



Lenovo Hardware Management Pack for Microsoft System Center Operations Manager Release Notes

Version 6.0



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Note

Before using this information and the product it supports, read the information in "Notices" on page 23.

Edition Notice

This edition applies to v6.0 of Lenovo[®] Hardware Management Pack for Microsoft(tm) Operations Manager, and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this publication

These Release Notes provide the latest information about Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0.

Conventions and terminology

Paragraphs that start with a bold **Note**, **Important**, or **Attention** are notices with specific meanings that highlight key information.

Note: These notices provide important tips, guidance, or advice.

Important: These notices provide information or advice that might help you avoid inconvenient or difficult situations.

Attention: These notices indicate possible damage to programs, devices, or data. An attention notice appears before the instruction or situation in which damage can occur.

Information resources

You can find additional information about Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0 in the product documentation and on the World Wide Web.

PDF files

You have the option to view or print documentation that is available in Portable Document Format (PDF).

Downloading Adobe Acrobat Reader

You need Adobe Acrobat Reader to view or print the PDF files. You can download a copy from the Adobe Reader website.

Viewing and printing PDF files

You can view or print any of the PDF files located on the web. The most current version of each document is available on the product download page. Click this link to locate the individual product pages for each publication: [Lenovo XClarity Integrator for Microsoft System Center](#).

World Wide Web resources

The following websites provide resources for understanding, using, and troubleshooting BladeCenters, Flex Systems, System x[®] and systems-management tools.

Lenovo XClarity Integrator for Microsoft System Center website

This website provides an overview of Lenovo XClarity Integrator for Microsoft System Center and current product offerings available for download:

[Lenovo XClarity Integrator for Microsoft System Center](#)

Technical support website

This website can assist you in locating support for hardware and software:

[Lenovo Systems Technical Support](#)

IBM Systems Director downloads website

This website provides an overview and the current product releases available for downloading IBM Systems Director systems-management software:

[IBM Systems Director Downloads](#)

System Management with Lenovo XClarity Solution website

This website provides an overview of the Lenovo XClarity Solution which integrates into System x M5 and M6, as well as Flex System to provide system management capability:

System Management with Lenovo XClarity Solution

ServerProven® websites

The following websites provide an overview of hardware compatibility for BladeCenter®, Flex System™, System x and xSeries® servers, and IBM IntelliStation® hardware:

- Lenovo ServerProven: Compatibility for hardware, applications, and middleware
- Lenovo ServerProven: Compatibility for BladeCenter products

Microsoft System Center Operations Manager website

This website provides an overview of Microsoft System Center Operations Manager:

TechNet Library: Systems Center Operations Manager

Chapter 1. Overview

Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0 uses the enhanced features of Microsoft System Center Operations Manager to manage the health of System x servers, Blades, BladeCenter Chassis, Compute Nodes, and Flex System Chassis.

Hardware Management Pack provides a holistic view of your IT infrastructures, minimizing down time caused by hardware problems.

The enhanced features of Hardware Management Pack include:

- The use of SNMP protocols for monitoring the health of the BladeCenter Chassis and Flex System Chassis and modules.
- Extensive health monitoring of IMM-based servers using agentless mode.
- Extensive health monitoring of hardware components running Windows with IBM Systems Director Agent on System x servers, BladeCenter x86/x64 blades, and Flex System x86/x64 Compute Nodes.
- Comprehensive health monitoring of software stacks managing hardware.
- Easy determination of overall system health by aggregating hardware health monitors.

Chapter 2. About this release

The topics in this section provide information about the current release.

New in this release

Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0 adds the ability to monitor hardware health for IMM-based servers using Service Location protocol (SLP) and Common Information Model (CIM) over a LAN.

Notes: Lenovo Hardware Management Pack communicates with IMM-based servers using the network port **9500**. Ensure that this port is not blocked by the firewall. You can follow these steps to create a rule to pass the firewall:

1. Expand **Control Panel > System and Security > Windows Firewall > Advanced setting**.
2. To create an inbound rule:
 - a. Right click **Inbound Rules** to invoke **New Rule**.
 - b. Click **Port** and click **Next**.
 - c. Click **TCP**.
 - d. Set the value of **Specific local ports** to **9500** and click **Next**.
 - e. Enter the rule name.
 - f. Click **Finish**.

For more information, see the "Monitoring through the Operations Manager Console" topic in the *Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0 Installation and User's Guide*.

Contents of Lenovo Hardware Management Pack v6.0

Lenovo Hardware Management Pack v6.0 contains:

- Seven management packs:
 - Lenovo Hardware Management Pack - Common Library
 - Lenovo Hardware Management Pack for System x and x86/64 Blade System
 - Lenovo Hardware Management Pack for BladeCenter Chassis and Modules
 - Lenovo Hardware Management Pack - Hardware IDs Library
 - Lenovo Hardware Management Pack - Relation Library
 - Lenovo Hardware Management Pack for Flex System Chassis and Modules
 - Lenovo Hardware Management Pack - Flex Relation Library
- Hardware knowledge articles that provide detailed information about hardware events which are independent of how Hardware Management Pack integrates with Microsoft System Center Operations Manager
- Supporting code for managing BladeCenters
- Supporting code for managing Flex System Chassis

File and registry locations

By default, the contents of Lenovo Hardware Management Pack are installed in the following directory: %ProgramFiles%\Lenovo\Lenovo Hardware Management Pack.

The registry path used by Hardware Management Pack is: HKEY_LOCAL_MACHINE\SOFTWARE\Lenovo\System Management Integrations\Lenovo HW Mgmt Pack for OpsMgr.

Hardware Management Pack uses the following system-wide environment variables:

IBM_DIR_KB

The directory that contains the hardware knowledge articles.

IBM_DIR_VBS

The program directory that contains the task for remotely powering on and off Blade servers.

Chapter 3. Known limitations

The topics in this section provide information about limitations, problems, and workarounds that apply to Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0.

Issues related to installation, uninstallation, and upgrades

These topics address issues that are related to installing, uninstalling, and upgrading Lenovo Hardware Management Pack v6.0.

1. If the UAC is on, installation-related activities fail when managed directly through the Control Panel or the MSI file

If you try to manage installation-related activities (for example, uninstallation) directly through the Control Panel or through the MSI file (Microsoft Windows Installer Package) on Microsoft Windows 2008 or later, and the User Access Control (UAC) is turned on, the process fails when run.

Workaround: To perform installation-related activities, either turn off the UAC through the Control Panel first or use the designated Local Administrator account to perform these activities.

2. Overrides saved in the Default Management Pack can prevent Hardware Management Pack from being deleted

When you attempt to delete Hardware Management Pack from Operations Manager, the following message is displayed:

Remove the Default Management Pack first before removing the Management Pack because of dependency. You cannot delete the Management Pack without removing the dependent management packs.

This message indicates there is at least one override saved in the Default Management Pack for rules or monitors. Overrides are saved in either the Default Management Pack or a dependent management pack.

Solution: If you plan to use these overrides at a later time, save the overrides in a management pack other than the Default Management Pack (or the management pack listed in the message). After saving the overrides, delete the management pack causing the problem from Operations Manager, and then delete the other remaining management packs. When you import Hardware Management Pack back to Operations Manager, import the management pack that you saved earlier to restore the overrides.

3. The "Script or executable failed to run" alert can occur on managed systems when Hardware Management Pack is deleted

Hardware Management Pack scripts are launched by Operations Manager, at various times, on agent-based managed systems.

If a script defined in Hardware Management Pack is running when you delete Hardware Management Pack, a script failure occurs. This failure results in a corresponding alert to Operations Manager.

Workaround: You can ignore these alerts in this situation. To avoid the failures, place the management server in maintenance mode before deleting Hardware Management Pack from Operations Manager.

4. Deleting Hardware Management Pack from Operations Manager on Windows Server 2008 may prompt an alert about “a script is running...”

If you delete Hardware Management Pack while a script defined in Hardware Management Pack is running, a message is displayed stating a script is currently running and the file containing the script is about to be deleted.

You can click **Ignore** to continue uninstalling without affecting any of the servers running the script.

Solution: Place the management server into Operations Manager Maintenance Mode before deleting Hardware Management Pack from Operations Manager.

5. Errors are displayed on the Operations Manager Console immediately after deleting Hardware Management Pack

Immediately after deleting Hardware Management Pack from Operations Manager, you might see a series of errors on the Operations Manager Console. This is because the GUI is sharing a view with Hardware Management Pack you are deleting.

For example, the error might display as: Invalid Column Name ... or Collection was modified.

Solution: Ignore this and any related errors and note that the enumeration operation might not run in this situation.

6. The “Handle count threshold exceeding” error reported after Hardware Management Pack is imported

On the Operations Manager management servers, after Hardware Management Pack is imported, the following alert might be displayed: Handle count threshold exceeding.

To view details about this error, complete the following steps:

1. Click **Performance > Windows local Application Health Rollup > Performance > Health Service Performance > Health Service** to open Operations Manager Health Service.
2. Click **Handle Count Threshold** and search for the following message:
Too many rules and monitors are loaded from all the management packs that this Health Service has been configured with.

Solution: Apply this fix: Microsoft Support: A managed application has a high number of thread handles and of event handles in the Microsoft .NET Framework 2.0. Also see the Microsoft Operations Manager Support Team Blog article: TechNet Blogs: OpsMgr 2007: Monitoringhost.exe or HealthService.exe may have a high (>10000) handle count and restart.

Workaround: Restart **Health Service** and reset the health state manually each time this error occurs. You should manually reset the **health state** as a temporary measure for this issue, as doing so will have a negative effect on Operations Manager performance and the continuity of health monitoring.

7. Need to restart the Operations Manager Console to access the external Knowledge Base articles for a newly installed Hardware Management Pack

If you keep the Operations Manager Console open while installing Hardware Management Pack, or if you changed the installation path for Hardware Management Pack, the links to the hardware Knowledge Base articles will not be available until you restart the Operations Manager Console.

These links appear inside the Knowledge Base articles for the monitors defined in Hardware Management Pack and appear as tasks in the **Actions** pane of the Operations Manager state views.

Workaround: To have the links point to the new setup location for the hardware Knowledge Base articles, close and reopen the Operations Manager Console.

8. The Operations Manager Console must be restarted to update the directory path for the remote blade on, off and shutdown task

If you keep the Operations Manager Console open while installing Hardware Management Pack, the Operations Manager Console environment loses the program directory path information for the remote blade on, off and shutdown OS task.

If %IBM_DIR_VBS% is in the program directory path when the remote blade power on, off or shutdown OS console task is requested, the following error message is displayed:

Input Error: Cannot find script file

Workaround: Close and reopen the Operations Manager Console so the new program directory path %IBM_DIR_VBS% is defined properly in the Operations Manager Console environment.

9. A dialog box confirming uninstallation is blocked by the processing bar

When the system Control Panel is used to uninstall the product, a confirmation message is displayed at the end of the uninstallation process. However, the processing bar of the installation program blocks it, preventing you from confirming the uninstallation.

Workaround: There are two possible workarounds:

- Bring the underlying uninstallation confirmation window into focus by clicking on it, then click **OK** to complete the uninstallation.
- Use the uninstall shortcut option from the **Start** menu to uninstall the product. The confirmation message is not blocked when you use this method.

Issues related to the discovery of a server and its hardware components

These topics address issues that are related to the discovery of a server or its hardware components.

1. It can take several minutes for all of the hardware components to appear in the Operations Manager state views after a managed system is added to Operations Manager

After a managed system is added to Operations Manager, it can take 3 minutes or longer before the system appears in the Operations Manager Console. It can take up to 6 hours for all of the hardware components and all of the health states to fully populate in Operations Manager.

To limit the CPU demands on the managed systems for hardware health monitoring, Lenovo Hardware Management Pack implements a staged discovery of the hardware components in servers. It will take time for a newly added system to complete the initial discovery.

Solutions: In a controlled lab environment, you can override the discovery intervals with a shorter interval (through the Operations Manager Authoring Console) to speed up the process. Note that such overrides should be performed with care to avoid overloading the processor of the managed systems. See the Operations Manager online help for information about overrides.

Another option is to perform manual refreshes in the Operations Manager Console periodically to force the console to catch up with the latest data.

2. Older Systems that have RSA-II without BMC in Director Agent 6.1.x or later have critical alerts with Director Agent's compatibility even if the RSA-II daemon is installed and running

Director Agent 6.1.x and later does not support systems that have only RSA-II and no BMC. Lenovo Hardware Management Pack deliberately raises alerts for systems in this situation even if the RSA daemon is installed and running without problems.

Hardware health of systems in that situation will not be monitored correctly.

Workaround: Use the Director Core Services 5.20.31 for systems that have only RSA-II and no BMC.

3. Hardware components of a certain class of System x systems are not discovered with the Microsoft IPMI driver

The Microsoft Intelligent Platform Management Interface (IPMI) driver requires a system BIOS to expose the Baseboard Management Controller (BMC) in the designated ACPI namespace for the driver to be able to communicate with the BMC.

For a system with Microsoft IPMI driver running, but not having a BIOS level that exposes the BMC in the designated ACPI namespace, there will be a critical alert that flags the needed BIOS update.

For a list of the latest System x servers that are in this category, see IPMI tasks/applications cannot access the on-board BMC - IBM System x.

Workarounds: Do not run these systems with Microsoft IPMI driver. Instead use the OSA IPMI driver.

Note: The OSA IPMI driver is supported on Windows Server 2003 or earlier, but is not supported on Windows 2008 or later. Without a proper IPMI stack, the hardware health of the system will not be available.

4. No power supplies, fans, temperature sensors, or voltage sensors are discovered for blade servers

In a BladeCenter, power supplies, cooling fans, temperature sensors, and voltage sensors are all shared components of the chassis. Because a blade server itself does not have information that goes beyond the server, there are no instances of power supplies, fans, temperature sensors, or voltage sensors being discovered for a blade server.

Solution: First monitor BladeCenter with the BladeCenter management pack included in Hardware Management Pack and then use the *M/T-S/N* value of the blade server to locate the corresponding BladeCenter and watch the health conditions of these shared components of BladeCenter.

5. No power supplies are discovered on xSeries 335 systems with Director Core services 5.20.31

No power supply instances are discovered on xSeries 335 systems with Director Core Services 5.20.31.

Solution/Workaround: None available at this time.

6. No power supplies are discovered on IBM System x3755 M3 systems with Director Platform Agent 6.2.1 and later

No power supply instances are discovered on IBM System x3755 M3 systems with Director Platform Agent 6.2.1 and later.

Solution/Workaround: No workaround is available at this time.

7. Some RAID controller names might display as serial numbers instead of readable text

Instance names for IBM System Storage (ServeRAID-MR, MegaRAID, ServeRAID-BR, or Integrated RAID) might display as a serial number and not in readable text, such as the *LSI MegaRAID SAS Adapter*. Instead it might display as *IBM.500605B000A8F214* in the following views:

- Instance Detail
- Health Explorer
- Alert Source

Solution/Workaround: No workaround is available at this time.

8. Older management controllers (service processors) are not discovered

Older service processors, including the Advanced Systems Management (ASM) PCI Adapter, the ASM processor (ASMP), and Integrated Systems Management Processor (ISMP) are not discovered by Hardware Management Pack. However, hardware components that these older service processors manage can still be discovered and monitored with a version of Director Agent that supports these configurations (for example, 5.20.31).

Solution: To achieve full coverage of hardware health of your IT infrastructure, upgrade to a newer system equipped with a Baseboard Management Controller (BMC) service processor, Remote Supervisor Adapter (RSA) II, or with the Integrated Management Module (IMM). Also install the latest supported firmware for the management controller.

9. Power capping support limitations on multi-node and multi-instance machines

The **Set Power Capping** task in Microsoft System Center Operations Manager does not support multi-node and multi-instance power systems, such as two-node servers and servers with an attached MAX5 memory expansion unit. On multi-node systems, the **Set Power Capping** task only affects the first or primary node in the system and any related power capping data applies only to the first or primary node.

If you attempt to run the **Set Power Capping** task on a multi-instance system with an attached MAX5 unit, the task may fail with a generic firmware-based error code of 255. A power cap cannot be set on a system with an attached MAX5 unless the MAX5 is first removed from the server.

10. The value of Power Capping Capable is false although other Power Capping properties such as Power Maximum, Power Minimum, or Power Cap have non-zero values

The **Power Capping Capable** property is the only property that indicates whether the server is Power Capping Capable or not. Some servers may provide non-zero values in their Power Capping properties information, such as Power Maximum, Power Minimum, or Power Cap despite the fact that they do not support power capping.

These non-zero values do not indicate that the server is Power Capping Capable. If the Power Capping feature is desired for this server, review the "Installing IBM Power CIM Provider" and "Troubleshooting" sections of the *Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0 Installation and User's Guide*.

11. The value of Power Maximum, Power Minimum, or Power Cap are zero

Sometimes Lenovo Hardware Management Pack cannot collect the correct **Power Capping** properties due to an exception of the IBM Power® CIM Provider on a managed server.

Solution/workaround: If the Power Capping feature is required for a server, complete the following applicable steps to resolve this issue.

- Reboot the managed server.
- If rebooting the managed server does not work, see the "Installing IBM Power CIM Provider" and "Troubleshooting" sections of the *Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0 Installation and User's Guide*.

12. The Set Power Capping task does not work in the SCOM console

The **Set Power Capping** task might fail because the PowerCapping option is not enabled. The following message is displayed: ERROR - Failed to enable Power Capping.

Solution/Workaround: Complete these steps.

1. When trying to enable PowerCapping, verify the **Pcap** value is between **Pmax** and **Pmin**.
2. Reboot the managed server.
3. Reinstall the IBM Power CIM Provider on the managed server.

If after completing these steps the PowerCapping task still does not work, refer to the "Troubleshooting" section in *Lenovo Hardware Management Pack for Microsoft Operations Manager Installation and User's Guide* to set the value manually.

Issues related to health monitoring of server hardware

These topics address issues that are related to health monitoring of a server or its hardware components.

It is essential to keep current with the latest system firmware for BIOS/UEFI, BMC/IMM and other components. For the latest system firmware, visit the IBM Support Portal.

1. Not all hardware events are reportable events for all systems

Health monitoring is dependent on hardware capability, the firmware support level, and the management software support level. As an example, some systems might have more than one physical power supply, but not all of the power supplies are instrumented or manageable.

Hardware health events are specific to hardware platforms. Not all hardware events are supported as reportable events for all hardware platforms.

This is normal behavior for Lenovo Hardware Management Pack.

Workaround: To achieve full coverage of hardware health for your IT infrastructure, upgrade to a newer system equipped with a Baseboard Management Controller (BMC) service processor, Remote Supervisor Adapter (RSA) II, or with an Integrated Management Module (IMM). Also install the latest supported firmware for the management controller.

2. Running out of temporary disk space on a managed system can prevent health monitoring and event alerting from working

Lenovo Hardware Management Pack monitors system health through client-side scripts and requires temporary working disk space on a managed system. The temporary working disk space is managed by Operations Manager Health Service. If that disk space is depleted, the scripts in Hardware Management Pack cannot run, and therefore are not able to correctly detect and report the health state to Operations Manager.

The temporary working disk space is, by default, allocated from the %TEMP% folder on the managed system for the Local System Account.

Note: The Local System Account is the user account under which the Operations Manager Health Service runs. There is no known recommendation for the minimum amount of disk space that you should reserve for managed systems.

Should this situation occur, the Windows event logs on the managed system for Operations Manager will contain entries similar to the following examples.

Example 1

Event Type: Warning
Event Source: Health Service Modules
Event Category: None
Event ID: 10363
Date: 4/20/08
Time: 17:24:04
User: N/A
Computer: A-X3650-RAID
Description: Module was unable to enumerate the WMI data

Error: 0x80041032
Details: Call cancelled

One or more workflows were affected by this.

Workflow name: many
Instance name: many
Instance ID: many
Management group: scomgrp1

For more information, see TechNet Support: Events and Errors Message Center.

Example 2

Event Type: Error
Event Source: Health Service Modules
Event Category: None
Date: 04/20/08
Event ID: 9100
Time: 17:25:33
User: N/A
Computer: A-X3650-RAID
Description: An error occurred on line 105 while executing script

'MOM Backward Compatibility Service State Monitoring Script'
Source: Microsoft VBScript runtime error
Description: ActiveX component can't create object: 'GetObject'

One or more workflows were affected by this.

Workflow name: System.Mom.BackwardCompatibility.ServiceStateMonitoring
Instance name: a-x3650-raid.Lab54.local
Instance ID: {EE77E6E4-5DC5-F316-A0CA-502E4CBFCB97}
Management group: scomgrp1

For more information, see TechNet Support: Events and Errors Message Center.

Workaround: Monitor the free disk space in the %TEMP% folder on the managed system for the Local System Account, and increase the free disk space as needed.

3. Some hardware alerts require a manual reset of the health state

Lenovo Hardware Management Pack can automatically reset the health state of hardware components for most of the hardware alerts. Resets occur when there is enough specific information in the alerts to determine if it is appropriate to reset the health state of the component.

However, there are cases where information about the physical condition is too generic for Hardware Management Pack to determine if the physical condition has been resolved, or if the problem is a security concern that warrants manual acknowledgement by an IT administrator.

The following examples are categories of physical hardware problems that require manual resets of health states:

- Problems that indicate a potential security breach to physical systems
- Hardware problems related to RAID or disk drives
- Hardware problems that do not contain enough specific information, such as a generic processor error
- Hardware problems that are hardware-platform specific, such as the condition of a too-hot processor not detected through a temperature sensor outside of the processor chip

Solution: Refer to the knowledge articles about Hardware Management Pack for each monitor and alert to learn if an alert or the state of a monitor requires a manual health reset.

4. Alerts and events of an offline managed system are not visible in the Operations Manager Console until the managed system comes back online and reconnects to Operations Manager

Each of the alerts, events, and state changes of an agent-based managed system depend on the local Microsoft Health Service of the managed system that is communicating with the Operations Manager server. If the network connection between the Operations Manager server and the managed system is disrupted or if the managed system goes offline for some reason, no alerts or events are communicated to the Operations Manager server.

When the network connection resumes, the alerts and events previously recorded locally on the managed system flow to the Operations Manager server.

When communication between the managed systems and the Operations Manager server is fully established, Operations Manager views might contain outdated alerts and events from previously disconnected systems.

Solution/Workaround: None needed.

5. Disconnected NICs on managed systems are reported with an “offline” error, even if they are disabled in Windows

For NICs that have been disabled in Windows (either through the Control Panel or other means), Lenovo Hardware Management Pack still reports the error and the alert for the physically disconnected NIC, despite it being explicitly disabled.

Hardware Management Pack monitors the physical condition of the NICs without taking into consideration their relationship with the Windows system.

Solution/Workaround: No workaround is available at this time; however, you can disable the NIC offline alert monitor to ignore these errors. For information about how to disable a monitor, see the Operations Manageronline help.

6. Different versions of IBM Director Agent may report a different severity for the same hardware events

Some hardware events might be reported as critical errors by Director Core Services 5.20.31, while the same events might be reported as warnings by Director Platform Agent 6.2.1 and later.

Solution/Workaround: No workaround is available at this time.

7. All of the events generated with the WinEvent tool are reported under one monitor

The only purpose of the WinEvent tool (WinEvent.exe), which is part of the Director Agent 5.20.x, is to validate the connection of a managed system with Operations Manager through Lenovo Hardware Management Pack. WinEvent does not fully populate all of the relevant information needed to simulate real-world hardware events. Therefore, all of the events generated with WinEvent are reported under one monitor in Hardware Management Pack.

Solution/Workaround: No workaround is available at this time.

8. Outstanding errors that are generated through WinEvent from IBM Director Agent 5.10.x are reported continuously by regular health checkup monitors (even after they are manually cleared in Operations Manager)

In IBM Director Agent 5.10.x, an error generated through the WinEvent tool (WinEvent.exe) also effects the internal health state maintained inside of the Director Agent for the corresponding hardware component. The saved state effects the resulting health state reported by the regular health checkup monitor for that component. Consequently, even after that error is manually cleared in Operations Manager, the regular health checkup monitor still reports the error until the error is cleared at the Director Agent level.

In IBM Director Agent 5.20.x and later, events generated through WinEvent do not effect the health state maintained inside of the Director Agent for the hardware component.

Solution/Workaround: Use WinEvent.exe to generate the pairing event (that is the same event ID) of severity level 0, to clear the error state maintained in the Director Agent for the hardware component. Alternatively, clear all the outstanding errors generated through WinEvent.exe by deleting the IBM\director\cimom\data\health.dat file and all the IBM\director\cimom\data\health.dat*.evt files on the managed system and then restart the system.

9. No events are generated in Operations Manager for logging on or off of the Remote Supervisor Adapter II

No events are generated in Operations Manager when logging on or off of the Remote Supervisor Adapter II.

Solution: Install the latest firmware for the Remote Supervisor Adapter II.

10. No alerts are generated in Operations Manager when the RSA-II event log exceeds the capacity threshold or it is full

No alerts are generated in the Operations Manager when the RSA-II event log either exceeds the capacity threshold or is full.

Solution: Install the latest firmware for the Remote Supervisor Adapter II.

11. Uninstalling the OSA IPMI driver does not resolve the expected "software missing" error

Uninstalling the OSA IPMI driver from a managed system results in a "software failed" warning, not the "software missing" error, until the system reboots. The reason for this error is because the OSA IPMI driver is not Windows Plug-and-Play compliant. Until a reboot, the driver is still present in the Windows system kernel, even though it has been removed.

Solution: For systems that are listed on the IBM support site, use the Microsoft IPMI driver to replace the OSA IPMI driver. The Microsoft IPMI driver can be installed on Windows Server 2003 R2 as an optional hardware management feature, while the driver is installed automatically on Windows Server 2008 or later.

12. External hardware knowledge articles about Hardware Management Pack are not available on an Operations Manager management server that does not have Hardware Management Pack installed

If you are using the Operations Manager Console on a server that does not have Lenovo Hardware Management Pack installed, the external knowledge pages about hardware alerts are not available.

Hardware Management Pack must be installed locally for these IBM knowledge pages to be accessible from the Operations Manager Console.

Workaround: To access the hardware knowledge articles, use the Operations Manager 2007 Console on a management server that has Hardware Management Pack installed.

13. The System x Power Data Chart is not available for multinode servers

The System x Power Data Chart monitoring power information for multinode servers function is not supported in this release for these systems: System x3850 X5, System X iDataPlex® dx360 M4.

Workaround: Use traditional methods to monitor power data.

Issues related to the discovery of a BladeCenter and its modules

These topics address issues that are related to the discovery of a BladeCenter and its modules.

It is essential to have the latest firmware level of the BladeCenter Advanced Management Module (AMM). If you have an outdated firmware level for the AMM, this can prevent the discovery of all the modules. For the information about upgrade to the latest AMM firmware, see *Upgrading AMM*.

BladeCenter SNMP settings must also be configured correctly for a BladeCenter to be discovered and monitored correctly. Follow the instructions in the *Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0 User's Guide* to set up the SNMP settings for the BladeCenter, and use Operations Manager Discovery Wizard to discover the BladeCenter as a network device.

1. A management server with multiple NICs may not reliably discover a BladeCenter if there is more than one network connection between the BladeCenter AMM and the management server

If a BladeCenter does not appear as a network device in the Operations Manager Console after a discovery, and if the management server for discovery has more than one network connection to reach the BladeCenter AMM, then the discovery will be impacted by an SNMP on multi-NIC binding problem. As a consequence, a discovery of a BladeCenter can be intermittent.

Workaround: Use only one network connection between the management server and the BladeCenter AMM by either disabling all the other NICs on the management server or using another means to keep the NICs disconnected from the AMM.

2. Full discovery of a BladeCenter requires adequate time

After the network device discovery for a BladeCenter finishes, it might take up to 2 hours for the BladeCenter module discovery process to begin. Also, it can take up to 6 hours for all of the BladeCenter module discovery processes to finish, for their initial health state to be initialized, and for all the states and properties to fully populate in the Operations Manager Console.

Workaround: You can override default monitoring interval values to a shorter interval. See the Operations Manager online help for more information about overrides.

Issues related to the health monitoring of a BladeCenter

These topics address issues that are related to the health monitoring of a BladeCenter.

It is essential to have the latest firmware level for BladeCenter Advanced Management Module (AMM). If you have an outdated firmware level for the AMM, this can prevent getting all the health states needed. For information about upgrading AMM firmware, see *Upgrading AMM*.

For a BladeCenter to be monitored correctly, the BladeCenter SNMP settings must be configured correctly. Review the settings by referring to the instructions in the *Lenovo Hardware Management Pack for Microsoft System Center Operations Manager, v6.0 User's Guide* about specifying the BladeCenter SNMP settings.

1. Operations Manager 2007 cannot receive SNMP trap data on Windows Server 2008

If you can discover a BladeCenter successfully with an Operations Manager management server running Windows Server 2008, SNMP traps from the BladeCenter might not propagate to Operations Manager unless a specific fix pack available for Systems Center Operations Manager 2007 has been installed.

For more information, see: Microsoft Support: System Center Operations Manager 2007 cannot receive SNMP trap data when you use a Windows Server 2008-based computer or a Windows Vista-based computer as a proxy agent for SNMP devices.

Solution: Install the fix pack for Windows Server 2008 on the Operations Manager management server designated to manage the BladeCenter.

2. A critical "SNMP Trap Generated Alert" is reported for each BladeCenter event regardless of its severity, if Microsoft's Network Device Monitoring Library is imported

Microsoft System Center Network Device Monitoring Library management pack for System Center Essentials 2007, treats every SNMP traps it receives as a critical error and does not capture enough relevant data from the SNMP trap. This management pack does not manage a BladeCenter and can confuse IT administrators.

Solution: Delete the Network Device Monitoring Library management pack from Operations Manager.

4. BladeCenter storage modules are not monitored

BladeCenter storage modules are not monitored with Lenovo Hardware Management Pack v6.0.

Workaround: To manage the BladeCenter storage modules and their disk drives, use the RAID SAS Switch Module (RSSM) in the BladeCenter.

3. Removing the primary management module in a BladeCenter does not generate an alert to Operations Manager

The primary management module of a BladeCenter cannot generate an alert to Operations Manager when it is removed physically from the BladeCenter, because the original connection to its Operations Manager management server no longer exists.

Note: The standby management module must have a different IP address from the primary management module.

Solution/Workaround: Configure Operations Manager to monitor the standby management module in addition to the primary management module. Although you will miss the event of the primary management module removal, you can maintain full coverage of health monitoring of the BladeCenter. You must temporarily make the standby management module the active management module while you are adding the BladeCenter to be managed through the standby management module.

5. BladeCenter multi-slot wide blades are reported as single-slot wide

If the AMM of a BladeCenter is running at the firmware level BPET50C, the BladeCenter multi-slot wide blades are reported as single-slot width.

Workaround: Either upgrade the AMM firmware to level BPET54D or later, or downgrade to level BPET48N. See Upgrading AMM.

6. BladeCenter Media Module reports empty values for the part number and serial number of the Media Tray

The BladeCenter Media Module reports empty values for the part number and serial number of the Media Tray.

Workaround: Upgrade the AMM firmware to the latest firmware level. See Upgrading AMM.

7. BladeCenter might not send out all of the SNMP traps when the AMM is overloaded

There are extreme conditions that might cause the AMM of a BladeCenter to be overloaded, making it unable to send out all of the SNMP traps required for Hardware Management Pack to report to Operations Manager.

Note: Such cases of extreme activity are rare and occur only in extreme conditions such as a catastrophic failure of all the components in a BladeCenter chassis.

8. BladeCenter Media Module might indicate "Not available" for its module name for a period of time

The module name of a BladeCenter Media Module is gathered on a timed interval basis. Because the alert source for a Media Module is the module name, the alert source for a newly inserted Media Module might be displayed as Not available for alerts that occur in the time between the insertion of the module and the time the module name is gathered during the next interval.

Solution/Workaround: No workaround is available at this time.

Issue related to the discovery of IMM

This topic addresses an issue related to the discovery of IMM.

An application error might occur when invoking the Windows Discover IMM computer task

The following application error might be displayed when invoking the Windows Discover IMM computer task:

Application: %IBM_DIR_VBS%\EndpointDiscovery.exe Error Message: The system cannot find the file specified.

Workaround: Add a new environment variable *IBM_DIR_VBS* with the value specified as the installation folder of Lenovo Hardware Management Pack, and then reboot your system.

Issue related to Hardware Failure Management

This topic addresses an issue related to Hardware Failure Management.

A virtual machine host does not perform a migration on SCVMM

A virtual machine host does not perform a migration on System Center Virtual Machine Manager (SCVMM) even if the predictive failure alert policy (PFA) is set and the corresponding alert is invoked.

Solution/workaround: This might occur if there is an account privilege limitation. Complete the following steps for changing the account privilege.

- Click **Windows Services** on the Systems Center Operations Manager (SCOM) server.
 - Locate the **IBM Upward Integration Server** service.
 - Right click to open the properties editor.
 - Click the **Log On** tab.
 - Click **This account** to specify an account with administrator privilege.
-

Tips for Operations Manager

These topics provide tips and observations for Operations Manager.

1. Objects discovered with a management pack might not display in the Operations Manager Console if the same management pack is deleted and reimported too quickly

If you do not wait long enough before reimporting the management pack files, managed systems that were previously added to Operations Manager might not display in the Operations Manager Console.

For details about this issue, see Microsoft Support: Discovery information is missing after you delete and then reimport a management pack in Microsoft System Center Operations Manager 2007.

Solution/Workaround: Refer to the "Resolution" section of this Microsoft knowledge base article.

2. Managed servers might have different health states when managed in more than one management group

To manage servers that are in more than one Operations Manager management group, ensure that the same version of Hardware Management Pack is used for all the management groups to which these servers belong. Otherwise, there might be inconsistent health states or alerts reporting for these servers.

Because some of the health states managed by Hardware Management Pack are updated on a timed interval basis, there can be times that a server has different health states in different management groups.

Solution/Workaround: Make sure the management packs in all the management groups are of the same version.

3. State changes can take more than a few minutes to roll up to the top most level

It might take the Operations Manager Console some time to reflect the final rolled-up state of the highest level object.

Workaround: Do manual refreshes by pressing **F5** to force the Operations Manager Console to display the latest data or consult the **Detail state** view of the object for the latest health state.

4. Data might not display in the Operations Manager state views after scrolling left and right

Data in the health state views might not display if you frequently scroll left and right to browse all of the columns in the state view.

Workaround: Do manual refreshes by pressing **F5** to force the Operations Manager Console to display the latest data.

5. After resetting the health states through the Operations Manager Console, it can take 2 minutes or more to reflect the current health state

After using Health Service to reset health states, it might take 2 minutes or more to roll up to the top most state view and reflect the current health state.

Workaround: Perform a manual refresh by using **F5** to force the Operations Manager Console to display the latest data.

6. The value of the Path property for some Operations Manager objects might display as either empty or wrong

The value of the **Path** property for some Operations Manager objects might display as either empty or wrong in the **State list** view.

IBM System x and x86/x64 blade servers

The **Path** property for some object classes can be empty. The **Path** property for all of the systems in the **Root Computers** view has an empty value, but the **Path name** property of these objects is not empty. Hardware

Management Pack does not explicitly override the **Path** property for all of the objects it creates. The **Path** property of an object can be empty if that object is based on a class with an empty class and Hardware Management Pack does not explicitly override the value.

IBM BladeCenter

The value of the **Path** property of Lenovo BladeCenter Chassis is correct in the **Details** view of the Operations Manager Monitoring pane, but the value can be incorrect in the **State view** tab.

Workaround: Check the value in the **Details** view of the Operations Manager Console before using the value of the **Path** in the **State list** view.

7. Views and columns in the Operations Manager State views do not revert to the default settings after the Management Pack has been deleted and reimported

The Operations Manager Console implements sticky settings for those personalized views that are remembered from session to session. Such views are remembered even if you delete Hardware Management Pack and reimport it.

Solution/Workaround: While personalizing a view using Microsoft System Center Operations Manager 2007 R2, click **Revert to default**.

8. The height of individual views in an Operations Manager dashboard view cannot be adjusted independently

Hardware Management Pack utilizes the Operations Manager dashboard view to provide two simultaneous levels of information in the Operations Manager Console.

For example, the **IBM System x and x86/x64 blade servers** view is a dashboard view with two individual state views: the **IBM System x and x86/x64 blade servers state** view and the **IBM Systems Hardware Components state** view. In this case, you cannot adjust the height of one state view independently of the other, because they are part of a dashboard view.

Solution/Workaround: No solution or workaround is available at this time.

9. Right-clicking on the blank space in the "All IBM System x and x86/x64 Blade Servers state" view does not open the context menu

If you right-click on the blank space between the last system line and the horizontal scroll bar in the **All IBM System x and x86/x64 Blade Servers state** view, the context menu does not display.

Solution/Workaround: Right-click in other areas within the **All IBM System x and x86/x64 Blade Servers state** view.

10. The "Processing backlog events taking long time error" warning alert is displayed when an Operations Manager 2007 SP1 agent is installed on a computer running Windows 7 or Windows Server 2008 R2

If an Operations Manager 2007 SP1 agent is installed on a computer that is running Windows 7 or Windows Server 2008 R2, **EventID 26017** is logged.

After this occurs, the

Processing backlog events taking long time error

warning alert is displayed.

Solution/Workaround: No workaround is required. Either ignore the events or upgrade to Operations Manager 2007 R2. For more information, see Microsoft Support: Support for Windows Server 2008 R2 and Windows 7 in System Center Operations Manager 2007.

11. Simplified Chinese strings display in the Operations Manager Console

Simplified Chinese strings display in the Operations Manager Console when running in another language environment, such as English, French, or Japanese.

This is an Operations Manager issue that has already been reported to Microsoft. Here are parts of these strings and their English translations.

- IBM 授权系统发现: IBM Licensed Systems Discovery
- IBM 授权刀片系统发现: IBM Licensed Blade Systems Discovery
- IBM 授权基本系统发现: IBM Licensed Base Systems Discovery
- IBM 未授权系统发现: IBM Unlicensed Systems Discovery
- IBM 授权 Flex 系统发现: IBM Licensed Flex Systems Discovery
- IBM 许可 Flex 系统: IBM Licensed Flex System
- IBM 授权系统: IBM Licensed Systems
- IBM 未授权系统: IBM Unlicensed Systems

Figure 1. Example of Simplified Chinese strings in the Operations Manager Console

Solution/Workaround: No solution is available at this time.

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