Data Collection	23
Task 5a: Identifying and Deploying WebLogic Management Templates	24
Task 5b: Deploying WebLogic Aspects	26

Task 6: Verifying Discovery for Extended Topology	29
Task 7: Updating the Management Templates and Aspects to a Newer Version	30
Checking the Topology Synchronization Settings	32
Appendix A: Installing Monitoring Automation 9.23 Software Update ..	33
Installing Additional Software Update in a Distributed BSM Environment ...	33
Installing Additional Software Update on BSM DPS	33
Installing Additional Software Update on BSM GWS	35
Installing Additional Software Update in a Typical BSM Environment	36
Send documentation feedback	39

Chapter 1: Introduction

The OMi Management Pack for Oracle WebLogic (OMi MP for Oracle WebLogic) works with Operations Manager i (OMi) and enables you to monitor primary and advanced components of WebLogic Application Servers and underlying infrastructure operating in your environment. The OMi MP for Oracle WebLogic includes the following components for monitoring health and status of Oracle WebLogic Application Servers:

- WebLogic Management Templates
- WebLogic Aspects and Policy Templates
- Parameters
- Run-Time Service Model (RTSM) Views
- Event Type Indicators (ETIs)
- Health Indicators (HIs)
- Topology Based Event Correlation (TBEC) Rules
- Operations Orchestration (OO) Flows
- HI Assignment
- KPI Assignment
- Tools
- Graph Templates

Note: For more information about the components, see the *OMi Management Pack for Oracle WebLogic User Guide*.

Abbreviations Used in this Manual

Convention	Description
BSM	Business Service Management
OMi	Operations Manager i
RTSM	Run-time Service Model

Convention	Description
BSM DPS	BSM Data Processing Server
BSM GWS	BSM Gateway Server
OMi MP	OMi Management Pack
OMi MP for Oracle WebLogic	OMi Management Pack for Oracle WebLogic

Related Documentation

For more information about BSM, OMi, and Monitoring Automation, see the *BSM documentation*.

For more information about OMi MP for Oracle WebLogic, see the following documents:

- *Release Notes*
- *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 SQL Server, 10 licenses of OMi MP for Oracle Database with any other combination of supported applications.

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

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

Chapter 2: Installing OMi MP for Oracle WebLogic

This section provides information about installing OMi MP for Oracle WebLogic on Linux BSM or OMi and Windows BSM servers.

Installation Package

This section provides information about the installation packages for OMi MP for Oracle WebLogic 1.01.

Note: You must install OMi MP for Oracle WebLogic 1.00 before installing OMi MP for Oracle WebLogic 1.01.

The OMi MP for Oracle WebLogic 1.00 is available in the OMi MP for Oracle WebLogic 1.00 DVD (MPDVD) and also through electronic media (e-media). The MPDVD and e-media are available for English and Non-English locale environments. You can use the appropriate installation media based on your locale requirements. In a distributed environment, it must be installed on all BSM Data Processing Servers (BSM DPS) and BSM Gateway Servers (BSM GWS).

The OMi MP for Oracle WebLogic 1.01 is available at [Unified Marketplace](#). The package is available for English and Non-English locale environments. You can use the appropriate installation media based on your locale requirements.

The OMi MP for Oracle WebLogic 1.01 contains the OMi MP for Oracle WebLogic features, software and the product documentation. In a distributed environment, it must be installed on all BSM Data Processing Servers (BSM DPS) and BSM Gateway Servers (BSM GWS).

The following table provides information about the documentation available in the OMi MP for Oracle WebLogic 1.01:

Document	Location	Purpose
User Guide	Unified Marketplace	To provide information about the following: <ul style="list-style-type: none">• Using Management Templates• Using Aspects and Policy Templates

Document	Location	Purpose
		<ul style="list-style-type: none">Using Indicators - HIs, ETIs, and TBEC Rules

Installation Prerequisites

The following section lists the hardware and software prerequisites for installing OMi MP for Oracle WebLogic on BSM 9.2x or OMi 10.x (Linux and Windows) servers.

Software Requirements

Before installing OMi MP for Oracle WebLogic 1.01, the following components must be installed and configured on the BSM 9.2x or OMi 10.x (Linux and Windows) servers.

Management Server

Component	Version
BSM	9.23 or higher*
Operations Manager i	9.23 or higher*
Monitoring Automation	9.23 or higher*
OMi MP for Infrastructure	1.10
OMi MP for Oracle	1.10
OMi MP for Oracle WebLogic	1.00

Note: * For more information about Support Matrix, see <https://softwaresupport.hpe.com/km/KM323488>.

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

Managed Node

Component	Version
Operations Agent	11.12 or higher*
JRE	1.6 or higher

Note: You must use 64 bit JRE with 64 bit Operations Agent and 32 bit JRE with 32 bit Operations Agent.

* See the Support Matrix for latest versions supported.

SiteScope Server:

Component	Version
SiteScope	11.22 or higher*

Note: * For more information about Support Matrix, see <https://softwaresupport.hpe.com/km/KM323488>.

Note: If you are deploying Hybrid WebLogic Management Template, you need to install SiteScope 11.22 or higher version.

The following section lists the hardware and software prerequisites for installing OMi MP for Oracle WebLogic on Linux or Windows BSM servers.

User Privileges

The user must have the local WebLogic Administrator privileges assigned for the WebLogic Admin Server.

If you are using LDAP directory, you must create a user account similar to the user account of LDAP in the local WebLogic instance and grant Administrator privileges to the user.

Installation Checklist

Before you install OMi Management Pack for Oracle WebLogic 1.01 ensure that the installation tasks described in the following table are completed in the specified order:

Managed Server

Task	Reference
Check the Installation Prerequisites for BSM	See the chapter <i>General Prerequisites</i> in the <i>BSM Installation Guide</i> .
Install BSM version 9.23 or higher	See the <i>BSM Installation Guide</i> .

Task	Reference
Install Monitoring Automation version 9.23 or higher	See the chapters <i>Installation Prerequisites</i> and <i>Installing and Configuring Monitoring Automation on BSM servers</i> in the <i>Monitoring Automation for Operations Manager i Installation Guide</i> .
Verify the Monitoring Automation installation	See the chapter <i>Verifying the Installation</i> and <i>Using Monitoring Automation</i> in the <i>Monitoring Automation for Operations Manager i Installation Guide</i> .
Clean up OMi MP for Infrastructure version 1.00	If OMi MP for Infrastructure version 1.00 is already installed, see <i>Removing OMi MP for Infrastructure</i> version 1.00 in the <i>OMi Management Pack for Infrastructure 1.10 Installation Guide</i> .
Install Additional Software Update for Monitoring Automation 9.23	See the section " Installing Additional Software Update for Monitoring Automation 9.23 ".
Install OMi MP for Infrastructure 1.10	See the chapter <i>Installing OMi MP for Infrastructure 1.10</i> in the <i>OMi Management Pack for Infrastructure 1.10 Installation Guide</i> .
Install OMi MP for Oracle WebLogic 1.00	See the section " Installing OMi MP for Oracle WebLogic 1.00 ".
Install OMi MP for Oracle WebLogic 1.01	See the section Installing "Installing OMi MP for Oracle WebLogic version 1.01" .
Applying the License	See the section " Applying the License ".

Managed Node

Task	Reference
Install Operations Agent 11.12	See the chapter <i>Installing Operations Agent 11.12</i> in the <i>Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide</i> .
Configure library path on the managed node*	See the section " Configuring Library Path on a Solaris Managed Node ".

* This configuration check is applicable only for Solaris managed nodes.

Note: For Solaris and HP-UX operating systems, you must specify the **JAVA_HOME** input parameter which is for 32-bit Java.

Installing Additional Software Update for Monitoring Automation 9.23

Before installing OMi MP for Oracle WebLogic, 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 is available in the MPDVD.

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

Installing OMi MP for Infrastructure version 1.10

For information about installing OMi MP for Infrastructure version 1.10, see the chapter *Installing OMi MP for Infrastructure version 1.10 on BSM* in the *OMi Management Pack for Infrastructure Installation Guide*.

Configuring Library Path on a Solaris Managed Node

This section provides information about configuring the library path on Solaris managed node.

Note: The following configuration is a prerequisite for only OMi MP for Oracle WebLogic used for monitoring managed nodes on a Solaris platform.

For OMi MP for Oracle WebLogic to monitor managed nodes on Solaris platform, ensure the `Expat.so` library used for XML parser perl module is able to resolve dynamic dependency for all the required libraries using following steps as agent user:

1. To find Expat.so library, run the following commands:

```
cd /opt/OV/nonOV/per1/a/lib
```

```
find . -name Expat.so
```

2. To find the list of dynamic dependencies, run the following commands:

```
Go to <Expat.so> path
```

```
ldd Expat.so
```

If you see an error message “file not found” for libgcc_s.so, configure the libgcc_s.so library path at WLSMP_LIBPATH environment variable on a Solaris managed node by following step 3.

3. Set libgcc_s.so library path in WLSMP_LIBPATH environment variable as root user by following these steps:

- a. Find libgcc_s.so on Solaris managed node using the following command:

```
find / -name libgcc_s.so
```

- b. Search 32-bit libgcc_s.so using the following command:

```
file <libgcc_s.so along with path>
```

- c. If 32-bit libgcc_s.so is not installed on the node, install GCC Runtime libraries package.

- d. Open /etc/profile in vi editor using the following command:

```
vi /etc/profile
```

- e. Add the following lines at the beginning of the /etc/profile file:

```
WLSMP_LIBPATH=<32-bit libgcc_s.so path>
```

```
export WLSMP_LIBPATH
```

Note: 32-bit libgcc_s.so path is the result of step 2.

- f. Save the file.

Installing OMi MP for Oracle WebLogic 1.00

You can use the MPDVD to install the OMi MP for Oracle WebLogic 1.00 on a Windows or Linux BSM or OMi server. The following section provides information about installing the OMi MP for Oracle WebLogic 1.00 on the BSM server.

Note: In a BSM distributed environment, OMi MP for Oracle WebLogic must be installed on all BSM Servers - BSM DPS and BSM GWS. You must ensure that Monitoring Automation is running before proceeding with the installation. To check the status, log on to BSM console and navigate to **Admin > Setup and Maintenance > Server Deployment** and then check if Monitoring Automation is enabled.

On a Linux BSM Server

Note: In a BSM Distributed environment, OMi MP for Oracle WebLogic must be installed on all BSM Servers, including DPS and Gateway servers.

To install the OMi MP for Oracle WebLogic 1.00 on a Linux BSM or OMi Server, follow these steps:

1. Log on as root user.
2. Set the umask by typing the command `umask 022`.
3. Create a directory to mount the DVD or e-media by typing the command `mkdir /<mount_point>`.

For example: `mkdir /dvdrom`

4. Insert the DVD into the disk drive or you can copy the e-media installation package and mount using the following commands:

For DVD: `mount /dev/<dvdrom_drive_name> /<mount_point>`

For e-media: `mount -o loop <e-media> /<mount_point>`

5. Change the directory to `/<mount_point>`.
6. Run the following command:

```
./mpinstall.sh -i [-h|help]
```

Based on the locale, you can see the following table and run the command accordingly:

DVD	MP locale same as BSM locale	MP locale different from BSM locale
English DVD	<code>./mpinstall.sh -i</code>	<code>./mpinstall.sh -i</code>
Non-English DVD	<code>./mpinstall.sh -i</code>	<code>./mpinstall.sh -i -locale <mplocale></code>

For example, to install OMi MP for Oracle WebLogic in Simplified Chinese locale with BSM or OMi in a non Simplified Chinese locale, specify the following command:

```
./mpinstall.sh -i -locale zh_CN
```

Note: You can use the following command options:

```
mpinstall.sh -i [-locale <MP Locale>] [-h|help]
```

-i : Install Management Pack.

-locale: Locale specific Management Pack to install.

-h|-help: Shows the help message.

You can specify the <mplocale> as follows:

- zh_CN: Simplified Chinese locale
- ja: Japanese locale

7. To accept the End User License Agreement (EULA), type **Yes** or **Y** and to decline the license agreement, type **No** or **N**.

Note: If you decline the EULA, the OMi MP for Oracle WebLogic will not be installed.

After the installation is completed, a message appears stating that the installation of OMi Management Pack for Oracle WebLogic is completed.

On a Windows BSM Server

Note: In a BSM Distributed environment, OMi MP for Oracle WebLogic must be installed on all BSM Servers, including DPS and Gateway servers.

To install the OMi MP for Oracle WebLogic on a Windows BSM or OMi Server, follow these steps:

1. Insert the DVD into the disk drive or you can copy the e-media installation package and extract it.
2. Open the command prompt, change the directory to <DVD-ROM> or to the e-media directory and run the following command:

```
cscript /nologo mpinstall.vbs -i [-locale <mplocale>] [-h|-help]
```

Based on the locale, you can see the following table and run the command accordingly:

DVD	MP locale same as BSM locale	MP locale different from BSM locale
English DVD	<code>cscript /nologo mpinstall.vbs -i</code>	<code>cscript /nologo mpinstall.vbs -i</code>
Non-English DVD	<code>cscript /nologo mpinstall.vbs -i</code>	<code>cscript /nologo mpinstall.vbs -i -locale <mplocale></code>

For example, To install OMi MP for Oracle WebLogic in Simplified Chinese locale with BSM in a non Simplified Chinese locale, specify the following command:

```
cscript /nologo mpinstall.vbs -i -locale zh_CN
```

Note: You can use the following command options:

```
cscript /nologo mpinstall.vbs -i [-locale <MP Locale>] [-h|help]
```

-i: Install Management Pack.

-locale : Locale specific Management Pack to install.

-h|-help: Shows the help message.

You can specify the <mplocale> as follows:

- zh_CN: Simplified Chinese locale
- ja: Japanese locale

3. To accept the End User License Agreement (EULA), type **Yes** or **Y** and to decline the license agreement, type **No** or **N**.

Note: If you decline the EULA, the OMi MP for Oracle WebLogic will not be installed.

After the installation is completed, a message appears stating that the installation of OMi Management Pack for Oracle WebLogic is completed.

Installing OMi MP for Oracle WebLogic version 1.01

This section provides information about installing OMi MP for Oracle WebLogic 1.01 on Windows and Linux BSM or OMi Servers respectively. To download the WebLogic 1.01 update, follow these steps:

1. Download the **OMi MP for WebLogic Update 01.01** from the following location:

[Unified Marketplace](#)

2. Copy the **OMi MP for WebLogic Update 01.01** file to a temp location.
3. Unzip **OMi_MP_for_WebLogic_Update_01.01.001.zip** content as follows:

```
temp/omimp
```

Installing OMi MP for Oracle WebLogic using Command line

For Windows:

1. Open the command prompt.
2. Navigate to the `temp/omimp` folder.
3. Run the following command:

```
cscript /nologo mpinstall.vbs -i.
```

For UNIX:

1. Log on as a root user .
2. Navigate to `temp/omimp` location.
3. Run the following command:

```
/mpinstall.sh -i
```

Installing Operations Orchestration (OO) Flows

The OMi MP for Oracle WebLogic packaged with OO flows that enables IT process automation and run book automation. For more information about OO flows, see the *Operations Orchestration* documentation. The following section provides information about installing OO flows on OO Studio (version 9.0x) for OMi MP for Oracle WebLogic.

Note: The OO flows shipped by OMi MP for Oracle WebLogic can only be used in deployment scenarios where the application is monitored by Smart Plug-ins managed by an Operations

Manager (OM) server. In such a case, the OO flows included in OMi MP for Oracle WebLogic can be installed on an OO server and launched through the OMi-OO integration. For more information about the OMi-OO integration, see the *BSM - Operations Orchestrations Integration Guide*.

Uploading OO Flows

To upload OO Flows from OMi MP for Oracle WebLogic, follow these steps:

1. In BSM or OMi, go to the directory:

On Linux:

```
/opt/HP/BSM/conf/opr/oo
```

On Windows:

```
%TOPAZ_HOME%\conf\opr\oo
```

2. Copy **HPOprOOJEE90.jar** to a temporary location on a system where OO Studio (version 9.0x) is installed.

To install and upload the OO Flows, run the command:

```
java -jar -Xmx1024m "<temp>/HP0pr00JEE90" -centralPassword <centralpassword>
```

Note: For more information about installing content, see the section *Installing the content* in the *Operations Orchestration Software Development Kit Guide*.

Using OO Studio, you can access the OO flows from the following location:

```
../Library/Operations Management/..
```

3. Complete the mapping of OO flows to CIs and map the OO flow input variables to CI attributes using:

On BSM console:

Admin > Integration > Operations Orchestration

Applying the License

This section provides information about updating the license and activating the license.

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


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

1. Navigate to License Management:

On BSM Console:

Click **Admin > Platform > 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>.

Note: There will be a delay in license activation after the installation. If the license does not activate automatically, you need to perform step 3.

3. (*Optional*). To activate the license, click the **Server Deployment** link at the bottom of the License Management page.


Chapter 3: Getting Started

The following section provides step-by-step information about deploying out of the box components of OMi MP for Oracle WebLogic for monitoring WebLogic Application Servers and viewing Event and Health Perspectives in BSM 9.2x or OMi 10.x.

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

Note: If the Node already exists in RTSM, you can skip this step and proceed to "[Task 3: Deploying WebLogic Discovery Aspect](#)" on the next page.

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 Filter > Monitored Nodes** and then click  and then select **Computer > <select the required OS type>**. The Create New Monitored Nodes dialog box appears.
3. Specify the Primary DNS Name, IP Address, Operating System, and Processor Architecture of the node and click **OK**.

Task 2: Enabling the Enrichment Rules

You must enable the following enrichment rules to populate the CI's display label:


- SoftwareElementDisplayLabelForNewHost
- SoftwareElementDisplayLabelForExistingHost
- SoftwareElementDisplayLabelPopulator

The Enrichment Rules must be enabled to reconcile more than one j2eedomain CIs with the same name as a single CI entity. To enable the enrichment rules, 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**.

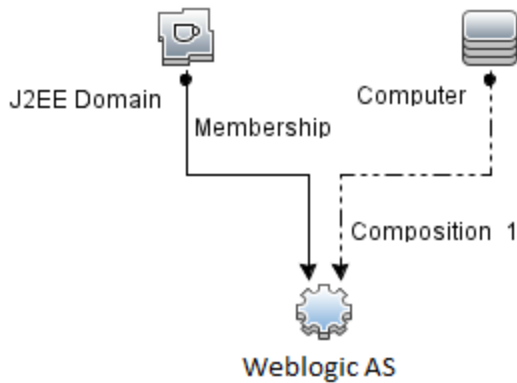
2. In the Enrichment Rules pane, select the **SoftwareElementDisplayLabelForNewHost** from the list.
3. Right-click and select **Properties**. The Enrichment Rule Properties window appears.
4. Click **Next**.
5. Select **Rule is Active**.
6. Click **Finish**.
7. In the Enrichment Rules pane, click  to save the changes.
8. Select the **SoftwareElementDisplayLabelForExistingHost** and repeat steps 3 to 7.
9. Select the **SoftwareElementDisplayLabelPopulator** and repeat steps 3 to 7.
10. In the Enrichment Rules pane, click **Root > Operations Management > J2EE Application Servers**.
11. Select **WebLogicJ2EEDomainReconciliation** and repeat steps 3 to 7.

Task 3: Deploying WebLogic Discovery Aspect

The WebLogic Discovery Aspect enables you to discover WebLogic Server instances in your environment. To discover the WebLogic Application Server Configuration Items (CIs) on the added managed nodes, you must deploy the WebLogic Discovery aspect to a Computer CI.

The WebLogic Discovery Aspect deployment discovers the CIs of the following CI types (CITs):

- j2eedomain
- weblogicas



Note: Before deploying Discovery Aspect 1.01, perform the following:

- Delete the CI assignments associated with the WebLogic Discovery Aspect 1.0
- Undeploy WebLogic Discovery Aspect 1.0
- Deploy the WebLogic Discovery Aspect 1.01

To deploy the WebLogic Discovery Aspect, follow these steps:


1. Open the Management Templates & Aspects pane:

On BSM 9.2x, click **Admin > Operations Management > Monitoring > Management Templates and Aspects**.

On OMi 10.x, click **Administration > Monitoring > Management Templates and Aspects**.

2. In the Configuration Folders pane:


Click **Configuration Folders > Application Server Management > Oracle WebLogic Management > Aspects**


3. In the Aspects folder, click **Weblogic Discovery Aspect**, and then click  to open the Assign and Deploy Wizard.

4. In the Configuration Item page, click the configuration item to which you want to deploy the Discovery Aspect and then click **Next**.

The **Required Parameters** tab opens and a message appears stating that there are no parameters that require editing for this Assignment.

5. In the **Required Parameters** tab, click **Next**.
6. *(Optional)*. In the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, to

change the default values of the parameters, you can select the parameter and then click . The **Edit Parameter** dialog box opens. Click **Value**, specify the value, and then click **OK**.

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 shown. To show expert parameters, click  **Show Expert Parameters**.

7. Click **Next**.
8. *(Optional)*. If you do not want to enable the assignment immediately, follow the steps:
 - 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.
9. Click **Finish**.

Note: After the WebLogic Discovery Aspect is deployed, a message stating the Assignment and deployment jobs created appears. To check the status of the deployment jobs, 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 Discovery Aspect, you must verify if the CIs are populated in the View Explorer.

1. Open the Event Perspective pane:
 - On BSM 9.2x, click **Applications > Operations Management > Event Perspective**.
 - On OMi 10.x, click **Workspaces > Operations Console > Event Perspective**.
2. In the View Explorer, select **Weblogic_Deployment_View** from the drop-down list. You can see the CIs associated with the **Weblogic_Deployment_View** as shown in the following figure.

Task 5: Deploying the WebLogic Management Templates or WebLogic Aspects

This section provides information about data collection, deploying management templates and aspects. For more information about deploying WebLogic Management Templates, go to "[Task 5a: Identifying and Deploying WebLogic Management Templates](#)". For more information about deploying WebLogic Aspects, go to "[Task 5b: Deploying WebLogic Aspects](#)".

Data Collection

Frequency (polling interval) at which each Aspect 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 not.

Following are the four predefined frequency parameters:

Parameter	Frequency
Very High	5 mins
High	15 mins
Medium	1 hour
Low	24 hours

After Management Templates and Aspects are deployed, the collector is triggered based on the predefined frequency parameter in a specific Aspect. You can modify the default value of the parameter at following two levels:

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

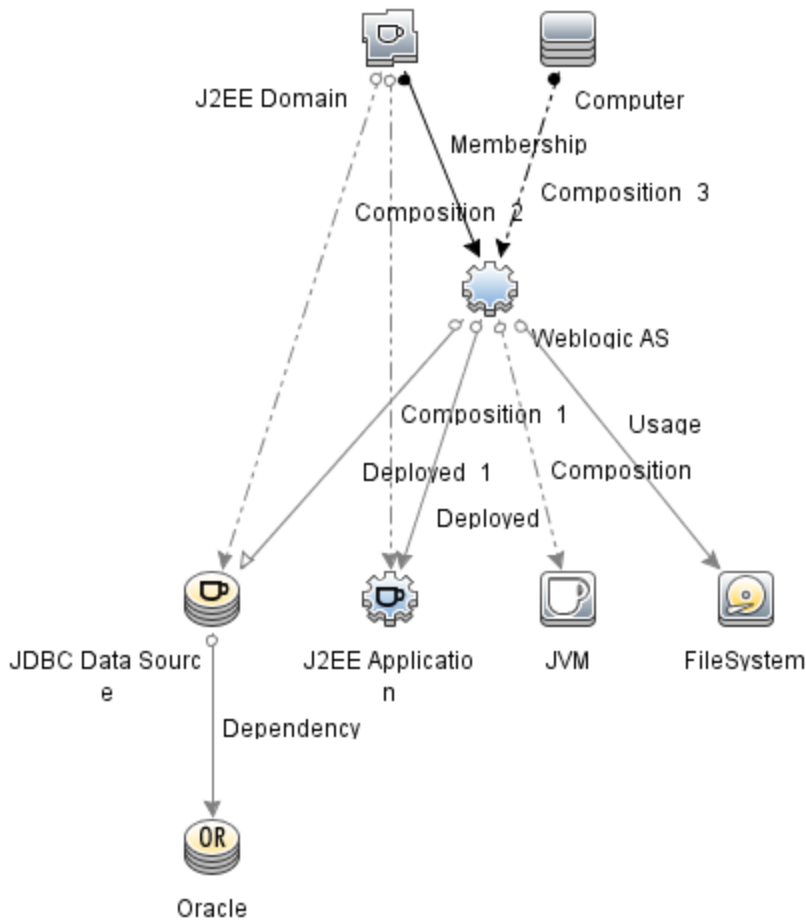
For more information about how to modify the parameter values, see section "[Tuning Parameters](#)" in the *OMi MP for Oracle WebLogic User Guide*.

Task 5a: Identifying and Deploying WebLogic Management Templates

Before deploying the WebLogic Management Templates, you must deploy Weblogic Discovery Aspect. For more information, see "[Task 3: Deploying WebLogic Discovery Aspect](#)".

The WebLogic Management Template discovers the CIs of the following CITs and completes the topology as shown in the following figure:

- JVM
- J2EE Application
- JDBC Data Source



You can identify the WebLogic Management Template suitable for your environment by following these recommendations:

- If you want to monitor primary components of WebLogic Application Server like server status, JVM, JDBC, EJB, Servlets, Server logs and so on along with critical Infrastructure components (CPU, Memory, and Disk), you can deploy Essential Weblogic Management Template.
- If you want to monitor the basic components along with the advanced components of WebLogic Application Server like Transactions, Cluster status, Cache usage, Threads, Server Logs etc. and Infrastructure components (CPU, Memory, Disk and so on), you can deploy Extensive Weblogic Management Template.
- If you want to monitor the advanced components of WebLogic Server Applications, along with Oracle database components (Basic Query, Memory and so on), and Infrastructure components, you can deploy Extensive Weblogic and Database Management Template.
- If you want to monitor the primary components of your WebLogic Application Server along with critical infrastructure areas of CPU, Memory, Disk, including WebLogic Application Server Port and Application URL availability (monitored using Weblogic Agentless Aspect), you can deploy Hybrid Weblogic Management Template.

To deploy the WebLogic Management Templates other than Extensive Weblogic and Database Management Template, 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 > Application Server Management > Oracle WebLogic Management > Management Templates**

3. In the WebLogic Management Templates folder, click the Management Template that you want to deploy, and then click . The Assign and Deploy wizard opens.
4. In the **Configuration Item** tab, click the WebLogic Domain CI to which you want to assign the Management Template, and then click **Next**. You can select multiple items by holding down the **CTRL** or **SHIFT** key while selecting them. Click **Next** to accept the CIs and go to **Required Parameters**.
5. In the **Required Parameters** tab, you must specify the values of mandatory Parameters, **Username** and **Password**. To specify the values of the parameters, you can select the parameter

and then click . The Edit Parameter dialog box opens. Click **Value**, specify the value, and then click **OK**.

Note: The credentials given during the deployment of a Management Template should have required privileges. For more information, see "[User Privileges](#)".

6. Click **Next**.
7. *(Optional)*. In **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, to change the default values of the parameters, you can select the parameter and then click . The Edit Parameter dialog box opens. Click **Value**, specify the value, and then click **OK**.

Note: In the **All Parameters** tab, you can override the default values of any parameter. You can specify a value for each parameter at the Management Template level. By default, parameters defined as expert parameters are not shown. To show expert parameters, click



Show Expert Parameters.

8. Click **Next**.
9. *(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.
10. Click **Finish**.

Task 5b: Deploying WebLogic Aspects

Before deploying the WebLogic Aspects, you must deploy the Weblogic Base Aspect to discover the CIs of the following CITs:

- JVM
- J2EE Application
- JDBC Data Source

To deploy the Weblogic Base Aspects, follow these steps:


1. Open the Management Templates & Aspects pane:

On BSM9.2x, click **Admin > Operations Management > Monitoring > Management Templates and Aspects**.


On OMi 10.x, click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:


Click **Configuration Folders > Application Server Management > Oracle WebLogic Management > Aspects > Weblogic Base**

3. In the Weblogic Aspects folder, click **Weblogic Base**, and then click . The Assign and Deploy Wizard opens.
4. In the **Configuration Item** tab, select the WebLogic CI and then click **Next**. You can select multiple items by holding down the **CTRL** or **SHIFT** key while selecting them. Click **Next** to accept the CIs and go to **Required Parameters**.

Note: If you want to deploy Aspects to Node CIs, select **Also show CIs of type Node**.

5. In the **Required Parameters** tab, you must specify the values of mandatory Parameters, **Username** and **Password**. To specify the values of the parameters, you can select the parameter and then click . The Edit Parameter dialog box opens. Click **Value**, specify the value, and then click **OK**.

Note: The credentials given during the deployment of Weblogic Aspects should have required privileges. For more information, see "[User Privileges](#)".

6. Click **Next**.
7. In the **All Parameters** tab on BSM 9.2x or Parameter Summary tab on OMi 10.x, you can override the default value of any parameter. You can specify a value for each parameter at the Management Template level. By default, parameters defined as expert parameters are not shown. To show expert parameters, click  **Show Expert Parameters**.
8. Click **Next**.
9. (*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.
10. Click **Finish**.

To deploy the remaining Weblogic 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 > Application Server Management > Oracle WebLogic Management > Aspects**

3. In the Aspects folder, click the WebLogic Aspect that you want to deploy, and then click . The Assign and Deploy wizard opens.

4. In the **Configuration Item** tab, click the CI to which you want to assign the Weblogic Aspect, and then click **Next**. You can select multiple items by holding down the **CTRL** or **SHIFT** key while selecting them. Click **Next** to accept the CIs and go to **Required Parameters** tab.

Note: If you want to deploy Aspects to Node CIs, select **Also show CIs of type Node**.

5. In the **Required Parameters** tab, you must specify the values of mandatory parameters, **Username** and **Password**. To specify the values of the parameters, you can select the parameter and then click . The Edit Parameter dialog box opens. Click **Value**, specify the value, and then click **OK**.

Note: The credentials given during the deployment of WebLogic Aspects should have required privileges. For more information, see "[User Privileges](#)".

6. Click **Next**.

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

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

8. Click **Next**.

9. (*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.

10. Click **Finish**.

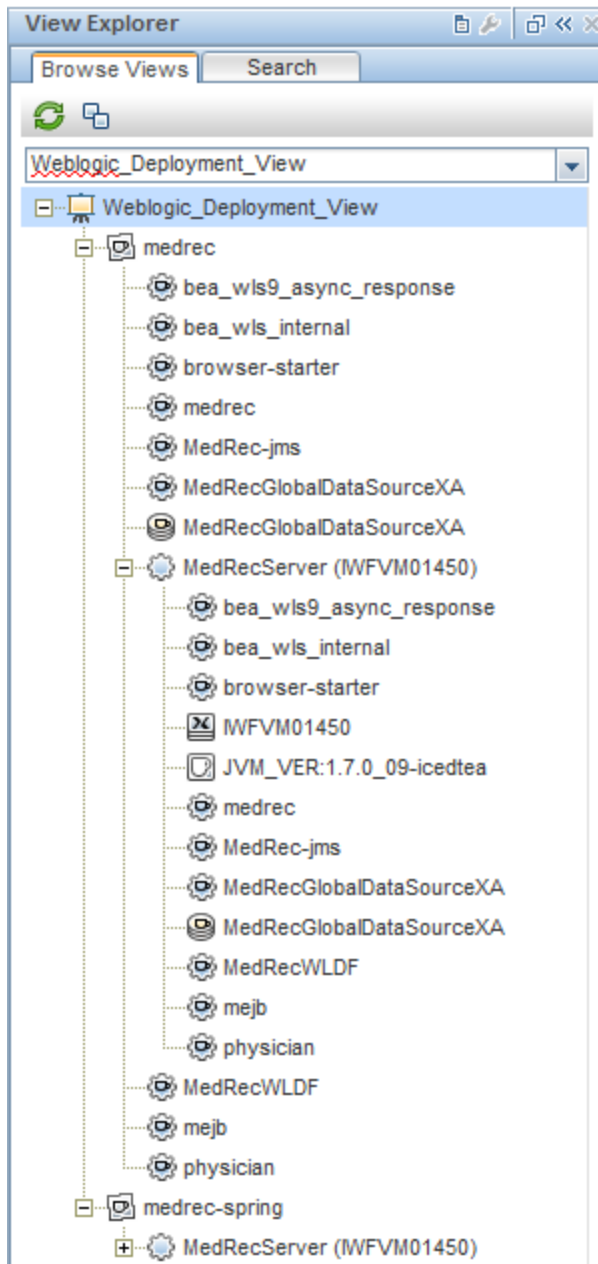
Task 6: Verifying Discovery for Extended Topology

After you deploy the Weblogic Management Templates or Weblogic Base Aspect, you can verify if the CIs are populated in the View Explorer.

To view the CIs in the View Explorer, follow these steps:

1. Open the Event Perspective pane:
On BSM 9.2x, click **Applications > Operations Management > Event Perspective**.
On OMi 10.x, click **Workspaces > Operations Console > Event Perspective**.
2. In the View Explorer, select **Weblogic_Deployment_View** from the drop-down list. You can see the extended topology comprising CIs associated with the **Weblogic_Deployment_View** as

shown in the following figure.



Task 7: Updating the Management Templates and Aspects to a Newer Version

You can update the existing deployed Management Templates and Aspects to the latest version.

If you have already deployed OMi MP for Oracle WebLogic Aspects and/or Management Templates to the managed nodes before installing OMi MP for Oracle WebLogic 1.10, use the latest version of Aspects or Management Templates on those nodes.

To update to the latest version, select the Management Templates or Aspects on the managed nodes. Perform the following steps for each Management Template and Aspect assignment on each of the managed nodes:

For BSM 9.2x:

1. Open the Management Templates & Aspects pane and click **Admin > Operations Management > Monitoring > Management Templates & Aspects**.
2. Select 1.10 Infrastructure Aspects and/or Management Templates that has been deployed to nodes.
3. Redeploy with parameterization to each of the SQL Server CIs.

For OMi 10.x:

1. Open the Assignments & Tuning pane and click **Administration > Monitoring > Assignments & Tuning**.
2. In the Browse Views pane, select the **MSSQL_Database_Deployment** view and select each SQL Server CI where version update is required.
3. Click **Show Assignments That Require an Update**.

All the Management Templates and Aspects that requires an update are listed.

4. Select each of the Management Templates and Aspects and click **Update Assigned Item**.

The Update Assigned Item dialog box appears.

5. In the **Update Options** tab, follow these steps:
 - Select the latest version from the **Update to Version** drop down list.
 - If you select **Use parameter values from existing assignments**, only the new mandatory parameters that do not have a default value are listed.
 - If you select **Use default parameter values from version selected above**, all mandatory parameters from the selected Management Template or Aspect version that do not have a default value are displayed. These parameters must be edited before proceeding to the next step of the wizard.
6. Click **Next** to go to **Required Parameters**.

To change a parameter, double-click or select the parameter from the list and click **Edit**.

The Edit Parameter dialog opens. If there are no mandatory parameters that require editing for this assignment, you are automatically taken to the **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x.

7. Click **Next** to go to **All Parameters** tab on BSM 9.2x or **Parameter Summary** tab on OMi 10.x, or click **Finish** to save the changes and close the wizard.
8. Click **Finish** to save the changes and close the wizard. The assigned item is updated to the specified Management Template or Aspect version.

Note: To update the existing deployed Management Templates and Aspects of the OMi MP for Infrastructure (which are internally used by OMi MP for Microsoft SQL Server) to the latest version, see section "Getting Started" in the *OMi Management Pack for Infrastructure Installation Guide*.

Checking the Topology Synchronization Settings

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

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, click **Applications > Operations Management**.
3. In the Operations Management - HPOM Topology Synchronization Settings, Topology Sync contain the packages that are used for topology synchronization. Make sure you have - **default;nodegroups;operations-agent;HPOprSys;HPOprJEE** along with other Topology Sync packages.

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
```

Send documentation feedback

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

Feedback on Installation Guide (OMi Management Pack for Oracle WebLogic 1.01)

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!