Cisco UCSM Smart Plugin 2.3.1

For Windows

Installation Manual

Dec 24, 2013

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1 Introduction

Hewlett Packard Operations Manager (HPOM) software features a consolidated infrastructure Management Console that correlates fault and performance events across entire IT infrastructure. It monitors both physical and virtual servers to identify the cause of event storms, allowing faster time to resolution.

1.1 Purpose of the Document

The purpose of this document is to describe the procedure which is needed to:

- Install and configure Cisco Unified Computing System Manager (UCSM) Smart Plugin for HPOM to receive faults generated in UCSM.
- Display the faults in a user friendly manner in HPOM browser.
- Map the faults to the hardware element from which the faults are generated

1.2 Acronyms and Abbreviations

The following table describes the acronyms and abbreviations used in the document.

Abbreviation	Translation
DNS	Domain Name Server
FI	Fabric Interconnect
FQDN	Fully Qualified Domain Name
HP	Hewlett Packard
IIS	Internet Information Service
MOF	Management Object Format
OM	Operations Manager
OMW	Operations Manager Windows
SNMP	Simple Network Management Protocol
SPI	Smart Plug In
UCS	Unified Computing System
UCSM	UCS Manager
XML	eXtensible Markup Language

1.3 System Requirements

The HP Operations Management Server must meet the below mentioned minimum requirements for this plug-in to work

- Operating System - Windows Server 2008 R2 Standard (64 bit)
- HP Operations Manager Server - HPOM Windows (OMW) 9.0
- Operations Agent Version 11.12
- Java 1.6 (by default bundled with HP- OMW installation)

1.4 Major Features

The major features of Cisco UCSM Smart Plugin are:

- The plugin server now runs as a windows service. The communication of GUI and CLI takes place through this service. The main idea behind converting the plugin into a service was to continue monitoring (receiving faults) of nodes even when the user has logged out.
- Performance of the plugin is improved as both start and stop monitoring for each node takes place in a new thread.
- CLI is made non-interactive as the start and stop monitoring can be initiated in a single line.
- If a UCS node gets faulted, then AgentController UI will show the node as faulted. The UCSM Plugin will retry the connection to UCS in background based on the configured “UCSRetryCount” and “UCSRetryInterval”. The retry interval and count can be modified in the properties file. Refer to the section 5.2 of the Operations manual.
- Autodiscovery of UCS node will now continue even if discovery of one node fails.

2 Installing Cisco UCSM Smart Plugin

This section describes how to install and configure the Cisco UCS Smart Plugin.

1. Due to a known issue in older releases, uninstallation of the older releases of Smart Plugin application must be done manually as described in Section 2.1
2. Installing the Smart Plugin application. This is done automatically through an installer as described in Section 2.2
3. Configuring the Cisco UCSM Agent Controller application with management server information and the details of the UCS nodes to be monitored as described in Section 2.3
4. Adding the node to be monitored, to the list of nodes in the HPOM (to view the faults under appropriate components on the node), and deploying the policies on the node (to form the hierarchy of the node and to enable the OM to receive the faults) as described in Section 2.4.
5. Receiving faults by using Cisco UCSM Agent Controller" as described in Section 2.5

2.1 Uninstalling the Older Smart Plugin Application manually

1. Delete the registry files by the name "InstallJammer Registry" under the "Program Files(x86)".
2. Delete the folder "CISCOUCS-INFRASPI" under %OvInstallDir%/install/.
3. Also delete "UCSConfig.xml" under %OvDataDir%/bin/instrumentation.
4. Delete the folder "UCS_TEMP" under "%USER_PROFILE%".
5. Now try to install the plugin by running the installer.

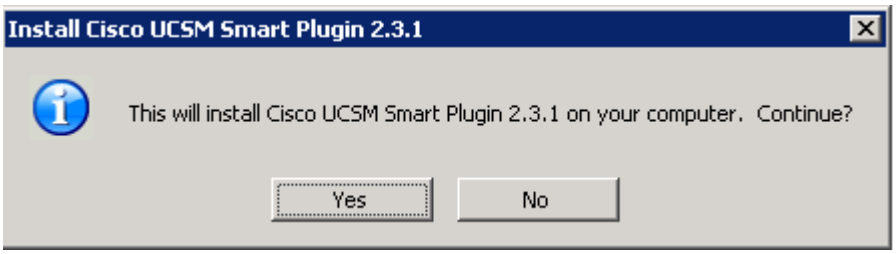
2.2 Installing the Smart Plugin 2.3(1)

This section describes how to install the Cisco UCS Smart Plugin. The following three environment variables are set by default during the installation of HPOM. The installer verifies if the following environment variables are set:

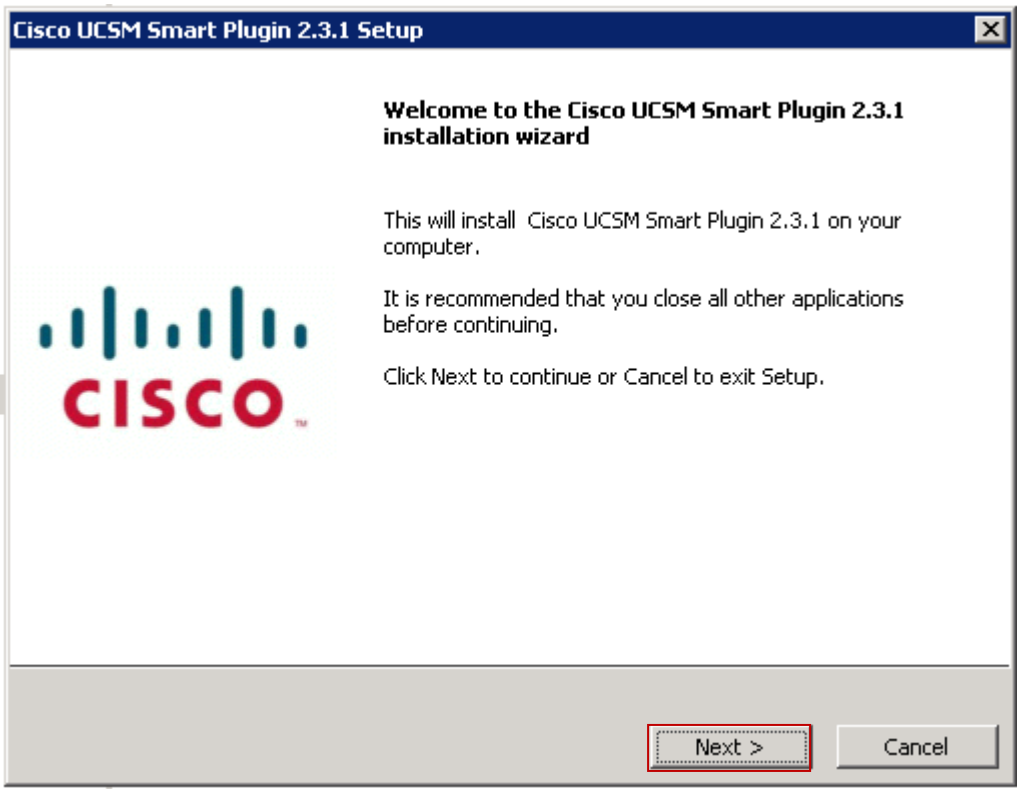
- OvInstallDir
- OvShareDir
- OvDataDir

2.2.1 Running the Installer

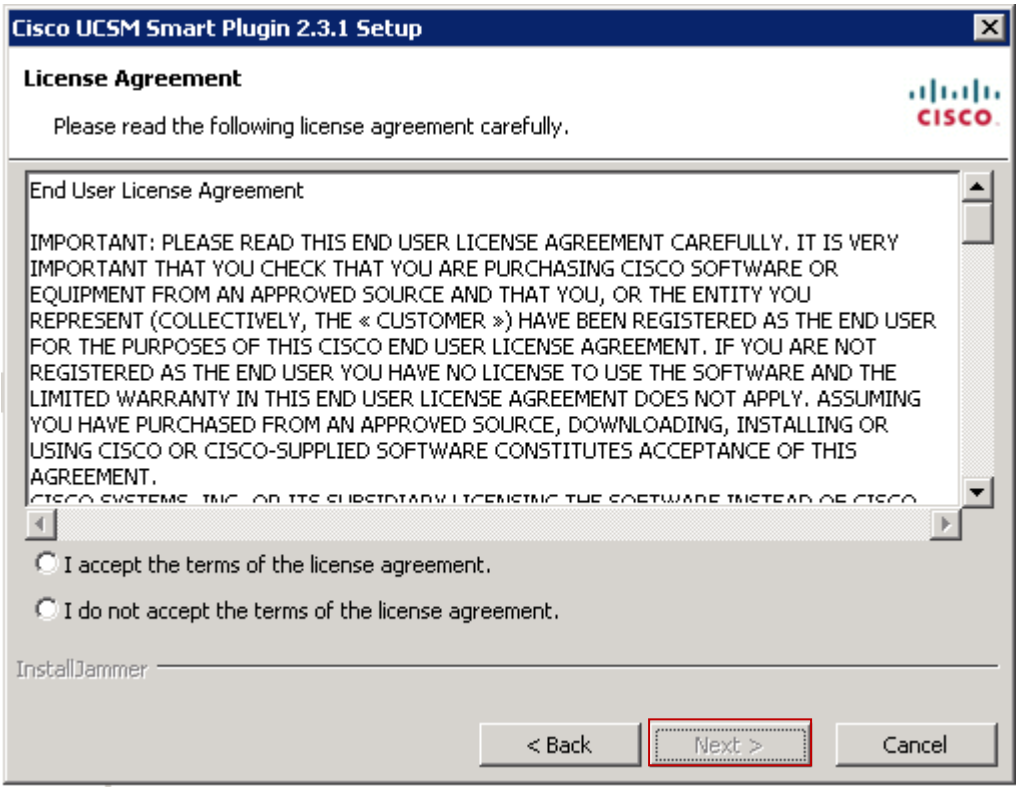
1. Double click the Cisco UCSM Smart Plugin 2.3.1 Setup.exe to launch the installation.
   The **Install Cisco UCSM Smart Plugin** window appears.
   Click the **Yes** button to proceed with the installation.



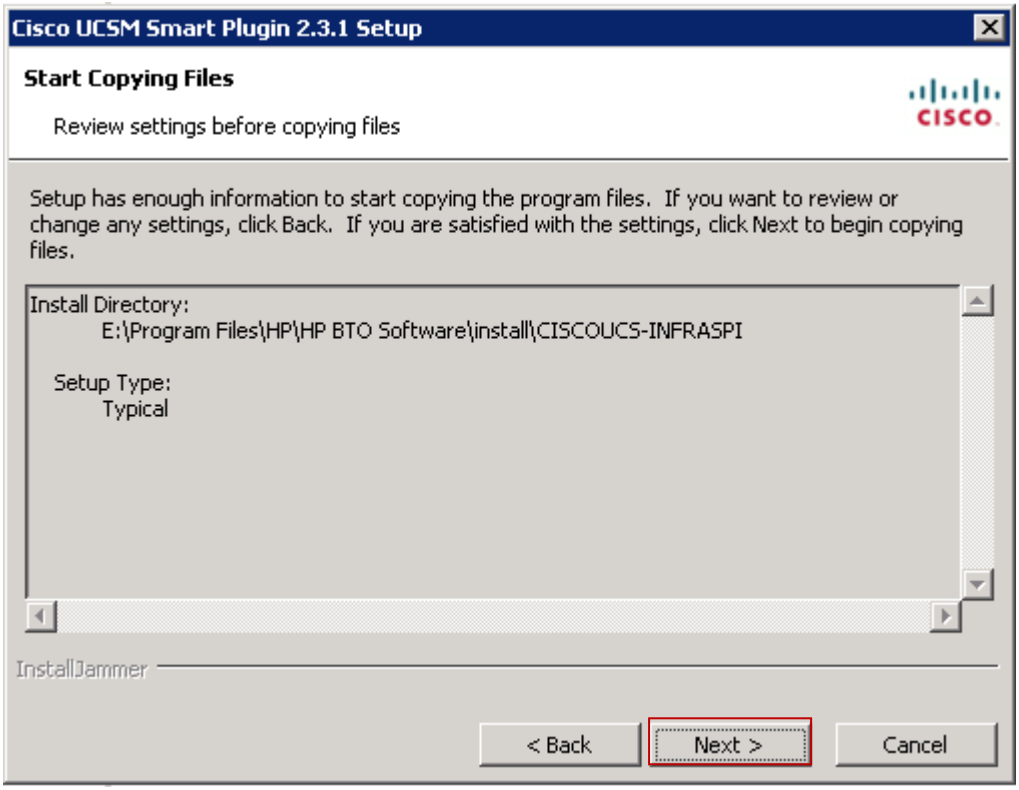
2. The **UCSM Smart Plugin Setup** window appears.
   Click the **Next** button.



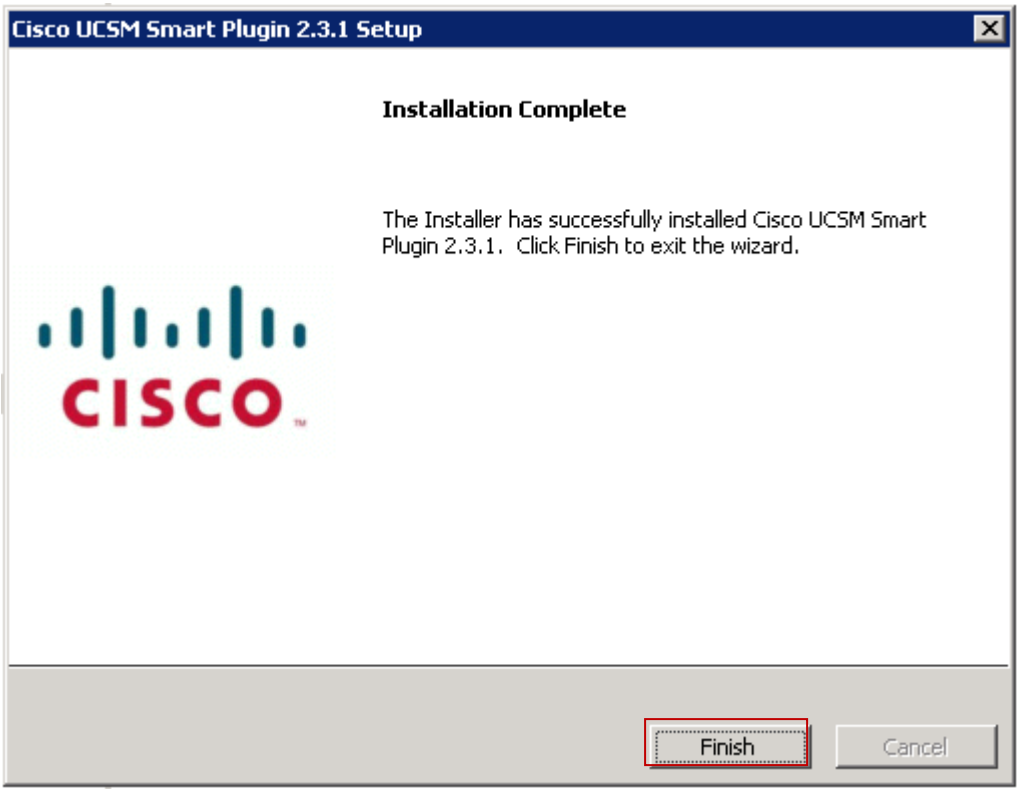
3. The **License Agreement** window appears.
   Select the **I accept the terms of the license agreement** radio button.
   Click the **Next** button.



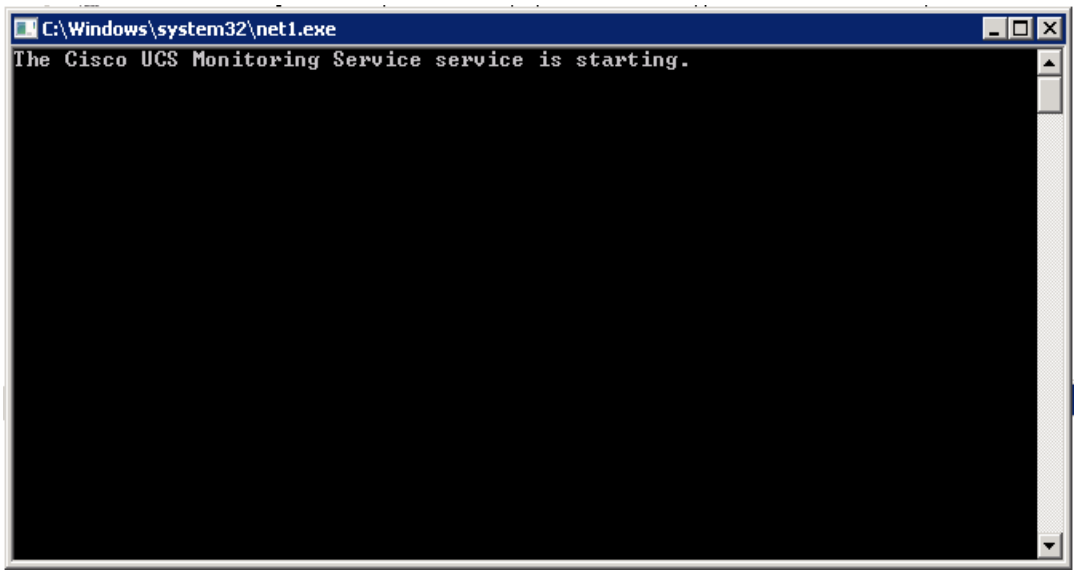
4. The **Start Copying Files** window appears.
   Click the **Next** button to begin copying files to default destination.
   Note: Make a note of the plugin Install Directory for future reference.



5. After the installation is complete, the **Installation Complete** window appears. Click the **Finish** button to complete installation.



6. On click of “Finish” button “CiscoUCSMonitorService” is started.



2.3 Configuring the Cisco UCSM Agent Controller User Interface

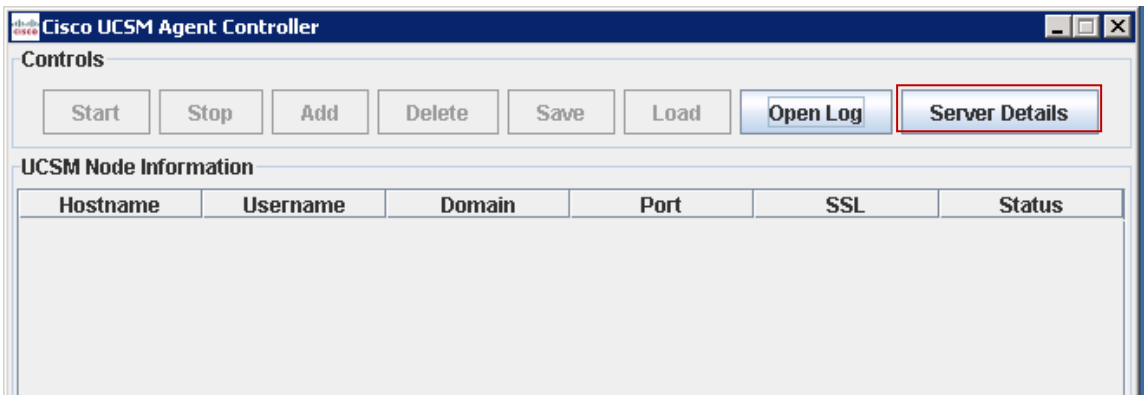
This section describes the steps to configure the Cisco UCS Smart Plugin with management server information and the details of the UCS nodes to be monitored.

2.3.1 Launching the Cisco UCSM Agent Controller

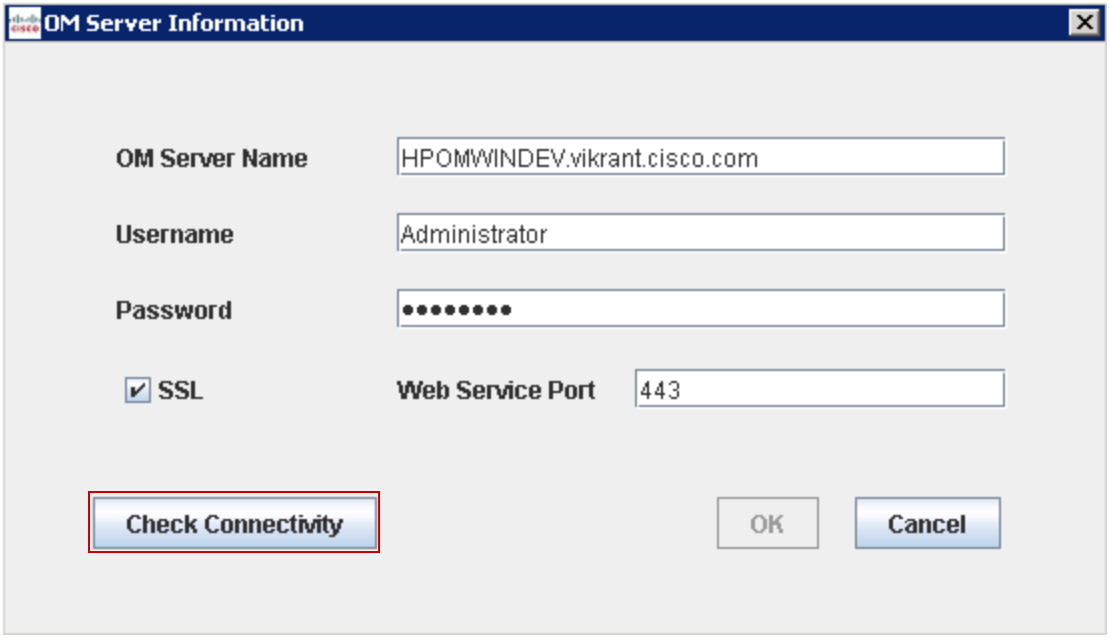
Launch the Cisco UCSM Agent Controller by double-clicking its icon created on Desktop.
The Cisco UCSM Agent Controller User Interface (UI) window appears.

2.3.2 Editing the Server Information

1. On the Cisco UCSM Agent controller window, click the **Server Details** button to edit HPOM server information.

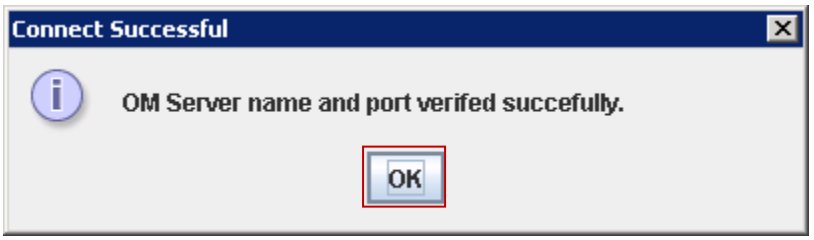


2. The **OM Server Information** window appears.
   Specify **OM Server Name, Web Service Port, Username** and **Password**.

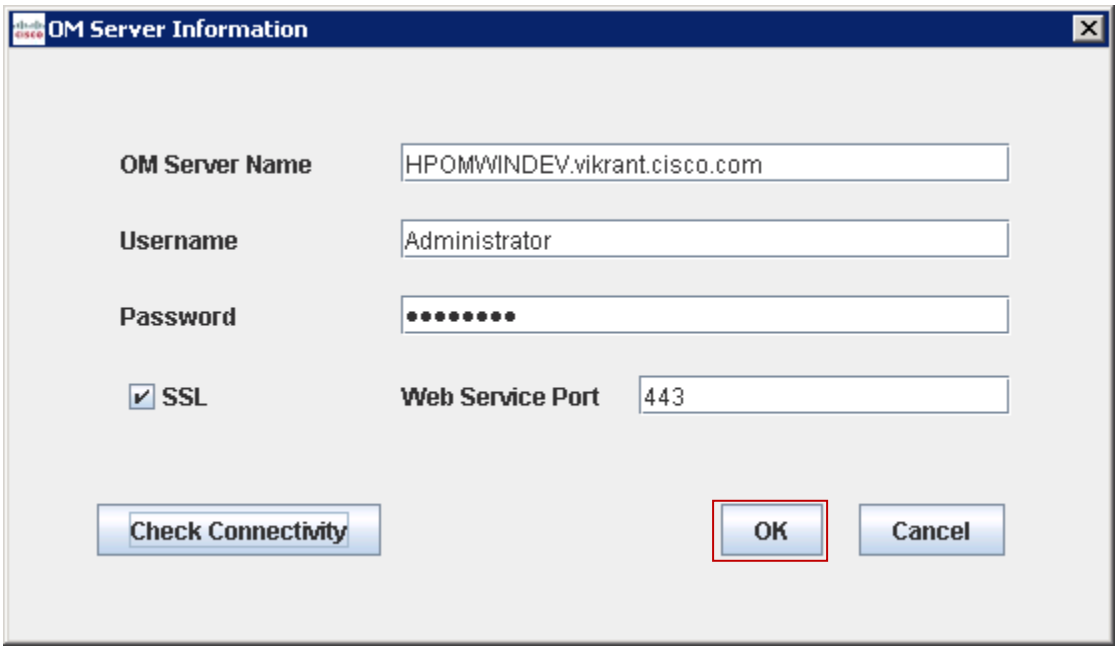


3. Click the **Check Connectivity** button to verify the connection to the HPOM server.

4. If the connection was successful a **Connect Successful** popup appears. Click **OK** button.



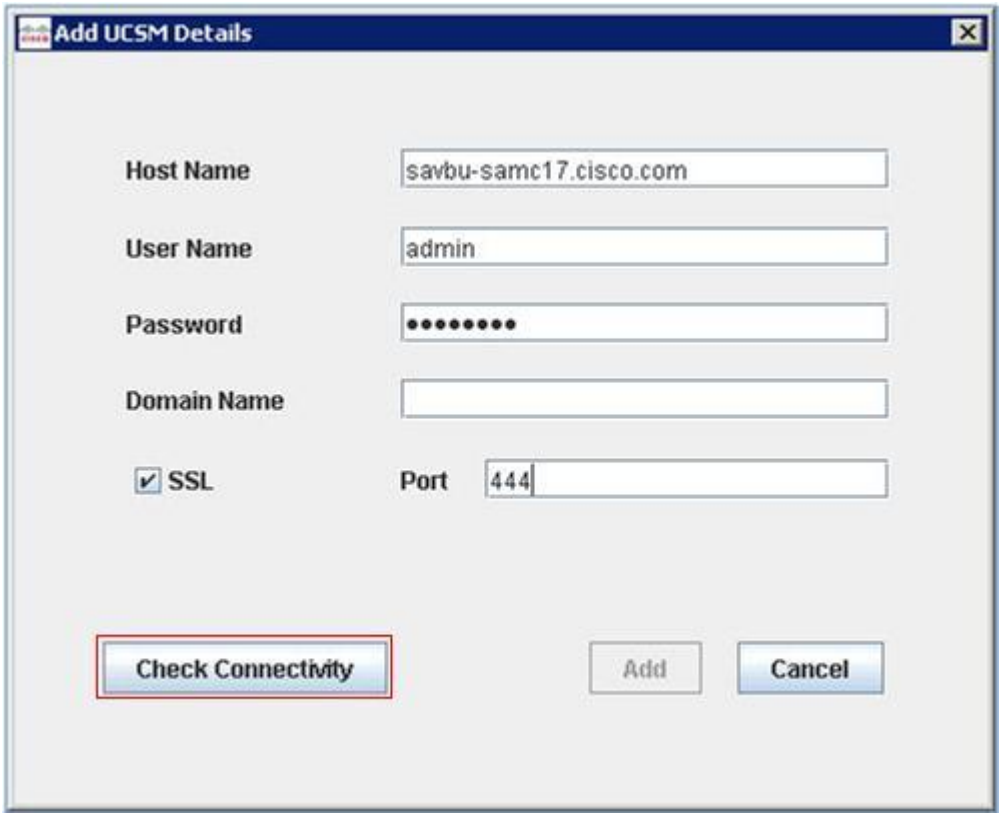
5. On successful connection, click the **OK** button in the **OM Server Information** window.



2.3.3 Adding UCS Node Details

1. On the Cisco UCSM Agent Controller window, click the **Add** button.

2. The **Add UCSM Details** window appears.
   Specify **Host Name, Username, Password** and **Port.**

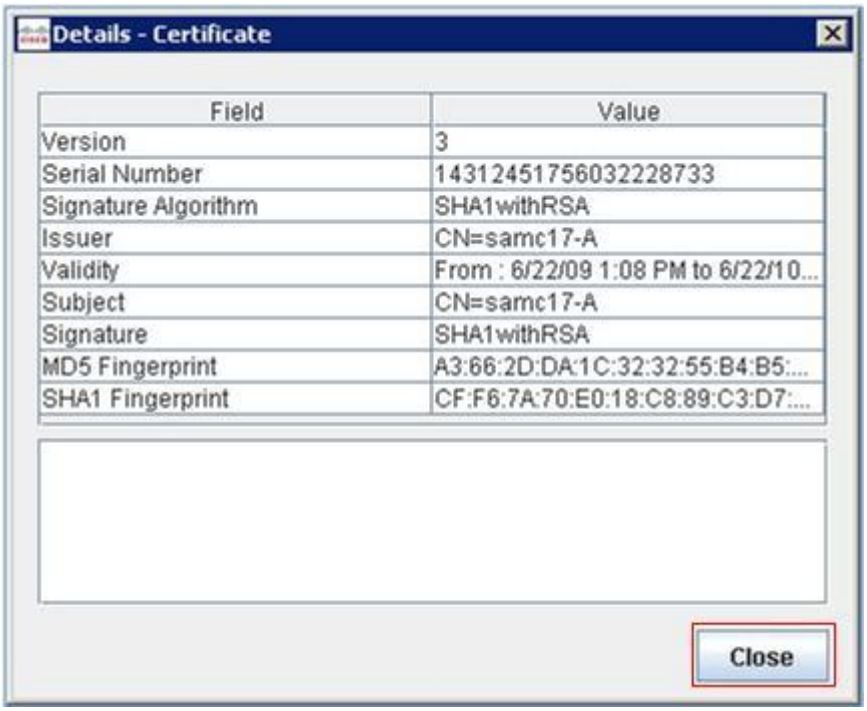


   Note: The SSL connection is checked by default. However, you can uncheck the SSL checkbox to change the connectivity to non-secure mode.

3. Click the **Check Connectivity** button to verify the connection to the UCSM and to enable Add button.
   The **Security Alert** window appears.

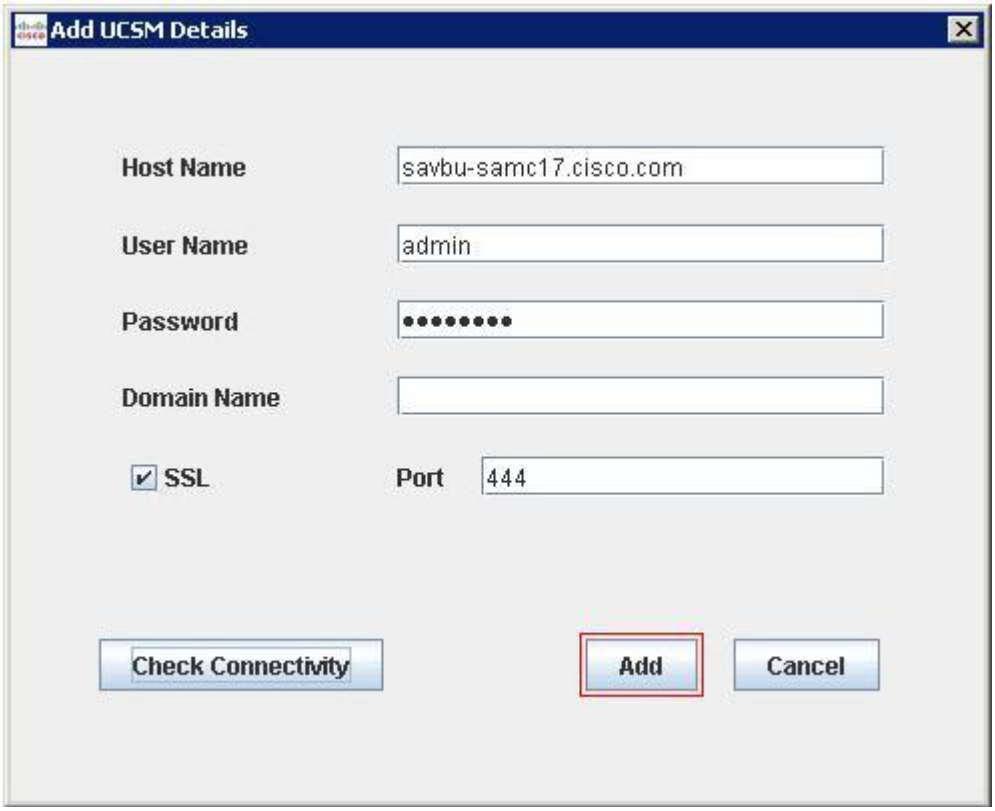
Note: In case of a secure connection (SSL checked), the server certificate check results appear.

4. To view the details of the certificate, click the **View Certificate** button.
   The **Details - Certificate** window appears.



5. Click the **Close** button.
   The **Security Alert** window appears.

6. Click the **Yes** button to accept the certificate.
   On successful connection, click the **Add** button in the **Add UCSM Details** window.



7. Click the **Save** button to save the node details in the application.
   The details are saved successfully.

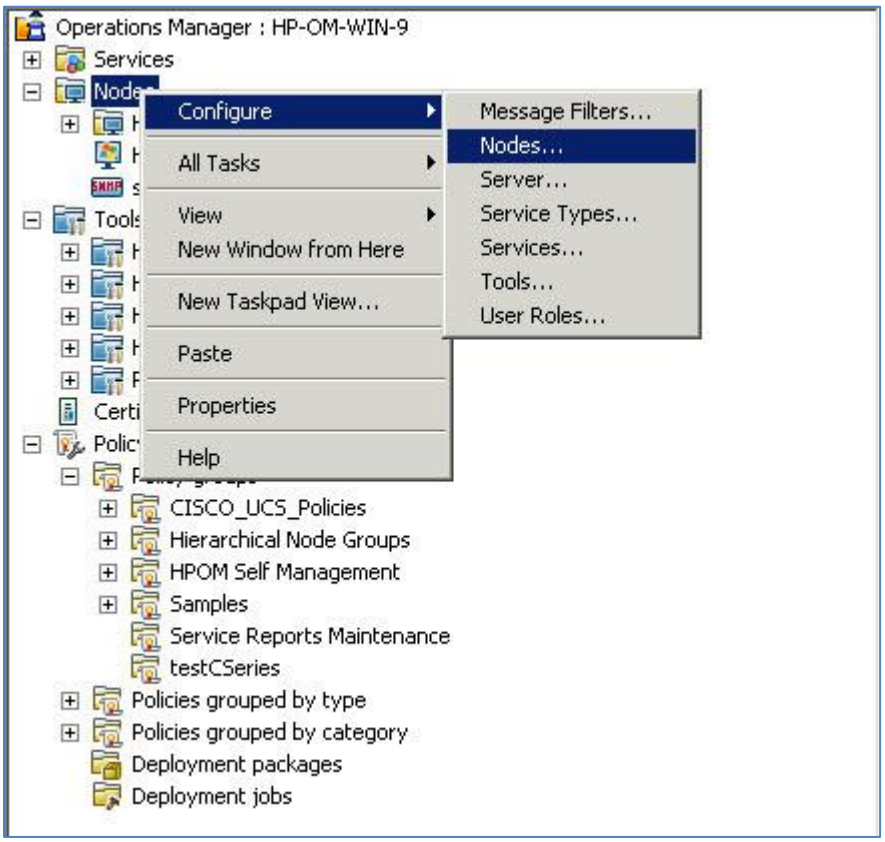
2.4 Configuring HPOM

This section describes the steps to add UCSM nodes in the HPOM and to deploy the policies on the HPOM management server.

2.4.1 Adding UCSM Nodes in HPOM

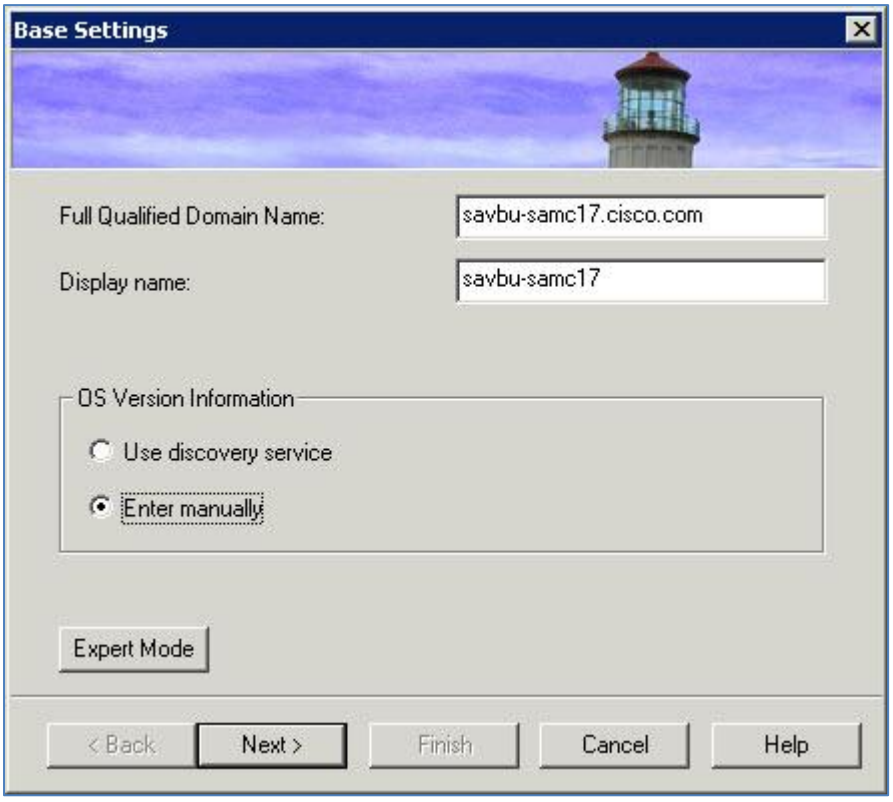
To add UCSM nodes to HPOM:

1. Launch the HPOM Management Console.
   The **HP Operations Manager** screen appears.
2. Right click on **Nodes** on the left side of the Console window. Select **Configure** from this right click menu. Now select **Nodes** from the **Configure** menu.



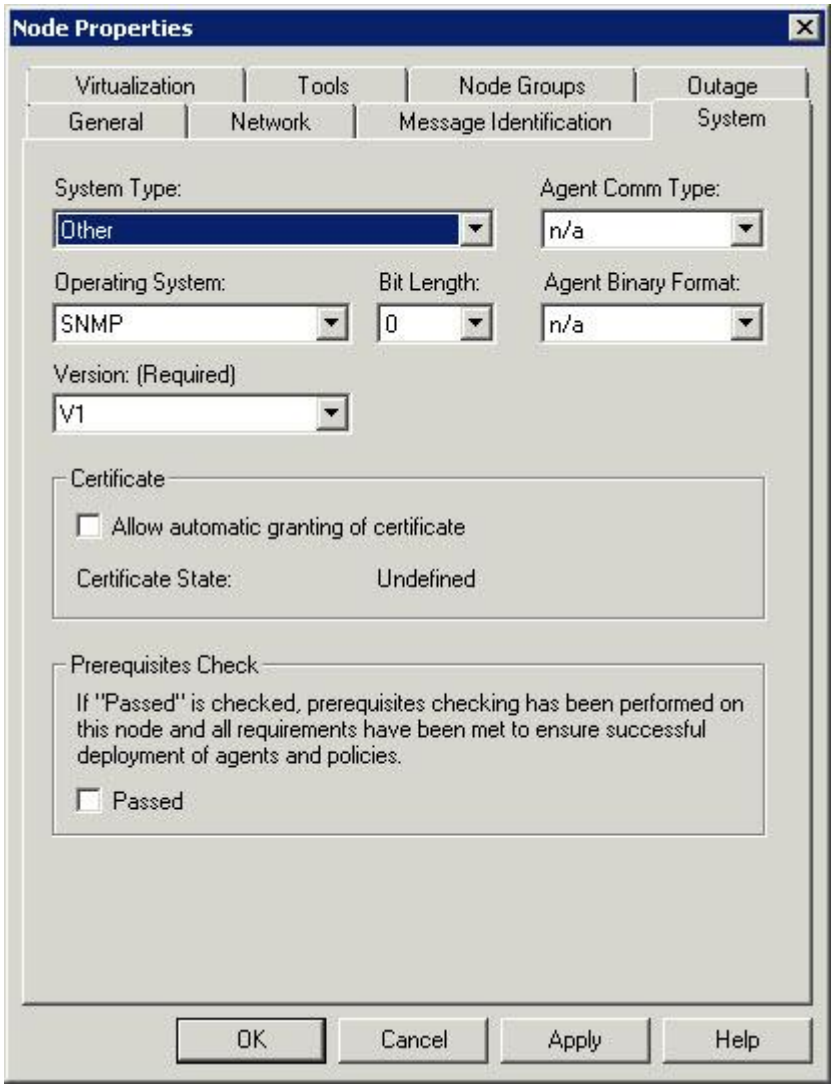
3. The **Configure Managed Nodes** wizard appears.
   Select **Nodes** and choose **New Node** from the right click menu.

4. The **Base Settings** window appears.

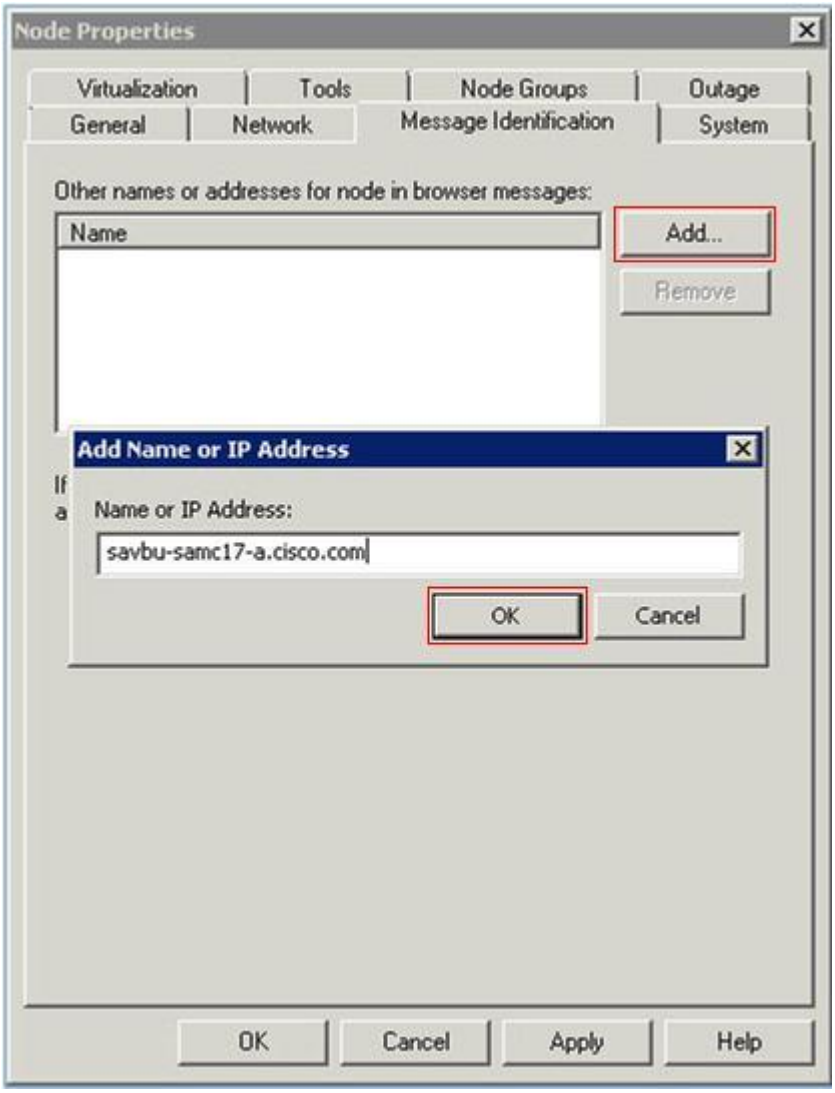


5. Specify **Fully Qualified Domain Name. Click** the **Expert Mode** button.
   The **Node Properties** window appears.
   On the Node Properties window, select the **System** tab. Select the **System type** as **Other** from the drop down menu. The **Operating System, Bit Length** and **Version** get

populated.



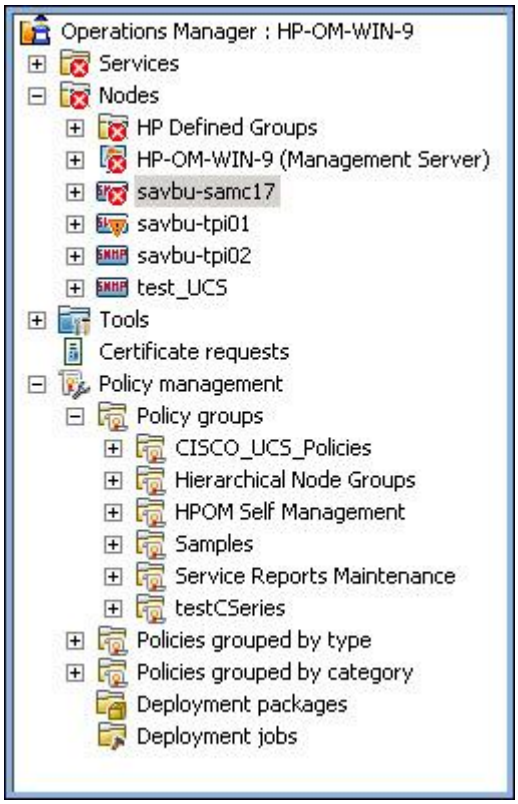
6. On the Node Properties **window, se**lect the **Message Identification** tab.
   Click the **Add** button.
   The **Add Name or IP Address** window appears.



7. Specify the **Name or IP Address.**
   Click the **Ok** button.

8. Click the **OK** button on the Node Properties window.
   The node appears on the HPOM Configure Managed Nodes window.

9. Click the **OK** button. The added node appears in the Nodes section.



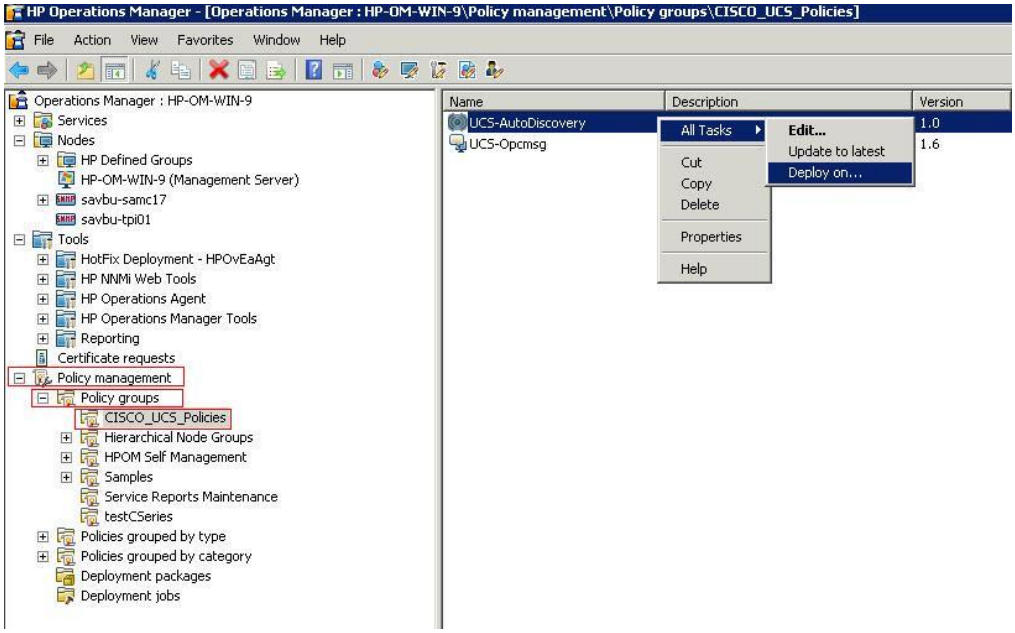
2.4.2 Deploying the Policies

The following two policies need to be deployed:

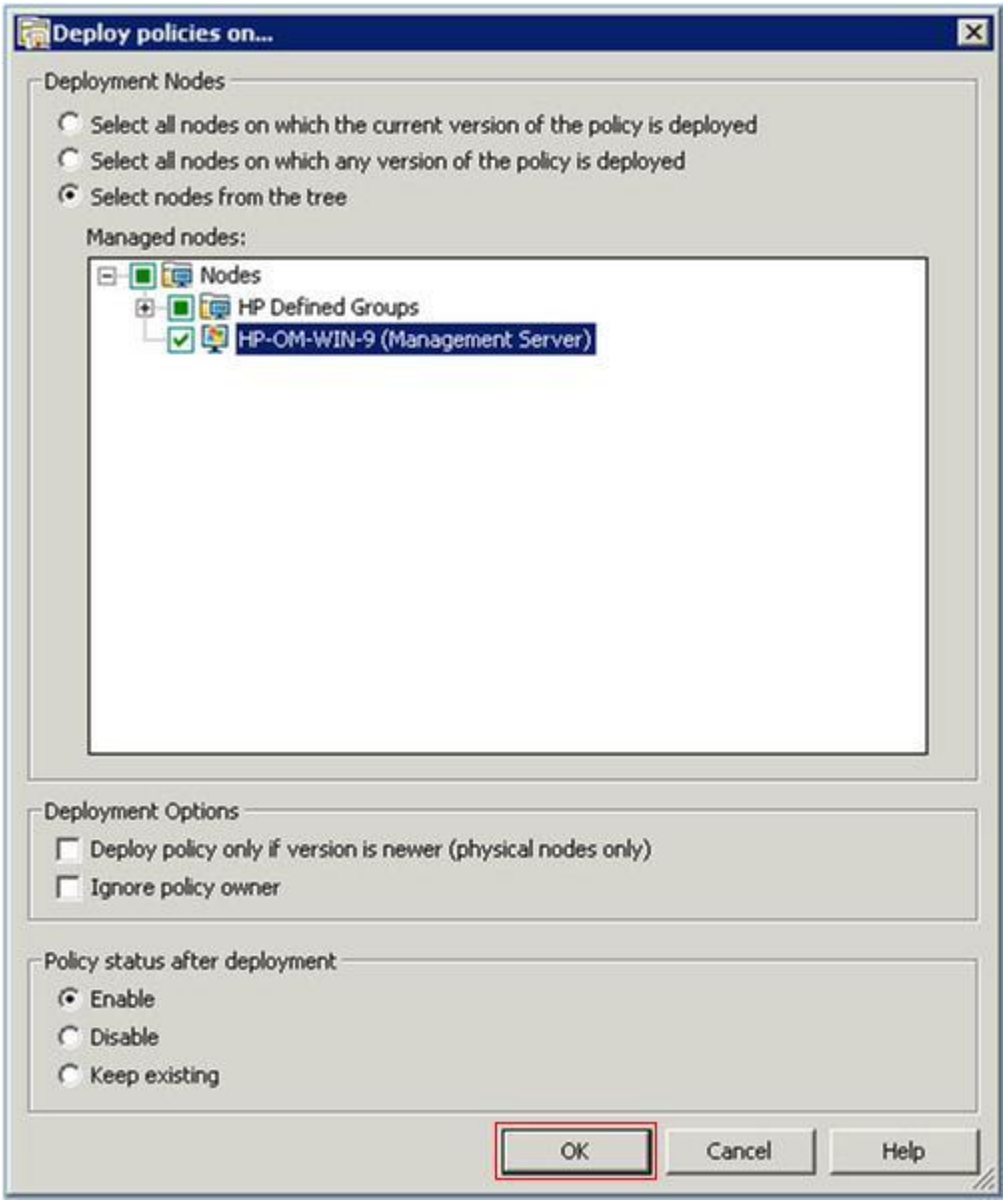
- UCS-AutoDiscovery policy which creates the hierarchy under the UCSM node in HPOM
- UCS-opcmsg policy which receives the faults from the UCSM node

To deploy UCS-Autodiscovery policy as an example:

1. Choose **Policy Management > Policy Groups >Cisco_UCS_Policies.**
2. Choose **UCS-AutoDiscovery** and select **All Tasks** from the right click menu. Select **Display on…** from the **All Tasks** menu.

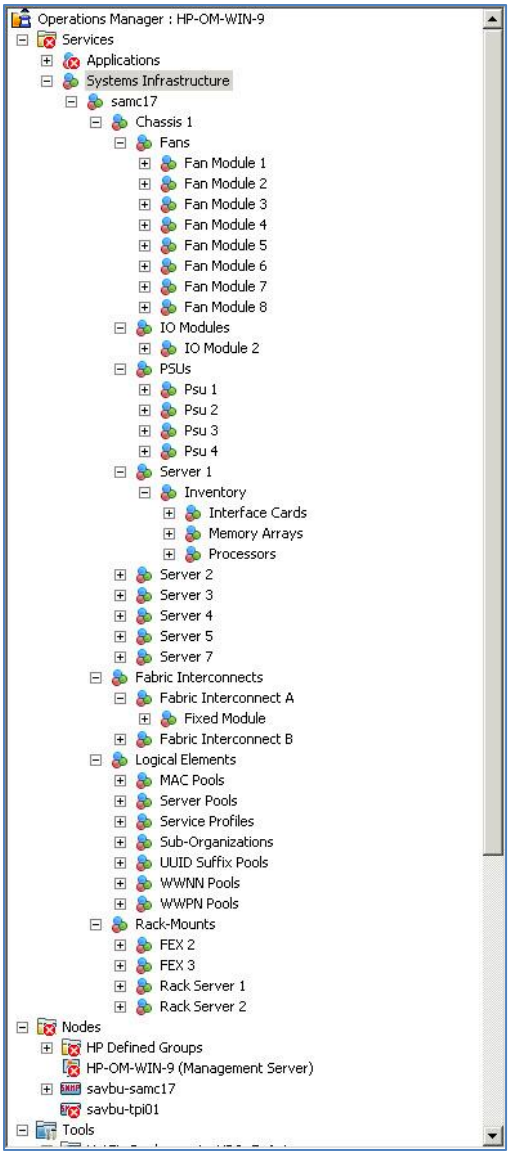


3. The **Deploy Policies on…** window appears.
   Select **HPOM Management Server** and click the **OK** button.



4. Deploying the policy populates the UCSM Element hierarchy in the Service Hierarchy of HPOM Management Console.

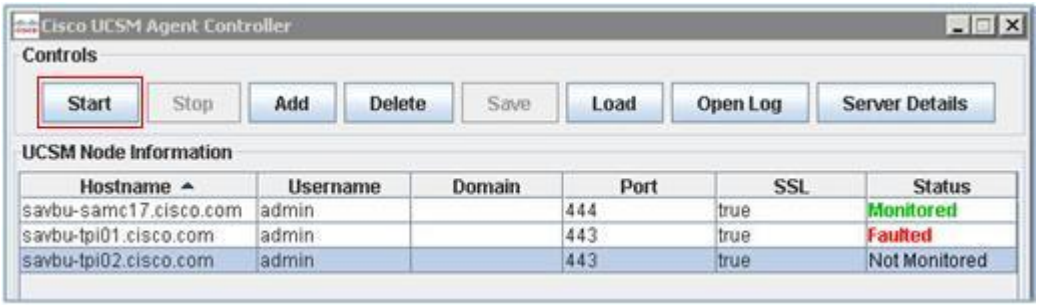
   Note: UCSM node should be added in both the Smart Plugin and HPOM, for the hierarchy to populate. It may take some time for the hierarchy to be populated and displayed in HPOM.



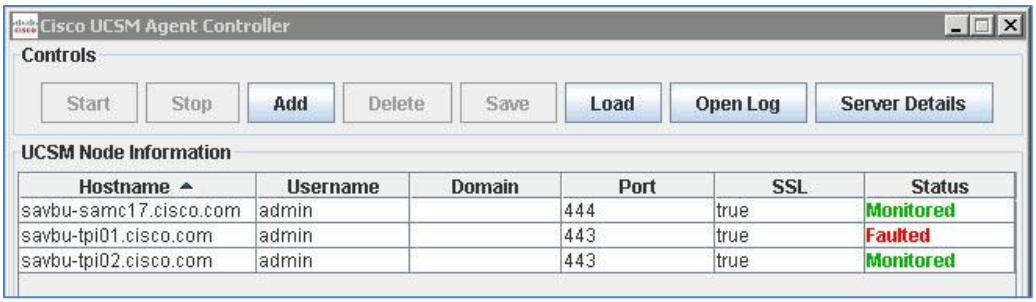
2.5 Start Monitoring

To start monitoring for multiple UCSM nodes in UCSM Node Information table:

1. Select multiple rows in the UCSM Node Information table, with status as **Not Monitored** or **Faulted**. The **Start** button is enabled.



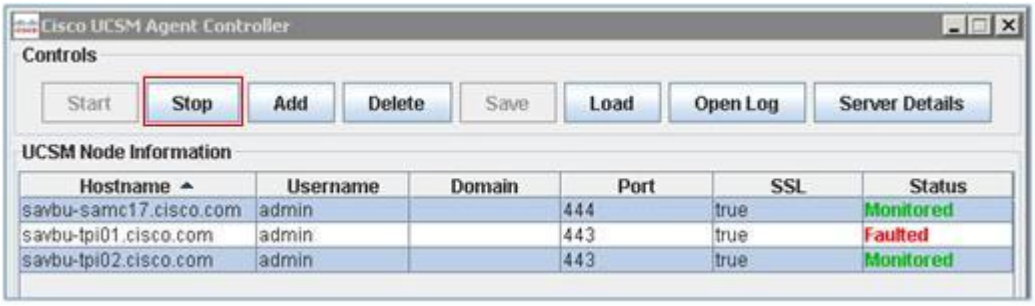
2. Click the **Start** button. The status of the selected nodes changes to **Monitored**.



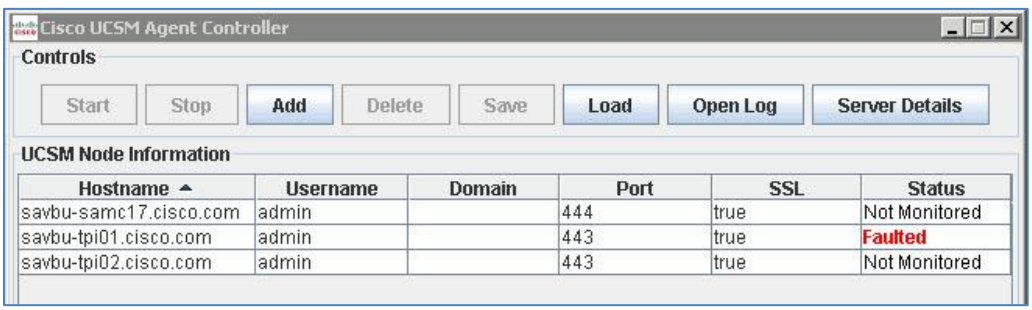
2.6 Stop Monitoring

To stop monitoring for multiple UCSM nodes in UCSM Node Information table:

1. Select multiple rows in the UCSM Node Information table, with status as **Monitored**. The **Stop** button is enabled.



2. Click the **Stop** button. The status of the selected nodes changes to **Not Monitored**.



3 Uninstalling the Cisco UCSM Smart Plugin

This section describes how to uninstall the Cisco UCSM Smart Plugin.
Before uninstalling, you have to stop the monitoring as described in Section 2.6

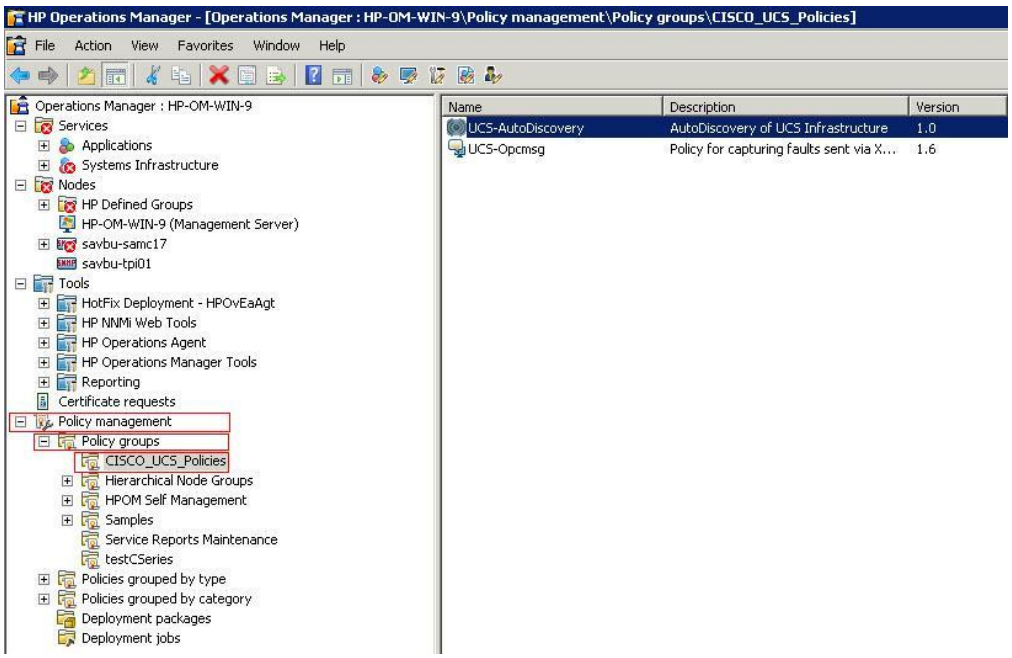
Un-install is performed in 2 stages:

- Uninstall the two policies and delete the UCSM nodes which were added on the HP-Operations Manager. This has to be done manually as described in Section 3.1.
- Uninstall the Smart Plugin application. This is done automatically by using the Smart Plugin uninstaller as described in Section 3.3.

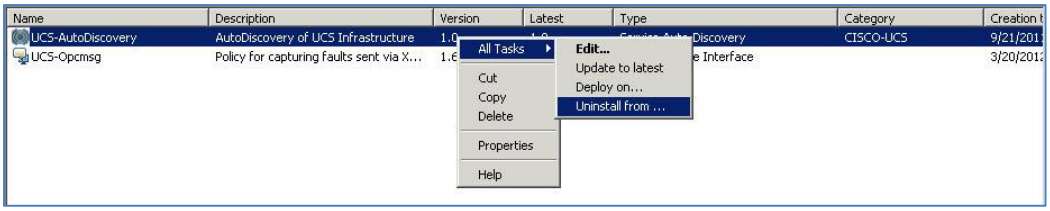
3.1 Uninstalling the Policies

To uninstall the policies, perform the following steps:

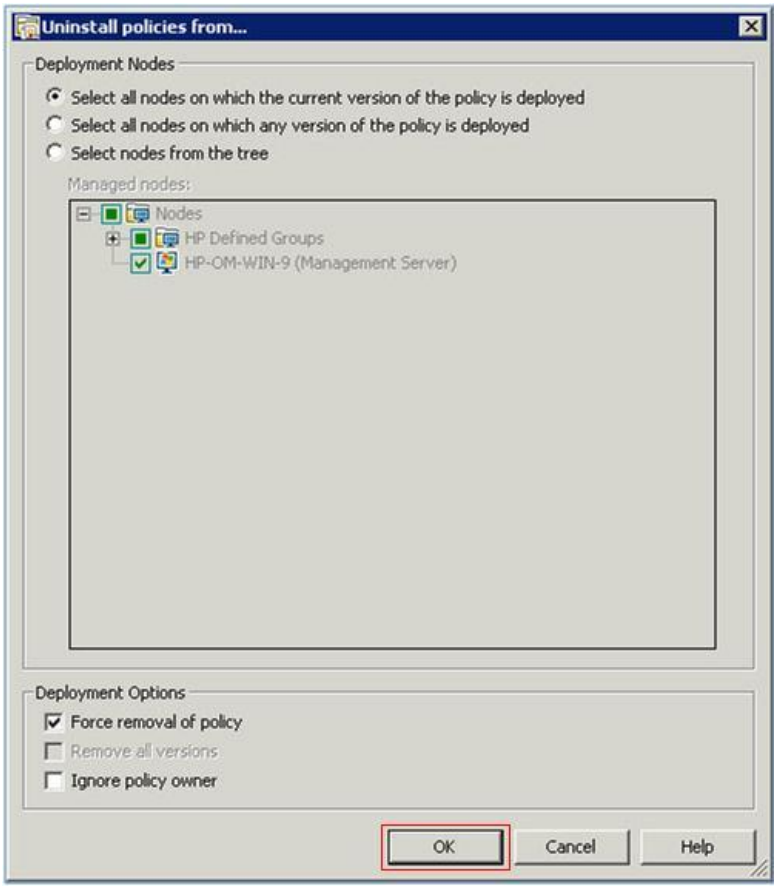
1. In the HPOM Management Console, Choose **Policy management > Policy groups > Cisco_UCS_Policies** on the left side of the window pane.
   The policies deployed during the Cisco Smart Plugin install process appear.



2. Select **UCS-AutoDiscovery** policy and choose **All Tasks** from the right click menu. Select **Uninstall from..** from the **All Tasks** menu.



3. The **Uninstall policies from…** window appears. Click the OK button to uninstall the policy from the management server.

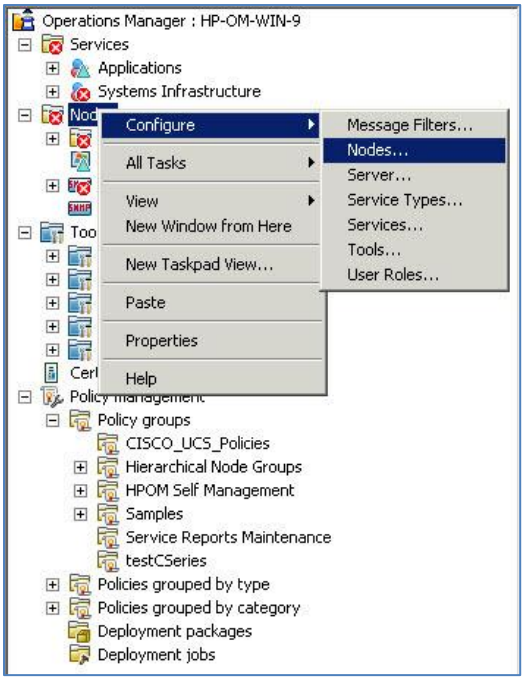


The system returns to the HP Operations Manager screen.

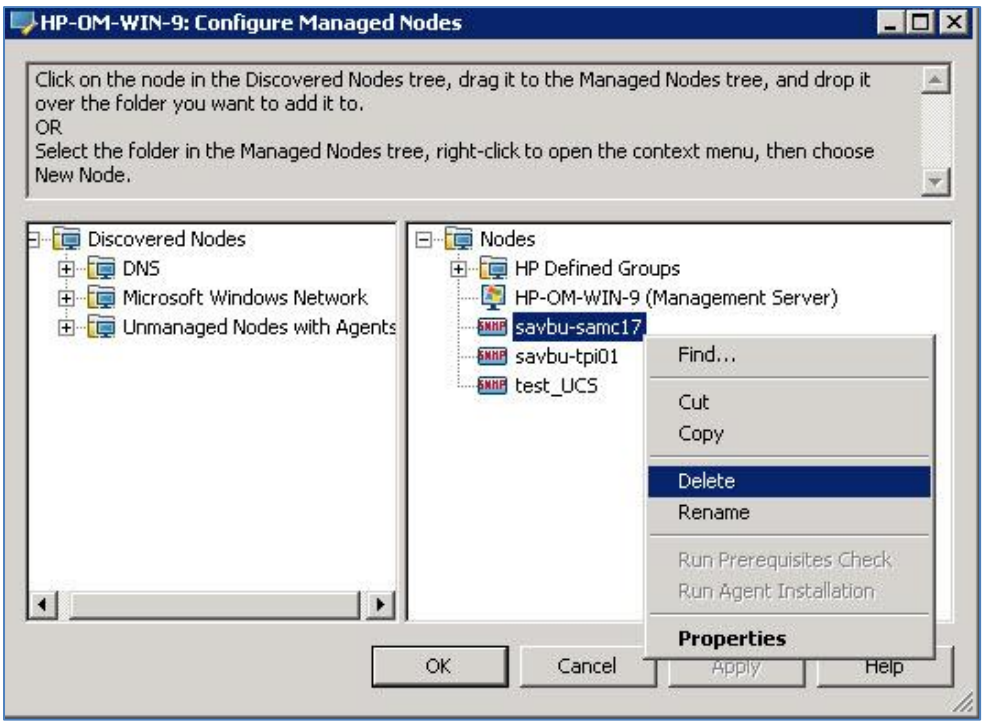
3.2 Deleting the UCSM Nodes from HPOM

To delete the UCSM node from HPOM:

1. In the HPOM Management Console, Choose **Nodes** on the left side of the window pane. Select **Configure** from the right click menu. Select **Nodes** from the **Configure** menu.

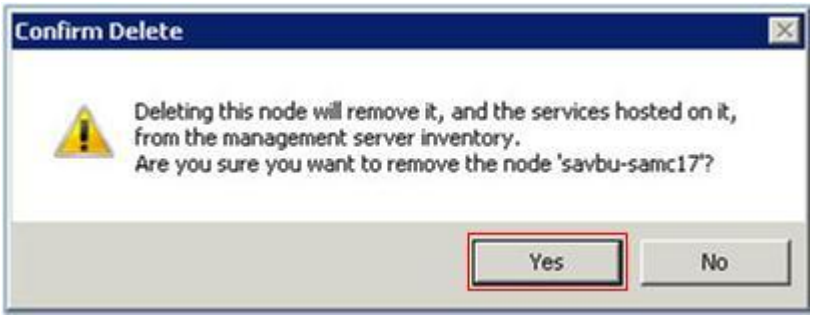


2. The **HPOM Configure Managed Nodes** window appears.



Note: Configuration Editor Wizard displays all the Nodes managed by the HPOM.

3. Select the node to be deleted and choose **Delete** from the right click menu. The **Confirm Delete** dialog box appears.



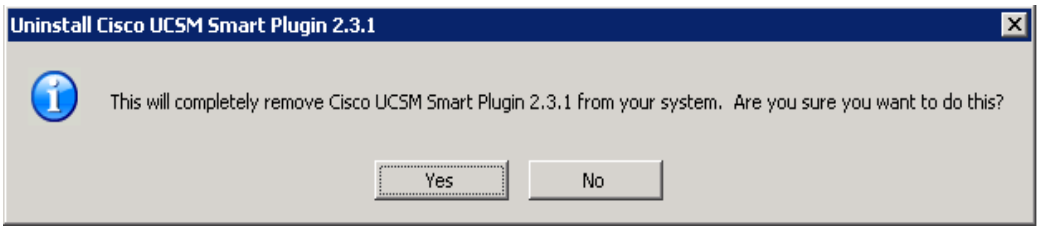
4. Click the **Yes** button. The Node is deleted and the system returns to the HPOM-Configure Managed Nodes window.

5. Click the **OK** button to save the changes.

3.3 Uninstalling Smart Plugin 2.3(1)

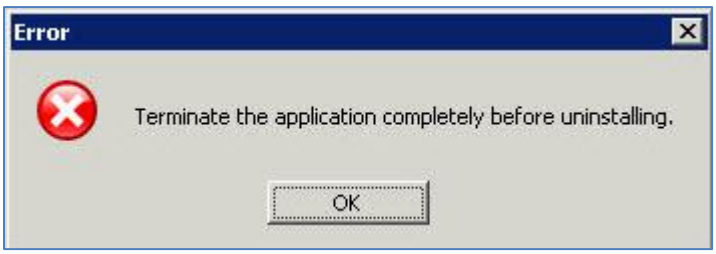
To uninstall the Cisco-UCSM Smart Plugin Application:

1. Launch the Uninstall Cisco UCSM Smart Plugin icon from the Start menu.
   A confirmation message appears.

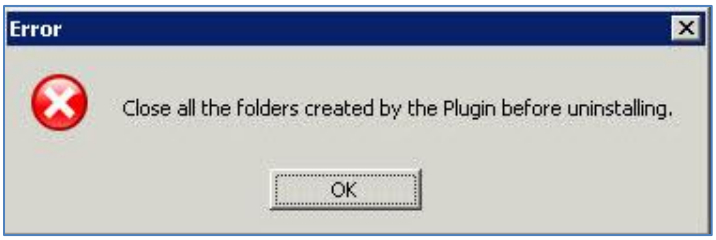


2. Click the **Yes** button to continue with un-installation.

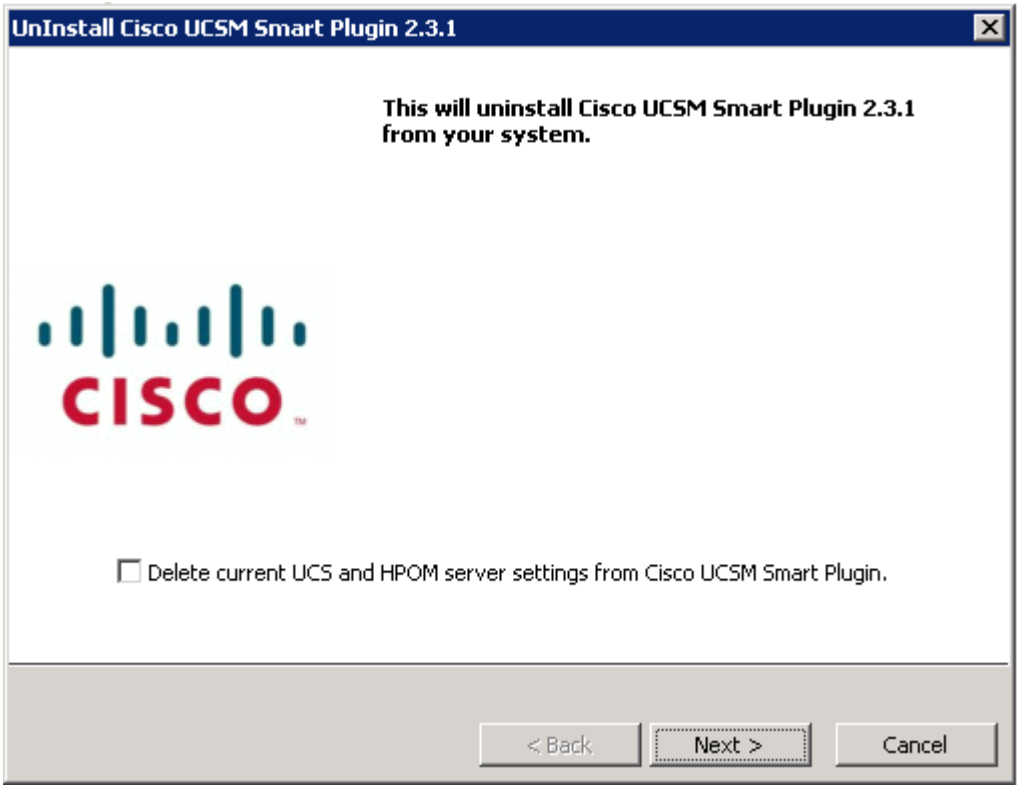
   Note 1: If the application is not completely terminated before launching un-installation, an error message appears. Please terminate the application and start the un-installation process again.



   Note 2: If any instance of any of the folders created by the plugin is open , an error message appears. Please close all the related folders and start the un-installation process again.

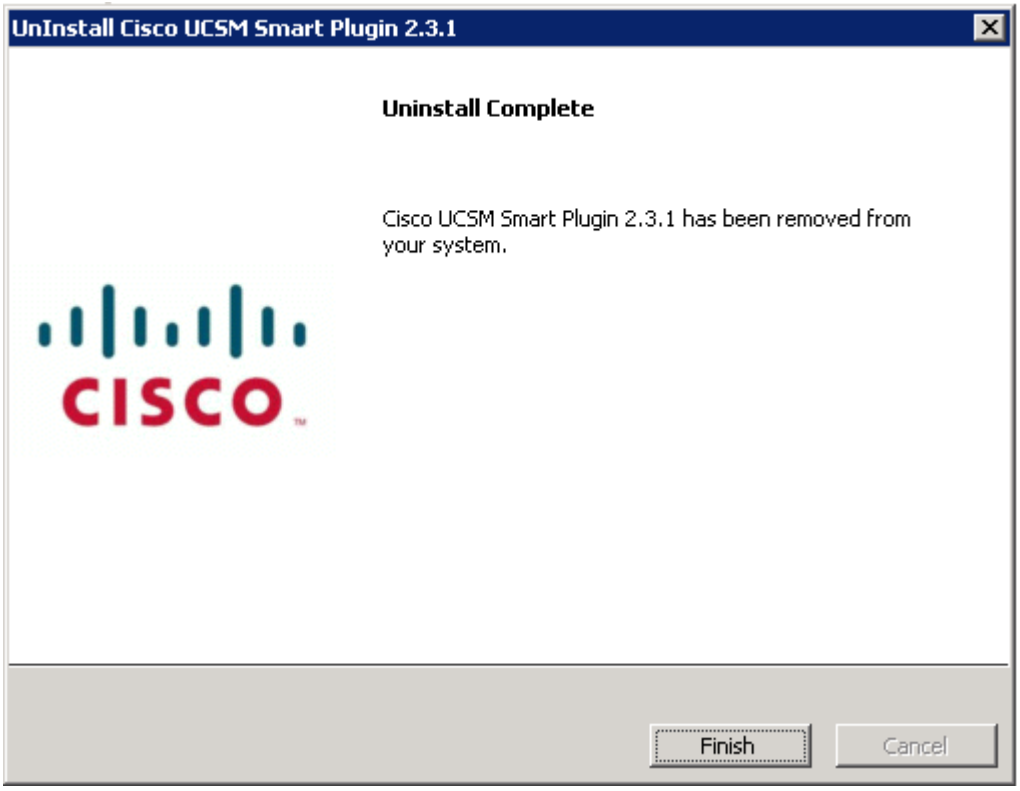


3. After resolving the errors, launch the Uninstall Cisco UCSM Smart Plugin icon to start the uninstaller.



4. To remove the UCS and HPOM settings from the system, select the checkbox **Delete current UCS and HPOM server settings from Cisco UCSM Smart Plugin.**
   Click the **Next** button.
5. Once the next button is clicked, the service is stopped and deleted "CiscoUCSMonitorService" :-

6. The **Uninstall Complete** window appears.



Click the **Finish** button to exit.

4 Troubleshooting

4.1 Issues with Install/Uninstall of Smart Plugin

Refer to the Installer logs under the location :-

%OvInstallDir%/install/CISCO-INFRASPI/SPIInstallLogs and
%OvInstallDir%/install/CISCO-INFRASPI/SPIUnInstallLogs

For issues, add a discussion to the Cisco Developed Integrations sub-space on Cisco UCS Communities and attach these logs, along with the following details.

1. HPOM Version and the OS details.

2. Number of UCS domains being monitored.
3. Version of UCSM

5 Related Documentation

In addition to this guide, you can also refer to the **Operations Guide - Cisco UCSM Smart Plugin_Windows.pdf** to know more about the operations which can be performed on the Cisco UCSM Smart Plugin and the HPOM.

6 Appendix

6.1 Release Matrix

Cisco UCSM Smart Plugin	UCSM Version	HPOM Version	Operations Agent Version
1.0.0	1.4	HP Operations Manager Server - HPOM Windows (OMW) 9.0	Operations Agent Version 11.0.44
1.1.0	1.4	HP Operations Manager Server - HPOM Windows (OMW) 9.0	Operations Agent Version 11.0.44
2.0.0	1.4 and 2.0	HP Operations Manager Server - HPOM Windows (OMW) 9.0	Operations Agent Version 11.0.44
2.1.0	1.4 and 2.0	HP Operations Manager Server - HPOM Windows (OMW) 9.0	Operations Agent Version 11.0.44
2.1.1	1.4 and 2.0	HP Operations Manager Server - HPOM Windows (OMW) 9.0	Operations Agent Version 11.0.44
2.2.1	2.0 and 2.1	HP Operations Manager Server - HPOM Windows (OMW) 9.0	Operations Agent Version 11.0.44
2.3.1	2.1 or later	HP Operations Manager Server - HPOM Windows (OMW) 9.0	Operations Agent Version 11.12