IBM

IBM System x

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

Version 5.0

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> **Note**
> Before using this information and the product it supports, read the information in "Notices" on page 25.

Contents

About this publication

This book provides additional information, comments, and known limitations in the IBM® Hardware Management Pack for Microsoft® System Center Operations Manager, Version 5.0 offering.

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.

PDF files

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 these PDF files. You can download a copy from the Adobe Reader Web site.

Viewing and printing PDF files

You can view or print any of the respective PDF files located on the Microsoft System Management Solutions for IBM Servers website. Please click the link provided to locate the individual product pages for each publication.

World Wide Web resources

The following web pages provide resources for understanding, using, and troubleshooting IBM System x, BladeCenter servers, and systems-management tools.

IBM System x Integration Offerings for Microsoft System Management Solutions

IBM System x Integration Offerings for Microsoft Systems Management Solutions

Locate the latest downloads for the IBM® Hardware Management Pack for Microsoft System Center Operations Manager, v5.0.

Support for IBM Systems

Support for IBM Systems

Locate IBM Systems Technical support.

IBM Systems Director: Download Software Registration

IBM Systems Director: Download Registration

Download IBM systems-management software, including IBM Systems Director.

IBM Systems Management page

IBM systems management solutions for System x

This web page provides an overview of IBM Systems Management.

IBM ServerProven pages

System x and xSeries ServerProven: IBM ServerProven Compatibility for hardware, applications, and middleware

BladeCenter ServerProven: IBM ServerProven Compatibility for BladeCenter products

Obtain information about hardware compatibility with IBM System x, xSeries servers, and IBM BladeCenter®.

Microsoft System Center Operations Manager

Technet: Systems Center Operations Manager

Obtain information about Microsoft System Center Operations Manager that describes how to monitor your IBM systems across large organizations using IBM and Microsoft applications and operating system knowledge to resolve operational problems.

Chapter 1. Overview

The IBM Hardware Management Pack for Microsoft System Center Operations Manager, v5.0 enables you to use the enhanced features of Microsoft System Center Operations Manager to manage the health state of IBM System x servers, Blades, BladeCenter Chassis, Compute Nodes, and Flex System Chassis.

The Hardware Management Pack completes the holistic view of the health of your IT infrastructures, so you can keep your business running continuously and minimize the down time caused by hardware problems.

Major features of IBM Hardware Management Pack are:
- Rich monitoring of the health of the BladeCenter Chassis, Flex System Chassis and the modules using the SNMP protocol.
- Extensive monitoring of the health of hardware components for the IBM System x servers, BladeCenter x86/x64 blades, Flex System x86/x64 Compute Nodes running Windows.
- Comprehensive monitoring of the health of software stacks for managing IBM hardware
- Easy determination of overall system health by aggregating hardware health monitors

Chapter 2. About this release

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

What's new in this release

The IBM Hardware Management Pack v5.0 adds the ability to:
- Use Microsoft System Center Operations Manager 2012 and additional hardware currency.
- Set the predictive failure alert (PFA) policy to IMM for Brickman base Systems

Contents of IBM Hardware Management Pack v5.0

IBM Hardware Management Pack v5.0 includes the following:
- Seven management packs:
  - IBM Hardware Management Pack - Common Library
  - IBM Hardware Management Pack for IBM System x and x86/64 Blade System
  - IBM Hardware Management Pack for IBM BladeCenter Chassis and Modules
  - IBM Hardware Management Pack – Hardware IDs Library
  - IBM Hardware Management Pack - Relation Library
  - IBM Hardware Management Pack for IBM Flex System Chassis and Modules
  - IBM Hardware Management Pack - Flex Relation Library
- Hardware knowledge articles that describe details about hardware events that are independent of how the Hardware Management Pack integrates with Operations Manager
- Supporting code for managing BladeCenter
- Supporting code for managing Flex System Chassis

File and registry locations

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

The registry path used by the Hardware Management Pack is: `HKEY_LOCAL_MACHINE\SOFTWARE\IBM\Systems Management Integrations\IBM HW Mgmt Pack for OpsMgr`.

The Hardware Management Pack also uses system-wide environment variables. *IBM_DIR_KB* points to the directory that contains the hardware knowledge articles. *IBM_DIR_VBS* points to the program directory that contains the task for remotely powering on and off Blades Servers.

Chapter 3. Known limitations

The topics in this section provide information about limitations, problems, and workarounds that apply to IBM Hardware Management Pack for Microsoft System Center Operations Manager, Version 5.0.

Issues related to installation, uninstallation, and upgrades

The following issues are related to installing, uninstalling, and upgrading the Hardware Management Pack Version 5.0.

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, the process fails when run on Windows 2008 or later if the User Access Control (UAC) is turned on.

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

2. Overrides saved in the default management pack can prevent the Hardware Management Pack from being deleted

When you attempt to delete the Hardware Management Pack from Operations Manager, a message similar to the following 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 means that there is at least one override saved in the Default Management Pack for the rules or the monitors. The override (or overrides) can be saved in either the Default Management Pack or another management pack, as stated in the message.

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 the Operations Manager, and delete the other remaining management packs. When you import the Hardware Management Pack back to the Operations Manager, import the management pack that you saved earlier to restore the overrides.

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

Scripts of the Hardware Management Pack can be launched by the Operations Manager, at various times, on agent-based managed systems.

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

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

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

If you delete the Hardware Management Pack while a script defined in the Hardware Management Pack is running, a message dialog box notifies you that 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's maintenance mode before deleting the Hardware Management Pack from the Operations Manager.

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

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

The error looks like:

Invalid Column Name ...

Solution: Ignore this and any related errors (for example, Collection was modified), and note that the enumeration operation might not run in this situation.

6. "Handle Count Threshold Exceeding" error reported after the Hardware Management Pack is imported

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

For details about this error, open Operations Manager's Health explorer on the Windows computer for the management server that shows this error, and click **Performance** > **Windows local Application Health Rollup** > **Performance** > **Health Service Performance** > **Health Service** > **Handle Count Threshold**. 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 the fix to the Microsoft .NET Framework 2.0 referred to in the following Microsoft Knowledge Base Article at http://support.microsoft.com/kb/968760. The article addresses a managed application having a high number of thread handles and event handles in the Microsoft .NET Framework 2.0

Also see the Microsoft Operations Manager Support Team Blog article at http://blogs.technet.com/operationsmgr/archive/2009/04/02/opsmgr-2007-monitoringhost-exe-or-healthservice-exe-may-have-a-high-10000-handle-count-and-restart.aspx.

Workaround: Restart the Health Service and reset the health state manually every time this error occurs.

Note: 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 articles for a newly installed Hardware Management Pack

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

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

Workaround: Close and reopen the Operations Manager Console so the links point to the new setup location for the hardware knowledge articles.

8. 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 the Hardware Management Pack, the Operations Manager Console environment loses the program directory path information for the remote blade on, off and shutdown OS task.

This issue causes the following error message:

```
Input Error: Cannot find script file
```

If %IBM_DIR_VBS% is in the program directory path when the remote blade power on, off or shutdown OS console task is requested.

Workaround: Close and reopen the Operations 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 dialog box 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 dialog is not blocked when you use this method.

Issues related to discovery of server hardware components

The following issues are related to the discovery of a server or its hardware components.

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

After a managed system is added to the 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 the hardware components and all the health states to fully populate in the Operations Manager.

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

Solution: In a controlled lab environment, you can override the discovery intervals with a shorter interval (through Operations Manager's 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's 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 with RSA-II without BMC in Director Agent 6.1.x or later will 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. The 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 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.

Workaround: 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 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 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 to be discovered for a blade server.

Solution: First monitor the BladeCenter with the BladeCenter management pack included in the 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 the 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 may show as a serial numbers instead of a text readable format

Instance names for IBM System Storage (ServeRAID-MR, MegaRAID, ServeRAID-BR, or Integrated RAID) may show as a serial number in the detail view, but not in a readable format, such as *LSI MegaRAID SAS Adapter*. Instead it may show as *IBM.500605B000A8F214*. You may see this serial number format in the instance detail view, the Health explorer view, or in the Alert Source column.

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 the Hardware Management Pack. However, hardware components that these older service processors manage can still be discovered and monitored with a version of IBM 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 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. 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 property 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 *IBM Hardware Management Pack for MS SCOM v5.0 Installation and User's Guide*.

11. The SetPowerCapping task does not work in the SCOM console

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

Solution/workaround:
- Verify that the `Pcap` value is between `Pmax` and `Pmin` when trying to enable **PowerCapping**.
- Refer to the "Troubleshooting" section in *IBM Hardware Management Pack for MS SCOM v5.0 Installation and User's Guide* to set the value manually.

Issues related to health monitoring of server hardware

The following issues are related to the 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 and downloads site at http://www.ibm.com/support/us/en/.

1. Not all hardware events are reportable events on every system

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 the IBM 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 the 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

The IBM Hardware Management Pack monitors system health through client-side scripts and requires temporary working disk space on the managed system. The temporary working disk space is managed by the Operations Manager Health Service. If that disk space is depleted, the scripts in the Hardware Management Pack cannot run, and therefore will not be able to correctly detect and report the health state to the 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 the Help and Support Center at: http://
go.microsoft.com/fwlink/events.asp.

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 Help and Support Center at: http://go.microsoft.com/
fwlink/events.asp.

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. Manual health resets required for some hardware alerts

The 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 the 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 need manual health resets:

- 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 the 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 off-line managed system are not visible in the Operations Manager console until the managed system comes back online and reconnects to the Operations Manager

All the alerts, events, and state changes of an agent-based managed system depend on the local Microsoft Health Service on 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 becomes 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 disabled in Windows

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

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

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 Operations Manager online help.

6. Different versions of IBM Director Agent may report 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 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 IBM Director Agent 5.20.x, is to validate the connection of a managed system with Operations Manager through the 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 the Hardware Management Pack.

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

8. Outstanding errors generated through WinEvent from 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 affects the internal health state maintained inside of the Director Agent for the corresponding hardware component. The saved state affects 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 affect 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 restarting the system.

9. No events are generated in Operations Manager for logging onto or off the IBM Remote Supervisor Adaptor (RSA) II

No events are generated in Operations Manager for logging onto or off the IBM Remote Supervisor Adaptor (RSA) II.

Solution: Install the latest firmware for the IBM Remote Supervisor Adaptor II.

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

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

Solution: Install the latest firmware for the IBM Remote Supervisor Adaptor II.

11. Uninstalling 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 system of Windows kernel, even though it has been removed.

Solution: For systems that are listed 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 the optional Hardware Management feature, while the driver is installed automatically on Windows Server 2008 or later.

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

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

The IBM 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 the IBM Hardware Management Pack installed.

13. System x Power Data Chart unavailable for multinode servers

Using the System x Power Data Chart monitoring power information for multinode servers (such as System x3850 X5, System X iDataPlex dx360 M4, for example) is not supported in this release.

Workaround: Use the traditional method to monitor power data.

Issues related to discovery of BladeCenter and its modules

The issues listed in this section are related to discovery of BladeCenter and its modules.

It is essential to keep current with the latest firmware level for BladeCenter Advanced Management Module (AMM). Having an outdated firmware level for the AMM 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 BladeCenter to be discovered and monitored correctly. Follow the instructions in the 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 be able to reliably discover the BladeCenter if there is more than one network connection between the BladeCenter AMM and the management server

If the 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 disabling all the other NICs on the management server or through other means to keep the NICs disconnected from the AMM.

2. Time needed for full discovery of a BladeCenter

After the network device discovery for BladeCenter finishes, it may take up to 2 hours for the BladeCenter module discovery process to begin. Also, it can take up to 6 hours for all 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 Operations Manager Console.

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

Issues related to health monitoring of BladeCenter

The issues in this section are related to the health monitoring of BladeCenter.

It is essential to keep current with 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 firmware.

For BladeCenter to be monitored correctly, BladeCenter SNMP settings must be configured correctly. Review the settings by referring to the instructions in the 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 hotfix available for System Center Operations Manager 2007 has been installed.

For more information, see: "Cannot receive SNMP trap data on Windows Server 2008…" described at: http://support.microsoft.com/kb/958936/en-us.

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

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

The "Network Device Monitoring Library" management pack, made by Microsoft for System Center Essential 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 BladeCenter and can confuse IT administrators.

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

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: Set up the 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.

4. BladeCenter storage modules are not monitored

BladeCenter storage modules are not monitored with the Hardware Management Pack Version 5.0.

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

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

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

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

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

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

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

7. BladeCenter may not be able to send out all the SNMP traps when the AMM is extremely overloaded

There are extreme conditions that cause the AMM of a BladeCenter to be overwhelmed, making it unable to send out all the SNMP traps needed for the Hardware Management Pack to report to the 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 may include "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, therefore, the module name for a newly inserted Media Module is provided as "Not available" until it is correctly gathered during the next interval time.

Because the alert source for a Media Module is exactly the module name, the alert source for this Media Module can 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.

Solution/workaround; Non workaround is available at this time.

Tips about Operations Manager

The topics in this section provide some tips and observations about Operations Manager.

1. Objects discovered with a management pack can disappear after the same management pack is deleted and re-imported too quickly

Objects discovered with a management pack can disappear when the same management pack is deleted and re-imported too quickly. If you do not wait long enough before re-importing the MP files, managed systems that were previously added to the Operations Manager might not appear in the Operations Manager Console.

For details about this problem, see the "Discovery information is missing after you delete and then reimport a management pack in Microsoft System Center Operations Manager 2007" article at: http://support.microsoft.com/kb/943307.

Solution/workaround; See the "Resolution" section of the Microsoft knowledge base article mentioned above.

2. Managed servers can be shown in different health states when managed in more than one management groups

To manage servers that are in more than one Operations Manager management group, make sure the same version of the Hardware Management Pack is used for all the management groups to which the servers belong. Otherwise, you might see inconsistent health states or alert reporting of the servers.

Also, because some of the health states managed by the Hardware Management Pack are updated on a timed interval basis, there can be times that a server is in 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 a highest level object.

Workaround: Either perform a manual refresh (by using **F5**) to force the Operations Manager Console to catch up with the latest data, or consult the **Detail state** view of the object for its latest health state.

4. Data disappears in Operations Manager state views after scrolling left and right

Data in the health state views might disappear if you scroll left and right often to browse the many columns in the state view.

Workaround: Do manual refreshes (by using **F5**) to force the Operations Manager Console to catch up with the latest data.

5. After resetting health states through Operations Manger Console, it can take 2 minutes or more for the state to roll up to the topmost level of the state view

After using Health Explorer to reset health states, the most current data can take 2 minutes or more to roll up to the topmost state views and reflect the current health state.

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

6. Value of the Path property of some Operations Manager objects can be empty or wrong

The value of the Path property of some Operations Manager objects can be either empty or incorrect.

IBM System x and x86/x64 blade servers: The Path property for some object classes can be empty. The Path property of all the systems in the root Computers view has an empty value but the Path name property of those objects is not empty. The Hardware Management Pack does not explicitly override the Path property for all 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 the Hardware Management Pack does not override the value explicitly.

IBM BladeCenter: The value of the Path property of IBM BladeCenter Chassis is correct in the **Details** view in the Operations Manager Monitoring pane, but the value can be incorrect in the tabular state view.

Workaround: Look up 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 default settings even after the management pack has been deleted and re-imported

The Microsoft 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 the Hardware Management Pack and reimport it.

Solution/workaround: With Operations Manager 2007 R2, you can click **Revert to default** while personalizing a view.

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

The 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 bring up the context menu

When 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 is not displayed.

Solution/workaround: Right click in other areas within the state view.

10. Warning Alert "Processing backlog events taking long time error" shows when an Operations Manager 2007 SP1 agent is installed on a computer that is running Windows 7 or Windows Server 2008 R2

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

After this occurs, the warning alert

```
Processing backlog events taking long time error
```

is displayed.

Solution/workaround: No workaround is required. Either ignore the events or upgrade to Operations Manager 2007 R2. For more information, see http://support.microsoft.com/kb/974722.

11. Some Simplified Chinese strings display in the Operations Manager Console

Some 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 string in Operations Manager Console

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

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