

# HP Operations Smart Plug-in for Microsoft Enterprise Servers

For the HP Operations Manager for HP-UX, Linux, and Solaris operating systems

Software Version: 8.05

---

## Installation and Configuration Guide

Document Release Date: October 2013

Software Release Date: October 2013



---

# Legal Notices

## Warranty

The only warranties for HP 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. HP 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 HP 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

© Copyright 2010-2013 Hewlett-Packard Development Company, L.P.

## Trademark Notices

Adobe® is a trademark of Adobe Systems Incorporated.

Microsoft® and Windows® are U.S. registered trademarks of the Microsoft group of companies.

UNIX® is a registered trademark of The Open Group.

---

# Documentation Updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to:

**<http://h20230.www2.hp.com/selfsolve/manuals>**

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to:

**<http://h20229.www2.hp.com/passport-registration.html>**

Or click the **New users - please register** link on the HP Passport login page.

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

---

# Support

Visit the HP Software Support Online web site at:

**<http://www.hp.com/go/hpsoftwaresupport>**

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

**<http://h20229.www2.hp.com/passport-registration.html>**

To find more information about access levels, go to:

**[http://h20230.www2.hp.com/new\\_access\\_levels.jsp](http://h20230.www2.hp.com/new_access_levels.jsp)**

---

# Contents

Installation and Configuration Guide .....	1
Contents .....	5
Introduction .....	9
Microsoft Office Communications Server 2007 Deployment Configurations .....	9
Microsoft Lync Server 2010 Deployment Configurations .....	9
Components of Microsoft Enterprise Servers SPI .....	10
Policies .....	10
Tools .....	10
Reports .....	10
Graphs .....	10
Functions of Microsoft Enterprise Servers SPI .....	10
Monitoring Availability, Performance, and Event Log .....	10
Displaying Information .....	11
Generating Reports Using HP Reporter .....	11
Generating Graphs Using HP Performance Manager .....	12
Customizing Policies .....	12
<b>Installing the Microsoft Enterprise Servers SPI .....</b>	<b>13</b>
Installation Packages .....	13
SPI Package .....	13
Graph Package .....	13
Reporter Package .....	13
Installation Environments .....	14
Installation Overview .....	14
Prerequisites to Install Microsoft Enterprise Servers SPI .....	15
Hardware Requirements .....	15
Software Requirements .....	15
Installing Microsoft Enterprise Servers SPI .....	16

Installing Microsoft Enterprise Servers SPI on a Local Management Server .....	16
On HPOM For Unix Management Server: .....	16
Mounting the DVD: .....	16
On HPOM for HP-UX, Linux, and Solaris Management Servers: .....	17
Scenario 1: Installing the Microsoft Enterprise Servers SPI .....	17
Scenario 2: Installing the Microsoft Enterprise Servers SPI when another SPI is already installed .....	18
Scenario 1: Installing the Microsoft Enterprise Servers SP (Command Line Interface) .....	19
Scenario 2: Installing the Microsoft Enterprise Servers SPI when another SPI is already installed (Command Line Interface) .....	20
Installing Microsoft Enterprise Servers SPI on HPOM Cluster Servers .....	21
Verifying the Installation of Microsoft Enterprise Servers SPI .....	21
<b>Configuring the Microsoft Enterprise Servers SPI .....</b>	<b>22</b>
Basic Configuration Procedure .....	23
Manage Microsoft Enterprise Server Nodes .....	23
Assigning Nodes to Node Group .....	23
Assigning Instrumentation Categories to Microsoft Enterprise Nodes .....	24
Deploying Configuration .....	25
Assigning Tool Group to Operator .....	26
Starting Tools on the Nodes .....	26
Assigning Policies to the Nodes .....	27
Deploying Policies on Nodes .....	29
Customizing Policies .....	29
Assigning Node Group and Message Groups to Operator .....	30
Data Logging Scenarios .....	31
Discovery Policies .....	32
Discovery Configuration Scenarios .....	33
Editing Discovery Policy .....	33
Assigning Microsoft Enterprise Servers SPI Services to Operator .....	34
Viewing Service Map Using Operator Interface .....	34
<b>Configuring the Microsoft Enterprise Servers SPI (2013) .....</b>	<b>36</b>
Configuring the Microsoft Lync Server .....	36

Configuring the Microsoft SharePoint Server .....	43
<b>Using Policies and Tools .....</b>	<b>51</b>
Policy Group and Policy Type .....	51
Policy Group .....	51
Policy Type .....	52
Tools .....	52
BizTalk Server 2006 .....	52
MSES_BTS_DB_Configuration Tool .....	52
Create Datasource for BizTalk Server .....	53
BizTalk Server 2010 .....	53
BTS 2010 Cluster Config .....	53
BTS 2010 Enable Trace .....	54
BTS 2010 Create Datasource .....	54
Tools for ISA Server .....	54
Create Datasource for ISA Server .....	54
Tools for SharePoint Server 2010 .....	54
Create Datasource for Sharepoint Server .....	55
Tools for Microsoft Lync Server 2010 .....	55
Create Datasource for Lync Server 2010 .....	55
Configure Edge server Discovery for Lync Server 2010 .....	55
Starting Tools .....	55
<b>Integrating with HP Reporting and Graphing Solutions .....</b>	<b>56</b>
Reports and Graphs .....	56
Integrating Microsoft Enterprise Servers SPI with HP Reporter .....	56
Installing Reporter Package .....	56
Configuring Reporter Package .....	56
Accessing Reporter Help .....	57
Generating Reports .....	57
Integrating Microsoft Enterprise Servers SPI with HP Performance Manager .....	58
Generating Graphs .....	59
<b>Troubleshooting SPI for Microsoft Enterprise Servers .....</b>	<b>60</b>
Failed Discovery .....	60

Insufficient Privileges .....	60
Missing Configuration File .....	60
Reports and Graphs .....	60
Reports and Graphs are not Generated .....	60
Data Logging Policies Cannot Log Data .....	61
Browser Crashes While Viewing HTML Reports .....	62
Reports Fail With Oracle Database .....	62
Tools .....	62
MSES_BTS_DB_Configuration Tool Fails to Run .....	62
MSES_BTS_DB_Configuration Tool or Configure Edge server Discovery for Lync Server 2010 Fails to Run .....	62
Policies .....	62
Measurement Threshold Policy .....	63
<b>Troubleshooting SPI for Microsoft Enterprise Servers (2013) .....</b>	<b>64</b>
SharePoint Server Discovery Fails .....	64
Alerts not Generated for Some Metrics .....	64
Data not Logged in SPI Datasource .....	64
<b>Removing Microsoft Enterprise Servers SPI .....</b>	<b>65</b>
Removing Microsoft Enterprise Servers SPI from the Management Server .....	65
From HPOM for HP-UX, Solaris or Linux: .....	65
Removing Other Components of Microsoft Enterprise Servers SPI .....	67
Removing Microsoft Enterprise Servers SPI Message Group .....	67
Removing User Profiles .....	67
Removing Reporter Package .....	67
Removing Reporter Package Using Control Panel .....	67
Removing Reporter Package Using .msi file .....	68
Removing Graph Package .....	68
Removing Graph Package Using Control Panel .....	68
Removing Graph Package Using .msi File .....	68
<b>We appreciate your feedback! .....</b>	<b>69</b>



# Chapter 1

---

## Introduction

The Smart Plug-in for Microsoft Enterprise Servers (Microsoft Enterprise Servers SPI) helps manage the Microsoft Enterprise Servers in your environment. The Microsoft Enterprise Servers SPI provides information about the following Microsoft Enterprise Servers:

- BizTalk Server 2006 and 2006 R2
- BizTalk Server 2010
- Internet Security and Acceleration Server 2006
- Microsoft Office SharePoint Server 2007
- Microsoft Office Communications Server 2007 and R2
- Microsoft SharePoint Server 2010
- Microsoft Lync Server 2010
- Microsoft Lync Server 2013
- Microsoft SharePoint Server 2013

## Microsoft Office Communications Server 2007 Deployment Configurations

The Microsoft Enterprise Servers SPI supports the following Office Communications Server 2007 deployment configurations:

- Microsoft Office Communications Server Standard Edition
- Microsoft Office Communications Server Enterprise Edition Consolidated
- Microsoft Office Communications Server Enterprise Edition Expanded
- The Microsoft Enterprise Servers SPI does not support the following deployment configurations:
- Microsoft Office Communications Server 2007 configured with load balancing
- Microsoft Office Communications Server 2007 installed on clustered environment

## Microsoft Lync Server 2010 Deployment Configurations

The Microsoft Enterprise Servers SPI supports the following Lync Server 2010 deployment configurations:

- Microsoft Lync Server 2010 Standard Edition
- Microsoft Lync Server 2010 Enterprise Edition

# Components of Microsoft Enterprise Servers SPI

The components of the Microsoft Enterprise Servers SPI are policies, tools, reports, and graphs.

## Policies

Policies are pre-defined thresholds to monitor the Microsoft Enterprise Server environments. These policies help in improving monitoring schedules by the use of service map alerts and messages. Service map alerts appear in service map and messages appear in the message browser. A color-code indicates the severity level of each message. The severity levels are minor, major, and critical. The messages provide information about the problems and help you to take preventive actions. For more information about policies, see ["Using Policies and Tools"](#) on page 51.

## Tools

Tools are utilities to configure the Microsoft Enterprise Servers and gather related information. For more information about the Microsoft Enterprise Servers SPI tools, see ["Using Policies and Tools"](#) on page 51.

## Reports

Reports are the pictorial representations of metrics of Microsoft Enterprise Servers. Data collected by the Microsoft Enterprise Servers SPI is used to generate reports. For more information about reports, see ["Integrating with HP Reporting and Graphing Solutions"](#) on page 56.

## Graphs

Graphs represent various metrics of the Microsoft Enterprise Servers graphically in the form of bar charts, pie charts, and line graphs. Graphs contain the data collected by Microsoft Enterprise Servers SPI and these provide you information to determine actions to be taken. For more information about graphs, see ["Integrating with HP Reporting and Graphing Solutions"](#) on page 56.

Reports and graphs are generated with the help of HP Reporter and HP Performance Manager. To view reports and graphs, you must install the HP Reporter and HP Performance Manager in your environment.

# Functions of Microsoft Enterprise Servers SPI

The following sections detail the functions of the Microsoft Enterprise Servers SPI.

## Monitoring Availability, Performance, and Event Log

The Microsoft Enterprise Servers SPI **monitors the Microsoft Enterprise Servers in your environment and maintains the thresholds set up by the policies. It also ensures complete**

availability of the services, monitors Windows performance counters, and Windows Event Logs. The Microsoft Enterprise Servers SPI sends out notifications when the threshold values are exceeded.

## Displaying Information

The Microsoft Enterprise Servers SPI displays information using the following.

### Service Map

Service map shows the newly added and discovered Microsoft Enterprise Servers. The servers are displayed in the console services tree on the left and the service map appears on the right pane of the console. In the service map pane, you can expand the hierarchy to view the services present on each Microsoft Enterprise Server.

To view the Microsoft Enterprise Servers services, follow these steps:

1. Click **Integrations** → **HPOM for Unix Operational UI**. The Login window appears.
2. Type the user name and password and then click **OK**.
3. Click **Services**. The service map appears.
4. Expand the hierarchy to view the specific services present on each server. Further expansion of each server displays its components.

### Message Browser

The message browser of the HPOM (HP Operations Manager) console displays the messages generated by the Microsoft Enterprise Servers SPI, based on the severity level of the problem. These messages are generated when the Microsoft Enterprise Servers SPI monitors events and services on the managed nodes.

### Instruction Text

Error messages generated by the policies of the Microsoft Enterprise Servers SPI contain instruction texts. These instruction texts detail the probable cause and preventive action to resolve errors.

### Reports and Graphs

Reports and graphs present information that helps you see trends in your environment. Using these reports and graphs, you can manage the environment better by implementing efficient load balancing, capacity planning, policy scheduling, and making threshold adjustments.

**Note:** All artifacts used for monitoring BizTalk Server 2010 are backward compatible with BizTalk Server 2009 and can be used for monitoring BizTalk Server 2009.

## Generating Reports Using HP Reporter

You can generate reports to analyze the past or present conditions of the Microsoft Enterprise Servers. These web-based reports are automatically generated at periodical intervals. For more information about HP Reporter, see "Integrating with HP Reporting and Graphing Solutions" on page 56.

## Generating Graphs Using HP Performance Manager

After you generate the graphs manually, you can view the data in a specified manner. You can access the graphs in the HP Performance Manager console by integrating the Microsoft Enterprise Servers SPI with HP Performance Manager. For more information about HP Performance Manager, see "Integrating with HP Reporting and Graphing Solutions" on page 56.

## Customizing Policies

You can customize the monitoring schedule or measurement threshold policies for any Microsoft Enterprise Servers SPI policy. Following are some of the parameters that can be customized:

Script-parameters

Rules

Options

## Chapter 2

---

# Installing the Microsoft Enterprise Servers SPI

You must install the Microsoft Enterprise Servers SPI on the HPOM management server. The following sections provide detailed information about the installation.

## Installation Packages

The Microsoft Enterprise Servers SPI installation package includes the following:

### SPI Package

The Microsoft Enterprise Servers SPI which contains all the functionalities of the Microsoft Enterprise Servers SPI. Install the package on the HPOM server. You can find the Microsoft Enterprise Servers SPI packages at the following locations:

For HP-UX: `<SPI DVD>\HP_Operations_Smart_Plug-ins_Hpux_setup.bin`

For Solaris: `<SPI DVD>\HP_Operations_Smart_Plug-ins_Solaris_setup.bin`

For Linux: `<SPI DVD>\HP_Operations_Smart_Plug-ins_Linux_setup.bin`

### Graph Package

The Graph package contains graphs. The graphs are drawn from metrics that are collected into the data sources created by the Microsoft Enterprise Servers SPI. You can find the Microsoft Enterprise Servers SPI graph package at the following location:

For 64 bit: `<SPI DVD>\WINDOWS\HP_PMMSESSPI\HPOvSpiMsesGc_Win5.2_64.msi`

For 32 bit: `<SPI DVD>\WINDOWS\HP_PMMSESSPI\HPOvSpiMsesGc_WinNT4.0.msi`

### Reporter Package

The Reporter package contains reports. The HP Reporter gathers data from the nodes managed by the Microsoft Enterprise Servers SPI through HPOM. It stores the data in its local database and creates `.html` reports based on the default Microsoft Enterprise Servers SPI report policies. You can find the Microsoft Enterprise Servers SPI reporter package at the following location:

`<SPI DVD>\WINDOWS\HP_REPORTER\MSESSPI\MSESSPI-Reporter.msi`

You can install HP Reporter and HP Performance Manager while installing the Microsoft Enterprise Servers SPI on the HPOM server using the SPI DVD. The Reporter package is installed on HP Reporter and the Graph package is installed on HP Performance Manager.

## Installation Environments

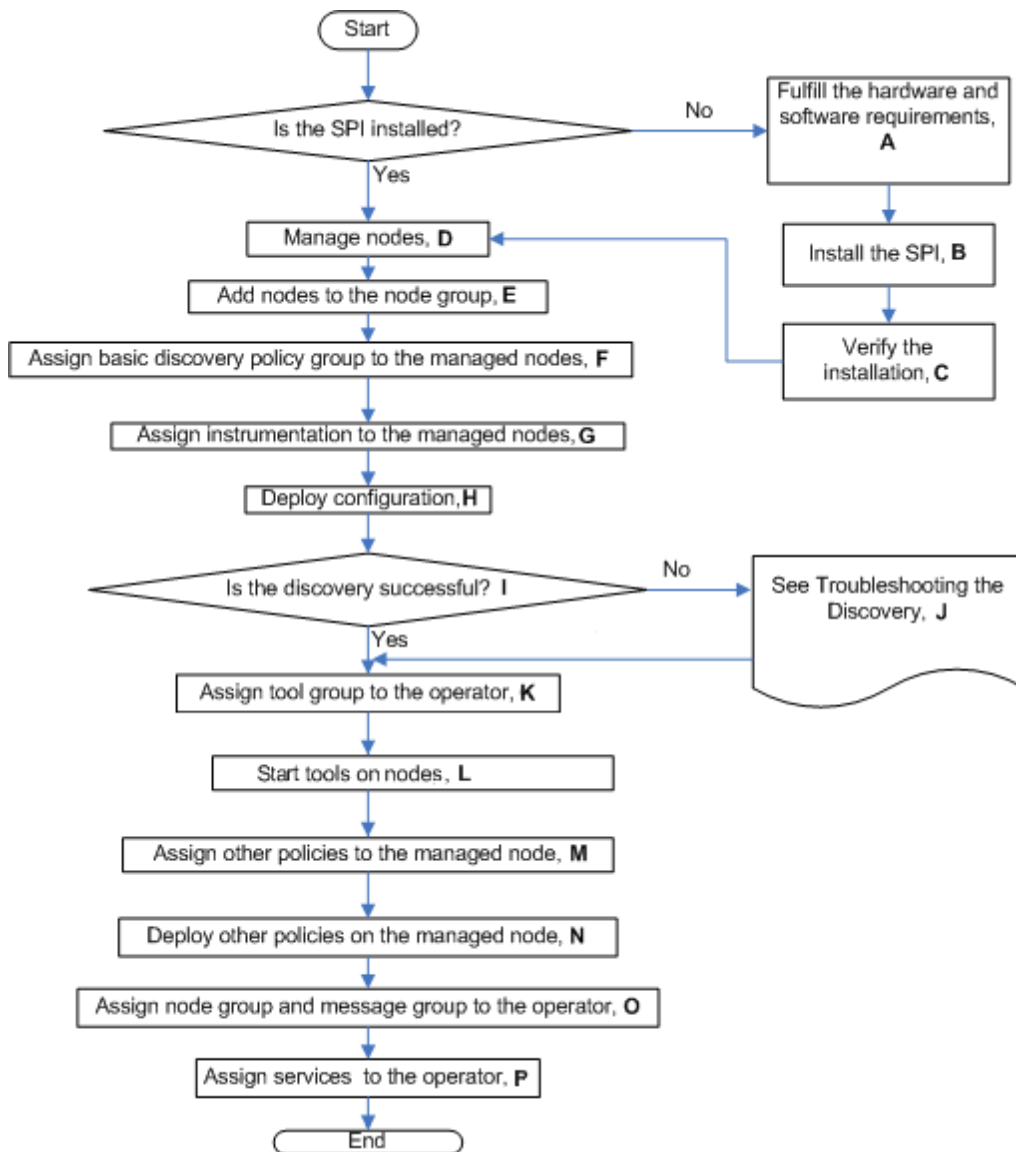
You can install the Microsoft Enterprise Servers SPI on the following environments:

- Standard installation of SPI components on an HPOM 9.1x server.
- Standalone HP Reporter and HP Performance Manager.

## Installation Overview

The following flowchart provides an overview of the tasks involved in the installation and configuration of the Microsoft Enterprise Servers SPI.

Overview of Installation and Configuration Steps



Legends of Installation and Configuration Steps

Legend	References
A	"Prerequisites to Install Microsoft Enterprise Servers SPI" below
B	"Installing Microsoft Enterprise Servers SPI on a Local Management Server" on next page
C	See "Verifying the Installation of Microsoft Enterprise Servers SPI"
D	"Manage Microsoft Enterprise Server Nodes" on page 23
E	"Assigning Nodes to Node Group" on page 23
F	"Discovery Policies" on page 32
G	"Assigning Instrumentation Categories to Microsoft Enterprise Nodes" on page 24
H	"Deploying Configuration" on page 25
J	"Troubleshooting SPI for Microsoft Enterprise Servers" on page 60
K	"Assigning Tool Group to Operator" on page 26
L	"Starting Tools on the Nodes" on page 26
M	"Assigning Policies to the Nodes" on page 27
N	"Deploying Policies on Nodes" on page 29
O	"Assigning Node Group and Message Groups to Operator" on page 30
P	"Assigning Microsoft Enterprise Servers SPI Services to Operator" on page 34
Q	"Data Logging Scenarios" on page 31

## Prerequisites to Install Microsoft Enterprise Servers SPI

Before installing the Microsoft Enterprise Servers SPI, ensure that the system meets the hardware and software requirements and then install HPOM. It is not necessary to stop HPOM sessions before beginning the Microsoft Enterprise Servers SPI installation.

### Hardware Requirements

The management server must have a minimum of 200 MB Free Hard-Disk space.

### Software Requirements

Ensure that the system meets the following software requirements before the installation of the Microsoft Enterprise Servers SPI:

On the management server:

- HP Operations Manager 9.1x
- Install the hotfixes in the following order:
  - a. The Cumulative OM Admin UI Hotfix (hotfix08\_9.1.0\_cumulative)
  - b. Change Request: **QCCR1A120300** - Warning threshold condition disappears for a few measurement threshold policies
- HP Reporter 4.0
- HP Performance Manager 9.x
- MSES SPI version 8.x
- Service Navigator: to view the Microsoft Enterprise Service Map
- HP Operations SPI Data Collector (DSI2DDF) 2.41
- HP SPI Self-Healing Services (SPI-SHS-OVO) 3.01
- You can install SPI-SHS-OVO and DSI2DDF from the SPI DVD.

On the managed node:

- HP Performance Agent 5.00 (required if you want to use HP Performance Agent for data logging)
- HP Operations Agent, versions 8.6x and 11.x, installed and configured

## Installing Microsoft Enterprise Servers SPI

The Microsoft Enterprise Servers SPI version 8.05 is a patch release. You can download the patches from the following location: <http://support.openview.hp.com/selfsolve/patches>. Instructions to install the patch are available in the patch text. The following sections describe procedures to install the Microsoft Enterprise Servers SPI on a management server.

## Installing Microsoft Enterprise Servers SPI on a Local Management Server

The Microsoft Enterprise Servers SPI can be installed on a Local Management Server as well as on the HPOM Cluster Servers. The following sections provide information on installing the Microsoft Enterprise Servers SPI. To install the Microsoft Enterprise Servers SPI on the HPOM management server, follow these steps:

### On HPOM For Unix Management Server:

This section describes the steps required to install the Microsoft Enterprise Servers SPI on HPOM for Unix.

#### Mounting the DVD:

Follow these steps:

1. Log on as user: **root**.
2. Set the user's root umask by typing the command **umask 027**



3. Create a directory to mount the DVD by typing the command **mkdir /<mount\_point>**  
For example: **mkdir /dvdrom**
4. Insert the DVD into the disk drive and mount it as user root by typing  
**mount /dev/<dvdrom\_drive\_name> /<mount\_point>**  
For example, for a local DVD, type:  
**mount /dev/dsk/c0t2d0 /dvdrom**
5. You can also run SAM and mount the DVD to a specific path in the Disks and File Systems window.

## On HPOM for HP-UX, Linux, and Solaris Management Servers:

You can install the SPI on a HP-UX, Solaris, or Linux management server through either of the following methods:

- Using the Graphical User Interface
- Using the Command Line Interface

### Installing the SPI using the Graphical User Interface

Installing the SPI using the Graphic User Interface has two scenarios:

"Scenario 1: Installing the Microsoft Enterprise Servers SPI" below

"Scenario 2: Installing the Microsoft Enterprise Servers SPI when another SPI is already installed" on next page

## Scenario 1: Installing the Microsoft Enterprise Servers SPI

To install the Microsoft Enterprise Servers SPI using X-Windows client software, follow these steps:

1. Log on as user: **root**.
2. Insert the HP Operations Smart Plug-ins DVD into the DVD drive.
3. Start the X-windows client software and export the DISPLAY variable by typing the following command:

```
export DISPLAY=<ip address>:0.0
```

4. To start the installation, type the following command:

For HP-UX

```
./HP_Operations_Smart_Plug-ins_Hpux_setup.bin
```

For Solaris:

```
./HP_Operations_Smart_Plug-ins_Solaris_setup.bin
```

For Linux:

#### **./HP\_Operations\_Smart\_Plug-ins\_Linux\_setup.bin**

The Initialization window opens.

The Introduction (Install) window opens.

5. Click **Next**. The License Agreement window opens.
6. Select **I accept the terms of the License Agreement** and click **Next**. The Select Features window opens.
7. Select the **HP Operations Smart Plug-In for Microsoft Enterprise Servers** and click **Next**. The Install Checks window opens.

**Note:** The **HP Operations Smart Plug-in Common Components** is a mandatory component.

8. Click **Next**. The Pre-Install Summary window opens.

9. Click **Install**.

**Note:** Select **Force reinstallation** to reinstall the selected components.

10. When the installation is complete, click **Done**.

## Scenario 2: Installing the Microsoft Enterprise Servers SPI when another SPI is already installed

To install the Microsoft Enterprise Servers SPI using X-Windows client software, follow these steps:

1. Log on as user: **root**.
2. Insert the HP Operations Smart Plug-ins DVD into the DVD drive.
3. Start the X-windows client software and export the DISPLAY variable by typing the following command:

```
export DISPLAY=<ip address>:0.0
```

4. To start the installation, type the following command:

For HP-UX

```
./HP_Operations_Smart_Plug-ins_Hpux_setup.bin
```

For Solaris:

```
./HP_Operations_Smart_Plug-ins_Solaris_setup.bin
```

For Linux:

```
./HP_Operations_Smart_Plug-ins_Linux_setup.bin
```

The Initialization window opens.

5. The Application Maintenance screen appears. Select **Modify**. The Introduction (Modify) screen appears.
6. Click **Next**. The Select Features screen appears.
7. Select the SPI you need to install.
8. Select the SPI that is previously installed.

**Note:** If you do not select the previously installed SPIs, the installer automatically removes the previously installed SPIs and installs the selected ones.

9. Click **Next**. The Install Checks screen appears. Click **Next**. The Pre-Install Summary screen appears.
10. Click **Modify**. The Modifying screen appears.
11. When modifying is complete. Click **Done**.

#### Installing the SPI using the Command Line Interface

Installing the SPI using Command Line Interface has two scenarios:

"Scenario 1: Installing the Microsoft Enterprise Servers SP (Command Line Interface)" below

"Scenario 2: Installing the Microsoft Enterprise Servers SPI when another SPI is already installed (Command Line Interface)" on next page

## Scenario 1: Installing the Microsoft Enterprise Servers SP (Command Line Interface)

To install the Microsoft Enterprise Servers SPI through the command line interface, follow these steps:

1. Log on as a user: **root**.
2. Insert the HP Operations Smart Plug-ins DVD into the DVD drive.
3. To start the installation, type the following command:

For HP-UX:

```
./HP_Operations_Smart_Plug-ins_Hpux_setup.bin -i console
```

For Solaris:

```
./HP_Operations_Smart_Plug-ins_Solaris_setup.bin -i console
```

For Linux:

```
./HP_Operations_Smart_Plug-ins_Linux_setup.bin -i console
```

The HP Software Installer content appears.

4. Press **Enter** to continue. The Introduction content appears.
5. Press **Enter** to continue. The License agreement content appears.

6. When the License agreement prompt, '**I accept the terms of the License Agreement**' appears, type **Y** and press **Enter** to accept the terms and continue with the installation.
7. The Feature selection options list appears.
8. Type the number corresponding to the feature you want to install and press **Enter**. The installer selects the other required features.
9. Press **Enter** to continue. The Install Requirements Checks content appears.
10. Press **Enter** to continue. The Pre-Installation Summary content appears.
11. Press **Enter** to continue. The selected features are installed. When the installation is complete, a message appears stating that the installation is completed successfully.

## Scenario 2: Installing the Microsoft Enterprise Servers SPI when another SPI is already installed (Command Line Interface)

To install the Microsoft Enterprise Servers SPI through the command line interface, follow these steps:

1. Log on as a user: **root**.
2. Insert the HP Operations Smart Plug-ins DVD into the DVD drive.
3. To start the installation, type the following command:  
For HP-UX:  
**./HP\_Operations\_Smart\_Plug-ins\_Hpux\_setup.bin -i console**  
For Solaris:  
**./HP\_Operations\_Smart\_Plug-ins\_Solaris\_setup.bin -i console**  
For Linux:  
**./HP\_Operations\_Smart\_Plug-ins\_Linux\_setup.bin -i console**  
The HP Software Installer content appears.
4. Press **Enter** to continue. The Application Maintenance content appears.
5. Type the number corresponding to the feature Modify.
6. Press **Enter** to continue. The Select Features content appears.
7. Type the number corresponding to the SPI you want to install.
8. Type the number corresponding to the SPI you want to retain.

**Note:** If you do not select the previously installed SPIs, the installer automatically removes the previously installed SPIs and installs the selected ones.

9. Press **Enter**. The installer selects the other required features.
10. Press **Enter** to continue. The Install Requirements Checks content appears.
11. Press **Enter** to continue. The Pre-Installation Summary content appears.

12. Press **Enter** to continue. The selected features are installed. When the installation is complete, a message appears stating that the installation is completed successfully.

## Installing Microsoft Enterprise Servers SPI on HPOM Cluster Servers

Before installing the Microsoft Enterprise Servers SPI in a cluster environment, ensure that HPOM 9.1x is installed on each system of the cluster. The HPOM console does not function properly until you install the Microsoft Enterprise Servers SPI on all the nodes in the HPOM cluster. Install Microsoft Enterprise Servers SPI on all cluster aware management servers.

**Note:** Before starting, ensure that sufficient disk space is available on each management server for the Microsoft Enterprise Servers SPI. Cancelling the installation process before the completion leads to partial installations and requires manual removal of the partially installed components.

## Verifying the Installation of Microsoft Enterprise Servers SPI

To verify whether the Microsoft Enterprise Servers SPI installation is proper, perform one of the following steps:

1. Check the Policy Bank and verify if it contains **SPI for Microsoft Enterprise Servers**. Click **Browse** → **Policy Bank**. The system displays *SPI for Microsoft Enterprise Servers*.
2. From the command prompt of HPOM, go to the directory:  
**`/var/opt/OV/share/databases/OpC/mgd_node/instrumentation`**.
3. You can see the Microsoft Enterprise Servers SPI Instrumentation groups in this directory.

## Chapter 3

---

# Configuring the Microsoft Enterprise Servers SPI

The Microsoft Enterprise Servers SPI monitors the Microsoft Enterprise Servers by discovering the existing servers in your environment and maintaining the thresholds set by the policies. Each server has specific node groups, message groups, tools, and categories assigned. The following table lists the details.

### Server types and related details

Server	Node Group	Message Group	Instrumentation Category	Tool Group
BizTalk Server 2006 R2	Biztalk Server 2006	Biztalk Server 2006	BizTalk_Server	BizTalk Server
BizTalk Server 2010	Biztalk Server 2010	BTS	BTS2010	BizTalk Server
Internet Security and Acceleration	ISA_Server	MSESSPI	ISA_Server	ISAServer
Microsoft Office Communications Server	OCS	OCS	OCS	
SharePoint Portal Server 2007	SharePoint Portal Server	SharePoint Portal Server	MOSS_2k7	
Microsoft SharePoint Server 2010	SharePoint 2010	SharePoint 2010	Sharepoint_Server	SharePoint Server Tools
Microsoft Lync Server 2010	LS2010	LS2010	LS2010	Lync Server 2010
Microsoft SharePoint Server 2013	SharePoint 2013	SharePoint Portal Server	SP2013	SharePoint Server Tools
Microsoft Lync Server 2013	LS2013	LS2013	LS2013	Lync Server

**Server types and related details, continued**

Server	Node Group	Message Group	Instrumentation Category	Tool Group
			Common for all servers: SPIDataCollector SHS_Data_Collector	Common for all servers: Self-Healing Verification Self-Healing Info

The Microsoft Enterprise Servers SPI expands the discovery and adds multiple hierarchical levels of details to each server. The service map identifies the Microsoft Enterprise Servers. You can drill down to each component of the existing servers and find the root cause of any problems arising.

## Basic Configuration Procedure


Configure the Microsoft Enterprise Servers SPI by performing the tasks mentioned in the following sections.

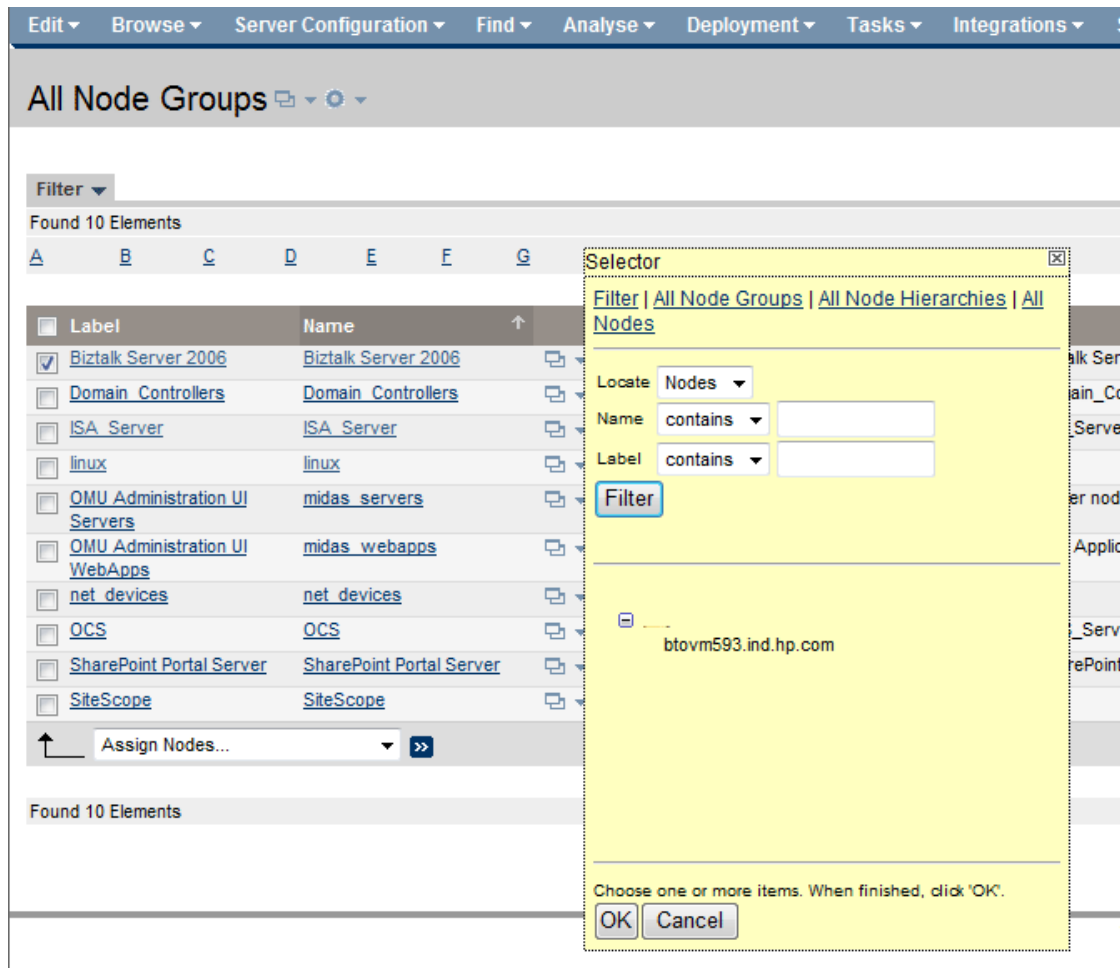
## Manage Microsoft Enterprise Server Nodes

For information about managing the Microsoft Enterprise Server nodes, see *HP Operations Manager for UNIX Concepts Guide*.

## Assigning Nodes to Node Group

To assign Microsoft Enterprise Server nodes to its corresponding node group, follow these steps:

1. Click **Browse** → **All Node Groups**. The All Node Groups page appears.
2. For information about the node groups corresponding to each Microsoft Enterprise Servers, see "Server types and related details" on previous page.
3. Select the check box corresponding to the required node group.
4. Select **Assign Nodes...** from the list and click the **Submit** . The Selector dialog box opens.



5. Search for corresponding nodes using the search options in the **Filter** tab.
6. You can also search for the appropriate node using the **All Node Groups**, **All Node Hierarchies**, or **All Nodes** tabs.
7. Select the required node and click **OK**. A message appears stating that the nodes are assigned to the node group successfully.


## Assigning Instrumentation Categories to Microsoft Enterprise Nodes

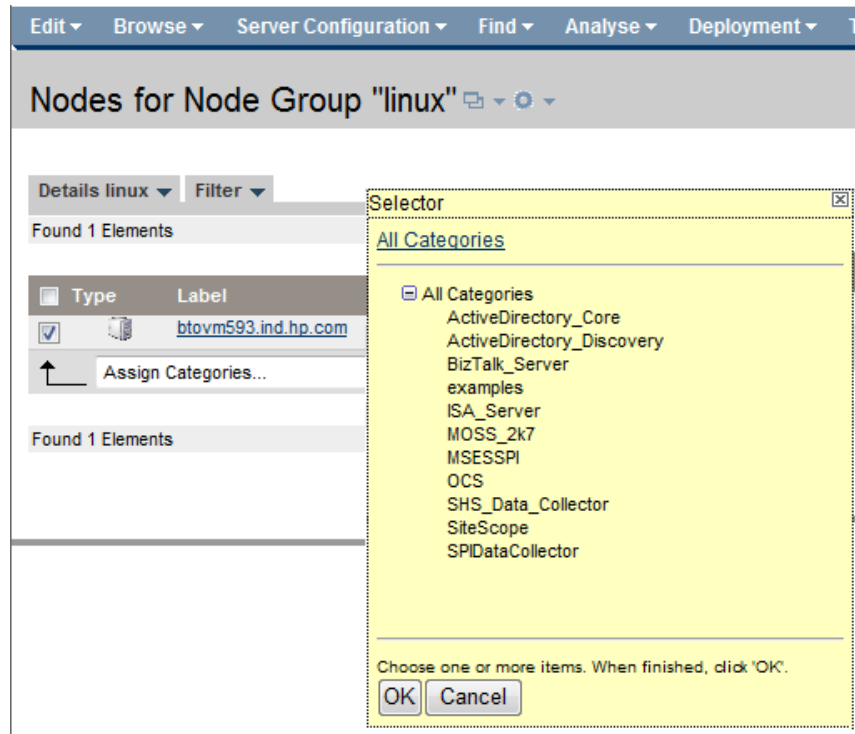
The Microsoft Enterprise Servers have specific instrumentation categories for each server. For more information, see "Server types and related details" on page 22.

**Note:** SPIDataCollector is a mandatory category and must be deployed along with any instrumentation category type.

To assign instrumentation to the Microsoft Enterprise Server nodes, follow these steps:




1. Click **Browse** → **All Node Groups** and click the required node group. The Microsoft Enterprise Servers nodes are listed.
2. Select the check boxes corresponding to the Microsoft Enterprise Server nodes to be assigned to instrumentation categories.
3. Click **Assign Categories...** from the list and click **Submit** . The Selector dialog box appears.
4. Select the required categories and **SPIDataCollector**. Click **OK**.



5. The selected categories are assigned to the Microsoft Enterprise Server nodes.
6. A message appears stating that the categories are assigned successfully.

## Deploying Configuration

To deploy configuration to one or more Microsoft Enterprise Server nodes, follow these steps:



1. Click **Browse** → **All Node Groups** and click the required node group. The corresponding nodes are listed.
2. Select the check box corresponding to the Microsoft Enterprise Server nodes to deploy the configuration.
3. Select **Deploy Configuration...** from the list and click **Submit** .

4. A dialog box opens which lists the categories of configuration.
5. Select only the **Distribute Instrumentation** check box and click **OK**.

A message appears stating that instrumentation is successfully deployed on the Microsoft Enterprise Server nodes.

## Assigning Tool Group to Operator

To assign the Microsoft Enterprise Servers SPI tool group to an operator, follow these steps:

1. Click **Browse** → **Tool Bank**. The tools appear in the Tool Bank window.
2. Select the SPI for Microsoft Enterprise Server check box.
3. Click  and select **Assign to User/Profile...** from the list.
4. Click **Submit** . The Selector dialog box opens.
5. Type the operator name in the **Name** box and click **OK**. You can also use the **Filter, All Profiles, or All Users** tabs to search for an operator.
6. Select the operator and click **OK**.
7. The Microsoft Enterprise Servers SPI tool group is assigned to the operator.

## Starting Tools on the Nodes

The tools specific to the BizTalk Server 2006, BizTalk Server 2010, ISA Server, Microsoft SharePoint Server 2010, Microsoft Lync Server 2010, Microsoft SharePoint Server 2013, and Microsoft Lync Server 2013 must be run on all the managed nodes. The tools are listed as follows:

Server Type and Tool

Server Type	Tools
BizTalk Server 2006	Create Datasource for BizTalk Server MSES_BTS_DB_Configuration
BizTalk Server 2010	MSES_BTS_DB_Configuration BTS 2010 Cluster Config BTS 2010 Create Datasource BTS 2010 Enable Trace
Internet Security And Acceleration Server	Create Datasource for ISA Server
Microsoft SharePoint Server 2010	Create Datasource for Sharepoint Server

Server Type	Tools
Microsoft Lync Server 2010	Configure Edge server Discovery for Lync Server 2010 Create Datasource for Lync Server 2010
Microsoft SharePoint Server 2013	Create DataSource for Sharepoint Server
Microsoft Lync Server 2013	Configure Edge server Discovery for Lync Server Create DataSource for Lync Server Enable Trace

For more information about starting the tools, see "Starting Tools" on page 55

## Assigning Policies to the Nodes

Before deploying the policies MSES\_BizTalk\_MessageBox\_DatabaseSize and MSES\_BizTalk\_DTA\_DatabaseSize on the Biztalk Server node, ensure that you register the **SQLDMO.dll** on the node. If it is not registered, run the following command from the command prompt on the node:  
**regsvr32 <System Installation path of the SQL Server>\Microsoft SQL Server\80\Tools\Binn\SQLDMO.dll.**


For example, **C:\regsvr32 "C:\Program Files (x86)\Microsoft SQL Server\80\Tools\Binn\SQLDMO.dll"**

Assign only those policy groups on the managed nodes that host roles that the policy group is related to. For example, if the managed node hosts the Access Edge Server, deploy only the Access Edge Server policy group.

To assign Microsoft Enterprise Servers SPI policies to the Microsoft Enterprise Server nodes, follow these steps:

Click **Browse** → **All Node Groups** and click the required node group. The corresponding Microsoft Enterprise Server nodes are listed.

Select the check boxes corresponding to the Microsoft Enterprise Server nodes to assign policies.

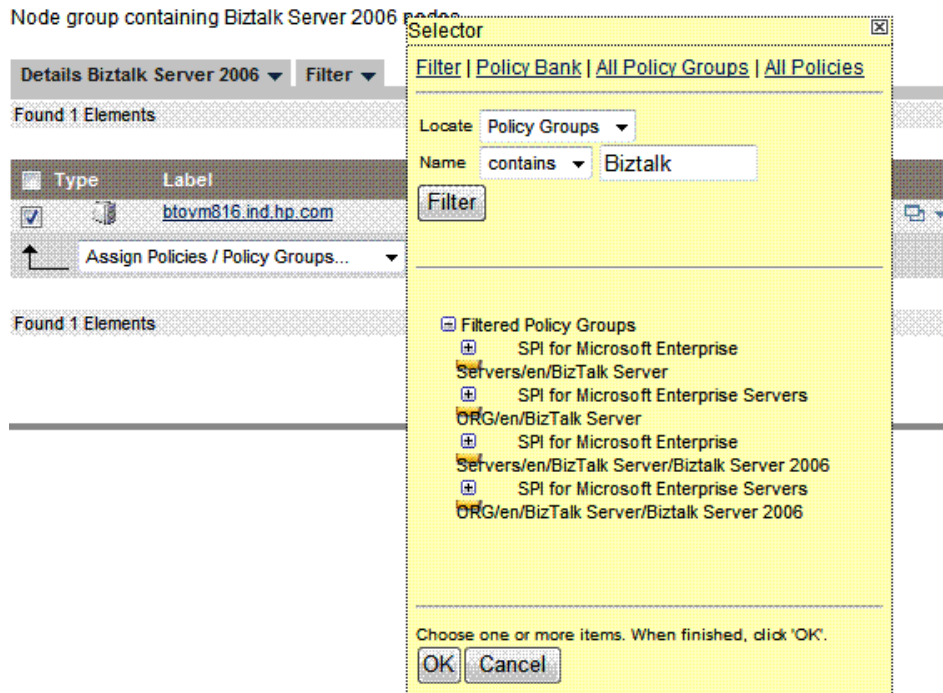
Select **Assign Policies / Policy Groups...** from the list and click **Submit** . The Selector dialog box opens.

Select **Policy Groups** in **Locate** list, type the name of the policy group corresponding to the role hosted on the Microsoft Enterprise Server node in the **Name** box, and click **Filter**.

The corresponding policy groups are listed. For more information about the policy groups, see "Server Role and the Policy Group to deploy" on next page.

You can also use **Policy Bank**, **All Policy Groups**, or **All Policies** tabs to find the required policy groups.

Select the required policy to assign and click **OK**. A message appears stating that the policy is successfully assigned to the node.



The Microsoft Enterprise Servers SPI policies belonging to a policy group are assigned to the Microsoft Enterprise Server nodes hosting the corresponding role.

The following table lists the Microsoft Enterprise Servers and the corresponding policy groups.

Server Role and the Policy Group to deploy

Server Role	Policy Group
BizTalk Server 2006	<b>Policy Bank → SPI for Microsoft Enterprise Servers → en → BizTalk Server → BizTalk Server 2006</b>
BizTalk Server 2010	<b>Policy Bank → SPI for Microsoft Enterprise Servers → en → BizTalk Server → BizTalk Server 2010</b>
Internet Security And Acceleration Server	<b>Policy Bank → SPI for Microsoft Enterprise Servers → en → Internet Security And Acceleration Server → Internet Security And Acceleration Server 2006</b>
SharePoint Portal Server	<b>Policy Bank → SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → Microsoft Office SharePoint Server 2007</b>
SharePoint Server 2010	<b>Policy Bank → SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → SharePoint Server 2010</b>
Microsoft Office Communications Server	<b>Policy Bank → SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Office_Communications_Server 2007</b>


Server Role	Policy Group
Microsoft Lync Server 2010	<b>Policy Bank</b> → <b>SPI for Microsoft Enterprise Servers</b> → <b>en</b> → <b>Microsoft_Office_Communications_Server</b> → <b>Microsoft_Lync_Server_2010</b>

## Deploying Policies on Nodes

To deploy the Microsoft Enterprise Servers SPI policies on the Microsoft Enterprise Server nodes, follow these steps:

Click **Browse** → **All Node Groups** and select the required node group. The Microsoft Enterprise Server nodes are listed in All Node Groups.

Select the check boxes corresponding to the Microsoft Enterprise Server nodes on which you want to deploy the policies.

Select **Deploy Configuration...** from the list and click **Submit** .

A dialog box opens listing the categories of configuration.

Select only the **Distribute Policies** check box and click **OK**.

## Customizing Policies

You can customize one or more policies to suit your Microsoft Enterprise Server environment.

To customize a policy, follow these steps:

Go to **Policy Bank** → **SPI for Microsoft Enterprise Servers** → **en**.

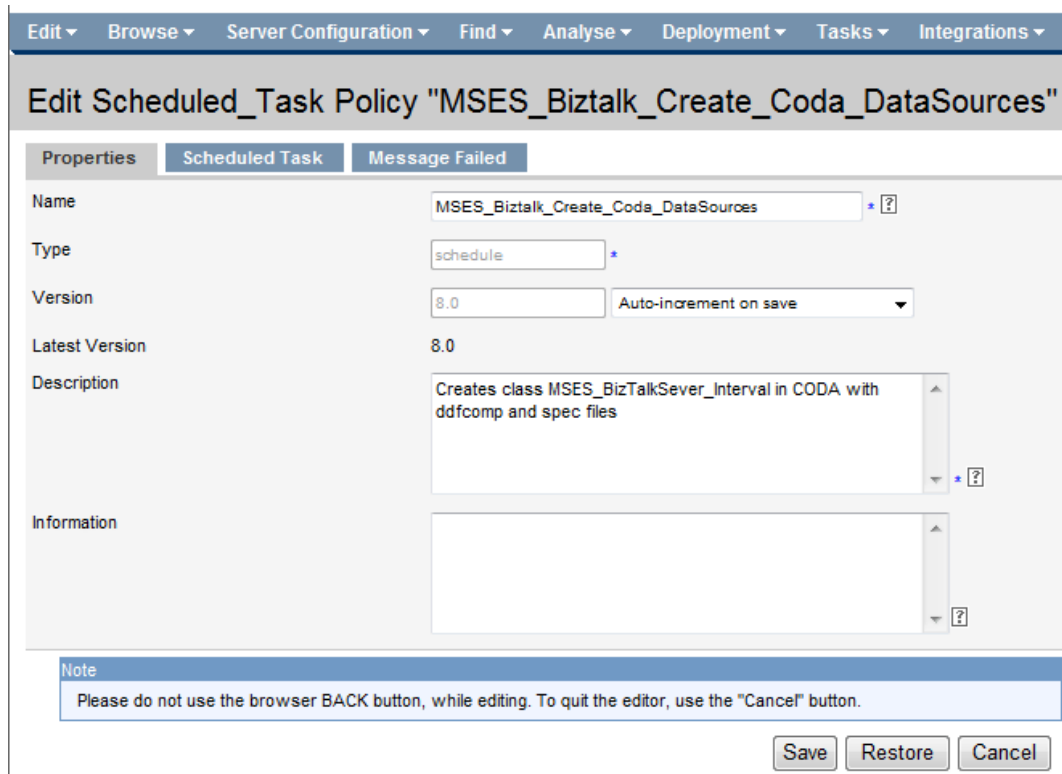
Select the policy group to which the policy belongs.

Select the check box corresponding to the policy to be customized.

Click  and select **Edit...** from the list.

The policy window opens where you can customize the policy by editing its properties, settings parameters, or message threshold.


Select the available tabs to modify the policy attributes. After making the changes click **Save**.

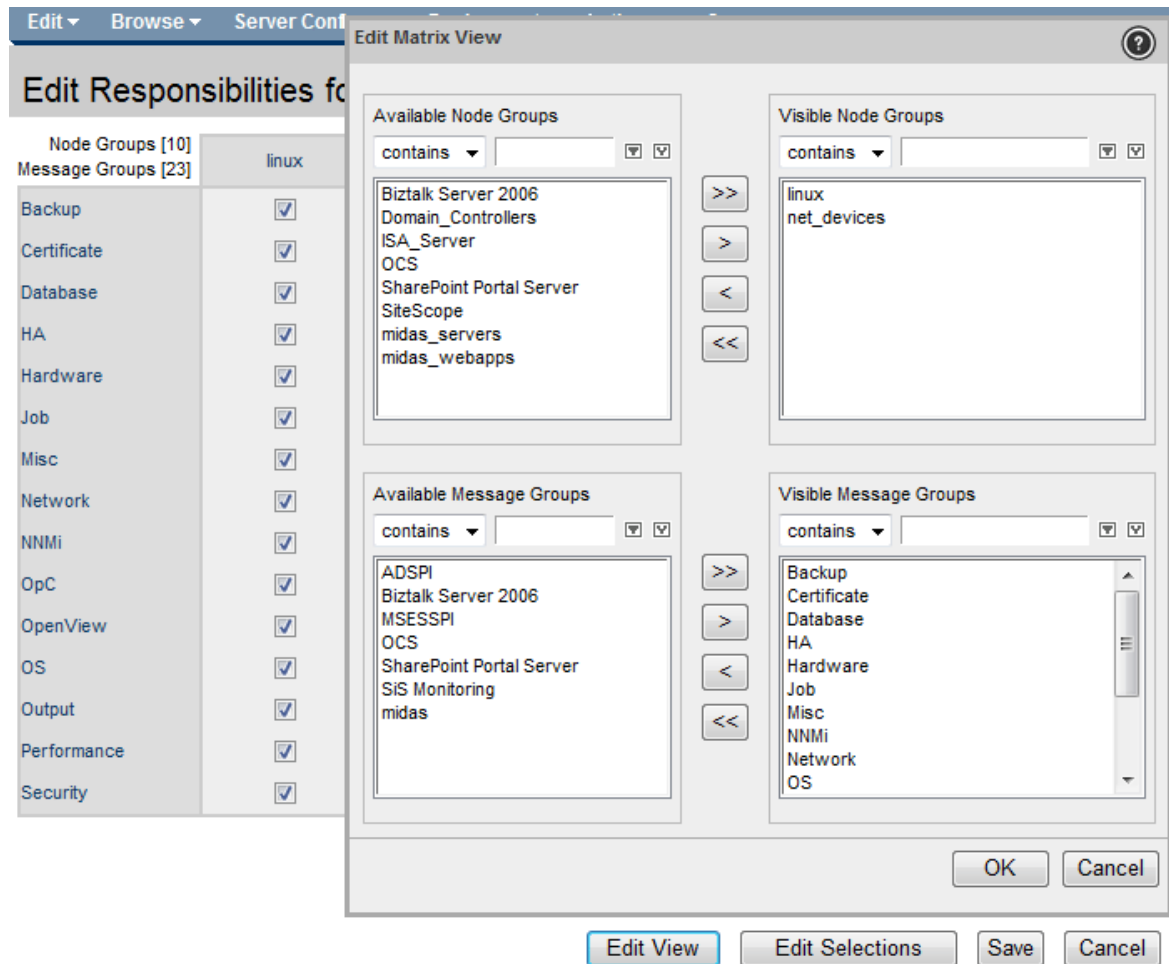



## Assigning Node Group and Message Groups to Operator

You can assign Microsoft Enterprise Server node groups and message groups to one or more operators for HPOM. This allows you to view messages and alerts generated by the Microsoft Enterprise Servers SPI nodes.

To assign the Microsoft Enterprise Servers SPI node groups and message groups, follow these steps:

1. Click **Browse** → **All Users**. The list of operators appears in the console window.
2. Select the check box corresponding to one or more operators for Microsoft Enterprise Servers SPI and click **Edit Responsibilities...** from the  list.
3. The Edit Responsibilities window opens displaying the available node groups and message groups.
4. Click **Edit View**. The Edit Matrix View dialog box opens.



5. Select the required node groups and message groups and click  to shift the groups from the Available Node Groups to Visible Node Groups.
6. Select the required node group and corresponding message group check boxes to enable the operator to use the message browser and view alerts.
7. Click **Save**.

## Data Logging Scenarios

If you use HP Performance Agent as the datastore, data source creation and data logging occur in Performance Agent, by default. There is no configuration required.

To create data sources and to log data into CODA when Performance Agent is installed, follow these steps:

**Note:** You do not need to perform the following steps for BizTalk Server 2010. The BTS 2010 create data source tool can be used to perform this operation. By default, this tool configures the BizTalk Server 2010 datasource in CODA. For more information, see ["Using Policies and Tools"](#) on page 51

1. Create a folder **dsi2ddf** at the path **%OvAgentDir%\Conf**, if it does not exist.
2. Create a file **nocoda.opt**.
3. Type the names of the other data sources except the server type data sources, to be created and for which the data logging has to happen in HP Performance Agent into the file **nocoda.opt**.
4. The data sources OCS, ISASERVER2006, MOSS\_2007, and MSES\_BIZTALKSERVER\_INTERVAL, BTS\_DATA are created in the respective Microsoft Enterprise Server nodes and data logging happens in CODA.

The following table lists the server type data sources.

Server Type	Data Source Name
BizTalk Server 2006	MSES_BIZTALKSERVER_INTERVAL
BizTalk Server 2010	BTS_DATA
ISA Server	ISASERVER2006
MOSS	MOSS_2007
OCS	OCS
SharePoint 2010	SharePoint_Server
Microsoft Lync Server 2010	CS
Microsoft SharePoint Server 2013	SHAREPOINT
Microsoft Lync Server 2013	LYNC

For more details about the data store (CODA or HP Performance Agent) metrics and policy logging details, see *HP Operations Smart Plug-in for Microsoft Enterprise Servers Reference Guide*.

## Discovery Policies

Before deploying the Discovery policies, you must edit the discovery policies.

### **BizTalk\_Discovery**

This policy discovers the systems infrastructure of the BizTalk Server 2006 in the environment. This policy requires BizTalk administrator privileges, local administrator privileges, and privileges to access all the databases.

### **BTS\_Discovery**



This policy discovers the systems infrastructure of the BizTalk Server 2006 in the environment. This policy requires BizTalk administrator privileges, local administrator privileges, and privileges to access all the databases.

#### BTS\_Cluster\_Re\_Discovery

The BTS\_Cluster\_Re\_Discovery policy updates the service map when a cluster failover occurs.

## Discovery Configuration Scenarios

The Microsoft Enterprise Servers SPI discovers the services of the Microsoft Enterprise Server and helps you manage the Microsoft Enterprise Servers in your environment. For each type of Microsoft Enterprise Server, there is a specific discovery policy and you must run all the discovery policies with the administrator role.

Perform the tasks in the following sections to discover the Microsoft Enterprise Server services.

**Note:** Before deploying the Service Discovery policy on the BizTalk Server 2006 or BizTalk Server 2010 node, run the MSES\_BTS\_DB\_Configuration Tool on the BizTalk Server node. For more information about launching the tool, see "Starting Tools" on page 55.

## Editing Discovery Policy

To edit the Microsoft Enterprise Servers SPI Discovery policy, follow these steps:

1. Click **Browse** → **Policy Bank** → **SPI for Microsoft Enterprise Servers** → **en** → **<Server>** → **<Server Group>** → **Discovery**.
2. Select the required policy check box and click **Edit...** from the list.
3. Edit the discovery policy to run as administrator. Type the following details:
  - a. User:
  - b. Domain User: **<Domain Name>\<Administrator>**
  - c. Non-domain User: **<Administrator>**
  - d. Password: **<Password>**

**Edit Service\_Auto\_Discovery Policy "biztalk\_discovery"**

Properties | Service Auto Discovery | Schedule

BizTalk Discovery \*  
 \_BTS\_System

BTS\_System\_BTSDiscScript\_1\_1  
User: admin  
Password: .....

**Note**  
Please do not use the browser BACK button, while editing. To quit the editor, use the "Cancel" button.

Save Restore Cancel

You can use the tabs to edit different attributes of the policy.

Click **Save** to save the changes.

## Assigning Microsoft Enterprise Servers SPI Services to Operator

Assign the Microsoft Enterprise Servers SPI discovered services to the operator by running the command **opcservice -assign <operator name> <rootservice name>** after Microsoft Enterprise Server discovery is run. The rootservice name is specific for each server. For more information about the service names for the servers, see "Root Service names for servers" below. The service navigator shows the Microsoft Enterprise Server service map.

### Root Service names for servers

Server Type	Root Service name
BizTalk Server 2006	BTS_System
BizTalk Server 2010	BTS_2010
Internet Security and Acceleration Server	ISA2006_Application ISA2006_System
Microsoft Office Communications Server	OCS_2007
Microsoft SharePoint Portal Server 2007	MOSS2K7
SharePoint Server 2010	MOSS2K7
SharePoint Server 2013	SPS
Microsoft Lync Server 2010	CommServer
Microsoft Lync Server 2013	CommServer

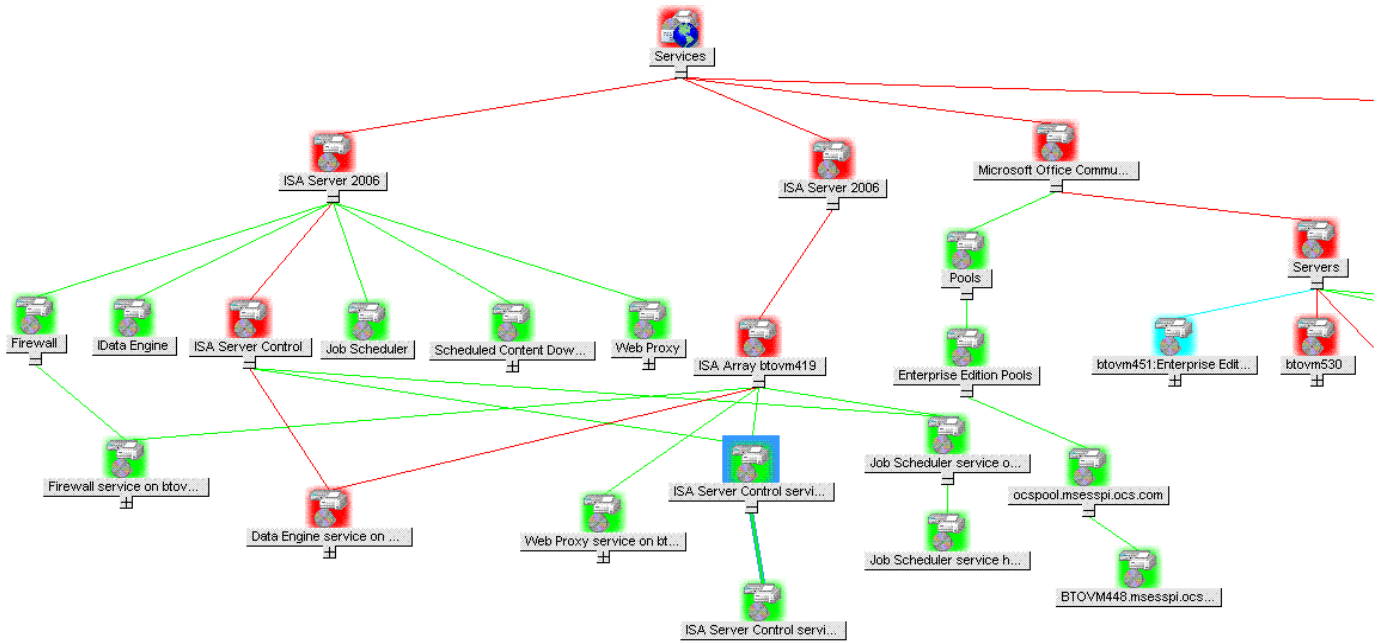
For example, to assign the BizTalk Server discovered services to the operator, **opc\_adm**, after running the Service Discovery policy on the BizTalk Server, you must run the command **opcservice -assign opc\_adm BTS\_System**.

## Viewing Service Map Using Operator Interface

You can view the Microsoft Enterprise Servers SPI service map using the operator interface. To view services, click **Services**.

The service map shows the newly discovered services of the Microsoft Enterprise Server. You can expand the hierarchy to view the specific services of the Microsoft Enterprise Server.

Service Map



## Chapter 4

---

# Configuring the Microsoft Enterprise Servers SPI (2013)

The Microsoft Enterprise Servers SPI helps you to manage the Microsoft Enterprise Servers in your environment. The Microsoft Enterprise Servers SPI informs you about the conditions related to the following Microsoft Enterprise Servers:

- Microsoft Lync Server 2013
- Microsoft SharePoint Server 2013

## Configuring the Microsoft Lync Server

To configure Microsoft Enterprise Servers SPI with Microsoft Lync Server, perform the following steps:

1. Add Microsoft Lync Server nodes from the management server.

For information about adding and managing the Microsoft Enterprise Server nodes, see *HP Operations Manager for UNIX Concepts Guide*.

2. Assign the Microsoft Lync Server 2013 nodes to **LS2013** node group.
3. Deploy the following instrumentation categories to the managed Lync Server 2013 nodes:
  - a. MS\_Core
  - b. SPIDataCollector
  - c. SHS\_Data\_Collector
  - d. LS2013

For more information about deploying instrumentation, see [Assigning Instrumentation Categories to Microsoft Enterprise Nodes](#).

4. Assign the **Lync Server** tool group to the operator.

For more information on assigning tool group to operator, see [Assigning Tool Group to Operator](#).

5. Assign the **LS2013** node group and **LS2013** message groups to the operator.

For more information on assigning node group and message groups to the operator, see [Assigning Node Group and Message Groups to Operator](#).

6. Run the following tools on the Microsoft Lync Server 2013 nodes:
  - a. **SPI for Microsoft Enterprise Servers** → **Lync Server** → **Create Datasource for Lync Server**

**Note:** Create DataSource for Lync Server tool creates data sources in PA.

To create data sources in CODA, follow these steps:

- i. Run the following command on node to delete the datasource created in PA.

```
ddfutil "%OVAgentDir%bin\LYNC\dsi\log\LYNC.log" -rm all
```

- ii. Create `nocoda.opt` file on node at the following location:

```
%ovdatadir%/conf/dsi2ddf
```

- iii. Launch the tool.

**b. SPI for Microsoft Enterprise Servers → Lync Server → Configure Edge server Discovery for Lync Server**

For more information about Configure Edge server Discovery for Lync Server, see [Configure Edge server Discovery for Lync Server 2010](#).

**Note:** Run this tool only on Edge Server.

7. Deploy the appropriate policies based on the roles hosted by the Lync Server.

The following table lists the policies for Microsoft Lync Server along with their appropriate roles:

Server Role	Policy Group
Any Role	<ul style="list-style-type: none"> <li>■ SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Lync_Server_2013 → Configuration</li> <li>■ SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Lync_Server_2013 → Discovery</li> <li>■ SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Lync_Server_2013 → Event Monitoring</li> </ul>
Director Server	SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Lync_Server_2013 → Director Server
Edge Server	SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Lync_Server_2013 → Edge Server
Front End Server	SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Lync_Server_2013 → Front End Server

Server Role	Policy Group
Mediation Server	<b>SPI for Microsoft Enterprise Servers</b> → en → <b>Microsoft_Office_Communications_Server</b> → <b>Microsoft_Lync_Server_2013</b> → <b>Mediation Server</b>
Persistent Chat	<b>SPI for Microsoft Enterprise Servers</b> → en → <b>Microsoft_Office_Communications_Server</b> → <b>Microsoft_Lync_Server_2013</b> → <b>Persistent Chat</b>

## Configuring Collections and Metrics

Collections and metrics enables you to configure the Microsoft Enterprise Server SPI to monitor different aspects of Microsoft Lync Server 2013. You can enable or disable the collections, configure the collection schedule, configure the collections to raise alarm in case of threshold violation, and create custom collections based on your monitoring requirements.

This section explains how to configure Microsoft Lync Server collections.

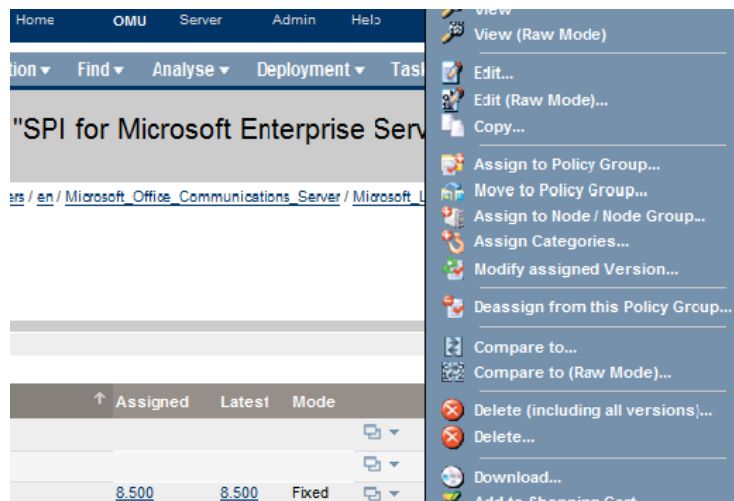
### Enabling and Disabling Collections

To enable or disable Microsoft Lync Server collections, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → en → **Microsoft\_Office\_Communications\_Server** → **Microsoft\_Lync\_Server\_2013** → **Configuration**

The LYNC\_MetricDefinition policy appears.

2. From **LYNC\_MetricDefinition**, click  and select **Edit (Raw Mode)...**



The policy window opens.

3. From the LYNC\_MetricDefinition policy window, click **Content** tab.

The LYNC\_MetricDefinition policy editor opens and lists the collections.

4. Select the collection you want to edit and set the value of enabled parameter to `true` or


`false` to enable or disable the collection.

For example, set `enabled= "true"` to enable the collection or `enabled= "false"` to disable the collection.

5. Click **Save**.


#### Changing Schedule of a Collection

To change the schedule of Microsoft Lync Server collection, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **Microsoft\_Office\_Communications\_Server** → **Microsoft\_Lync\_Server\_2013** → **Configuration**  
The `LYNC_CollectionSchedule` policy appears.
2. From **LYNC\_CollectionSchedule**, click  and select **Edit (Raw Mode)...**  
The policy window opens.
3. From the `LYNC_CollectionSchedule` policy window, click **Content** tab.  
The `LYNC_CollectionSchedule` policy editor opens and lists the collections.
4. Select the collection you want to edit and set the value of schedule to `Very High` or `High` as per your requirement.  
For example, `schedule= "High"` to set collection schedule as high.
5. Click **Save**.

#### Changing Frequency of Schedule Task Policy

To change frequency of a schedule task policy, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **Microsoft\_Office\_Communications\_Server** → **Microsoft\_Lync\_Server\_2013**
2. Select the schedule task policy from the appropriate policy group.
3. From the selected policy, click  and, select **Edit**.  
The schedule task policy editor window opens.
4. From the policy editor window, select **Scheduled Task** tab.  
Scheduled Task tab opens and displays Schedule menu with fields to configure the policy schedule.
5. In the Schedule menu type the required frequency as per your requirement.  
For example, type `30` in the Minute field if you want to run the related collection every thirty minutes.

**Note:** You can also change the frequency to a specific time or multiple times using the available options.

6. Click **Save**.

#### Enabling and Disabling Collection Alarms

To enable or disable Collection Alarms, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **Microsoft\_Office\_Communications\_Server** → **Microsoft\_Lync\_Server\_2013** → **Configuration**

The LYNC\_MetricDefinition policy appears.

2. From **LYNC\_MetricDefinition**, click  and, then select **Edit (Raw Mode)**....
3. From the LYNC\_MetricDefinition policy window, click **Content** tab.

The LYNC\_MetricDefinition policy editor opens and lists the collections.

4. Select the metric in the collection you want to edit and set the value of alarm to `true` or `false` to enable or disable the alarm.

For example, `alarm = "true"` to enable alarm.


5. Click **Save**.

#### Adding New Collection

To create a new Microsoft Lync Server collection entry, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **Microsoft\_Office\_Communications\_Server** → **Microsoft\_Lync\_Server\_2013** → **Configuration**

The LYNC\_MetricDefinition policy appears.

2. From **LYNC\_MetricDefinition**, click  and, then select **Edit (Raw Mode)**....
3. From the LYNC\_MetricDefinition policy window, click **Content** tab.

The LYNC\_MetricDefinition policy editor opens and lists the collections.

4. From the LYNC\_MetricDefinition policy, copy and paste any existing collection with source as per your requirement.

**Note:** Collection parameters are enclosed within the `<collection></collection>` block.

5. To edit the collection, follow these steps:
  - a. Provide the collection name and ID.

For example: `Collection name="LYNC_Custom Collection" id="LYNC_C10070"`

- b. Edit the table parameter and provide the collection name in the given format:

`table="LYNC_CUSTOMCOLL"`

**Note:** Table parameter is required only if you want to log data. Remove the table parameter from the collection block if you do not want to log data.

- c. Edit the `<Command>` parameter to provide object name.

For example, `<Command>Perfmon Object Name</Command>`

- d. Edit `<Field>` parameter and provide Instance Name and Counter Name. Fields parameter is enclosed within the `<Fields></Fields>` block.



For example:

```
<Fields>
<Field>Instance_Name</Field>
<Field>Counter_Name 1</Field>
</Fields>
```

- e. Edit the Metric id, name, position, and category of the metrics in the collection.

For example:

**Metric with Category as KEY;**

```
<Metric id="LYNC_M17001" name="LYNC_MyCustomInstance"
alarm="false" formulae="value" position="1" category="KEY">
```

**Metric with category as METRIC;**

```
<Metric id="LYNC_M17002" name="LYNC_Counter_1_Value"
alarm="true" formulae="value" position="4" category="METRIC">
```

- f. Edit the <AlarmDef> block to configure alarm or alert for the metrics.


For example:

```
<AlarmDef>
<Policy>LYNC_Counter_1_Value</Policy>
<Object>
<MetricId>LYNC_M10101</MetricId>
</Object>
<Options>
<Option>
<Name>ServiceName</Name>
<Value>
<MetricId>LYNC_M17001</MetricId>
</Value>
</Option>
<Option>
<Name>ServiceStatus</Name>
<Value>
<MetricId>LYNC_M17002</MetricId>
</Value>
</Option>
```

```
</Options>  
</AlarmDef>
```

- g. Click **Save**.
6. To add Collection Schedule, follow these steps:
  - a. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **Microsoft\_Office\_Communications\_Server** → **Microsoft\_Lync\_Server\_2013** → **Configuration**

The LYNC\_CollectionSchedule policy appears.

- b. From **LYNC\_CollectionSchedule**, click  and select **Edit (Raw Mode)...**
- c. From the LYNC\_CollectionSchedule policy window, click **Content** tab.
- d. Add new collection in the format as shown in the following example:  

```
For example, <Collection name="LYNC_CustomColl" id="LYNC_C10070"  
schedule="HIGH" role="|FrontEnd|" />
```
- e. Click **Save**.
7. To create a spec file to log the collected metric, follow these steps:
  - a. From the Instrumentation folder, rename the spec file.

**Note:** Spec file is required only if you want to log data.

- b. Edit the spec file. Give values to the following parameters:

**spec file name, class, label, and counter name**

For example:

**LYNC\_CUSTOMCOLL.spec**

```
# DATASOURCE = LYNC_DATA
```

```
CLASS LYNC_CUSTOM = 10002
```

```
LABEL "LYNC_CUSTOM";
```

```
METRICS
```

```
COUNTER_1 = 10201
```

```
# COUNTER_1_LENGTH CODA_DATATYPE = UINT64
```

```
# COUNTER_1_LENGTH CODA_CATEGORYTYPE = GAUGE
```

```
Label "COUNTER_1"
```

```
PRECISION 0;
```

```
TYPE TEXT LENGTH 256;
```

```
COUNTER_2 = 10202
```

```
# COUNTER_2_LENGTH CODA_DATATYPE = UINT64
```

```
# COUNTER_2_LENGTH CODA_CATEGORYTYPE = GAUGE  
Label "COUNTER_2"  
  
PRECISION 0;
```


8. Click **Save**.
9. Run **Create Datasource for Sharepoint Server** tool. The class specified in the spec file is added to DataSource.
10. Deploy the updated policies to activate the collections.

## Create Measurement Threshold Policy

Create measurement threshold policy for generating alerts. To create measurement threshold policy, follow these steps:

1. From the HPOM console, go to **SPI for Microsoft Enterprise Servers** → **en** → **Microsoft\_Office\_Communications\_Server** → **Microsoft\_Lync\_Server\_2013**
2. Select any existing measurement threshold policy based on your requirement.

**Note:** A sample policy for each role of Lync Server is provided with the Microsoft Enterprise Servers SPI.

3. Click  and select **Copy**.
4. Rename the copied policy and provide metric name as policy name.  
For example, LYNC\_Counter\_1\_Value
5. Click **Save**.

## Deploy Event Log Policies

Deploy Microsoft Lync Server Event log policies if you want to monitor Lync Server events logs.

**Policy Location:** SPI for Microsoft Enterprise Servers → en → Microsoft\_Office\_Communications\_Server → Microsoft\_Lync\_Server\_2013

## Configuring the Microsoft SharePoint Server

To configure Microsoft Enterprise Servers SPI with Microsoft SharePoint Server, perform the following steps:

1. Add Microsoft SharePoint Server nodes from the management server.  
For information about adding and managing the Microsoft Enterprise Server nodes, see *HP Operations Manager for UNIX Concepts Guide*.
2. Assign the Microsoft SharePoint Server 2013 nodes to **SharePoint 2013** node group.

3. Deploy the following instrumentation categories to the managed SharePoint Server 2013 nodes:

- a. MS\_Core
- b. SPIDataCollector
- c. SP2013

For more information about deploying instrumentation, see [Assigning Instrumentation Categories to Microsoft Enterprise Nodes](#).

4. Assign the **SharePoint Server Tools** tool group to the operator.

For more information about assigning tool group to operator, see [Assigning Tool Group to Operator](#).

5. Assign the **SharePoint 2013** node group and **SharePoint Portal Server** message group to the operator.

For more information about assigning node group and message groups to the operator, see [Assigning Node Group and Message Groups to Operator](#).

6. Run the following tool on the Microsoft SharePoint Server 2013 nodes:

- **SPI for Microsoft Enterprise Servers → Microsoft Office SharePoint Server 2013 → Create Datasource for SharePoint Server**

**Note:** Create DataSource for Sharepoint tool creates data sources in PA.

To create data sources in CODA, follow these steps:

- i. Run the following command on node to delete the datasource created in PA.

```
ddfutil "%OAgentDir%bin\Sharepoint\dsi\log\Sharepoint.log" -
rm all
```

- ii. Create `nocoda.opt` file on node at the following location:

```
%ovdatadir%/conf/dsi2ddf
```

- iii. Launch the tool.

7. Deploy the appropriate policies based on the roles hosted by the SharePoint Server.

The following table lists the policies for Microsoft SharePoint Server along with their appropriate roles:

Server Role	Policy Group
App and Web	<ul style="list-style-type: none"> <li>■ <b>SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → Microsoft Office Sharepoint Server 2013 → Configuration</b></li> <li>■ <b>SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → Microsoft Office Sharepoint Server 2013 → Discovery</b></li> <li>■ <b>SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → Microsoft Office Sharepoint Server 2013 → Event Monitoring</b></li> </ul>

Server Role	Policy Group
Availability	<b>SPI for Microsoft Enterprise Servers</b> → en → <b>SharePoint Portal Server</b> → <b>Microsoft Office Sharepoint Server 2013</b> → <b>Availability</b>
Performance	<b>SPI for Microsoft Enterprise Servers</b> → en → <b>SharePoint Portal Server</b> → <b>Microsoft Office Sharepoint Server 2013</b> → <b>Performance</b>

## Configuring Collections and Metrics

Collections and metrics enables you to configure the Microsoft Enterprise Servers SPI to monitor different aspects of Microsoft SharePoint Server 2013. You can enable or disable the collections, configure the collection schedule, configure the collections to raise alarm in case of threshold violation, and create custom collections based on your monitoring requirements.


This section explains how to configure Microsoft SharePoint Server collections.

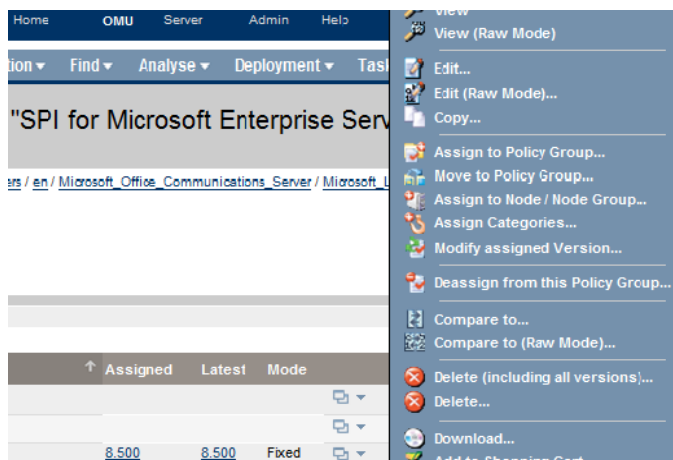
### Enabling and Disabling Collections

To enable or disable Microsoft SharePoint Server collections, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → en → **SharePoint Portal Server** → **Microsoft Office Sharepoint Server 2013** → **Configuration**

The SharePoint\_MetricDefinition policy appears.

2. From **SharePoint\_MetricDefinition**, click  and select **Edit (Raw Mode)...**



The policy window opens.

3. From the SharePoint\_MetricDefinition policy window, click **Content** tab.

The SharePoint\_MetricDefinition policy editor opens and lists the collections.

4. Select the collection you want to edit and set the value of enabled parameter to `true` or `false` to enable or disable the collection.

For example, set `enabled= "true"` to enable the collection or `enabled= "false"` to disable the collection.


5. Click **Save**.

#### Changing Schedule of a Collection

To change the schedule of Microsoft SharePoint Server collection, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **SharePoint Portal Server** → **Microsoft Office Sharepoint Server 2013** → **Configuration**

The SharePoint\_CollectionSchedule policy appears.

2. From **SharePoint\_CollectionSchedule**, click  and select **Edit (Raw Mode)...**

The policy window opens.

3. From the SharePoint\_CollectionSchedule policy window, click **Content** tab.

The SharePoint\_CollectionSchedule policy editor opens and lists the collections.

4. Select the collection you want to edit and set the value of schedule to *Very High*, *High*, *Medium*, or *Low* as per your requirement.

For example, `schedule= "High"` to set collection schedule as high.


5. Click **Save**.

#### Changing Frequency of Schedule Task Policy

To change frequency of a schedule task policy, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **SharePoint Portal Server** → **Microsoft Office Sharepoint Server 2013**

2. Select the schedule task policy from the appropriate policy group.

3. From the selected policy, click  and, select **Edit**.

The schedule task policy editor window opens.

4. From the policy editor window, select **Scheduled Task** tab.

Scheduled Task tab opens and displays Schedule menu with fields to configure the policy schedule.

5. In the Schedule menu type the required frequency as per your requirement.

For example, type `30` in the Minute field if you want to run the related collection every thirty minutes.

**Note:** You can also change the frequency to a specific time or multiple times using the available options.


6. Click **Save**.

#### Enabling and Disabling Collection Alarms

To enable or disable Collection Alarms, follow these steps:


1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **SharePoint Portal Server** → **Microsoft Office Sharepoint Server 2013** → **Configuration**

The SharePoint\_MetricDefinition policy appears.

2. From **SharePoint\_MetricDefinition**, click  and, then select Edit (Raw Mode)...
3. From the SharePoint\_MetricDefinition policy window, click **Content** tab.  
The SharePoint\_MetricDefinition policy editor opens and lists the collections.
4. Select the metric in the collection you want to edit and set the value of alarm to `true` or `false` to enable or disable the alarm.  
For example, `alarm = "true"` to enable alarm.
5. Click **Save**.

#### Adding New Collection

To create a new Microsoft SharePoint Server collection entry, follow these steps:

1. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **SharePoint Portal Server** → **Microsoft Office Sharepoint Server 2013** → **Configuration**  
The SharePoint\_MetricDefinition policy appears.
2. From **SharePoint\_MetricDefinition**, click  and, then select **Edit (Raw Mode)**...
3. From the SharePoint\_MetricDefinition policy window, click **Content** tab.  
The SharePoint\_MetricDefinition policy editor opens and lists the collections.
4. From the SharePoint\_MetricDefinition policy, copy and paste any existing collection with source as per your requirement.

**Note:** Collection parameters are enclosed within the `<collection></collection>` block.

5. To edit the collection, follow these steps:
  - a. Provide the collection name and ID.

```
For example: Collection name="SHAREPOINT_Custom Collection"  
id="SHAREPOINT_C10070"
```

- b. Edit the table parameter and provide the collection name in the given format:

```
table="SharePoint_CUSTOMCOLL"
```

**Note:** Table parameter is required only if you want to log data. Remove the table parameter from the collection block if you do not want to log data.

- c. Edit the `<Command>` parameter and provide object name.

```
For example, <Command>Perfmon Object Name</Command>
```

- d. Edit `<Field>` parameter and provide Instance Name and Counter Name. Fields parameter is enclosed within the `<Fields></Fields>` block.

For example:

```
<Fields>
```

```
<Field>Instance_Name</Field>
```

```
<Field>Counter_Name 1</Field>
</Fields>
```

- e. Edit the Metric id, name, position, and category of the metrics in the collection.

For example:

Metric with Category as KEY;

```
<Metric id="SharePoint_M17001" name="SharePoint_
MyCustomInstance"
alarm="false" formulae="value" position="1" category="KEY">
```

Metric with category as METRIC;

```
<Metric id="SharePoint_M17002" name="SharePoint_Counter_1_Value"
alarm="true" formulae="value" position="4" category="METRIC">
```

- f. Edit the <AlarmDef> block to configure alarm or alert for the metrics.


For example:

```
<AlarmDef>
<Policy>SHAREPOINT_Counter_1_Value</Policy>
<Object>
<MetricId>LYNC_M10101</MetricId>
</Object>
<Options>
<Option>
  <Name>ServiceName</Name>
  <Value>
    <MetricId>SHAREPOINT_M17001</MetricId>
  </Value>
</Option>
<Option>
  <Name>ServiceStatus</Name>
  <Value>
    <MetricId>SHAREPOINT_M17002</MetricId>
  </Value>
</Option>
</Options>
</AlarmDef>
```



- g. Click **Save**.
6. To add Collection Schedule, follow these steps:
  - a. From the HPOM console go to **SPI for Microsoft Enterprise Servers** → **en** → **SharePoint Portal Server** → **Microsoft Office Sharepoint Server 2013** → **Configuration**

The SharePoint\_CollectionSchedule policy appears.

- b. From **SharePoint\_CollectionSchedule**, click  and select **Edit (Raw Mode)...**
- c. From the SharePoint\_CollectionSchedule policy window, click **Content** tab.
- d. Add new collection in the format as shown in the following example:

```
For example, <Collection name="SharePoint_CustomColl"
id="SharePoint_C10070" schedule="MEDIUM" role="|FrontEnd|" />
```

- e. Click **Save**.
7. To create a spec file to log the collected metric, follow these steps:
  - a. From the Instrumentation folder, rename the spec file.

**Note:** Spec file is required only if you want to log data.

- b. Edit the spec file. Give values to the following parameters:

**spec file name, class, label, and counter name**

For example:

**SHAREPOINT\_CUSTOMCOLL.spec**

```
# DATASOURCE = SHAREPOINT_DATA
```

```
CLASS SHAREPOINT_CUSTOM = 10002
```

```
LABEL "SHAREPOINT_CUSTOM";
```

```
METRICS
```

```
COUNTER_1= 10202
```

```
# COUNTER_1_LENGTH CODA_DATATYPE = UINT64
```

```
# COUNTER_1_LENGTH CODA_CATEGORYTYPE = GAUGE
```

```
Label "COUNTER_1"
```

```
PRECISION 0;
```

```
TYPE TEXT LENGTH 256;
```

```
COUNTER_2 = 10202
```

```
# COUNTER_2_LENGTH CODA_DATATYPE = UINT64
```

```
# COUNTER_2_LENGTH CODA_CATEGORYTYPE = GAUGE
```

```
Label "COUNTER_2"
```

```
PRECISION 0;
```


8. Click **Save**.
9. Run **Create Datasource for Sharepoint Server** tool. The class specified in the spec file is added to DataSource.
10. Deploy the updated policies to activate the collections.

## Create Measurement Threshold Policy

Create measurement threshold policy for generating alerts. To create measurement threshold policy, follow these steps:

1. From the HPOM console, go to **SPI for Microsoft Enterprise Servers** → **en** → **SharePoint Portal Server** → **Microsoft Office Sharepoint Server 2013**
2. Select any existing measurement threshold policy based on your requirement.

**Note:** A sample policy for SharePoint Server is provided with the Microsoft Enterprise Servers SPI.

3. Click  and select **Copy**.
4. Rename the copied policy and provide metric name as policy name.  
For example, `SharePoint_Counter_1_Value`
5. Click **Save**.

## Deploy Event Log Policies

Deploy Microsoft SharePoint Server Event log policies if you want to monitor SharePoint Server events logs.

**Policy Location:** SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → Microsoft Office Sharepoint Server 2013

# Chapter 5

---

## Using Policies and Tools

Policies monitor the Microsoft Enterprise Servers environment and run according to rules and specified schedules. Microsoft Enterprise Servers SPI policies contain rules for interpreting Microsoft Enterprise Servers states or conditions. You can use the Microsoft Enterprise Servers tools for configuring and troubleshooting the Microsoft Enterprise Servers. The troubleshooting tools are the Self-Healing Info and Self-Healing Verification tools. For more information, see "Tools" on next page.

For detailed description of all Microsoft Enterprise Servers policies and tools, see the *SPI for Microsoft Enterprise Servers Reference Guide*.

## Policy Group and Policy Type

The policies of the Microsoft Enterprise Servers SPI in the HPOM console are available as Policy Group and Policy Type.

### Policy Group

A policy group organizes policies according to the deployment method, area to be targeted for discovery, or monitoring the Microsoft Enterprise Server environment. In Microsoft Enterprise Servers SPI the deployment is manual. The policies are displayed in each sub-groups of the Microsoft Enterprise Server SPI.

To view the policy groups in the Microsoft Enterprise Servers SPI, go to the following locations:

- BizTalk Server 2006

**Policy Bank → SPI for Microsoft Enterprise Servers → en → BizTalk Server → BizTalk Server 2006**

- BizTalk Server 2010

**Policy Bank → SPI for Microsoft Enterprise Servers → en → BizTalk Server → BizTalk Server 2010**

- Internet Security and Acceleration Server

**Policy Bank → SPI for Microsoft Enterprise Servers → en → Internet Security and Acceleration Server → Internet Security and Acceleration Server 2006**

- Microsoft Office Communications Server

**Policy Bank → SPI for Microsoft Enterprise Servers → en → Microsoft\_Office\_Communications\_Server → Microsoft\_Office\_Communications\_Server\_2007**

- Sharepoint Portal Server

**Policy Bank → SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → Microsoft Office SharePoint Server 2007**

- Microsoft Sharepoint Server 2010

**Policy Bank** → **SPI for Microsoft Enterprise Servers** → **en** → **SharePoint Portal Server** → **SharePoint Server 2010**

- Microsoft Lync Server 2010

**Policy Bank** → **SPI for Microsoft Enterprise Servers** → **en** → **Microsoft\_Office\_Communications\_Server** → **Microsoft\_Lync\_Server\_2010**

## Policy Type

Agent policies grouped by type organize policies according to type. The Microsoft Enterprise Servers SPI has the following policy types:

- Service Auto-Discovery
- Scheduled Task
- Measurement Threshold
- Windows Event Log
- Windows Management Interface
- Open Message Interface
- LogFile Entry

**Note:** For more information about the policies in each policy group and policy type in detail, see *HP Operations Smart Plug-in for Microsoft Enterprise Server Reference Guide*.

## Tools

The Self-Healing Verification and Self-Healing Info tools are common for all the server types of the Microsoft Enterprise Servers SPI.

The Microsoft Enterprise Servers SPI also provides tools that need to be run on specified servers. These tools are described in the following section.

## BizTalk Server 2006

You can use the MSES\_BTS\_DB\_Configuration Tool and Create Datasource for BizTalk Server 2006.

## MSES\_BTS\_DB\_Configuration Tool

You can use the MSES\_BTS\_DB\_Configuration tool to configure the Microsoft Enterprise Servers SPI for BizTalk Server 2006 and BizTalk Server 2010. The BizTalk Server 2006 and BizTalk Server 2010 stores data in SQL server instead of the WMI CIMV2 database. The Microsoft Enterprise Servers SPI must connect to the BizTalk Server's SQL database to collect related data.

Before running Discovery, the HPOM administrator must configure the SQL database for all nodes with BizTalk Server installed. Windows integrated security (SSPI mode) does not work if the SQL authentication mode is set for SQL server. If SQL authentication is "users /", the HPOM console must have the SQL user name and password details.

To connect to SQL server even when it is in SQL authentication mode, the HPOM administrator can use the MSES\_BTS\_DB\_Configuration tool to store the corresponding SQL server name, and the SQL user name and password. The BizTalk services are discovered, only if the configuration details are available. So, it is mandatory to run the tool with correct SQL database details. Before running the tool, make sure that an instance of X-Windows Server is running.

**Note:** To enable the X-Windows Server display, run the following command from the command line interface of the Management Server:

```
export DISPLAY=<system IP>:0.0
```

Set the xterm path on the HPOM server before you run the MSES\_BTS\_DB\_Configuration tool.

## Create Datasource for BizTalk Server

The Create Datasource for BizTalk Server tool is launched to configure data sources for data logging in the BizTalk Server. The name of the data source configured using this tool is MSES\_BIZTALKSERVER\_INTERVAL.

## BizTalk Server 2010

You can use the BTS 2010 Cluster Config, BTS 2010 Enable Trace, and BTS 2010 Create Datasource tool for BizTalk Server 2010.

## BTS 2010 Cluster Config

BTS 2010 Cluster Config for BizTalk Server 2010 - This tool generates the apminfo.xml file for BizTalk Server 2010. The apminfo.xml file provides necessary information to enable the Microsoft Enterprise Servers SPI to detect and monitor BizTalk Server 2010 cluster nodes. cluster nodes. After running this tool on Cluster nodes, perform the following steps:

Select and copy the text content under the Tool Output section to a text editor.

Save the text as **apminfo.xml** in the following locations on cluster nodes of BizTalk Server 2010 Cluster:

For DCE managed nodes - %OvAgentDir%\conf\OpC\

For HTTPs managed nodes - %OvAgentDir%\conf\conf\

**Note:** If the folder does not exist, create the folder manually.

You can use the following commands to start and stop the agents:

- **opcagt -kill**
- **opcagt -start**

## BTS 2010 Enable Trace

BTS 2010 Enable Trace for BizTalk Server 2010 - This tool can be used to enable tracing for the BizTalk SPI data collector. The tool collects troubleshooting information and sets the trace level on the node where the tool is run. This tool can be run on the BizTalk Server 2010 nodes.

Depending on the level of troubleshooting that is required, the following trace levels can be passed as the parameter:

0 - Errors. Only errors are logged. If the trace level is not specified, this is the default trace value.

1 - Warnings. All warnings and errors are logged.

2- Info. All trace statements which are informational, warnings, and errors are also logged.

3 - Debug. Apart from all other information all Debug trace statements are also logged.

4 - Verbose, This is the maximum trace level and all trace statements are logged.

The log files are created in the %OvDataDir%\bin\BTS\log folder. Separate log files are created for each collection. All trace files have the prefix **BTS**.

The tool is to be run on the BizTalk Server 2010 Nodes.

## BTS 2010 Create Datasource

BTS 2010 Create Datasource for BizTalk Server 2010 - This tool configures the datasource for BizTalk Server 2010. By default, the datasource is created in CODA. The name of the datasource is **BTS\_DATA**.

## Tools for ISA Server

The tool for the ISA server is Create Datasource for ISA Server.

## Create Datasource for ISA Server

The Create Datasource for ISA Server tool is launched to configure data sources for data logging in the ISA server. The name of the data source configured using this tool is **ISAServer2006**.

It is mandatory to run the tools before assigning and deploying the policies on the specific Microsoft Enterprise Server nodes.

For information on assigning tool groups to operators, see "[Assigning Tool Group to Operator](#)" on [page 26](#).

## Tools for SharePoint Server 2010

The tool for the SharePoint Server 2010 is Create Datasource for Sharepoint Server.

## Create Datasource for Sharepoint Server

The Create Datasource for Sharepoint Server tool is launched to configure data sources for data logging in the SharePoint Server 2010. The name of data source configured using this tool is SharePoint\_Server.

## Tools for Microsoft Lync Server 2010

The tools for the Microsoft Lync Server 2010 are Configure Edge server Discovery for Lync Server 2010 and Create Datasource for Lync Server 2010

## Create Datasource for Lync Server 2010

The Create Datasource for Lync Server 2010 tool creates databases into the HP Operations agent's data store (embedded performance component-also known as CODA).

If you use Performance Agent as the data store, data source creation and data logging happens in Performance Agent, by default. There is no additional configuration required.

If you do not have the HP Performance Agent installed in your environment, the tool creates databases into CODA.

## Configure Edge server Discovery for Lync Server 2010

The **Configure Edge server Discovery for Lync Server 2010** configures Discovery for the Lync Edge Server. This tool stores user information required to run the LS\_Discovery policy on the Edge Server in an encrypted format. The SPI Discovery instrumentation reads the user information that is stored on the Edge Server.

## Starting Tools

To start a tool on a managed node, follow these steps:

1. From the HPOM console, click **Integrations** → **HPOM for Unix Operational UI** and log on to HPOM Operational UI.
2. In the nodes list, right-click on the desired managed node or node group.
3. For Self Healing Tools, select **Start** → **SPI for Microsoft Enterprise Servers** → **<Specific Tool>**.
4. For server specific tools, select **Start** → **SPI for Microsoft Enterprise Servers** → **<Specific Server>** → **<Specific Tool>**. The tool starts running on the node.
5. For example, to start MSES\_BTS\_DB\_Configuration tool, select **Start** → **SPI for Microsoft Enterprise Servers** → **BizTalk Server** → **MSES\_BTS\_DB\_Configuration**.

## Chapter 6

---

# Integrating with HP Reporting and Graphing Solutions

Reports and graphs provide you with a complete view of the performance of the components of the Microsoft Enterprise Servers.

## Reports and Graphs

Reports and graphs provide updates on the availability or activities or both in Microsoft Enterprise Servers for each server running the services.

These web-based reports are automatically generated every night and provide you with a routine way to check the Microsoft Enterprise Server availability on the nodes.

**Note:** If the Microsoft Enterprise Servers SPI is not installed in the HP Operations Manager Server, you must install it on this server to enable the HP Reporter function on one or more managed nodes.

## Integrating Microsoft Enterprise Servers SPI with HP Reporter

You must install Microsoft Enterprise Servers SPI Reporter package on HP Reporter Server to use the Microsoft Enterprise Servers SPI reports. For this, run the HPOvSpiEsR-8.03.002-WinNT4.0.msi. This setup installs the Microsoft Enterprise Servers SPI Reporter Package within the HP Reporter server. After you complete the installation, configure the Reporter to generate reports.

## Installing Reporter Package

To install the Microsoft Enterprise Servers SPI Reporter Package on a stand-alone Reporter server:

1. Insert the media.
2. Browse to **<Media path>/HPOvSpiEsR-8.03.002-WinNT4.0.msi** and follow the instructions as they appear.
3. Select **Finish** to complete the installation.

## Configuring Reporter Package

To configure the Microsoft Enterprise Servers SPI Reporter Package:



- Open the Reporter main window and check the status pane to note the changes to the Reporter configuration, which include uploading the Microsoft Enterprise Servers SPI reports.
- The Microsoft Enterprise Servers SPI Reports are automatically assigned to the **ALL** group in the Reporter main window.
- Add group and single system reports by assigning reports as desired.
- Reports are available for viewing the following day.

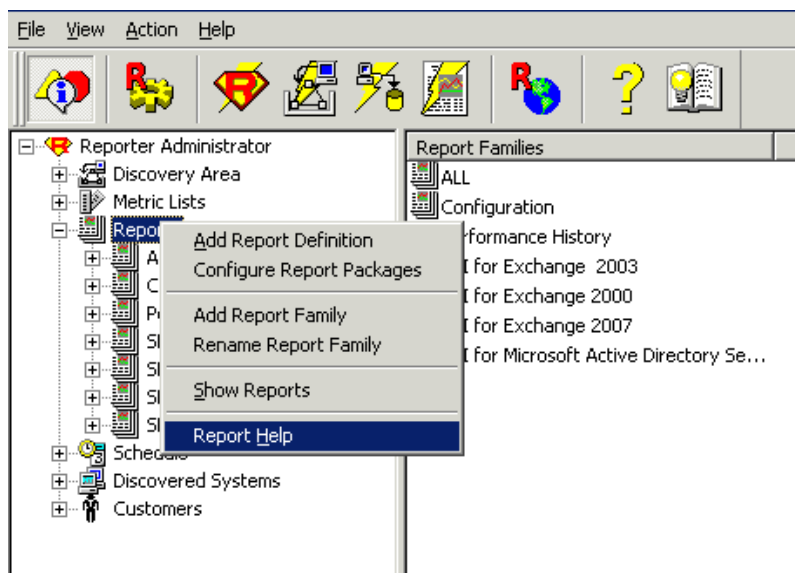
**Note:** You can identify the Microsoft Enterprise Servers SPI reports of group and single systems by their full name. For example, **abc.xyz.com** is acceptable while **abc** is not.

## Accessing Reporter Help

Instructions are available in the HP Reporter Help for assigning Microsoft Enterprise Servers SPI reports to the targeted nodes.

To access HP Reporter Help, follow these steps:

1. Right-click **Reports** or **Discovered Systems** in the left panel of the HP Reporter main window.
2. Select **Report Help** or **Discovered Systems Help** from the sub-menu that appears. The HP Reporter Help appears.



## Generating Reports

After you install the Microsoft Enterprise Servers SPI, the HP Reporter generates reports using the data collected by the Microsoft Enterprise Servers SPI for Microsoft Enterprise Servers.

**Note:** If you want to customize your reports you must install HP Reporter. For more information about HP Reporter and modifying the reports, see the *HP Reporter documentation*.

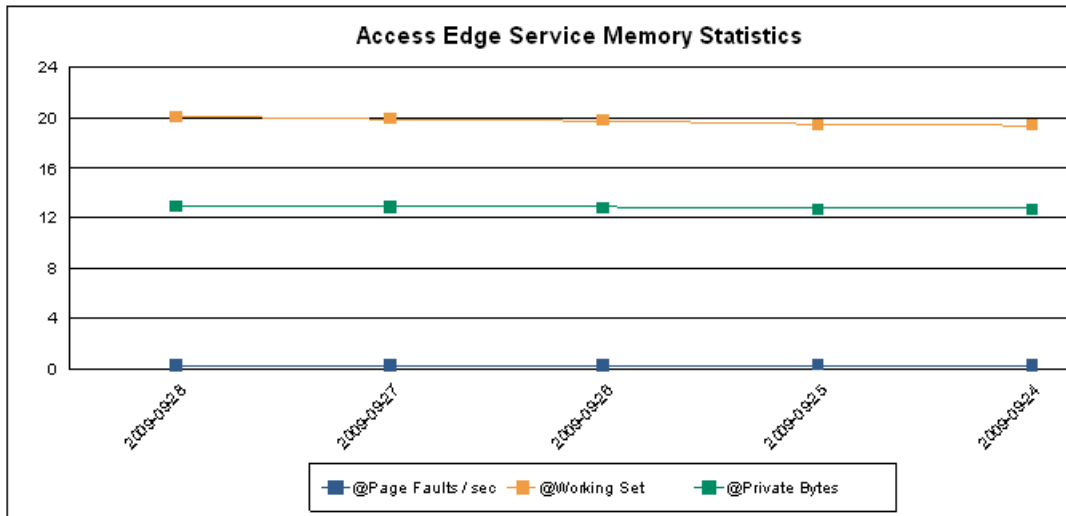
You can generate the reports using HTML format. The report data of Microsoft Enterprise Servers SPI is collected based on metrics used for each report. The HP Reporter identifies the data using metric variables. This data is stored in the MS SQL Reporter database.

**Note:** If the report contains a huge volume of data, there is a possibility that the browser might crash when the reports are viewed in HTML format. In such situations, view the reports in PDF format.

You can access the reports of Microsoft Enterprise Servers SPI from the **Reports** area of the HPOM console. For more information about the description of all the reports, see *Microsoft Enterprise Servers SPI Reference Guide*.

The following figure shows an example of an Access Edge Service Memory Statistics report.

**Machine Name:** vm5msspint23  
**Date:** 2009-09-01 To 2009-09-30



Date	Page Faults / sec	Working Set	Private Bytes
2009-09-28	0.22	20.04	12.91
2009-09-27	0.22	19.89	12.86
2009-09-26	0.23	19.75	12.83
2009-09-25	0.27	19.39	12.72
2009-09-24	0.23	19.37	12.71

## Integrating Microsoft Enterprise Servers SPI with HP Performance Manager

The Microsoft Enterprise Servers SPI has a set of preconfigured graph templates. Make sure that these graph templates are installed on an HP Performance Manager system, and data store (CODA or HP Performance Agent) runs on the managed node.

To integrate the Microsoft Enterprise Servers SPI with HP Performance Manager, follow these steps:

1. Install and configure the Microsoft Enterprise Servers SPI.
2. Install the graph package.
3. On a Windows system that has HP Performance Manager, follow these steps:
4. Insert the media (that contains the graph packages), and in Windows Explorer, double-click:

For 64 bit: <SPI DVD>\WINDOWS\HP\_PMMSES\_SPI\HPOvSpiEsG-8.03.002-Win5.2\_64.msi

For 32 bit: <SPI DVD>\WINDOWS\HP\_PMMSES\_SPI\HPOvSpiEsG-8.03.002-WinNT4.0.msi

Follow the instructions as they appear. Select graphs for Microsoft Enterprise Servers SPI.

## Generating Graphs

You can generate the Microsoft Enterprise Servers SPI graphs, on HP Performance Manager, on a stand-alone Windows Server.

**Note:** Some messages arriving at the message browser have operator-initiated actions to launch graphs. Make sure you configure HPOM for HP-UX or Linux, to use a HP Performance Manager server to view the graphs. Run the following command on HPOM to use the HP Performance Manager server to view the graphs:

```
/opt/OV/contrib/OpC/OVPM/install_OVPM.sh <new OVPM server>:8081
```

# Chapter 7

---

## Troubleshooting SPI for Microsoft Enterprise Servers

This chapter provides detailed information for troubleshooting the Microsoft Enterprise Servers SPI.

### Failed Discovery

The following sections describe the possible cause and suggested action for the failed discovery of Microsoft Enterprise Servers services.

#### Insufficient Privileges

In some cases, the Microsoft Enterprise Servers SPI fails to discover the services. The possible cause and suggested action are as follows:

**Possible cause:** The account with which the Discovery policy of a Microsoft Enterprise Server (**Policy Bank** → **SPI for Microsoft Enterprise Server** → **en** → **<Specific Server>** → **<Server Type>** → **Discovery**) is run by the HP Operations agent does not have the privileges to connect to the corresponding Microsoft Enterprise Server and retrieve data.

**Suggested action:** Ensure that administrator credentials are provided for the appropriate Discovery policy by editing the policy and then redeploy it.

#### Missing Configuration File

A missing configuration file can fail the service discovery for BizTalk Server. The possible cause and suggestion action are as follows:

**Possible cause:** In some cases, the BizTalk Server's service discovery policy fails when the configuration file is missing on the managed BizTalk Server node.

**Suggested action:** Launch the MSES\_BTS\_DB\_Configuration tool before deploying the service discovery on the managed node.

### Reports and Graphs

The following sections describe the possible cause and suggested action for failed data generation in Microsoft Enterprise Server reports and graphs.

#### Reports and Graphs are not Generated

The possible cause and suggested action when reports and graphs are not generated are as follows:

**Possible cause:** The appropriate policies are not deployed to the respective Microsoft Enterprise Server nodes. The policy, therefore, fails to collect the data that the HP Reporter generates as reports. Failure to deploy the appropriate policy also disables the HP Performance Manager to generate graphs.

**Suggested action:** See Appendix B Report, Report Table, Data Store, and Policy Mapping Details in *HP Operations Smart Plug-in for Microsoft Enterprise Server Reference Guide* to know the appropriate policy for each Microsoft Enterprise Servers SPI report. See also Graphs, Data Store, and Policy Mapping Details in *HP Operations Smart Plug-in for Microsoft Enterprise Server Reference Guide* to know the appropriate policy for each Microsoft Enterprise Servers SPI. Deploy the policies accordingly.

## Data Logging Policies Cannot Log Data

In some cases, the data logging policies cannot log data. The possible cause and the suggested action are as follows:

**Possible cause:** The data source is not created in the datastores—CODA or HP Performance Agent or both.

**Suggested action:** Check if the appropriate data source is created. To check, perform the following steps:

1. Log on to the managed node as an administrator.
2. From the command prompt run the **ovcodutil -obj > out.txt** command.
3. Check the **out.txt** file to ensure that the appropriate data source is created.
4. If the data source is not created, deploy the policy or run the tool to create the appropriate data source in the managed Microsoft Enterprise Server node.

### Server type and Data source

Server Type	Data Source Name	Data Source Creation Tool/Policy
BizTalk Server 2006	MSES_BIZTALKSERVER_INTERVAL	Tool: Create Datasource for BizTalk Server
BizTalk Server 2010	BTS_DATA	BTS 2010 Create DataSource
ISA Server	ISASERVER2006	Tool: Create Datasource for ISA Server
MOSS	MOSS_2007	Policy: MSES_MOSS-2k7_CreateCodaDataSources
OCS	OCS	Policy: OCS_CreateDataSources
SP2010	SharePoint_Server	Tool: Create Datasource for SharePoint Server
Microsoft Lync Server 2010	CS	Tool: Create Datasource for Microsoft Lync Server 2010

## Browser Crashes While Viewing HTML Reports

While viewing the report, the browser crashes. The possible cause and suggested action are as follows:

**Possible cause:** The browser cannot handle huge amount of data.

**Suggested action:** View the report in PDF format.

## Reports Fail With Oracle Database

In some cases, reports fail because of invalid Reporter ODBC driver.

**Possible cause:** The versions of Oracle client and Oracle database do not match.

**Suggested action:** Use Oracle client 9.2.0 to access Oracle 9.2.0 database and 10gR2 client to access 10gR2 database.

## Tools

The following section describes the possible cause and suggested action for the failed launching of tools.

### MSES\_BTS\_DB\_Configuration Tool Fails to Run

MSES\_BTS\_DB\_Configuration tool fails to launch the input interface. The possible cause and suggested action are as follows:

- **Possible cause:** X-Windows Server instance is not running.
- **Suggested action:** Ensure that an instance of X-Windows Server is running before launching the tool to enter the configuration details.

### MSES\_BTS\_DB\_Configuration Tool or Configure Edge server Discovery for Lync Server 2010 Fails to Run

MSES\_BTS\_DB\_Configuration tool or the Configure Edge server Discovery for Lync Server 2010 fails to launch the input interface. The possible cause and suggested action are as follows:

- **Possible cause:** The tool cannot find the xterm path.
- **Suggested action:** Add xterm path to PATH environment variable.

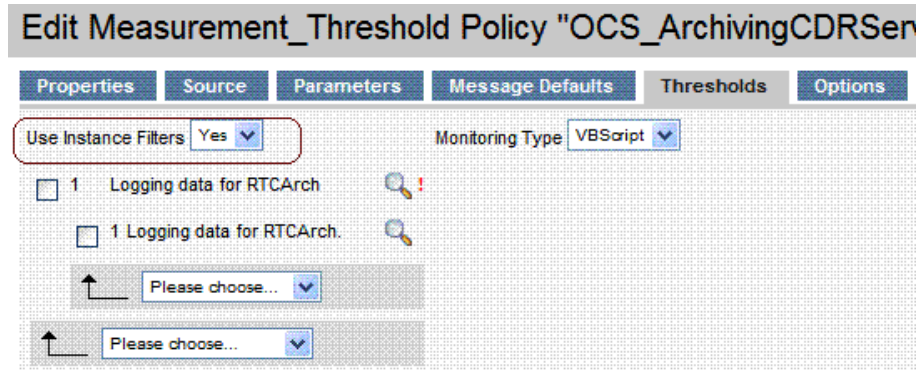
## Policies

The following section describes the possible cause and suggested action for troubleshooting policies.

## Measurement Threshold Policy

In some cases, when you try to save the Measurement Threshold policy after editing, it does not get saved. The system shows an error stating that the form is not valid.

**Possible cause:** In Edit Measurement Threshold policy window, under **Threshold** tab, value for **Use Instance Filters** is set to **Yes**.



**Suggested action:** Set the value for **Use Instance Filters** to **No** and save the policy.

## Chapter 8

---

# Troubleshooting SPI for Microsoft Enterprise Servers (2013)

This chapter provides information about certain problems in the Microsoft Enterprise Servers SPI and solutions for troubleshooting them.

## SharePoint Server Discovery Fails

The Microsoft Enterprise Servers SPI fails to discovered Microsoft SharePoint servers.

**Possible cause:** The account with which the Discovery policy of Microsoft Enterprise Server SPI is run does not have the privileges to connect to the Microsoft SharePoint Server and retrieve data.

**Suggested action:** Verify the **DB** permission for the user. Make sure the user have **db\_owner** rights on sharepoint\_config database. Verify **System.txt** and **SP\_Discovery.log** for any other errors.

## Alerts not Generated for Some Metrics

The Microsoft Enterprise Servers SPI fails to generate alerts for some metrics.

**Possible cause:** Monitor policy is not deployed on the node. `<Server Name>_MetricDefinition` config file policy is not updated and deployed after modifying a policy.

**Suggested action:** Deploy appropriate monitor policies on the node. Update and deploy `<Server Name>_MetricDefinition` configuration file policy. Enable Trace and check for errors in the trace file.

## Data not Logged in SPI Datasource

The collected data is not logged to the specific server's SPI Datasource.

**Possible cause:** Existing Datasource of the server is having errors. Collections run for logging data is returning errors.

**Suggested action:** Verify if a Datasource is created using the command `ovcodautl -obj`. Enable trace and check trace files for errors. Execute `MsCollectionManager.exe` manually for any one of the collections and verify the output.



## Chapter 9

---

# Removing Microsoft Enterprise Servers SPI

Before removing the Microsoft Enterprise Servers SPI, you must remove all the existing policies and instrumentation from all the managed nodes. Then proceed to uninstall the Microsoft Enterprise Servers SPI from the management server.

## Removing Microsoft Enterprise Servers SPI from the Management Server

The following sections provide information about removing the Microsoft Enterprise Servers SPI from the HPOM management server.

### From HPOM for HP-UX, Solaris or Linux:

To remove the SPI from the HP-UX, Solaris or Linux management server you can use either of the following methods:

- Removing the SPI using Graphical User Interface
- Removing the SPI using Command Line Interface

#### Removing the SPI Using Graphical User Interface

To remove the Microsoft Enterprise Servers SPI using X-Windows client software, follow these steps:

1. Log on as a user: root.
2. Insert the HP Operations Smart Plug-ins DVD into the management server's DVD drive.
3. Start the X-windows client software and export the DISPLAY variable by typing the following command **export DISPLAY=<ip address>:0.0**
4. To start the installation, type the following command:

For HP-UX

```
./HP_Operations_Smart_Plug-ins_Hpux_setup.bin
```

For Solaris:

```
./HP_Operations_Smart_Plug-ins_Solaris_setup.bin
```

For Linux:

```
./HP_Operations_Smart_Plug-ins_Linux_setup.bin
```

The Initialization window opens.

5. Click **OK** . The Pre-Uninstall Summary window opens.

When you have, more than a SPI installed on the HP-UX, Solaris, or Linux management server and you want to remove only a SPI out of the installed SPIs, select the Modify option and then select the SPI you want to retain. Do not select the SPI that you want to remove.

6. Click **Uninstall**. The Uninstall window opens.
7. When the uninstallation of the Microsoft Enterprise Servers SPI is completed, click **Done**.

#### Removing the SPI Using Command Line Interface

To remove the Microsoft Enterprise Servers SPI through command line interface, follow these steps:

1. Log on as a user: root.
2. Insert the HP Operations Smart Plug-ins DVD into the management server's DVD drive. Mount the DVD, if required.
3. Type the following commands at the command prompt and press **Enter**:

For HP-UX:

```
./HP_Operations_Smart_Plug-ins_Hpux_setup.bin -i console
```

For Solaris:

```
./HP_Operations_Smart_Plug-ins_Solaris_setup.bin -i console
```

For Linux:

```
./HP_Operations_Smart_Plug-ins_Linux_setup.bin -i console
```

The HP Software Installer content appears.

4. Press **Next** to continue.
5. The Maintenance Selection content appears.
6. Enter the appropriate option (number) to start uninstallation and press **Enter**.

**Note:** If you have more than one SPI installed on the HPOM for Solaris or Linux server and you want to remove only some of the SPIs, select the Modify (1) option from the installer and select the SPIs you want to retain. Do not select the SPIs that you want to remove.


7. The Pre-Installation Summary content appears.
8. Press **Enter** to continue.
9. The selected features are removed.

# Removing Other Components of Microsoft Enterprise Servers SPI

The following sections provide information on removing other components of the Microsoft Enterprise Servers SPI, that is, message group, user profile, report, and graph package.


## Removing Microsoft Enterprise Servers SPI Message Group

To remove the Microsoft Enterprise Server message groups, follow these steps:

1. Click **Browse** → **All Message Groups**. All the existing message groups appear.
2. Select the check box corresponding to the Microsoft Enterprise Server message group to remove.
3. Select **Delete** from the list and click  to delete the Microsoft Enterprise Servers SPI message groups.
4. The message group is successfully deleted from the Microsoft Enterprise Server.

## Removing User Profiles

To remove the user profile, follow these steps:

1. Click **Browse** → **All User Profiles**. All the existing user profiles appear.
2. Select the check box corresponding to the user profile to remove.
3. Select **Delete** from the list and click  to delete the user profile.
4. The user profile is successfully deleted from the Microsoft Enterprise Server.

## Removing Reporter Package

The Reporter Package can be uninstalled using the Control Panel or **.msi** file.

## Removing Reporter Package Using Control Panel

To uninstall the Reporter Package using the Control Panel, follow these steps:

1. Click **Start** → **Control Panel** → **Add or Remove Programs**.
2. The Add or Remove Programs window opens.
3. Select **HP Operations Smart Plug-in for Microsoft Enterprise Servers - Reporter Component Integration** and click **Remove**.
4. Click **Yes** to confirm the uninstallation when a dialog box opens.
5. The Reporter Package is uninstalled.

## Removing Reporter Package Using .msi file

To remove the Reporter package using the .msi file, follow these steps:

1. Browse to <SPI DVD>\WINDOWS\HP\_REPORTER\MSESSPI\MSESSPI-Reporter.msi and then click **Uninstall**.
2. Click **Yes** to confirm the removal of the Reporter package.

## Removing Graph Package

The Graph Package can be uninstalled using the Control Panel or .msi file.

## Removing Graph Package Using Control Panel

To uninstall the Graph Package using the Control Panel, follow these steps:

1. Click **Start** → **Control Panel** → **Add or Remove Programs**.
2. The Add or Remove Programs window opens.
3. Select **HP Operations Smart Plug-in for Microsoft Enterprise Servers - Graphing Component Integration** and click **Remove**.
4. Click **Yes** to confirm the uninstallation when a dialog box opens.
5. The Graph Package is uninstalled.

## Removing Graph Package Using .msi File

To remove the graph package using the .msi file, follow these steps:

Browse to graph package:

1. For 64 bit: <SPI DVD>\WINDOWS\HP\_PMMSESSPI\HPOvSpiMsesGc\_Win5.2\_64.msi
2. For 32 bit: <SPI DVD>\WINDOWS\HP\_PMMSESSPI\HPOvSpiMsesGc\_WinNT4.0.msi
3. Click **Uninstall**.
4. Click **Yes** to confirm the removal of the graph package.
5. The Graph Package is uninstalled.

---

## We appreciate your 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 Operations Smart Plug-in for Microsoft Enterprise Servers, 8.05 Installation and Configuration Guide**

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@hp.com](mailto:docfeedback@hp.com).