

# HP OMi Management Packs

for Operations Manager i for Linux and Windows® operating systems

Software Version: 1.00

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## Installation Guide

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# Chapter 1

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## Introduction

The HP OMi (Operations Manager i) Management Packs works with HP OMi and enables you to monitor infrastructure and applications running in your environment using the Business Service Management (BSM). You can use the HP OMi Management Packs to seamlessly monitor the following in your environment:

- Infrastructure - individual systems, clusters, and virtualized systems
- Oracle databases
- Vertica databases
- Hadoop clusters

The HP OMi Management Packs consists the following:

- HP OMi Management Pack for Infrastructure
- HP OMi Management Pack for Oracle Database
- HP OMi Management Pack for Vertica
- HP OMi Management Pack for Hadoop

## Abbreviations Used in this Manual

Convention	Description
BSM	Business Service Management
OMi	HP Operations Manager i
MPDVD	HP OMi Management Packs DVD
OMi MP for Oracle Database	HP OMi Management Pack for Oracle Database
OMi MP for Hadoop	HP OMi Management Pack for Hadoop
OMi MP for Vertica	HP OMi Management Pack for Vertica
OMi MP for Infrastructure	HP OMi Management Pack for Infrastructure

## Installation Media

The following section provides information about the installation media for HP OMi Management Packs. The HP OMi Management Packs are available in the MPDVD and also through electronic media (e-media). The following tables provide information about the DVD and e-media.

Product	DVD
HP OMi Management Packs	TJ906-15000 DVD

Product	e-media
HP OMi Management Pack for Hadoop	TJ906 -15000 - 01
HP OMi Management Pack for Vertica	TJ906 -15000 - 02
HP OMi Management Pack for Oracle Database	TJ906 -15000 - 03
HP OMi Management Pack for Infrastructure	TJ906 -15000 - 04

**Note:** For information about installing Monitoring Automation, see the *Monitoring Automation Installation Guide*.

## HP OMi Management Packs DVD

The HP OMi Management Packs DVD (MPDVD) contains the software and the product documentation for the following products:

- HP OMi MP for Oracle Database
- HP OMi MP for Hadoop
- HP OMi MP for Vertica
- HP OMi MP for Infrastructure

You can install HP OMi Management Packs on the Linux and Windows BSM servers using the MPDVD. The following table provides information about the documentation for OMi Management Packs available in the MPDVD.

Document	Location	Purpose
Online Help	Available in the BSM console <b>Help</b> menu.	To provide information about the following: <ul style="list-style-type: none"> <li>• Using Management Templates</li> <li>• Using Aspects and Policy Templates</li> </ul>
PDF version of Online Help	<MPDVD>\ Documentation	
Release Notes	<MPDVD>\ Documentation	To provide information about the following: <ul style="list-style-type: none"> <li>• Salient Features</li> <li>• Installation Notes</li> </ul>

## HP OMi Management Packs e-media

The following table provides information about the products available through e-media.

Product	E-media
HP OMi MP for Oracle Database e-media	It contains the software and the product documentation for HP OMi MP for Oracle Database. You can install HP OMi MP for Oracle Database on the Linux and Windows BSM servers using the HP OMi MP for Oracle Database e-media.
HP OMi MP for Hadoop e-media	It contains the software and the product documentation for HP OMi MP for Hadoop. You can install HP OMi MP for Hadoop on the Linux and Windows BSM servers using the HP OMi MP for Hadoop e-media.
HP OMi MP for Vertica e-media	It contains the software and the product documentation for HP OMi MP for Vertica. You can install HP OMi MP for Vertica on the Linux and Windows BSM servers using the OMi MP for Vertica e-media.
HP OMi MP for Infrastructure e-media	It contains the software and the product documentation for HP OMi MP for Infrastructure. You can install the HP OMi MP for Infrastructure on the Linux and Windows BSM servers using the HP OMi MP for Infrastructure e-media.

The following table provides information about the documentation for HP OMi Management Packs. The documentation for the HP OMi Management Packs for Hadoop, Vertica, Oracle Database, and Infrastructure are available in individual e-media.

Document	Location	Purpose
Online Help	Available in the BSM console <b>Help</b> menu.	To provide information about the following:
PDF version of Online Help	<e-media>\ Documentation	<ul style="list-style-type: none"> <li>Using Management Templates</li> <li>Using Aspects and Policy Templates</li> </ul>
Release Notes	<e-media>\ Documentation	To provide information about the following: <ul style="list-style-type: none"> <li>Salient Features</li> <li>Installation Notes</li> </ul>



## Related Documentation

For more information about BSM, OMi, Monitoring Automation, and OMi Management Packs, see the following documents:

- [BSM Release Notes](#)
- [BSM Installation Guide](#)
- [BSM Hardening Guide](#)
- [BSM Database Guide](#)
- [BSM Application Administration Guide](#)
- [BSM Platform Administration Guide](#)
- [BSM User Guide](#)
- [BSM Online Help](#)
- [HP Operations Manager i Concepts Guide](#)
- [HP Monitoring Automation Installation Guide](#)
- [HP Monitoring Automation Release Notes](#)
- [HP OMi MP for Hadoop - Release Notes and PDF version of Online Help](#)
- [HP OMi MP for Oracle Database - Release Notes and PDF version of Online Help](#)
- [HP OMi MP for Vertica - Release Notes and PDF version of Online Help](#)
- [HP OMi MP for Infrastructure - Release Notes and PDF version of Online Help](#)
- [HP OMi Content Pack for Hadoop User Guide](#)
- [HP OMi Content Pack for Vertica User Guide](#)
- [HP OMi Content Pack for Infrastructure User Guide](#)

# Chapter 2

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## Installing HP OMi Management Packs

This section provides information about installing HP OMi Management Packs for Infrastructure, Oracle Database, Hadoop, and Vertica on Linux and Windows BSM servers.

**Note:** Monitoring configurations in Operations Management are not automatically updated with the versions of policy templates, management templates, and aspects uploaded with the Management Pack. To update the versions, you can use the **Update to Latest** feature. For more information, see the *Configuring Management Templates* topic in the *BSM Online Help*.

## Installation Prerequisites

The following section lists the hardware and software prerequisites for installing HP OMi Management Packs on Linux and Windows BSM servers.

### Hardware Requirements

For specific hardware requirements, see the *BSM documentation*.

### Software Requirements

Before installing an HP OMi Management Pack, the following components must be installed and configured on the BSM servers. For information about installing and configuring BSM, see the *BSM documentation*.

#### BSM Server

Component	Version
BSM	9.22
HP Operations Manager i	9.22
HP Universal CMDB	9.05 CP 11
HP Monitoring Automation	9.20
HP OMi Content Pack for Infrastructure	9.22

#### Managed Node

Component	Version
Operations Agent	11.12 or higher
Java	1.6 or higher

**Note:** If you are using OMi MP for Oracle Database for monitoring Oracle databases and you want to use agentless monitoring, you must install SiteScope version 11.22 or higher.

**Note:** If you are deploying the HP OMi MP for Oracle Database or HP OMi MP for Infrastructure on the managed node, you do not need to install Java on the managed node.

## Prerequisites for Monitoring Infrastructure

To monitor individual systems, clusters, and virtualized systems using HP OMi MP for Infrastructure, you must install OMi Content Pack for Infrastructure version 9.22 or higher. For information about downloading and using the OMi Content Pack for Infrastructure version 9.22, see <https://hpln.hp.com/group/content-packs-bsm>

## Prerequisites for Monitoring Hadoop

To monitor Hadoop clusters using HP OMi MP for Hadoop, the following prerequisites must be met:

- The environment must be JMX enabled. You must enable the JMX ports and start the Hadoop services. To enable the JMX ports, you must edit the **hadoop-envn.sh** file. This file is available in the Hadoop configuration directory. The following note provides information about the sample configuration of Hadoop environment settings.

**Note:** Sample configuration of Hadoop environment settings

```
export HADOOP_CONF_DIR=/software/hadoop-1.0.3/conf
export HADOOP_OPTS="-
Dcom.sun.management.jmxremote.authenticate=false -
Dcom.sun.management.jmxremote.ssl=false -
Dcom.sun.management.jmxremote.password.file=$HADOOP_CONF_
DIR/jmxremote.password"
#Command specific options appended to HADOOP_OPTS when specified
export HADOOP_NAMENODE_OPTS="-Dcom.sun.management.jmxremote -
Dcom.sun.management.jmxremote.port=8004"
export HADOOP_SECONDARYNAMENODE_OPTS="-
Dcom.sun.management.jmxremote -
Dcom.sun.management.jmxremote.port=8005"
export HADOOP_DATANODE_OPTS="-Dcom.sun.management.jmxremote -
Dcom.sun.management.jmxremote.port=8006"
export HADOOP_BALANCER_OPTS="-Dcom.sun.management.jmxremote -
Dcom.sun.management.jmxremote.port=8007"
export HADOOP_JOBTRACKER_OPTS="-Dcom.sun.management.jmxremote -
Dcom.sun.management.jmxremote.port=8008"
```

```
export HADOOP_TASKTRACKER_OPTS="--
Dcom.sun.management.jmxremote.port=8009"

# Command specific options appended to HADOOP_OPTS when specified

export HADOOP_NAMENODE_OPTS="--Dhadoop.security.logger=INFO,DRFAS
-Dhdfs.audit.logger=INFO,DRFAAUDIT $HADOOP_NAMENODE_OPTS"

export HADOOP_SECONDARYNAMENODE_OPTS="--
Dhadoop.security.logger=INFO,DRFAS -
Dhdfs.audit.logger=INFO,DRFAAUDIT $HADOOP_SECONDARYNAMENODE_OPTS"

HADOOP_DATANODE_OPTS="--Dhadoop.security.logger=ERROR,DRFAS
$HADOOP_DATANODE_OPTS"

HADOOP_JOBTRACKER_OPTS="--Dhadoop.security.logger=INFO,DRFAS -
Dmapred.audit.logger=INFO,MRAUDIT -
Dhadoop.mapreduce.jobsummary.logger=INFO,JSA $HADOOP_JOBTRACKER_
OPTS"

HADOOP_TASKTRACKER_OPTS="--Dhadoop.security.logger=ERROR,console -
Dmapred.audit.logger=ERROR,console $HADOOP_TASKTRACKER_OPTS"s
```

- You must install Java version 1.6 or above. On Linux 64 bit systems, you must install 64 bit Java.
- To view the dashboard and the health perspective of Hadoop cluster, you must install OMi Content Pack for Hadoop. OMi Content Pack for Hadoop must be installed on GWS and DPS servers running on Linux and Windows platforms. For information about OMi Content Pack for Hadoop, see <https://hpln.hp.com/group/content-packs-bsm>
- You must install the HP Universal CMDB Hadoop package available at <https://hpln.hp.com/node/31/contentfiles/?dir=14780>

## Prerequisites for Monitoring Vertica

To monitor Vertica databases using HP OMi MP for Vertica, the following prerequisites must be met:

- You must install Java version 1.6 or above.
- To view the dashboard and the health perspective of Vertica database cluster, you must install HP OMi Content Pack for Vertica. OMi Content Pack for Vertica must be installed on GWS and DPS servers running on Linux and Windows platforms. For information about OMi Content Pack for Vertica, see <https://hpln.hp.com/group/content-packs-bsm>
- You must install the HP Universal CMDB Vertica package available at <https://hpln.hp.com/node/31/contentfiles/?dir=14780>

## Installation Packages

This section provides information about the installation packages in the MPDVD.

## HP OMi Management Pack Package

This is the core package which contains the HP OMi Management Pack features. It must be installed on Gateway server (GWS) and Data processing server (DPS) on Linux and Windows platforms. The package is available at the following location in the MPDVD:

On Linux and Windows:

**<MPDVD>/ packages**

For information about installing HP OMi Management Packs on Linux and Windows platforms, see "Installing HP OMi Management Packs on the BSM " below

## Installing HP OMi Management Packs on the BSM

You can use the MPDVD to install the HP OMi Management Packs on a Windows or Linux BSM server. The following section provides information about installing the HP OMi Management Packs on the BSM server. It also provides information about installing the necessary packages that are required for the HP OMi Management Packs to work.

**Note:** Before starting the installation, you must install the HP Monitoring Automation software.

## Installing HP OMi Management Packs on a Windows BSM Server

To install the HP OMi Management Packs on a Windows BSM server, follow these steps:

1. Insert the MPDVD into the DVD - ROM drive of the BSM server or you can use the installation package available in the e-media.
2. Open the command prompt, change the directory to <DVD- ROM> or to the e-media directory and run the command `cscript install.vbs -username <bsm_username> -password <bsm_password>`

**Note:** For SSL configuration, the installer program for the OMi Management Packs includes the `-ssl` option.

```
Usage:cscript install.vbs -username <USERNAME> -password  
<PASSWORD>  
[-bsmdir <BSM INSTALL DIR>]  
[-ssl]
```

`-username`: The username to upload the OMi Management Packs to the Content Manager.

`-password`: The password corresponding to username to upload the OMi Management Packs to Content Manager.

`-bsmdir` (optional): The BSM Installation directory.

`-ssl`: Use this flag when BSM is configured with SSL.

`-h` | `-help`: Shows the help message.

3. To accept the license agreement, type **Yes** or **Y** and to decline the license agreement type **No** or **N**.
4. After the installation is completed, a message appears stating that the installation is successful.

**Note:** For accurate license reporting of HP OMi Management Packs, a BSM restart post installation is essential. For more information about restarting BSM, see the *BSM Platform Administration Guide*. If you are using HP OMi MP for Infrastructure e-media to install HP OMi MP for Infrastructure, you do not need to restart BSM.

## Installing HP OMi Management Packs on a Linux BSM Server

To install the HP OMi Management Packs on a Linux BSM server, follow these steps:

1. Log on as `root` user.
2. Set the umask by typing the command `umask 027`
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 and mount the DVD by typing the command `mount /dev/<dvdrom_drive_name> /<mount_point>` or you can use the e-media installation package by typing the command `mount -o loop <e-media> /<mount_point>`.  
For DVD: `mount /dev/dsk/c0t2d0 /dvdrom`  
For e-media: `mount -o loop <e-media> /dvdrom`
5. Change the directory to `/<mount_point>` and run the command `./install.sh -username <bsm-username> -password <bsm-password>`

**Note:** For SSL configuration, the installer program for the OMi Management Packs includes the `-ssl` option.

```
Usage: ./install.sh -username <USERNAME> -password <PASSWORD>
[-bsmdir <BSM INSTALL DIR>]
[-ssl]
[-h|-help]
```

`-username`: The username to upload the OMi Management Packs to the Content Manager.

`-password`: The password corresponding to username to upload the OMi Management Packs to Content Manager.

```
-bsmdir: (optional) The BSM Installation directory.  
-ssl : Use this flag when BSM is configured with SSL.  
-h|-help: Shows the help message.
```

To accept the license agreement, type **Yes** or **Y** and to decline the license agreement **No** or **N**.

After the installation is completed, a message appears stating that the installation is successful.

**Note:** For accurate license reporting of OMi Management Packs, a BSM restart post installation is essential. For more information about restarting BSM, see the *BSM Platform Administration Guide*. If you are using HP OMi MP for Infrastructure e-media to install HP OMi MP for Infrastructure, you do not need to restart BSM.

## Verifying the Installation

This section provides information about verifying the installation of OMi Management Packs on Linux and Windows BSM servers.

### Verifying the HP OMi Management Pack Installation

You can perform any of the following checks to verify the HP OMi Management Pack installation:

- Check the log files at the following locations:
  - **Linux:** /opt/HP/BSM/log/mpinstall.
  - **Windows:** %topaz\_home%\log\mpinstall.
- Check the following location in the BSM console - **Admin > Operations Management > Setup > Content Packs**. Depending on the OMi Management Packs installed, the following artifacts must appear in the Content Pack Definitions pane:
  - OMi Management Pack for Oracle Database
  - OMi Management Pack for Hadoop
  - OMi Management Pack for Vertica
  - OMi Management Pack for Infrastructure

**Note:** The OMi logs are located at:

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

**Windows:** %topaz\_home%\log\EJBContainer\opr-configserver.log

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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:

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