# Dell Smart Plug-in Version 2.0 For HP Operations Manager 9.0 For Microsoft Windows
## User's Guide

# Notes, Cautions

**NOTE:** A NOTE indicates important information that helps you make better use of your computer.

**CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.**

# Contents

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# Introduction

⚠ **CAUTION: Perform the procedures in this document only if you have proper knowledge and experience in using HPOM to avoid data corruption and/or data loss.**

The Dell Smart Plug-in(SPI) provides grouping and monitoring capability for Dell systems and enables the users to take remedial action when an inefficient system is identified. This guide is intended for system administrators who use Dell Smart Plug-in on HP Operations Manager (HPOM) 9.0 for Microsoft Windows, to monitor Dell systems.

With the integration of Dell SPI into HPOM, you can use the HPOM console to monitor the availability of your Dell devices that are discovered in HPOM.

## What's New in This Release

This release of the Dell SPI supports the following:

- Support for HPOM 9.0
- Support for OpenManage Server Administrator (Server Administrator) version 6.4 and version 6.5
- Support for 64 bit systems

# Key Features and Benefits of Dell Smart Plug-in

The Dell SPI consists of different policies and tools that you can deploy on the management server.

**Table 1-1.    Features and Functionalities**

| Feature | Functionality |
|---|---|
| Auto-grouping | Create the **Dell Managed Systems** group under the nodes group, and group the Dell systems, which are discovered either as managed or external nodes with the supported Windows or Linux operating systems, or VMware ESXi in the HPOM console. For more information, see Auto-grouping Dell Devices. |
| SNMP trap Processing | Process Simple Network Management Protocol (SNMP) traps generated by Server Administrator and OpenManage Storage System (Storage Systems) agents running on Dell systems. For more information, see Processing SNMP Traps from Dell Devices. |
| Global Health Monitoring | Periodically monitor the global system health of Dell systems grouped under the **Dell Managed Systems** group. For more information, see Monitoring the Health of Dell Devices. |
| Launching Server Administrator | Launch Server Administrator web console as a tool from the HPOM console for troubleshooting the alerts from the Windows and Linux systems. For more information, see Launching Dell OpenManage Server Administrator. |
| Launching Distributed Web Server (DWS) | Launch the Distributed Web Server (DWS) console as a tool from the HPOM console to connect to the ESXi systems, for troubleshooting the alerts. For more information, see Launching Distributed Web Server Console. |

Figure 1-1 displays the HPOM console with the Dell SPI.

**Figure 1-1.  Dell SPI Deployed On HPOM Console**
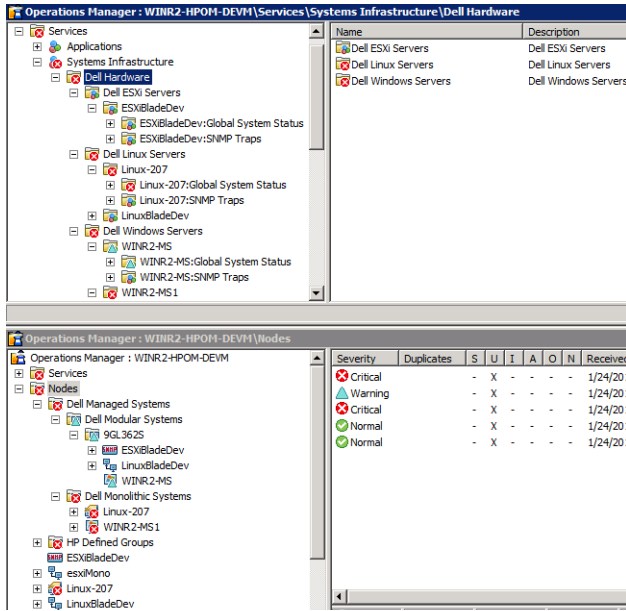
# About Dell Smart Plug-in

The Dell SPI consists of 4 policies:

- Dell_Autogroup_Servers
- Dell_Process_SNMPTraps
- Dell_Process_SNMPTraps_AckManual
- Dell_Sched_Status_Update

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**Table 1-2.  Dell SPI Policy Files**

| Policy File | Description |
| --- | --- |
| **Dell_Autogroup_Servers** | This policy scans across all managed and external nodes, identifies the Dell systems, and groups them under **Dell Managed Systems** on the HPOM console. |
| **Dell_Process_SNMPTraps** | This policy processes Server Administrator and Storage Systems SNMP traps from the Dell systems and sends appropriate messages to the HPOM console. The policy retrieves the global system status and supports auto-correlation of every trap received in the system. |
| **Dell_Process_SNMPTraps_AckM anual** | This policy also processes the Server Administrator and Storage Systems SNMP traps from the Dell systems and sends appropriate messages to the HPOM console. It doesn't support auto-correlation of alerts. |
| **Dell_Sched_Status_Update** | This policy periodically polls the Dell systems grouped under **Dell Managed Systems** and retrieves the system health status information. |

# Deploying the Policies Automatically

You can deploy the Dell SPI policies automatically on the management server when you install the Dell SPI.

If you automatically deploy the policies, the policies run as per the default schedule. The following policies are deployed automatically:

- Dell_Autogroup_Servers
- Dell_Process_SNMPTraps
- Dell_Sched_Status_Update

# Deploying the Policies Manually

You can deploy the policies manually after you complete installing the Dell SPI.

To deploy the policies manually:

1 Launch the HPOM console and navigate to **Policy Management** → **Policy Groups** → **SPI for Dell Devices.**

2 Select the policy that you want to deploy.

3 Right-click and select **All Tasks** → **Deploy on**. The **Deploy policies on** screen is displayed.

4 Select the management server and click **OK**. The policy is deployed on the management server and runs as per the default schedule. You can change the default schedule when you manually run the policies.

**NOTE:** Ensure that you deploy the policies only on the management server and not on the managed nodes.

# Supported Dell Devices

Dell SPI for HPOM supports the following Dell devices as managed nodes:

- Dell PowerVault systems — support for Windows systems that have Server Administrator versions 5.5 to 6.5 installed
- Dell PowerEdge systems — complete support for systems ranging from x8xx to xx1x (both inclusive) that have Server Administrator versions 5.5 to 6.5 and the supported Windows operating system installed
- Dell PowerEdge systems — complete support for systems ranging from x9xx to x1xx (both inclusive) that have Server Administrator versions 6.1 to 6.5 and ESXi version 4.0 and above, or the supported Linux operating system installed

# Supported Operating Systems

### Management Server

Ensure that you follow the hardware, software, and operating system requirements for the Management Server as per the guidelines provided in the **HPOM 9.0 for Windows Installation Guide**.

## Managed Node

Table 1-3 lists the supported operating systems on the managed nodes.

**Table 1-3.  Operating Systems Supported on the Managed Node**

| Windows | Linux | ESXi |
|---|---|---|
| Windows Server 2003<br>Windows Server 2003 R2 SP2 | Red Hat Enterprise Linux (4.7, 4.8):<br>• x86_64<br>• x86_32 | VMware ESXi 4.0 server:<br>• HDD<br>• Flash |
| Windows Storage Server 2003<br>Windows Storage Server 2003 R2 SP2 | Red Hat Enterprise Linux (5, 5.3, 5.5, 6.0) server:<br>• x86_32<br>• x86_64 | VMware ESXi 4.0 Update 1 server:<br>• HDD<br>• Flash |
| Windows Small Business Server 2003 R2 SP2<br>Windows Small Business Server 2008 SP2<br>Windows Small Business Server 2008 R2<br>Windows Small Business Server 2011 Essentials<br>Windows Small Business Server 2011 Standard | SUSE Linux Enterprise Server (10, 10 SP2, 10SP3, 11)<br>• x86_64 | VMware ESXi 4.1 server:<br>• HDD<br>• Flash |
| Windows Server 2008<br>Windows Server 2008 HPC Edition R2<br>Windows Server 2008 HPC Edition R2 SP1<br>Windows Server 2008 R2<br>Windows Server 2008 R2 SP1 | SUSE Linux Enterprise Server 11 SP1:<br>• (x86_64) | ESXi 4.0 U2:<br>• HDD<br>• Flash |

**Table 1-3.    Operating Systems Supported on the Managed Node**

| Windows | Linux | ESXi |
|---|---|---|
| Windows Essential Business Server 2008 SP1 | | ESXi 4.0 U3:<br>• HDD<br>• Flash |
| Windows Storage Server 2008 | | ESXi 4.1 U1:<br>• HDD<br>• Flash |
| Windows Storage Server - System Server | | |
| Windows Unified DataStorage Server 2003 | | |
| Windows Unified DataStorage Server 2008 | | |

For more information, see OpenManage Suppport Matrix on **support.dell.com/manuals**.

# 2

# Installing and Uninstalling the Dell Smart Plug-in

For information on installing the **Dell Smart Plug-in (Dell SPI) v2.0**, see the **Quick Installation** guide packaged in the self-extracting executable **Dell Smart Plug-in v2.0_A00.exe** file. It is also available on the Systems Management documentation page on the Dell Support website at **support.dell.com/manuals**.

## Using the Modify Option in the Installer

The **Modify** option in the Dell SPI installer, modifies the program features that are installed. This option retains the schedules you have set for the various policies and enables you to perform the following actions:

- Install a feature that you did not install earlier
- Remove a feature that you installed earlier

To install a feature that you did not install earlier:

1   Disable all the Dell SPI policies that are running on the management server in the HP Operations Manager (HPOM) console.

2   Run the **Dell Smart Plug-In v2.0_x64.msi** from the extracted folder.

The **Welcome** screen is displayed.

3   Click **Next.** The installer displays three options.

4   Select the **Modify** option. The **Custom** screen is displayed.

5   In the custom screen, select **Monitor Dell Windows Servers**, **Monitor Dell ESXi Servers,** or **Monitor Dell Linux Servers,** or select the feature that you did not install earlier and click **Next.**

6   Click **Install**.

When the installation process completes, click **Finish**.

To remove a feature that you had installed earlier:

1 Repeat step 1- 4 mentioned in the previous procedure.

2 In the **Custom** screen, select the feature that you want to remove.

3 Click the feature and select **This feature will not be available** from the drop-down and click **Next.**

4 Click **Install**. The installer removes the feature from the HPOM management server.

# Using the Repair Option in the Installer

If you accidentally delete any of the policies from the **SPI for Dell Devices** policy group, or from the Policy Inventory of the management server, use the **Repair** option in the Dell SPI installer to re-install the policies.

The **Repair** option installs the missing Dell SPI policies, and automatically deploys all the policies on the management server. Before you use the **Repair** option, ensure that you remove all the Dell SPI policies from the HPOM management server node on the HPOM console.

*NOTE:* If you modify any of the policies and then delete them, the **Repair** option installs only the original version of the policies. You must modify them again as per your requirements. The repair option resets the values of the SNMP, WSMAN, and DWSURL parameters to the default values. You must set the values of the parameters again.

Additionally, if any of the files are missing or corrupted, the **Repair** option replaces the file.

# Upgrading Dell SPI from a Previous Version

The Dell SPI 2.0 does not support upgrade from earlier versions.

# Uninstalling the Dell SPI

You can uninstall the Dell SPI from the Windows Control Panel or use the **Remove** option in the Dell SPI installer. Uninstall removes Dell SPI components such as files, registry, scripts and so on, from the installed machine.

Before you uninstall the Dell SPI, ensure the following:

- Dell policies are not running on the management server.
- Remove all the Dell SPI policies from the HPOM management server node on the HPOM console.
- Close the Dell SPI directories.

📖 **NOTE:** You must uninstall the Dell SPI first before you uninstall HPOM. If you uninstall HPOM first and then attempt to uninstall the Dell SPI, the uninstallation process may fail with some errors.

📖 **NOTE:** When you uninstall the Dell SPI, the following error may be displayed: `One or more Dell SPI processes in progress. Stop all Dell SPI processes and try again.` To resolve this, disable the policies, or wait till the policies complete execution, and then retry the uninstallation.

To remove the Dell SPI using Windows Control Panel:

1 From the **Start** menu, select **Settings → Control Panel** and open **Add/ Remove Programs/Programs and Features**.

2 Select **Dell Smart Plug-in 2.0** and click **Remove**.

   The uninstallation process removes the Dell SPI from the HPOM management server.

To remove Dell SPI using the installer:

1 Run the **Dell Smart Plug-In v2.0_x64.msi** from the folder where you extracted the contents of the self extracting package **Dell Smart Plug-in v2.0_A00.exe**.

   The **Welcome** screen is displayed.

2 Click **Next.** The installer displays three options.

3 Select the **Remove** option. The Dell SPI is removed from the management server.

## Verifying the Uninstallation of Dell SPI

To verify that the Dell SPI is completely uninstalled from the management server:

1  Launch the HPOM console and ensure that the **SPI for Dell Devices** policy group under **Policy Management**→**Policy Group** is removed.

2  Click **Nodes** and ensure that the **Dell Managed Systems Group** is removed.

3  Click **Service** → **System Infrastructure** and ensure that the **Dell Hardware** service and the services tree for all Dell devices is removed.

4  Click **Tools** and ensure that the **Dell OpenManage** group is removed.

5  Ensure that the Dell SPI installation directory is removed from the default or the custom path. The default path is:

   C:\Program Files\Dell\OpenManage Connection For HP

6  Ensure that the Policies directory is removed. The default path is:

   C:\Program Files\HP\HP BTO Software\install\DellSPIPolicy

# 3

# Using Dell Smart Plug-in (SPI)

This chapter discusses the various operations that you can perform after you install the Dell SPI on the HP Operations Manager (HPOM) management server. You can perform the following functions:

- Auto-group Dell systems. For more information, see Auto-grouping Dell Devices.
- Process SNMP traps from Dell devices. For more information, see Processing SNMP Traps from Dell Devices.
- Monitor Dell devices. For more information, see Monitoring the Health of Dell Devices
- Launch Server Administrator as a tool on the HPOM web console. For more information, see Launching Dell OpenManage Server Administrator.
- Launch DWS console as a tool from HPOM console. For more information, see Launching Distributed Web Server Console.

## Auto-grouping Dell Devices

The auto-grouping policy **Dell_Autogroup_Servers** is a scheduled task. The policy is scheduled to run at 23:00 hours every day. You can change this default schedule as per your requirement.

The auto-grouping policy:

- The auto-grouping policy identifies and groups the following Dell PowerEdge and PowerVault systems under the **Dell Managed Systems** node group on the HPOM console:
  - Systems running the supported Windows or Linux operating systems, have Server Administrator installed on them, and have SNMP enabled
  - Systems running the supported version of ESXi, have Server Administrator installed on them, and have the WSMAN (OEM CIM providers) enabled
- Groups the PowerEdge and PowerVault systems under two categories according to the hardware configuration - **Dell Monolithic Systems** and **Dell Modular Systems**

– **Dell Modular Systems** - Creates a group with the Chassis Service tag as the name of the group. All the blade servers belonging to the same chassis are grouped under the **Chassis Service tag** group

– **Dell Monolithic Systems** - Groups all the monolithic servers

• Creates **Dell Windows Servers** service group for the Windows systems, **Dell ESXi Servers** service group for the ESXi systems, and the **Dell Linux Servers** service group for the Linux systems in the **Services** tree on the HPOM console

• Creates the **SNMP Traps** service and **Global System Status** service corresponding to each server under the **Dell Windows Servers, Dell ESXi Servers,** and the **Dell Linux Servers** service groups. The **SNMP Traps** service displays the severity status of the system based on SNMP traps and the Global System Status service displays the severity status of the system based on server health poll. For more information see, SNMP Trap Based Severity Propagation.

> **NOTE:** To know the actual health of the Dell system, view the status in the **Global System Status** service.

To view the Dell systems in the **Services** tree:

**a** Select **Systems Infrastructure** under **Services** in the HPOM console.

**b** Click **Dell Hardware** and click **Dell Windows Servers, Dell ESXi Servers,** or **Dell Linux Servers.**

All the Dell systems that are grouped under **Dell Modular Systems** and **Dell Monolithic Systems** are displayed.

# Processing SNMP Traps from Dell Devices

The Dell SPI uses the SNMP interceptor policies to process SNMP traps. They have predefined rules to process all the Server Administrator/Storage System SNMP traps sent by the Dell devices to the management server, generate formatted messages, and send them to the HPOM console.

Dell SPI provides two SNMP policies:

• Dell_Process_SNMPTraps

• Dell_Process_SNMPTraps_AckManual

## Dell_Process_SNMPTraps Policy

This policy has the trap-correlation feature enabled and you can auto-deploy this policy when you are installing the Dell SPI. For every trap received from the Dell systems, it processes the traps in the following way:

**1** Sends a message to the active message browser of the node on the HPOM console.

**2** For all **Normal** traps, the policy auto-acknowledges the messages and moves them from the active message browser to the acknowledged message browser.

**3** For all **Critical** and **Warning** traps, the policy auto-acknowledges the trap once it receives a trap with the information that the issue for the critical or warning trap is resolved. It retains the critical and warning messages in the active message browser.

For more information on the trap correlation, see the *Dell SPI Trap Correlation Guide* available on the Dell Support website at **support.dell.com/manuals.**

📝 **NOTE:** If there is any message corresponding to an SNMP trap present in an active message browser for a particular Dell system, and the SNMP interceptor policy receives the same trap again, then it is counted as a duplicate trap, if message suppression is enabled.

**4** The policy reflects the severity of the message in the **SNMP Traps** service in the **Services** tree.

**5** The policy also retrieves the global system status of the node and sends a message to the active message browser of the node. You can also view the current global system status in the **Global System Status** service.

📝 **NOTE:** If a node is not DNS resolvable, the Dell SPI may not update the global health status for that node.

# Dell_Process_SNMPTraps_AckManual Policy

This policy does not have the trap-correlation feature enabled and you cannot deploy this policy automatically when you are installing the Dell SPI. For every trap received from the Dell systems, it processes the traps in the following manner:

1 Sends a message to the active message browser of the node on the HPOM console.

2 Retains all the **Normal**, **Critical**, and **Warning** traps in the active message browser of the node. You must manually acknowledge the traps.

   The policy does not correlate the traps from the node and does not perform auto-acknowledgement of the traps.

3 Reflects the severity of the message in the **SNMP Traps** service in the **Services** tree.

4 Retrieves the global system status of the node and sends a message with the global system status to the active message browser of the node. You can also view the current global system status in the **Global System Status** service.

**NOTE:** You can run either the **Dell_Process_SNMPTraps** or **Dell_Process_SNMPTraps_AckManual** policy at a time. Both policies cannot run together.

## Understanding Dell SPI Trap Message Severity

Traps often contain information about values recorded by probes or sensors. Probes and sensors monitor critical components for values such as amperage, voltage, and temperature. When an event occurs on the Dell system, it sends a trap having one of the following severities:

- **Normal** — An event that describes the successful operation of a unit, such as a power supply turning on, or a sensor reading returning to normal

- **Warning** — An event that is not necessarily significant, but may indicate a possible future problem, such as crossing a warning threshold

- **Critical** — A significant event that indicates actual or imminent loss of data or loss of function, such as crossing a failure threshold or a hardware failure

### SNMP Trap Based Severity Propagation

The severity propagation for the managed nodes is different for the **Nodes** and the **Services** tree.

Table 3-4 describes the severity propagation based on SNMP traps.

**Table 3-4.    Severity Propagation Behavior**

| View | Description |
|---|---|
| Nodes tree | The node status displays the highest severity of all the active messages. This status is propagated to the parent node groups. To know the actual health of the node, view the status in the **Global System Status** service. |
| Services tree | The **SNMP Traps** service displays the highest severity of all the active trap messages of the corresponding node. This is not propagated to the parent services. The **Global System Status** service displays the present health status of the corresponding node, and this is propagated to the parent object. |

**NOTE:** The Services Map view is available *only* on 32 bit Remote Console.

# Monitoring the Health of Dell Devices

You can monitor the health of Dell devices using the **Dell_Sched_Status_Update.** It is a scheduled policy that updates the global system status of the Dell systems every one hour. This policy polls each Dell system grouped under the **Dell Managed Systems** node group to get the global system status and sends corresponding severity messages to the active message browser of the HPOM console.

The global system status is the overall health of the system. However, the health of the individual components of the system may differ. To view the health of the individual components for Windows or Linux systems, launch the **Server Administrator** tool. For more information, see Launching Dell OpenManage Server Administrator. To view the health of individual components for ESXi systems, launch the **DWS** tool to access Server Administrator. For more information, see Launching the DWS Console from Tools.

The policy also updates the health status of the systems under the **Dell Server Global System Status** service under the **Services** tree.

> **NOTE:** The global health status of the systems is not displayed on the HPOM console until the **Dell_Autogroup_Servers** policy runs for the first time, and the Dell systems are grouped under the **Dell Managed Systems** group.

# Launching Dell OpenManage Server Administrator

You can launch the Server Administrator web console to get more information about the Dell system you are monitoring. After you install the Dell SPI, you can see the **Dell OpenManage** group under **Tools** on the HPOM console.

For Windows or Linux systems you can launch Server Administrator web console directly from **Tools**, **Nodes Tree**, **Services Tree**, or **Alerts Messages**.

### Launching Server Administrator from Tools

To launch the Server Administrator web console from the **Tools** folder on the HPOM console:

1 Select **Tools**→ **Dell OpenManage**.

2 On the right pane select **Server Administrator** and right-click.

3 Select **All Tasks**→ **Launch Tool** from the pop-up menu. The **Edit Parameters** window is displayed.

4 Select any Dell Windows or Linux system under **Dell Managed Systems**.

   You can only select a single system under the parent nodes. If you select any of the parent nodes such as **Dell Managed Systems**, **Dell Modular Systems**, **Dell Monolithic Systems**, or the chassis group under **Dell Modular Systems** the following message is displayed:

   ```
   Tool cannot be launched on multiple nodes.
   ```

5 Click **Launch**. The Server Administrator web console is launched on the default browser on your system.

   > **NOTE:** HPOM enables you to select non-Dell systems. However, if you select such a system, the Server Administrator web console does not launch.

### Launching Server Administrator from the Nodes Tree

To launch the Server Administrator web console from the **Dell Managed Systems** nodes tree:

**1** Select any Dell Windows or Linux system under any of the parent nodes such as **Dell Monolithic Systems**, or the chassis group under **Dell Modular Systems.**

**2** Right click and select **All Tasks** → **Launch Tool** from the pop-up menu. The **Select the Tool to Execute** window is displayed.

**3** Select **Server Administrator** under **Tools** → **Dell OpenManage and** click **Launch.** The Server Administrator web console is launched on the default browser on your system.

### Launching Server Administrator from the Services Tree

To launch the Server Administrator web console from the **Dell Hardware**→ **Dell Windows Servers** or **Dell Hardware**→ **Dell Linux Servers** service tree object:

**1** Select any Dell system under **Dell Windows Servers** or **Dell Linux Servers** service groups on the **Services** tree.

**2** Right-click and select **Launch Tool** from the pop-up menu. The **Select the Tool to Execute** window is displayed.

**3** Select **Server Administrator** under **Tools** → **Dell OpenManage and** click **Launch.** The Server Administrator web console is launched on the default browser on your system.

### Launching Server Administrator from the Alert Message

To launch the Server Administrator web console from the alert messages associated with a Dell system:

1 Select any Dell Windows or Linux system under any of the parent nodes such as **Dell Monolithic Systems**, or the chassis group under **Dell Modular Systems.**

2 Select any alert message associated with the system on the right pane.

3 Right-click and select **Launch Tool**→ **Message**, **Launch Tool**→ **Nodes**, or **Launch Tool**→ **Services** from the pop-up menu. The **Select the Tool to Execute** window is displayed.

   ✎ **NOTE:** For external nodes, only the **Launch Tool**→ **Message** option is available.

4 Select **Server Administrator** under **Tools**→ **Dell OpenManage and** click **Launch.** The Server Administrator web console is launched on the default browser on your system.

## Launching Distributed Web Server Console

The Dell SPI enables you to launch the Distributed Web Server (DWS) console as a tool from the HPOM console for the ESXi systems. You can use the DWS console to connect to the ESXi systems for troubleshooting the alerts. After you install the Dell SPI, you can see **DWS Server Administrator** under **Tools**→ **Dell OpenManage** on the HPOM console.

For ESXi systems, you can launch the DWS console directly from **Tools**, **Nodes tree**, **Services tree**, or **Alert Messages**.

## Launching the DWS Console from Tools

To launch the DWS console from the **Tools** folder on the HPOM console:

**1** Select **Tools→ Dell OpenManage**.

**2** On the right pane select **DWS Server Administrator** and right-click.

**3** Select **All Tasks→ Launch Tool** from the pop-up menu. The **Edit Parameters** window is displayed.

**4** Select any Dell ESXi system under **Dell Managed Systems**.

You can select only a single system under the parent nodes. If you select any of the parent nodes such as **Dell Managed Systems**, **Dell Modular Systems**, **Dell Monolithic Systems**, or the chassis group under **Dell Modular Systems,** the following message is displayed:

```
Tool cannot be launched on multiple nodes.
```

**NOTE:** You can launch the DWS console for a Dell Windows system if you have configured your Windows system to support the DWS console.

**5** Click **Launch** on the **Edit Parameters** window. The DWS console is launched on the default browser on your system.

**NOTE:** HPOM enables you to select even non-Dell systems. However, if you select such a system, the DWS console launches, but you cannot launch the Server Administrator console for troubleshooting.

## Launching the DWS Console from the Nodes Tree

To launch the DWS console from the **Dell Managed Systems** node group:

1 Select any Dell ESXi system under any of the parent nodes such as **Dell Monolithic Systems,** or the chassis group under **Dell Modular Systems.**

2 Right click and select the **All Tasks→ Launch Tool** option from the pop-up menu. The **Select the Tool to Execute** window is displayed.

3 Select **DWS Server Administrator** under **Tools→ Dell OpenManage and** click **Launch.** The DWS console is launched on the default browser on your system.

## Launching the DWS Console from the Services Tree

To launch the DWS console from the **Dell Hardware→ Dell ESXi Servers** services tree object:

1 Select any ESXi system under **Dell ESXi Servers** on the **Services** tree.

2 Right click and select the **Launch Tool** option from the pop-up menu. The **Select the Tool to Execute** window is displayed.

3 Select **DWS Server Administrator** under **Tools→ Dell OpenManage and** click **Launch.** The DWS console is launched on the default browser on your system.

## Launching the DWS Console from the Alert Message

To launch the DWS console from the alert messages associated with a Dell system:

1 Select any Dell ESXi system under any of the parent nodes such as **Dell Monolithic Systems,** or the chassis group under **Dell Modular Systems.**

2 Select any alert message associated with the system on the right pane.

3 Right-click and select **Launch Tool→ Message**, **Launch Tool→ Nodes**, or **Launch Tool→ Service**s from the pop-up menu. The **Select the Tool to Execute** window is displayed.

   *NOTE:* For external nodes, only the **Launch Tool→ Message** option is available.

4 Select **DWS Server Administrator** under **Tools→ Dell OpenManage and** click **Launch.** The DWS console is launched on the default browser on your system.

# 4

# Troubleshooting Dell Smart Plug-in (SPI)

This section lists the problems that you may encounter while using the Dell SPI.

## Installer Takes Time to Launch

### Problem

When the Dell SPI installer is run for the first time on the management server, there is a delay of 40-45 seconds to launch the installer if the system does not have access to the internet.

### Reason

This problem occurs because the .NET Framework 2.0 managed assembly that has an Authenticode signature takes longer than usual to load. The signature is always verified when the .NET Framework 2.0 managed assembly that has an Authenticode signature is loaded.

### Solution

To resolve this, ensure that the management server is connected to the internet when you run the installer.

# DellSPIConfigUtility Displays an Error

### Problem

DellSPIConfigUtility displays an error for a Local User when the user access control (UAC) is enabled

### Solution

When UAC is enabled, run the DellSPIConfigUtility using Run as Administrator command prompt.

1 Select the command prompt application.

2 Right click and select Run as Administrator.

3 Configure the SNMP and WSMAN parameters in the administrator command line.

📝 **NOTE:** You should have Administrators and HP_OVE_Admins privileges; otherwise, you must provide the required security credentials.

# SNMP Trap Messages are Not Created

### Problem

The SNMP Interceptor policy may not display the SNMP trap messages in the active message browser of the node from which it receives the traps.

### Solution

To resolve this, ensure that the trap destinations and the community strings on the Dell managed nodes are configured correctly and communication is established between the managed node and the management server.

# SNMP Traps Received at Wrong Nodes

### Problem

After you start monitoring the Dell systems grouped under **Dell Managed Systems** group, if you interchange the IP addresses of the nodes, then the SNMP traps are received on the wrong nodes. For example, if you have two nodes A and B under **Dell Managed Systems → Dell Monolithic Servers group** and you interchange the IP addresses of the two nodes, then the traps from A are displayed as messages in the active message browser of B and vice versa.

### Solution

To resolve this:

1   Launch the Server Configuration Editor on the HP Operations Manager (HPOM) console.

2   Under the **Node Cache Settings** option, set the **DNS cache** value to **False** to disable the DNS caching.

   The nodes now display the traps correctly.

# Global System Status Not Retrieved for Dell Systems

### Problem

The **Dell_Sched_Status_Update** policy does not retrieve the global system status of discovered Dell systems until the systems are grouped under the **Dell Managed Systems** group.

### Solution

The global status update policy runs every one hour and starts polling systems for global system status. If you choose to auto-deploy the policy files during the Dell SPI installation, the policies start running as per the default schedule. However, the auto grouping policy is scheduled to run only at 23:00 hours every day. Therefore, until the **Dell_Autogroup_Servers** policy runs and the Dell systems are grouped under the **Dell Managed Systems** group, the global system status of the systems is not displayed on the HPOM console.

**5**

# Related Documents and Resources

This chapter gives you the details of other documents and resources to help you work with the Dell Smart Plug-in version 2.0.

## Other Documents You May Need

In addition to this guide, you can access the following guides available on the Dell Support website at **support.dell.com/manuals**. On the **Manuals** page, click **Software** → **Systems Management**. Click the appropriate product link on the right-side to access the documents:

- *Dell OpenManage Installation and Security User's Guide*
- *Dell OpenManage Server Administrator User's Guide*
- *Dell OpenManage Server Administrator Compatibility Guide*
- *Dell OpenManage Server Administrator Messages Reference Guide*
- *Dell OpenManage Server Administrator Command Line Interface User's Guide*
- *Dell OpenManage With VMware ESX/ESXi 4 Systems Management Guide.* To access this guide, click **Software**→ **Virtualization Solutions**→ **VMware Software** on **support.dell.com/manuals**.
- *SNMP Trap Correlation Guide*

For information on terms used in this document, see the *Glossary* on the Dell Support website at **support.dell.com/manuals**.

## Obtaining Technical Support

For assistance and information about Dell SPI, see the Dell Support website at **support.dell.com.**