

HP Operations Smart Plug-in for Microsoft[®] Enterprise Servers

for HP Operations Manager for HP-UX, Linux, and Solaris

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Installation and Configuration Guide

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Contents

1	Introduction	9
	Microsoft Office Communications Server 2007 Deployment Configurations	9
	Microsoft Lync Server 2010 Deployment Configurations	9
	Components of Microsoft Enterprise Servers SPI	9
	Policies	9
	Tools	10
	Reports	10
	Graphs	10
	Functions of Microsoft Enterprise Servers SPI	10
	Monitoring Availability, Performance, and Event Log	10
	Displaying Information	10
	Report Generation Using HP Reporter	11
	Graph Generation Using HP Performance Manager	11
	Policies Customization	11
2	Installing the Microsoft Enterprise Server SPI	13
	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
	Microsoft Enterprise Servers SPI Installation	16
	Installing Microsoft Enterprise Servers SPI on a Local Management Server	16
	On HPOM For HP-UX, Linux, and Solaris Management Servers	16
	Installing Microsoft Enterprise Servers SPI through Graphical User Interface	17
	Installing Microsoft Enterprise Servers SPI through Command Line Interface	18
	Winstalling Microsoft Enterprise Servers SPI on HPOM Cluster Servers	19
	Verifying the Installation of Microsoft Enterprise Servers SPI	20
3	Configuring the Microsoft Enterprise Servers SPI	21
	Basic Configuration Procedure	22
	Manage Microsoft Enterprise Server Nodes	22
	Assigning Nodes to Node Group	22
	Assigning Instrumentation Categories to Microsoft Enterprise Nodes	23
	Deploying Configuration	24
	Assigning Tool Group to Operator	24

Starting Tools on the Nodes	25
Assigning Policies to the Nodes	25
Deploying Policies on Nodes	27
Customizing Policies	27
Assigning Node Group and Message Groups to Operator	28
Data Logging Scenarios	29
Discovery Configuration Scenarios	30
Editing Discovery Policy	30
Assigning Microsoft Enterprise Servers SPI Services to Operator	31
Viewing Service Map Using Operator Interface	31
4 Using Policies and Tools	33
Policy Group and Policy Type	33
Policy Group	33
Policy Type	34
Tools	34
Tools for BizTalk Server	34
MSES_BTS_DB_Configuration Tool	34
Create Datasource for BizTalk Server	35
Tools for ISA Server	35
Create Datasource for ISA Server	35
Tools for SharePoint Server 2010	35
Create Datasource for Sharepoint Server	35
Tools for Microsoft Lync Server 2010	35
Create Datasource for Lync Server 2010	35
Configure Edge server Discovery for Lync Server 2010	36
Starting Tools	36
5 Integrating with HP Reporting and Graphing Solutions	37
Reports and Graphs	37
Integrating Microsoft Enterprise Servers SPI with HP Reporter	37
Installing Reporter Package	37
Configuring Reporter Package	37
Accessing Reporter Help	38
Generating Reports	38
Integrating Microsoft Enterprise Servers SPI with HP Performance Manager	39
Generating Graphs	40
6 Troubleshooting	41
Failed Discovery	41
Insufficient Privileges	41
Failed Binary on the Managed Node	41
Missing Configuration File	42
Reports and Graphs	42
Reports and Graphs are not Generated	42
Data Logging Policies Cannot Log Data	43
Browser Crashes While Viewing HTML Reports	43
Reports Fail With Oracle Database	43

Tools	44
MSES_BTS_DB_Configuration Tool Fails to Run	44
MSES_BTS_DB_Configuration Tool or Configure Edge server Discovery for Lync Server 2010 Fails to Run	44
Policies	44
Measurement Threshold Policy	44
7 Removing Microsoft Enterprise Servers SPI	47
Removing Microsoft Enterprise Servers SPI from the Management Server	47
From HPOM for HP-UX, Solaris or Linux:	47
Removing Other Components of Microsoft Enterprise Servers SPI	48
Removing Microsoft Enterprise Servers SPI Message Group	48
Removing User Profiles	49
Removing Reporter Package	49
Removing Reporter Package Using Control Panel	49
Removing Reporter Package Using .msi file	49
Removing Graph Package	49
Removing Graph Package Using Control Panel	49
Removing Graph Package Using .msi File	50
Index	51

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 R2
- 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 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 on policies, see [Chapter 4, Using Policies and Tools](#).

Tools

Tools are utilities to configure the Microsoft Enterprise Servers and gather related information. For more information on the Microsoft Enterprise Servers SPI tools, see [Chapter 4, Using Policies and Tools](#).

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 on reports, see [Chapter 5, Integrating with HP Reporting and Graphing Solutions](#).

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 on graphs, see [Chapter 5, Integrating with HP Reporting and Graphing Solutions](#).

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 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.

Report Generation 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 on HP Reporter, see [Chapter 5, Integrating with HP Reporting and Graphing Solutions](#).

Graph Generation 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 on HP Performance Manager, see [Chapter 5, Integrating with HP Reporting and Graphing Solutions](#).

Policies Customization

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

- Script-parameters
- Rules
- Options

2 Installing the Microsoft Enterprise Server SPI

The Microsoft Enterprise Server SPI is packaged with the HP Operations Smart Plug-ins DVD. You must install the Microsoft Enterprise Server SPI on the HPOM management server. The following sections provide detailed information on 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_PM\MSESSPI\HPOvSpiMsesGc_Win5.2_64.msi

For 32 bit: <SPI DVD>\WINDOWS\HP_PM\MSESSPI\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 Graph package 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.

Figure 1 Overview of Installation and Configuration Steps

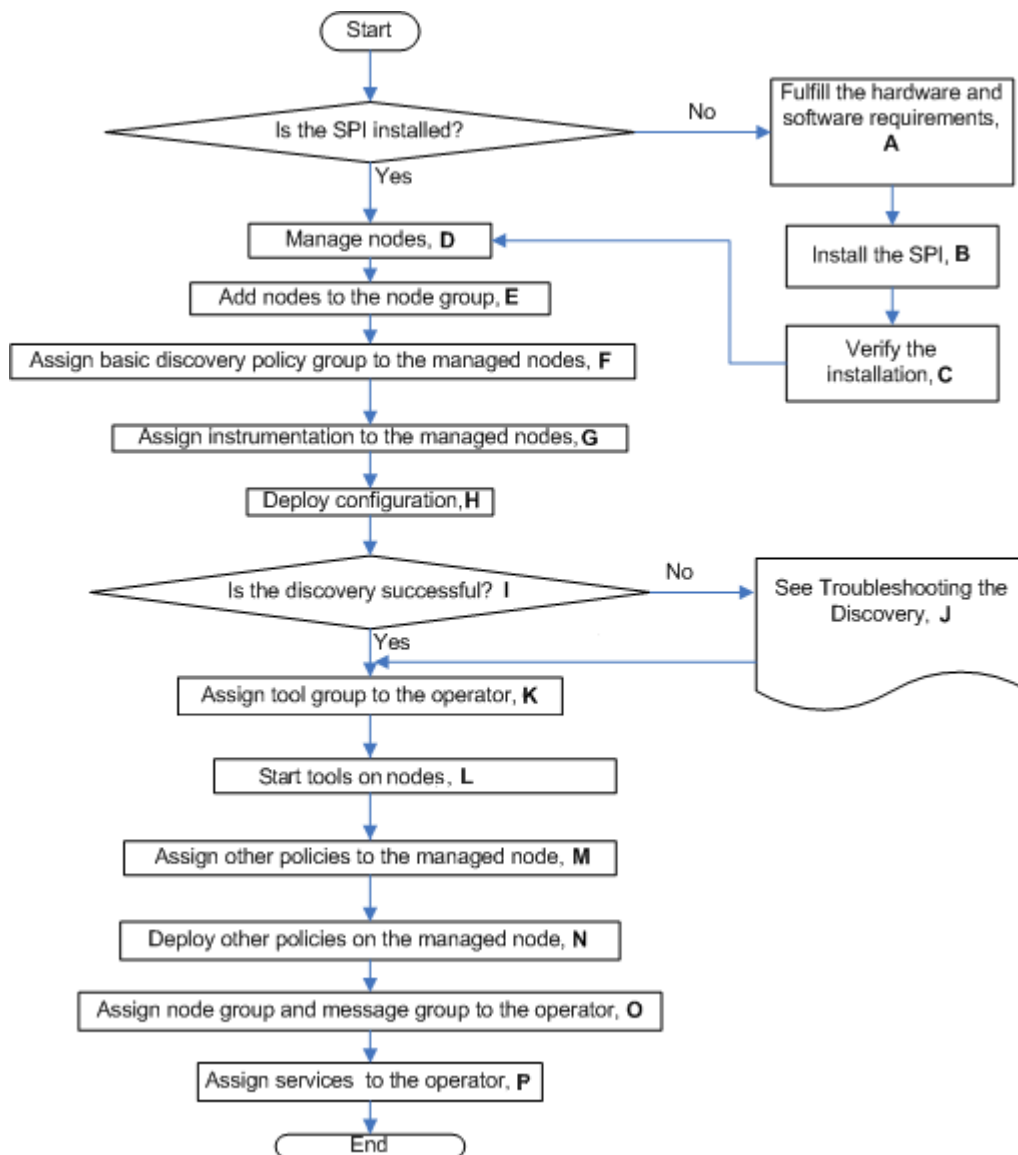


Table 1 **Legends of Installation and Configuration Steps**

Legend	References
A	Prerequisites to Install Microsoft Enterprise Servers SPI on page 15
B	Installing Microsoft Enterprise Servers SPI on a Local Management Server on page 16
C	Verifying the Installation of Microsoft Enterprise Servers SPI on page 20
D	Manage Microsoft Enterprise Server Nodes on page 22
E	Assigning Nodes to Node Group on page 22
G	Assigning Instrumentation Categories to Microsoft Enterprise Nodes on page 23
H	Deploying Configuration on page 24
J	Troubleshooting on page 41
K	Assigning Tool Group to Operator on page 24
L	Starting Tools on the Nodes on page 25
M	Assigning Policies to the Nodes on page 25
N	Deploying Policies on Nodes on page 27
O	Assigning Node Group and Message Groups to Operator on page 28
P	Assigning Microsoft Enterprise Servers SPI Services to Operator on page 31
Q	Data Logging Scenarios on page 29

Prerequisites to Install Microsoft Enterprise Servers SPI

Install the HPOM management server before installing the Microsoft Enterprise Servers SPI. Fulfill all the hardware and software requirements before installing the Microsoft Enterprise Servers SPI. It is not necessary to stop HPOM sessions before beginning the Microsoft Enterprise Server 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:
 - α The Cumulative OM Admin UI Hotfix (hotfix08_9.1.0_cumulative)

- b Change Request: **QCCRIA120300** - Warning threshold condition disappears for a few measurement threshold policies
- HP Reporter 3.90
- HP Performance Manager 9.00
- 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

Microsoft Enterprise Servers SPI Installation

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.

Installing Microsoft Enterprise Servers SPI on a Local Management Server

To install the Microsoft Enterprise Servers SPI on the HPOM management server, follow these steps:

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

This section describes the steps required to install the Microsoft Enterprise Servers SPI on HPOM for HP-UX, Solaris, or Linux management server.

Task 1: Mounting the DVD:

Follow these steps:

- 1 Log on as user: root.
- 2 Set the user's root umask by typing the following command:
umask 027
- 3 Create a directory to mount the DVD:
mkdir /<mount_point>
For example: **mkdir /dvdrom**
- 4 Insert the DVD into the disk drive and mount it as user root by entering:
mount /dev/<dvdrom_drive_name> /<mount_point>
For example, for a local DVD, type:
mount /dev/dsk/c0t2d0 /dvdrom

You can also run SAM and mount the DVD to a specific path in the Disks and File Systems window.

Task 2: Install Microsoft Enterprise Servers SPI 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:

- Graphical User Interface
- Command Line Interface

Installing Microsoft Enterprise Servers SPI through Graphical User Interface

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

- 1 Log on as **root** user.
- 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** page appears.



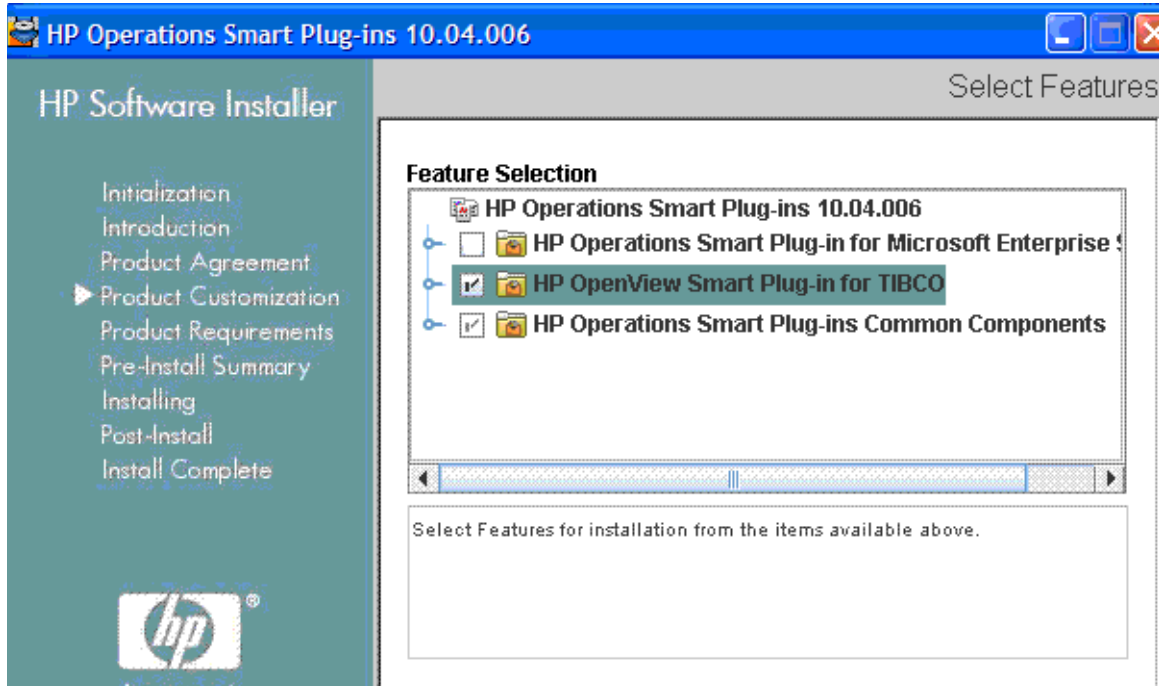
If another SPI is already installed on the management server, skip step 5 and 6. Go to [step 7](#).


- 5 On the **Introduction** page, check the information available for installation, and then click **Next**.
- 6 On the **License Agreement** page, select **I accept the terms of the License Agreement** and click **Next**.




If you are installing the SPI on the management which does not have any other SPI installed, skip steps 7 and 8. Go to [step 9](#).

- 7 On **Application Maintenance** page, select from the following options:
 - To start the installation on the management server with previously installed SPIs, select **Modify**.
 - If some errors appear while installing, select **Reinstall from Media**.
- 8 On the **Introduction (Modify)** page, check the installation package and instructions, and then click **Next**.
- 9 On the **Select Features** page, select **HP Operations Smart Plug-In for Microsoft Enterprise Servers**. By default, the HP Operations Smart Plug-ins component is selected.



 While installing the SPIs on HPOM, select the previously installed SPIs on the management server, if any. If you do not select the previously installed SPIs, the installer automatically removes the previously installed SPIs and installs the selected ones.

- 10 After you select the Microsoft Enterprise Servers SPI and the previously installed SPIs on the management server, if any, click **Next**. The HP Operations Smart Plug-in Common Components is a mandatory component, which is selected by default.
- 11 On the **Install Checks** page, the installer checks the system for the available disk space. If the install check is successful, click **Next**.
- 12 On the **Pre-Install Summary** page, check the products that appear to be installed or already available on the management server, select the following:
 - To start the installation of the SPI, click **Install**.
 - To start the installation on the management server with previously installed SPIs, click **Modify**.

 Select **Force reinstallation** to reinstall the selected components.
- 13 Click **Done** to complete the installation.

Installing Microsoft Enterprise Servers SPI through Command Line Interface

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

- 1 Log on as a **root** user.
- 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. Press **Enter** to continue.

 If another SPI is already installed on the management server, skip step 4 and 5. Go to [step 6](#).

4 In the **Introduction** content, check the information available for installation, and press **Enter** to continue.

5 In the **License Agreement** content, 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.


The Feature selection options list appears.

 If you are installing the SPI on the management server which does not have any other SPI installed, skip step 6. Go to [step 7](#).

6 In the **Application Maintenance** content, type the number corresponding to the feature **Modify**. Press **Enter** to continue.

7 In the **Select Features** content, do the following:

- Type the number corresponding to the feature you want to install.
- Type the number corresponding to the feature you want to retain.

 While installing the SPIs on HPOM, select the previously installed SPIs on the management server, if any. If you do not select the previously installed SPIs, the installer automatically removes the previously installed SPIs and installs the selected ones

8 After you select the SPIs that you want to install, uninstall, or retain, press **Enter** to continue.

9 The installer selects the other required features. Press **Enter** to continue.

10 In the **Install Requirements Checks** content, the installer verifies the system. If the install check is successful, press **Enter** to continue.


11 In the **Pre-Installation Summary** content, press **Enter** to continue.

The selected features are installed.

When the installation is complete, a message appears stating that the installation is completed successfully.

WInstalling 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.

 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 Server SPI installation is proper, perform one of the following steps:

- 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*.
- From the command prompt of HPOM, go to the directory: `/var/opt/OV/share/databases/OpC/mgd_node/instrumentation`.

You can see the Microsoft Enterprise Servers SPI Instrumentation groups in this directory.

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.

Table 2 Server types and related details

Server	Node Group	Message Group	Instrumentation Category	Tool Group
BizTalk	Biztalk Server 2006	Biztalk Server 2006	BizTalk_Server	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
			Common for all servers: <ul style="list-style-type: none"> • SPIDataCollector • SHS_Data_Collector 	Common for all servers: <ul style="list-style-type: none"> • 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 on managing the Microsoft Enterprise Server nodes, see *HP Operations Manager for UNIX Concepts Guide*.

Assigning Nodes to Node Group

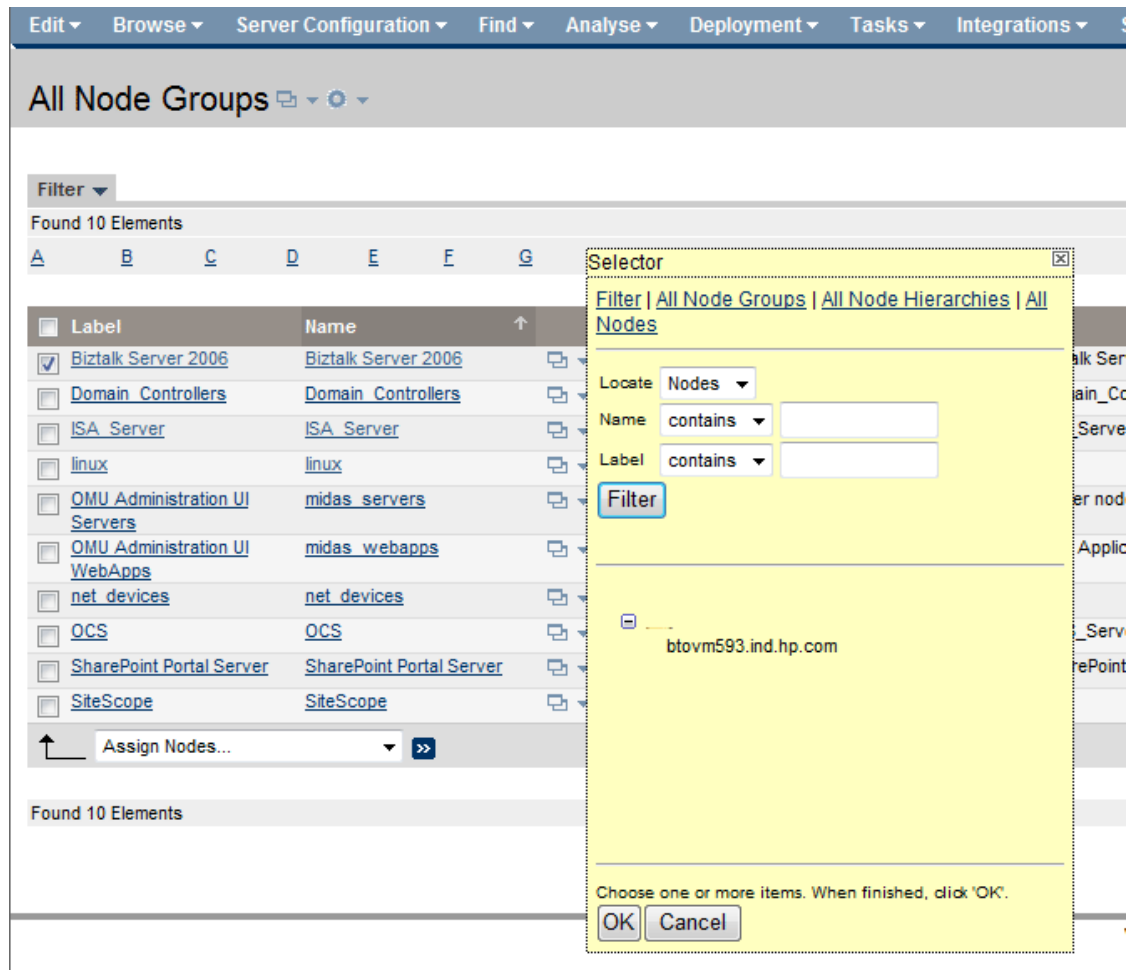
To assign Microsoft Enterprise Server nodes to its corresponding node group, follow these steps:

- 1 Click **Browse** → **All Node Groups**. The All Node Groups page appears.

For information on the node groups corresponding to each Microsoft Enterprise Servers, see [Table 2](#) on page 21.

- 2 Select the check box corresponding to the required node group.
- 3 Select **Assign Nodes...** from the list and click the **Submit** .

The Selector dialog box opens.



- 4 Search for corresponding nodes using the search options in the **Filter** tab.
You can also search for the appropriate node using the **All Node Groups**, **All Node Hierarchies**, or **All Nodes** tabs.
- 5 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 [Table 2](#) on page 21.

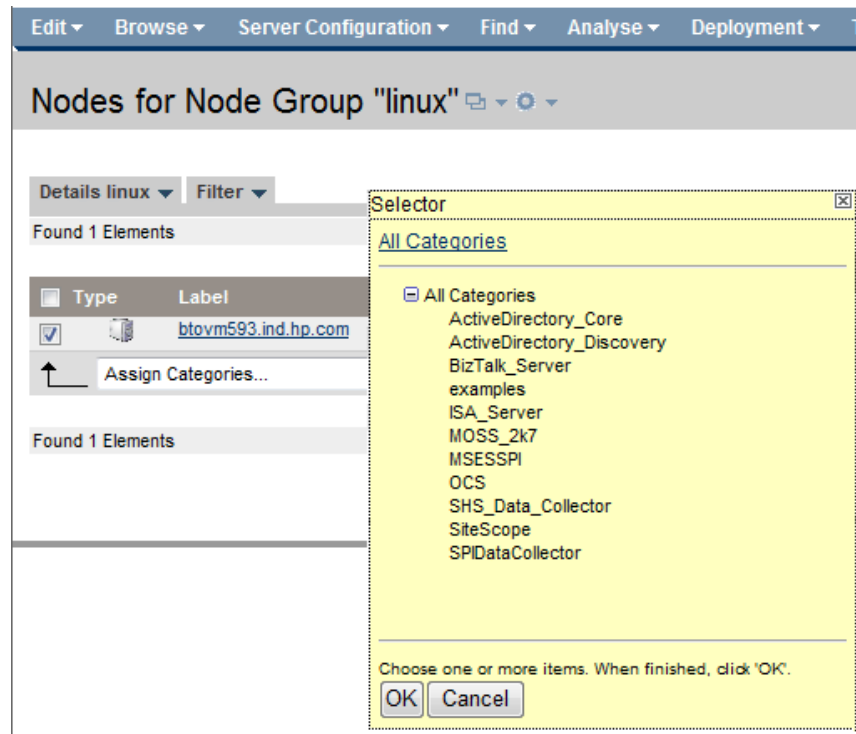


SPIDataCollector is a mandatory category and must be deployed along with any instrumentation category type.

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**.




The selected categories are assigned to the Microsoft Enterprise Server nodes.

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** .


A dialog box opens which lists the categories of configuration.


- 4 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**.

The Microsoft Enterprise Servers SPI tool group is assigned to the operator.

Starting Tools on the Nodes

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

Table 3 Server Type and Tool

Server Type	Tools
BizTalk Server	<ul style="list-style-type: none"> • Create Datasource for BizTalk Server • MSES_BTS_DB_Configuration
Internet Security And Acceleration Server	Create Datasource for ISA Server
Microsoft SharePoint Server 2010	Create Datasource for Sharepoint Server
Microsoft Lync Server 2010	<ul style="list-style-type: none"> • Configure Edge server Discovery for Lync Server 2010 • Create Datasource for Lync Server 2010

For more information on starting the tools, see [Starting Tools](#) on page 36


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 EdgeServer, deploy only the Access Edge Server policy group.

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

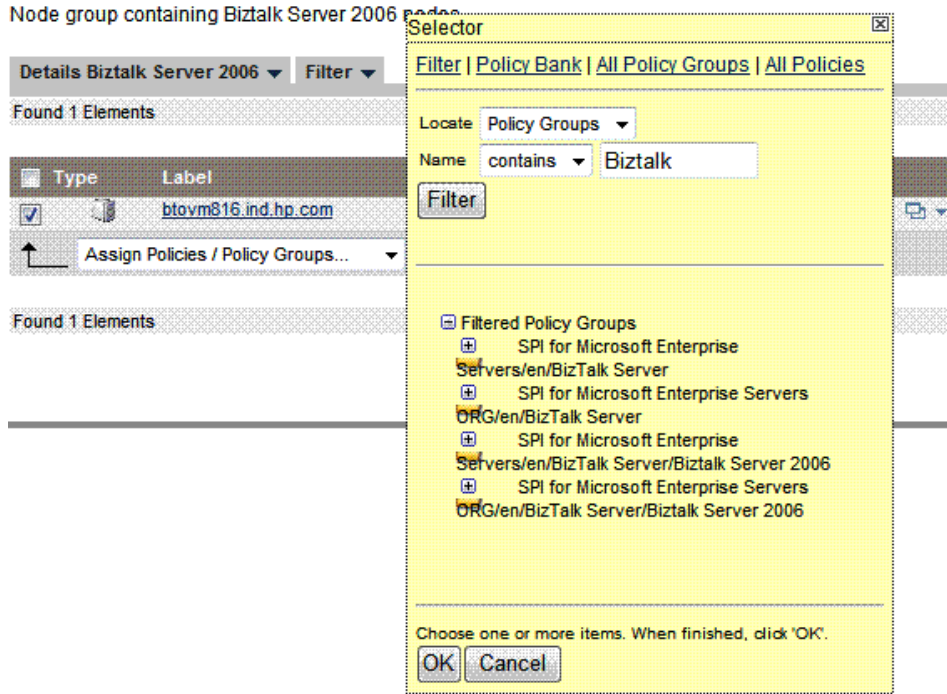
- 1 Click **Browse** → **All Node Groups** and click the required node group. The corresponding Microsoft Enterprise Server nodes are listed.
- 2 Select the check boxes corresponding to the Microsoft Enterprise Server nodes to assign policies.
- 3 Select **Assign Policies / Policy Groups...** from the list and click **Submit** . The Selector dialog box opens.

- 4 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 on the policy groups, see [Table 4](#) on page 26.

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

- 5 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.


Table 4 Server Role and the Policy Group to deploy

Server Role	Policy Group
BizTalk Server	Policy Bank → SPI for Microsoft Enterprise Servers → en → BizTalk Server → BizTalk Server 2006
Internet Security And Acceleration Server	Policy Bank → SPI for Microsoft Enterprise Servers → en → Internet Security And Acceleration Server → Internet Security And Acceleration Server 2006
SharePoint Portal Server	Policy Bank → SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → Microsoft Office SharePoint Server 2007

Server Role	Policy Group
SharePoint Server 2010	Policy Bank → SPI for Microsoft Enterprise Servers → en → SharePoint Portal Server → SharePoint Server 2010
Microsoft Office Communications Server	Policy Bank → SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Office_Communications_Server 2007
Microsoft Lync Server 2010	Policy Bank → SPI for Microsoft Enterprise Servers → en → Microsoft_Office_Communications_Server → Microsoft_Lync_Server_2010

Deploying Policies on Nodes


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

- 1 Click **Browse** → **All Node Groups** and select the required node group. The Microsoft Enterprise Server nodes are listed in All Node Groups.
- 2 Select the check boxes corresponding to the Microsoft Enterprise Server nodes on which you want to deploy the policies.
- 3 Select **Deploy Configuration...** from the list and click **Submit**  .
A dialog box opens listing the categories of configuration.
- 4 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:

- 1 Go to **Policy Bank** → **SPI for Microsoft Enterprise Servers** → **en**.
- 2 Select the policy group to which the policy belongs.
- 3 Select the check box corresponding to the policy to be customized.
- 4 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.

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

Edit Scheduled_Task Policy "MSES_Biztalk_Create_Coda_DataSources"

Properties Scheduled Task Message Failed

Name MSES_Biztalk_Create_Coda_DataSources

Type schedule

Version 8.0 Auto-increment on save

Latest Version 8.0

Description Creates class MSES_BizTalkSever_Interval in CODA with ddfcomp and spec files

Information


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

Save Restore Cancel

Assigning Node Group and Message Groups to Operator

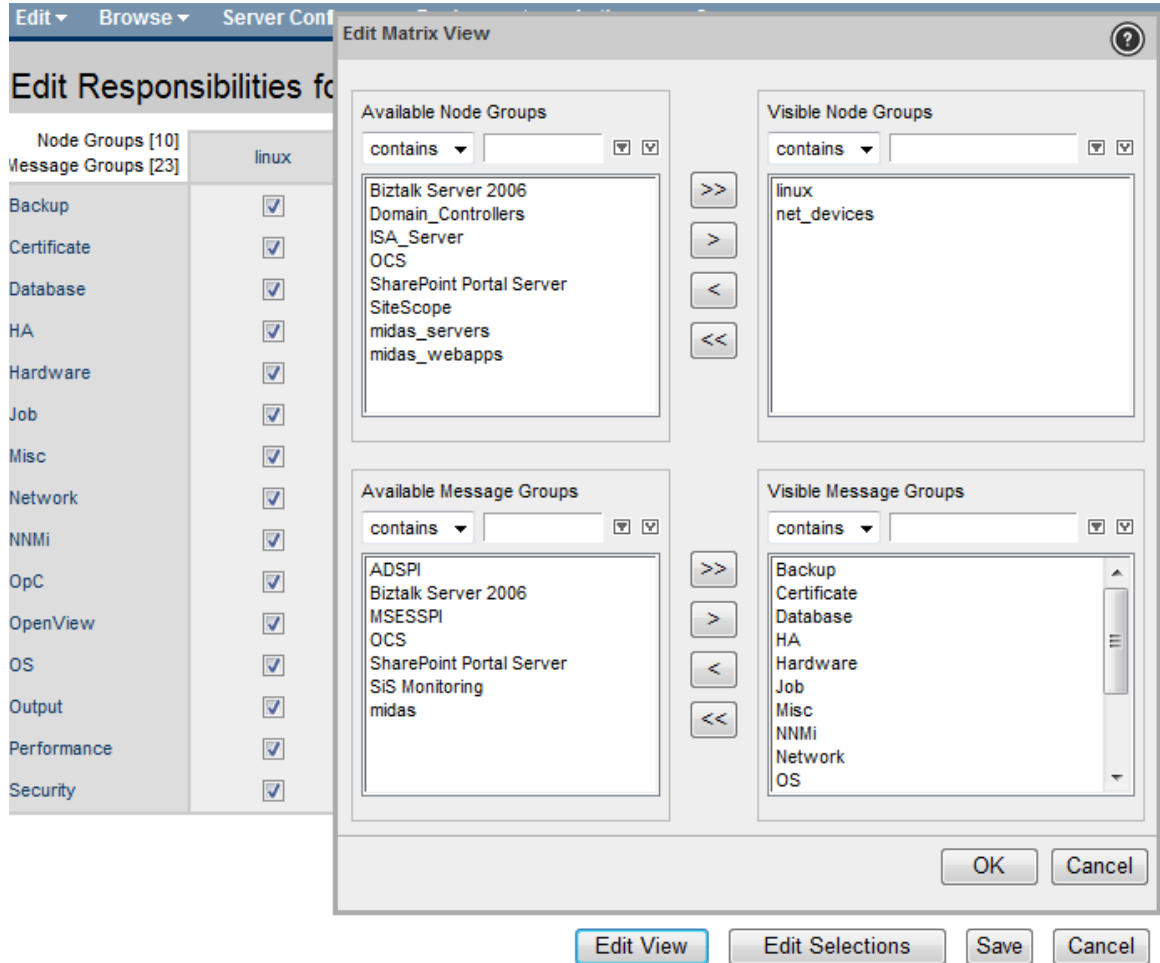
You can assign Microsoft Enterprise Server node groups and message groups to one or more operators for HPOM. This allows you to view messages and alerts generated by the Microsoft Enterprise Servers SPI nodes.


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.

The Edit Responsibilities window opens displaying the available node groups and message groups.

- 3 Click **Edit View**. The Edit Matrix View dialog box opens.



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

- 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`.

The data sources OCS, ISASERVER2006, MOSS_2007, and MSES_BIZTALKSERVER_INTERVAL 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	MSES_BIZTALKSERVER_INTERVAL
ISA Server	ISASERVER2006
MOSS	MOSS_2007
OCS	OCS
SharePoint 2010	SharePoint_Server
Microsoft Lync Server 2010	CS

For more details on 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 Configuration Scenarios

The Microsoft Enterprise Servers SPI discovers the services of the Microsoft Enterprise Server and helps you manage the Microsoft Enterprise Servers 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.



Before deploying the Service Discovery policy on the BizTalk Server node, run the MSES_BTS_DB_Configuration Tool on the BizTalk Server node. For more information on launching the tool, see [Starting Tools](#) on page 36.

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:
 - User:
 - Domain User: **<Domain Name>\\<Administrator>**
 - Non-domain User: **<Administrator>**

— Password: <Password>

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.

- 4 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 on the service names for the servers, see [Table 5](#). The service navigator shows the Microsoft Enterprise Server service map.

Table 5 Root Service names for servers

Server Type	Root Service name
BizTalk Server	BTS_System
Internet Security and Acceleration Server	ISA2006_Application ISA2006_System
Microsoft Office Communications Server	OCS_2007
Microsoft SharePoint Portal Server 2007	MOSS_2007
SharePoint Server 2010	MOSS_2007
Microsoft Lync Server 2010	CommServer

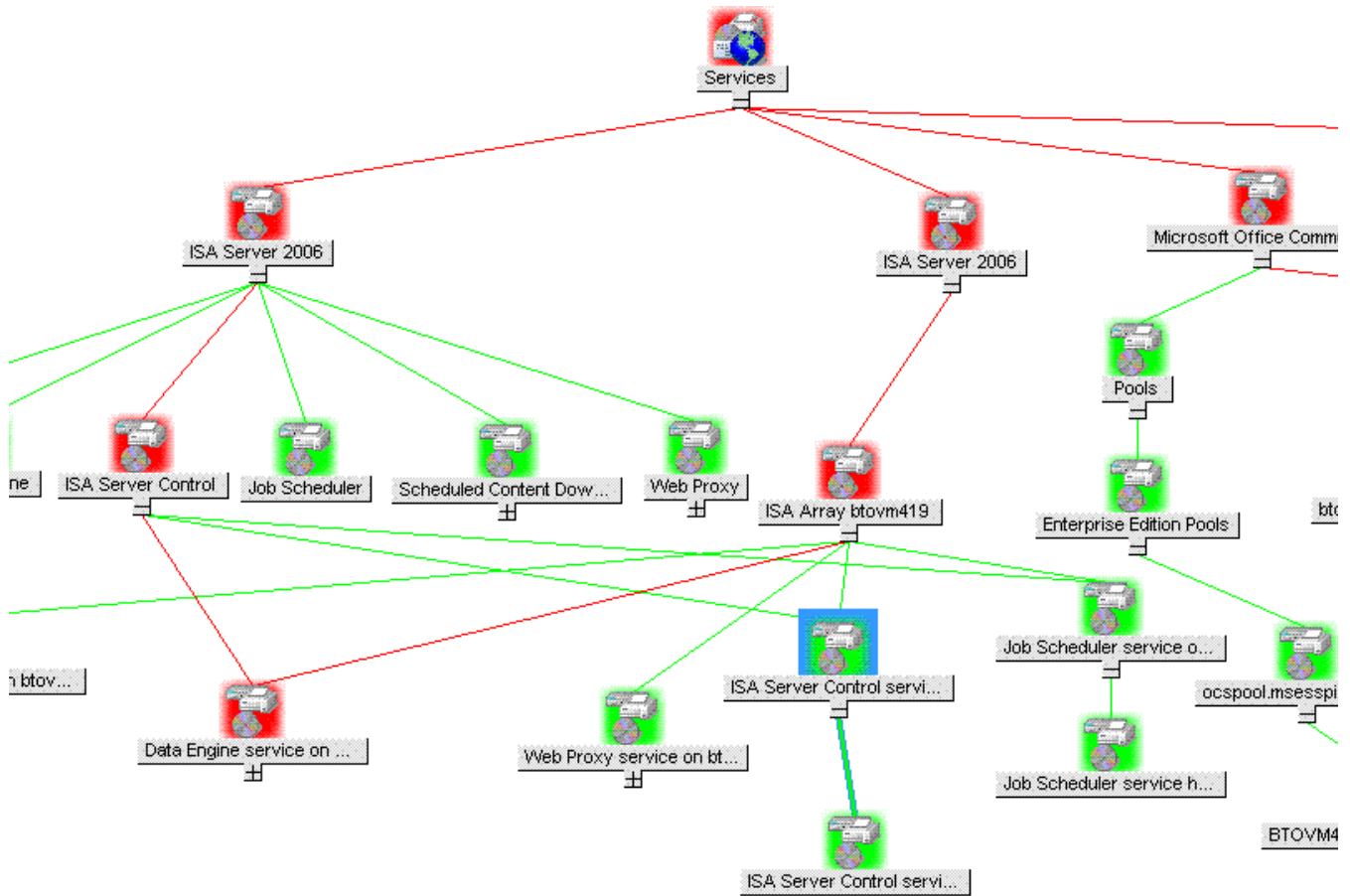
For example, to assign the BizTalk Server discovered services to the operator, **opc_adm**, after running the Service Discovery policy on the BizTalk Server, you must run the command **opcservice -assign opc_adm BTS_System**.

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.

Figure 2 Service Map



4 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 page 34.

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](#)

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

[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

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



For more information on 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.

Tools for BizTalk Server

BizTalk Server tools are MSES_BTS_DB_Configuration Tool and Create Datasource for BizTalk Server.

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. The BizTalk Server 2006 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.



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.

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 24.

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.

For example, to start MSES_BTS_DB_Configuration tool, select **Start** → **SPI for Microsoft Enterprise Servers** → **BizTalk Server** → **MSES_BTS_DB_Configuration**.

5 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 Server.

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.



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:

- 1 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.

- 2 Add group and single system reports by assigning reports as desired.

Reports are available for viewing the following day.



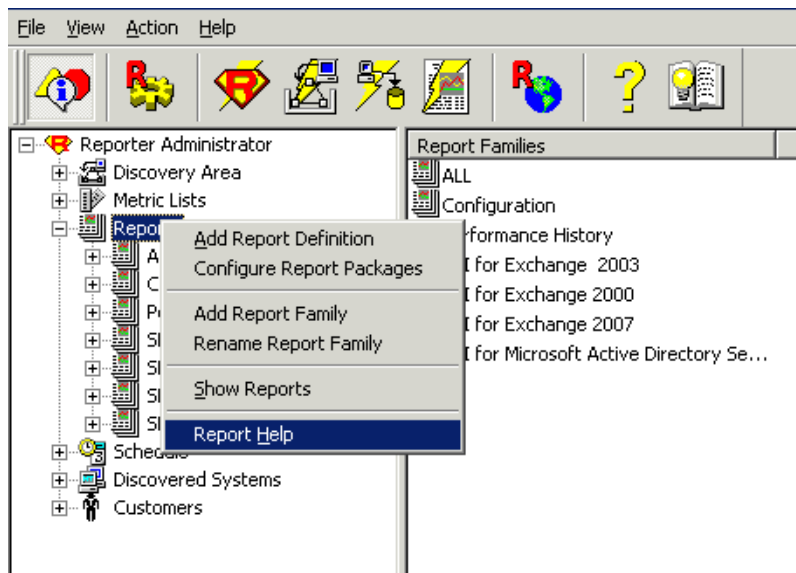
You can identify the Microsoft Enterprise Servers SPI reports of group and single systems by their full name. For example, **abc.xyz.com** is acceptable while **abc** is not.

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.



If you want to customize your reports you must install HP Reporter. For more information on HP Reporter and modifying the reports, see the Concepts Guide, Installation Guide and Special Configuration Guide, Online Help, and Release Notes for HP Reporter.

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.

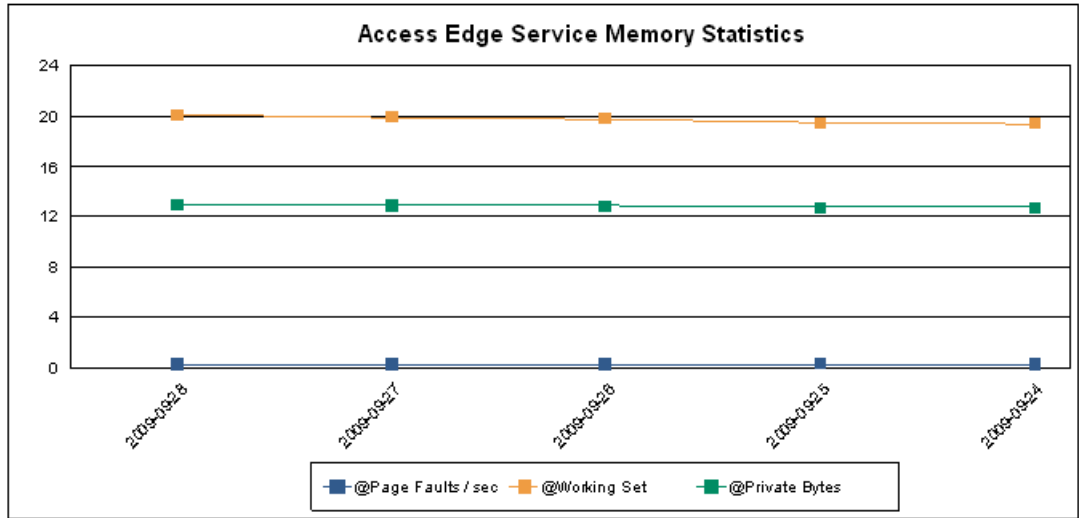


If the report contains a huge volume of data, there is a possibility that the browser might crash when the reports are viewed in HTML format. In such situations, view the reports in PDF format.

You can access the reports of Microsoft Enterprise Servers SPI from the **Reports** area of the HPOM console. For more information on 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.

On a Windows system that has HP Performance Manager, follow these steps:

- a Insert the media (that contains the graph packages), and in Windows Explorer, double-click:

For 64 bit: <SPI

DVD>\WINDOWS\HP_PM\MSES_SPI\HPOvSpiEsG-8.03.002-Win5.2_64.msi

For 32 bit: <SPI

DVD>\WINDOWS\HP_PM\MSES_SPI\HPOvSpiEsG-8.03.002-WinNT4.0.msi

- b 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.



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
```


6 Troubleshooting

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.

Failed Binary on the Managed Node

In some cases, the agent fails to update the discovered services on the HPOM management server. The possible cause and suggested action are as follows:

- *Possible cause:* The output of the Microsoft Enterprise Servers SPI (depending on the server type) discovery policy is not a properly formatted xml file.
- *Suggested action:* Run the Microsoft Enterprise Servers SPI (depending on the server type) discovery binary or script on the managed node. Perform the following steps:
 - a Log on to the managed node as an administrator.
 - b From the command prompt, open the instrumentation directory.
 - c Run the `<"script/binary">out.xml` command corresponding to the server type. For more information on the commands corresponding to each server, see [Table 6](#) on page 42.

- d Check if the `out.xml` is in the required xml format by opening it in a web browser.

Table 6 Server Type and Command

Server type	Script/Binary name	Command
BizTalk Server	Bts_discovery.js	<code>cscript bts_discovery.wsf > out.xml</code>
ISA Server	ISA2006_Application_Discovery.js	<code>cscript ISA2006_Application_Discovery.wsf > out.xml</code>
	ISA2006_System_Discovery.js	<code>cscript ISA2006_System_Discovery.wsf > out.xml</code>
MOSS	MOSS_Discovery_2k7.exe	<code>MOSS_Discovery_2k7.exe> out.xml</code>
OCS	ocs_discovery.js	<code>cscript ocs_discovery.wsf > out.xml</code>
SharePoint Server 2010	SP_Discovery.exe	<code>SP_Discovery> out.xml</code>
Microsoft Lync Server 2010	CS_Discovery.exe	<code>CS_Discovery > out.xml</code>

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:
 - a Log on to the managed node as an administrator.
 - b From the command prompt run the `ovcodutil -obj > out.txt` command.
 - c Check the `out.txt` file to ensure that the appropriate data source is created.
 - d 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.

Table 7 Server type and Data source

Server Type	Data Source Name	Data Source Creation Tool/Policy
BizTalk Server	MSES_BIZTALKSERVER_INTERV AL	Tool: Create Datasource for BizTalk Server
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.

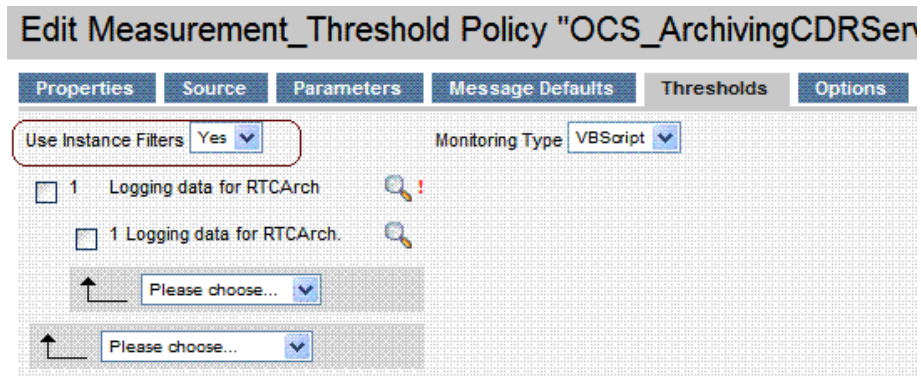
Policies

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.

7 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 on uninstalling 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
```

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



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.

The Pre-Installation Summary content appears.

- 7 Press **Enter** to continue.
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 Sever 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.
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.
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**.
The Add or Remove Programs window opens.
- 2 Select **HP Operations Smart Plug-in for Microsoft Enterprise Servers - Reporter Component Integration** and click **Remove**.
- 3 Click **Yes** to confirm the uninstallation when a dialog box opens.
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**.
The Add or Remove Programs window opens.

- 2 Select **HP Operations Smart Plug-in for Microsoft Enterprise Servers - Graphing Component Integration** and click **Remove**.
- 3 Click **Yes** to confirm the uninstallation when a dialog box opens.
The Graph Package is uninstalled.

Removing Graph Package Using .msi File

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

- 1 Browse to graph package:

For 64 bit: <SPI DVD>\WINDOWS\HP_PM\MSESSPI\HPOvSpiMsesGc_Win5.2_64.msi

For 32 bit: <SPI DVD>\WINDOWS\HP_PM\MSESSPI\HPOvSpiMsesGc_WinNT4.0.msi

- 2 Click **Uninstall**.
- 3 Click **Yes** to confirm the removal of the graph package.

Index

A

Assign Microsoft Enterprise Server SPI Services to Operator, 31

C

Console services tree, 10

D

Data logging, 29

E

Error messages, 11

Events and services, 11

G

Graphs, 37

H

HP Performance Manager, 11, 39

HP Reporter, 11, 37

HP Reporter Help, 38

I

Installation Packages

Graphing Package, 13

Reporting Package, 13

SPI Package, 13

M

Microsoft Enterprise Servers, 9

Microsoft Enterprise Servers SPI, 9

Microsoft Office Communications Server 2007 Deployment Configurations, 9

MS SQL Reporter database, 38

O

Options, 11

P

Policy Bank, 20

Policy Group and Policy Type, 33

Pre-requisites

Hardware, 15

Software, 15

R

Reporter package, 37

Reports, 37

Rules, 11

S

Script-parameters, 11

Service Map, 10

SQL authentication mode, 34

T

Thresholds, 21

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