



System x

IBM Hardware Management Pack for  
Microsoft System Center Operations Manager 2007  
Version 2.2  
Release Notes

*Version 2.2*







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

**Third Edition 1999, 2009**

This edition applies to version 2.2 of the IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007 and to all subsequent releases and modifications until otherwise indicated in new editions.

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## About this release

With the IBM® Hardware Management Pack for Microsoft® System Center Operations Manager 2007, Version 2.2, you can use enhanced features of Microsoft System Center Operations Manager 2007 to communicate with BladeCenter® management modules to discover and monitor the health of IBM BladeCenter chassis and chassis components, and also discover and monitor the health of IBM System x® systems and BladeCenter blade server systems that are installed with IBM Director Core Services or IBM Platform Agent.

Major features of the IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2 include:

- Comprehensive monitoring of the health of BladeCenter chassis components with extended integration of management module events and their implication on BladeCenter blade servers.
- Enhanced monitoring of the health of IBM System x and BladeCenter x86 blade server systems and system components, including reporting all events, whether they are classified or not
- Identifying hardware problems in the Operations Manager Health Explorer more prominently, by rolling up the health of all hardware health monitors to the top-most level
- Creating groups of IBM systems and system components for monitoring at a high level
- Automatically restoring the health state of a component from an error state to a healthy state when an error is resolved, when possible

IBM Hardware Management Pack, Version 2.2 monitors all of the hardware health states that are critical for continuous functioning of your IBM systems. To help you focus on events that might need your attention, the Hardware Management Pack reports errors for all critical health conditions that might impact the system.

## Information resources

You can find additional information about IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2 in the product documentation and on the Web.

## PDF files

View or print documentation that is available in Portable Document Format (PDF).

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## Downloading Adobe® Acrobat Reader

You need Adobe Acrobat Reader to view or print these PDF files. You can download a copy from the [Adobe Web site](#).

## Viewing and printing PDF files

You can view or print the following PDF files. The most current version of each document is available online in the information center and on the product download page. Go to the IBM Web site for Microsoft Systems Management Solutions for IBM Servers at <http://www.ibm.com/systems/management/director/partners/microsoft/> to locate the download links for the following titles, or click any title in the following list to open the version of each book that is in the IBM System x and BladeCenter Tools information center:

- [\*IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2 Release Notes®\*](#)
- [\*IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2 Installation and User's Guide\*](#)

## World Wide Web resources

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

## IBM Web site for Microsoft Systems Management Solutions for IBM servers

IBM Web site for Microsoft Systems Management Solutions for IBM Servers at <http://www.ibm.com/systems/management/director/partners/microsoft/>

Locate the latest downloads for IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2.

## IBM Systems: Technical support site

IBM Systems: Technical support site at <http://www-304.ibm.com/jct01004c/systems/support/>

Locate support for IBM hardware and systems-management software.

## IBM Systems Management Software: Download/Registration page

IBM Systems Management Software: Download/Registration page at <http://www.ibm.com/systems/management/director/downloads.html>

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

### **IBM System x Systems Management page**

IBM System x Systems Management page at <http://www.ibm.com/systems/management/>

Obtain an overview of IBM systems management using IBM Platform Agent or IBM Director Core Services.

### **IBM ServerProven® pages**

System x ServerProven pages at <http://www-03.ibm.com/servers/eserver/serverproven/compat/us/indexsp.html>

BladeCenter ServerProven pages at <http://www-03.ibm.com/servers/eserver/serverproven/compat/us/eserver.html>

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

### **Microsoft System Center Operations Manager 2007 page**

Microsoft System Center Operations Manager TechCenter at <http://technet.microsoft.com/en-us/opsmgr/default.aspx>

Obtain information about 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.

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## Getting started with the Hardware Management Pack, Version 2.2

Use these topics to install the IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2 and use it to discover, monitor, and manage IBM BladeCenter chassis and chassis components, BladeCenter blade servers, System x systems, xSeries systems, eServer systems, and NetFinity systems. You can also learn how to uninstall the management pack, or reinstall the management pack after it has been uninstalled.

### Installation requirements for the IBM Hardware Management Pack

You can install the IBM Hardware Management Pack on an IBM system that is running as a Microsoft System Center Operations Manager management server, or on the root management server (RMS) in a group of management servers. You can install the IBM Hardware Management Pack on other management servers in the same Active Directory domain as the RMS, but you must identify the RMS during installation.

### Supported configurations of managed systems

Several factors contribute to determining the combinations of operating systems and IBM systems that the Hardware Management Pack supports as managed systems.

#### Basic requirements

Software, operating system, and hardware requirements for management servers and managed systems are described in the following sections:

- [Management server requirements](#)
- [Managed system requirements](#)

#### Management server requirements

See "About Deploying Operations Manager 2007" on the Microsoft TechNet at <http://technet.microsoft.com/en-us/library/bb381421.aspx> for information about installing Microsoft System Center Operations Manager 2007 on the root management server (RMS). The IBM Hardware Management Pack, Version 2.2 also installs on the RMS.

#### Supported version of Microsoft System Center Operations Manager

The management server must run Microsoft System Center Operations Manager 2007 SP1 or R2.

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## Supported operating systems

See "Operations Manager R2 Supported Configurations" at <http://technet.microsoft.com/en-us/library/bb309428.aspx> for more information.

Windows Server 2008 editions require hot fixes to run System Center Operations Manager 2007 SP1. System Center Operations Manager 2007 SP1 also requires hot fixes to run on Windows Server 2008. See "Support for running System Center Operations Manager 2007 Service Pack 1 and System Center Essentials 2007 Service Pack 1 on a Windows® Server 2008-based computer" at <http://support.microsoft.com/kb/953141> for information about the hot fixes that are required.

## Supported hardware

Verify that Operations Manager 2007 supports the system hardware and software, as described in "Operations Manager R2 Supported Configurations" at <http://technet.microsoft.com/en-us/library/bb309428.aspx>.

The IBM hardware must also be supported by IBM, as described on the appropriate ServerProven site:

- System x ServerProven pages at <http://www-03.ibm.com/servers/eserver/serverproven/compat/us/indexsp.html>
- BladeCenter ServerProven pages at <http://www-03.ibm.com/servers/eserver/serverproven/compat/us/eserver.html>

## Managed system requirements

Managed systems are any IBM BladeCenter chassis and any IBM systems that run a Windows operating system that Microsoft System Center Operations Manager 2007 supports and a supported version of IBM Systems Director, as described in the following topics.

## IBM BladeCenter chassis requirements

Supported manageable components in IBM BladeCenter chassis units are described in the ServerProven pages at <http://www-03.ibm.com/servers/eserver/serverproven/compat/us/eserver.html>:

### BC-E

<http://www-03.ibm.com/servers/eserver/serverproven/compat/us/blade/8677.html>

### BC-H

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<http://www-03.ibm.com/servers/eserver/serverproven/compat/us/blade/8852.html>

**BC-HT**

<http://www-03.ibm.com/servers/eserver/serverproven/compat/us/blade/8740.html>

<http://www-03.ibm.com/servers/eserver/serverproven/compat/us/blade/8750.htm>

**BC-S**

<http://www-03.ibm.com/servers/eserver/serverproven/compat/us/blade/8886.html>

**BC-T**

<http://www-03.ibm.com/servers/eserver/serverproven/compat/us/blade/8720.html>

<http://www-03.ibm.com/servers/eserver/serverproven/compat/us/blade/8730.html>

Use the current supported firmware level for the advanced management module, as listed in the Advanced Management Module firmware release matrix - IBM BladeCenter page at <http://www-947.ibm.com/systems/support/supportsite.wss/docdisplay?Indocid=SERV-AMM&brandind=5000020#amm>.

**IBM server requirements**

Managed servers must be supported by a supported version of IBM Director, and must run a supported operating system.

You can verify that a system is supported if the system meets the following qualifications.

1. Verify that Operations Manager 2007 R2 supports the system hardware and software. See "Operations Manager Supported Configurations" at <http://technet.microsoft.com/en-us/library/bb309428.aspx> for more information.
2. Verify that IBM Director Agent (Level 2) or IBM Director Core Services (Level 1) supports the system hardware and software. See the following table for links to information about supported hardware and operating systems.

Table 1. IBM System x systems and BladeCenter blade servers that are supported by IBM Director Agent and IBM Director Core Services

IBM Director version	Supported hardware and software
IBM Director 6.1.2	<p>See "Supported hardware" at <a href="http://publib.boulder.ibm.com/infocenter/director/v6r1x/index.jsp?topic=/director.plan_6.1/fqm0_r_hardware_compatibility.html">http://publib.boulder.ibm.com/infocenter/director/v6r1x/index.jsp?topic=/director.plan_6.1/fqm0_r_hardware_compatibility.html</a> for information about supported BladeCenter blade servers, System x servers, xSeries® servers, eServer servers, and NetFinity servers.</p> <p>See "Supported operating systems" at <a href="http://publib.boulder.ibm.com/infocenter/director/v6r1x/index.jsp?topic=/director.plan_6.1/fqm0_r_os_supported_by_ibm_director_6_12.html">http://publib.boulder.ibm.com/infocenter/director/v6r1x/index.jsp?topic=/director.plan_6.1/fqm0_r_os_supported_by_ibm_director_6_12.html</a> for information about IBM Systems Director 6.1.2 operating system support.</p>
IBM Director 5.20.x	<p>See "Supported hardware" at <a href="http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo_5.20/fqm0_r_hardware_compatibility.html">http://publib.boulder.ibm.com/infocenter/eserver/v1r2/topic/dirinfo_5.20/fqm0_r_hardware_compatibility.html</a> for information about supported BladeCenter blade servers, System x servers, xSeries® servers, eServer servers, and NetFinity servers.</p> <p>See "Supported operating systems" at <a href="http://publib.boulder.ibm.com/infocenter/eserver/v1r2/index.jsp?topic=/dirinfo_5.20/fqm0_r_supported_operating_systems.html">http://publib.boulder.ibm.com/infocenter/eserver/v1r2/index.jsp?topic=/dirinfo_5.20/fqm0_r_supported_operating_systems.html</a> for information about IBM Director 5.20.x operating system support.</p>

3. Verify that the operating system is supported by the System x system or BladeCenter blade server. See the following links for information about supported operating systems:
  - For operating systems supported by System x systems, see the System x ServerProven pages at <http://www-03.ibm.com/servers/eserver/serverproven/compat/us/indexsp.html>.
  - For operating systems supported by BladeCenter blade servers, see the BladeCenter ServerProven pages at <http://www-03.ibm.com/servers/eserver/serverproven/compat/us/eserver.html>.
4. Verify that the IBM Director Agent or the IBM Director Core Services version is supported by the Hardware Management Pack. The following versions are supported:

Table 2. Supported components of IBM Director

<b>IBM Director Version</b>	<b>IBM Director Agent (Level 2)</b>	<b>IBM Director Core Services (Level 1)</b>	<b>IBM Systems Platform Agent</b>
IBM Director 6.1.2	N/A	N/A	X
IBM Director 6.1.1	N/A	N/A	Not supported
IBM Director 5.20.31 and later	X	X	N/A
IBM Director 5.20.2	X	X	N/A
IBM Director 5.20.1	Not supported	Not supported	N/A
IBM Director 5.20	X	X	N/A

5. IBM Director 5.20.1 components are not supported due to a known compatibility issue.

## **Installing IBM Hardware Management Pack, Version 2.2**

The installation package for this management pack installs the IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2 on both 32-bit and 64-bit systems. Complete installation instructions, including other system requirements, are provided in the IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2 *Installation and User's Guide* (IBM HW MP v2.2 Users Guide.pdf).

## **Installing Microsoft Systems Center Operations Manager 2007 R2**

Go to the *Operations Manager 2007 Quick Start Guide* Web site at <http://technet.microsoft.com/en-us/library/bb418758.aspx> to install Microsoft System Center Operations Manager 2007.

See [Supported version of Microsoft System Center Operations Manager](#) for information about installing hot fixes when you are installing Microsoft System Center Operations Manager 2007 SP1 on a Windows 2008 Server system.

## **Uninstalling any previously installed version of the IBM Hardware Management Pack**

Uninstall IBM Hardware Management Packs for Microsoft System Center Operations Manager 2007 any earlier Version manually before installing Version 2.2.

Remove the management pack entries from the Operations Console of the Microsoft System Center Operations Manager and then uninstall the software package using the "Add or Remove Programs" function in the Windows Control Panel.

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## Locating and launching the correct installation package

This release contains one installation package for Microsoft Operations Manager 2007, to discover and monitor IBM BladeCenter chassis and IBM System x and BladeCenter x86 blade systems. Go to the IBM Web site for Microsoft Systems Management Solutions for IBM Servers at <http://www.ibm.com/systems/management/director/partners/microsoft/> to download the following installation package:

**Version 2.2 (32-bit and 64-bit):** IBM\_HW\_MP\_V2.2.xx\_setup.zip

The xx part of the name is an internal IBM tracking number.

Log on as Administrator and launch the installer by double clicking on the package after you download it.

After the installation, launch to the Administration pane of the Operations Manager console, manually import the IBM Hardware Management Packs through the Management Pack Wizard. The Management packs locate on "C:\Program Files\IBM\IBM HW Mgmt Pack for OpsMgr 2007\Management Packs" by default.

After successfully imported, the Management Packs might take up to two minutes to display in the Operations Manager console.

In the Administration pane of the Operations Manager console are three components that indicate a successful installation:

- IBM Hardware Management Pack - Common Library
- IBM Hardware Management Pack for IBM System x and BladeCenter x86 Blade Systems
- IBM Hardware Management Pack for IBM BladeCenter Chassis and Modules

## Uninstalling IBM Hardware Management Pack, Version 2.2

To uninstall, place the server where you are uninstalling in maintenance mode, remove the management pack entries from the Operations Console of the Microsoft System Center Operations Manager and then uninstall the software package using the "Add or Remove Programs" function in the Windows Control Panel.

## Removing the management packs from the Operations Console of the Microsoft System Center Operations Manager

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Find the BladeCenter blade server or System x server where you are uninstalling in the Operations Manager console, right-click the server, and click **Maintenance Mode** -> **Start Maintenance Mode** from the context menu.

Use the console to manually remove the IBM Hardware Management Pack, Version 2.2 management packs from the console.

Use the Microsoft System Center Operations Manager console Administration pane to select and manually remove all three management packs that are included in the IBM Hardware Management Pack, Version 2.2:

- IBM Hardware Management Pack - Common Library
- IBM Hardware Management Pack for IBM System x and BladeCenter x86 Blade Systems
- IBM Hardware Management Pack for IBM BladeCenter Chassis and Modules

Then remove the software package and files as described in [Uninstalling the software package using the "Add or Remove Programs" function in the Windows Control Panel](#).

### **Uninstalling the software package using the "Add or Remove Programs" function in the Windows Control Panel**

Remove the management pack entries as described in [Removing the management packs from the Operations Console of the Microsoft System Center Operations Manager](#).

Then uninstall the software package and the files entirely using the "Add or Remove Programs" function in the Windows Control Panel. Select **Remove** on the **IBM Hardware Management Pack, v2.2, for Microsoft System Center Operations Manager 2007** entry.

### **Downgrading to a previous version**

To downgrade the IBM Hardware Management Pack to a previous version, uninstall the current version and reinstall the earlier version.

### **File and registry locations**

By default, the installation files for IBM Hardware Management Pack, Version 2.2 are installed into the following directory:

%ProgramFiles%\IBM\IBM HW Mgmt Pack for OpsMgr 2007

The registry path for the IBM Hardware Management Pack, Version 2.2 entry is:

HKEY\_LOCAL\_MACHINE\SOFTWARE\IBM\IBM HW Mgmt Pack for OpsMgr 2007

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## Reinstalling IBM Hardware Management Pack, Version 2.2

If you recently removed management packs from the Microsoft System Center Operations Manager 2007 console, wait for the settings to get propagated to the Operations Manager database before you reinstall.

If you do not wait for the removal of the management packs to register, reinstalling can result in managed clients that are not listed in the Operations Manager console.

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> on the Microsoft Web for information about this known limitation for Microsoft System Center Operations Manager 2007.

If you remove the management packs from the console, you detach the Hardware Management Pack from the Operations Manager server. You must then reinstall the Hardware Management Pack into Operations Manager 2007 to add the management packs back to the console view.

See [Installing IBM Hardware Management Pack, Version 2.2](#) for more information.

## Discovering IBM systems to manage

To add an IBM system into the management scope, follow the procedures for configuring discovery and using the Microsoft System Center Operations Manager 2007 discovery wizards for IBM BladeCenter chassis and components and for IBM System x and BladeCenter x86 blade systems, as described in the *User's Guide*.

## Known limitations

The following limitations, problems, and workarounds are applicable to IBM Hardware Management Pack for Microsoft System Center Operations Manager 2007, Version 2.2.

## Known issues and limitations of Microsoft System Center Operations Manager 2007

The following known issues and limitations are applicable to Microsoft System Center Operations Manager 2007.

### 1. A missing software error does not display after uninstalling an OSA IPMI driver

A software missing critical alert warning does not display after uninstalling the Intelligent Platform Management Interface (IPMI) driver for an Open Systems Adapter (OSA) device. The OSA IPMI device driver is used to communicate with the IPMI baseboard management controller (BMC) on the device.

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After uninstalling the driver, a software failed critical error warning does display, but not the software missing error warning that you might expect.

Because of how Windows plug-and-play works, uninstalling the IPMI driver causes the BMC to disappear, leaving no error on the management software.

The BMC is in both the System Management BIOS (SMBIOS) and the Advanced Configuration and Power Interface (ACPI).

This is a known issue in IBM Hardware Management Pack, Version 2.2.

## **2. Errors when uninstalling when the Operations Manager Console is online**

If you uninstall the Hardware Management Pack on the root management server (RMS) while other management servers are online and connected to the RMS, you might see a series of errors on the Operations Manager Console immediately after the uninstall. The errors are of this form:

```
Invalid Column Name ...
```

You can ignore any such errors that you might see when the cursor focus is on one of the views that was uninstalled. You can also ignore any other related errors, such as `Collection was modified; enumeration operation may not execute` that might display after the uninstall.

## **3. Alerts and events show up late, after the managed system comes back online and reconnects to the Operations Manager Server**

All alerts and events from the Hardware Management Pack depend on the Microsoft Health Service on the managed system to communicate the alert or event back to the Operations Manager Server. If the network connection between the Operations Manager Server and the managed system is broken, or if the managed system stays offline, no alerts or events are communicated to the Operations Manager Server. When the network connection resumes, the cached alerts and events begin to flow to the Operations Manager Server.

When this situation occurs, you might see older alerts and events in the cache as the backlog of alerts and events is communicated and the cache is cleared.

## **4. A three-or-four-minute or longer lag time after discovery and adding a managed system**

Once a managed system is added to the Operations Manager Server scope, as much as three to four minutes or longer might pass before the system and component

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health states begin to populate correctly in the Operations Manager Console. The lag time varies due to network speed and default settings for refresh intervals.

**Workaround:** You can perform manual refreshes periodically to display the discovered components more quickly.

## 5. No data is displaying in state views

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

**Workaround:** A manual refresh causes the data to be displayed again.

## 6. Dashboard views cannot be resized

In the Monitoring pane dashboard are separate views for the "IBM System x and BladeCenter x86 systems" state view and the "IBM Systems Hardware Components" state view. You cannot adjust the height of these two views or of any dashboard view.

This is normal behavior for Microsoft System Center Operations Manager 2007.

## 7. The Monitoring pane shows the Path property as empty or with the wrong information

**For IBM System x and BladeCenter x86 blade systems:** The `Path` property for some object classes can be empty. All systems in the root Computers view have an empty `Path` property value, but do have a non-empty `Path name` property. All objects coming directly from the Windows Computers view also have an empty `Path` value unless the Hardware Management Pack explicitly overrides it.

**For IBM BladeCenter chassis:** The problem is under **Monitoring -> IBM BladeCenter**. The view does not show correct data for **Path**.

The **Detail** view does display the correct value for the BladeCenter chassis path.

Also, both the **Monitoring -> IBM BladeCenter -> IBM BladeCenter Modules -> IBM BladeCenter Chassis** view and the corresponding **Detail** view display the correct value for the BladeCenter chassis path.

All other views have the correct **Path** value.

This is normal behavior for Microsoft System Center Operations Manager 2007.

## 8. An out-of-disk-space condition on a managed system might prevent health monitoring and event alerts

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Client-side, script-based, in-band management packs like the IBM Hardware Management Pack, Version 2.2 and the Microsoft Operations Manager Agent require disk space on the managed system. If the disk space runs out on the managed system, the scripts in the Hardware Management Pack cannot launch and cannot communicate health data and alerts to the Operations Manager Server, until disk space is available.

The disk drive of concern is the drive with the %TEMP% folder of the Local System Account, which is the user account that the Operations Manager Health Service Modules run under. This %TEMP% folder almost always is the system drive where Windows is installed.

Microsoft does not recommend an amount of disk space that should be reserved, but the amount of disk space in the %TEMP% drive is controlled by the per-user TEMP environment variable.

When this situation occurs, the event log of the Operations Manager Agent on the managed system might have entries that are similar to the entries in the following examples.

**Example 1:**

```
Event Type: Warning
Event Source:      Health Service Modules
Event Category:   None
Event ID: 10363
Date:             04/20/08
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: ValX64

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  
Event ID: 9100  
Date: 04/20/08  
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: Adamgrp1

For more information, see Help and Support Center  
at <http://go.microsoft.com/fwlink/events.asp>.

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This is a known Microsoft System Center Operations Manager 2007 limitation.

**Workaround:** Create free space on the %TEMP% drive for the Local System Account.

## 9. Views and columns do not revert to default settings, even after deleting the Management Pack and importing it back into the Operations Manager

The Microsoft Operations Manager Console provides sticky views, which are remembered from session to session. Such views are remembered even if you delete the Hardware Management Pack and import it back.

This is normal behavior for Microsoft System Center Operations Manager 2007.

## 10. Messages declaring a dependency on the Default Management Pack

When attempting to delete the Hardware Management Pack, a message similar to the following example might be 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.
```

These messages mean that there are one or more overrides of the rules or monitors in the Hardware Management Pack. The overrides were saved in the Default Management Pack, or in the management pack that is listed in the message.

This behavior is normal for Microsoft System Center Operations Manager 2007.

You can save overrides in a custom management pack and delete the overrides or import the overrides, if necessary. Using a custom management pack in this way can make such tasks less cumbersome.

**Workaround:** You can delete the management pack that you created to store the overrides of the rules or monitors to prevent dependency messages when you attempt to delete the Hardware Management Pack.

## 11. A "reset health" request might take two minutes or more to update the top-most health state views

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

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**Workaround:** Performing a manual refresh of the information by pressing **F5** can speed up the display of the current information.

## **12. No data for a right-click on a blank space in the "All IBM System x and BladeCenter x86 systems" state view**

When you right-click a blank space between the last system line and the horizontal scroll bar, the Data and Status information is no longer displayed.

This is a known Microsoft System Center Operations Manager 2007 limitation.

**Workaround:** Pressing **F5** refreshes the display of information.

## **13. Waiting for an uninstall to register before reinstalling**

If you recently removed management packs from the Microsoft System Center Operations Manager 2007 console, wait for the settings to get propagated to the Operations Manager database before you reinstall.

If you do not wait for the removal of the management packs to register, reinstalling can result in managed clients that are not listed in the Operations Manager console.

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> on the Microsoft Web for information about this known limitation for Microsoft System Center Operations Manager 2007.

## **14. The overall BladeCenter chassis state might not reflect the current state of each of its components**

The overall state of a BladeCenter chassis in the Microsoft System Center Operations Manager might not reflect the current state of each of its components. You must go to the detail state view to view the state of each component in a chassis.

This is normal behavior for Microsoft System Center Operations Manager 2007.

**Workaround:** Press **F5** to refresh the display of information, or wait for the component health to roll up to the aggregate view.

## **15. A "Script or executable failed to run" alert shows on some or most of the managed systems when uninstalling the IBM Hardware Management Pack**

Microsoft System Center Operations Manager 2007 runs several scripts at certain intervals. If a script is running when you uninstall the IBM Hardware Management Pack, Version 2.2 from a management server in the same Active Directory domain as a root management server, a script failure occurs. The failure can cause alerts on management servers in the same Active Directory domain.

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**Workaround:** To avoid such failures, the best workaround is to place the management server in maintenance mode before uninstalling the IBM Hardware Management Pack, Version 2.2 on that management server.

Find the BladeCenter blade server or System x server where you are uninstalling in the Operations Manager console, right-click the server, and click **Maintenance Mode** -> **Start Maintenance Mode** from the context menu.

## 16. Uninstalling the IBM Hardware Management Pack on Windows Server 2008 might prompt an alert about a running script

In some instances, if you uninstall the IBM Hardware Management Pack, Version 2.2 while a script is running, an alert dialog prompts you that a script is running.

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

Otherwise, right-click the BladeCenter blade server or System x server that is causing the alert, click **Maintenance Mode** -> **Start Maintenance Mode** from the context menu, and then click **Try again** to continue the uninstall.

Waiting for scripts to finish running is normal behavior for Microsoft System Center Operations Manager 2007.

## 17. Inconsistent behavior when cross managing a client

Avoid managing a managed client object from more than one management group within an IBM Hardware Management Pack, Version 2.2 console. If you do manage a client from more than one management group, you might see inconsistent behavior, such as an inconsistent health state or other inconsistent reporting between groups.

## 18. Microsoft System Center Operations Manager 2007 cannot receive SNMP trap event on Windows Server 2008

Microsoft System Center Operations Manager 2007 on Windows Server 2008 cannot receive SNMP trap events from the BladeCenter management module for events on IBM BladeCenter chassis and chassis modules.

**Workaround:** Install the following Microsoft System Center Operations Manager 2007 hotfix to fix this problem:

<http://support.microsoft.com/kb/958936/en-us>

After installing the hotfix, Microsoft System Center Operations Manager 2007 can receive SNMP trap events from the BladeCenter management module for events on chassis and chassis modules.

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## 19. Critical alerts may change to warning alerts if the error severity reported by the IBM Director Agent has changed

The severity of an Alert may change while users are trying to resolve the issue, therefore, a Critical alert may turn to a warning during the process.

Navigate the Health Explorer to track alerts status changes history.

## Known issues and limitations of the Hardware Management Pack, V2.2

The following issues and limitations are related to the Hardware Management Pack.

### 1. The Hardware Management Pack might support discovery, health monitoring, and alerting for some older systems that are categorized as "Unclassified"

An older system might be categorized as an unclassified IBM system, although it is recognized as an IBM system. Component discovery, health monitoring, and alerting might be active, so long as IBM Director Agent supports the discovery, monitoring, and alerting.

This is normal behavior for the Hardware Management Pack.

### 2. Older management controllers might not be discoverable

Older versions of service processors cannot be discovered. These older service processors include the ASM PCI Adapter, the ASM processor, and ISMP, all of which are not discoverable. However, components that these older service processors manage might be discovered and monitored if IBM Director Agent supports their discovery and monitoring.

This is normal behavior for the Hardware Management Pack.

**Workaround:** To achieve full health monitoring and management coverage of your entire hardware system:

1. Upgrade to a newer system that is equipped with a Baseboard Management Controller (BMC) service processor, or that is equipped with RSA-II.
2. Install the latest supported management firmware, as described on the IBM support Web site.

### 3. Manual health reset required for some component events

The IBM Hardware Management Pack can automatically reset the health status of some components when there is specific enough information to reset the health

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status of the component. Other component events are too generic to establish a baseline for resetting the health. In these cases, you must reset the status manually.

You must manually reset the normal health state of components that recover from the following problems:

- Security health problems
- Storage health problems
- Nonspecific device problems, such as a generic processor error
- Platform-specific extended events, such as a processor temperature that is too hot, without an out-of-processor-chip temperature sensor

This is normal behavior for the Hardware Management Pack.

#### 4. Estimated lag time for discovery

After the Discovery Wizard indicates that the discovery task has completed successfully, it might take two or more minutes for an IBM system to show up in the **Windows Computer on IBM System x and BladeCenter x86 Blade Systems** view. The time for all hardware components to be discovered and to start indicating their health state might take five minutes or longer.

The longest wait time for all servers, BladeCenter chassis, and BladeCenter chassis modules to show up is about 18 hours.

Latency is subject to a variety of directly related influences:

- The number of managed systems in the discovery task
- The performance of the Operations Manager database
- The amount and speed of network traffic

See also the known Microsoft Operations Manager issue, [4. A three-or-four-minute or longer lag time after discovery and adding a managed system](#).

**Workaround:** A lag time for discovery is normal behavior for the IBM Hardware Management Pack. However, you can override default monitoring interval values to set a shorter interval. Click **Resources** -> **System Center Operations Manager Help** to find more information about overrides in the online help.

#### 5. Using the Operations Manager Console on a management server without installing the IBM Hardware Management Pack prevents the use of the knowledge pages

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If you are using the Operations Manager Console on a server that does not have the IBM Hardware Management Pack installed, the IBM knowledge pages cannot be displayed. The IBM Hardware Management Pack must be installed on the server to see the IBM knowledge pages on the console of that server.

**Workaround:** Use the Operations Manager 2007 Console on a management server that has the IBM Hardware Management Pack installed to manage the environment and view all IBM knowledge pages.

## 6. No power supplies, volt sensors, and fans health state for blade servers

After discovery of an IBM System x system, the IBM Hardware pane shows **IBM System x and BladeCenter x86 systems** under the **IBM Hardware** components. After selecting **IBM Power Supplies**, the view is empty.

Neither power supplies, volt sensors, nor fans are reported in the **HW Components** for blades, but are available through the health reflection from the BladeCenter chassis view.

This is normal behavior because BladeCenter chassis components are not components of a blade server.

## 7. The installation program for the IBM Hardware Management Pack, Version 2.2 does not prompt you to upgrade any previous IBM Hardware Management Pack installation

The installation program does not indicate that a previous installation of the IBM Hardware Management Pack exists.

You must manually uninstall any earlier IBM Hardware Management Pack Version installation.

## 8. Some alerts might not post when the management server is a Windows Server 2008 system

If the management server is installed on a 32-bit Windows Server 2008 system, some hardware alerts for managed systems might not be posted in some circumstances.

If you select the **Availability BMC -> Regular health checkup monitor for BIOS requires an update for management controller to function**, some hardware events are displayed in the Microsoft System Center Operations Manager 2007 root management server (RMS).

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For the complete list of systems that do not have a BIOS update for the baseboard management controller (BMC) that supports Windows Server 2008, see the following document:

**IPMI tasks/applications cannot access the on-board BMC - IBM System x** at <http://www-947.ibm.com/systems/support/supportsite.wss/docdisplay?brandind=5000008&Indocid=MIGR-5075267>

## **9. The root management server and other management servers are not discovering or monitoring BladeCenter chassis units**

Use the procedure documented in the *User's Guide* to set up the root management server (RMS) and additional management servers in the same Active Directory domain and to communicate with the BladeCenter chassis using SNMP. Otherwise, the RMS and other management servers are not able to use SNMP to discover and monitor each BladeCenter chassis and chassis modules. Also, you must use the management module of each BladeCenter chassis to properly configure SNMP to communicate with all management servers, as documented in the *User's Guide*.

## **10. BladeCenter chassis storage modules show a "Not Monitored" value for storage disk drives**

This is normal behavior for IBM Hardware Management Pack, Version 2.2, which does not monitor chassis disk drives.

## **11. Some hardware properties might be blank**

Some systems might not be accurately displayed for various reasons.

Installing currently supported maintenance updates for your systems might provide support and report values for previously blank properties.

For example, the Media tray field replaceable unit part number and its serial number under **Monitoring** -> **IBM Hardware** -> **IBM BladeCenter(s) and Modules** -> **IBM BladeCenter Modules** -> **IBM BladeCenter Media Modules** are blank fields. This is normal behavior when a firmware version for the management module does not support the SNMP commands for these two properties.

## **12. Some BladeCenter module incompatibilities might not be reported due to a limited SNMP scope supported by the BladeCenter management module**

Similar to the previous limitation, if the firmware version for the management module does not support the SNMP command for reporting an I/O module compatibility problem, the problem is not reported in the IBM Hardware Management

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Pack. The regular health checkup monitor for an I/O module in the IBM Hardware Management Pack is supposed to report an I/O module incompatibility, but cannot because the management module has not yet implemented the SNMP command support for the incompatibility.

### **13. The installation program fails if you exit during identification of the root management server (RMS) on Windows Server 2008**

When you install the IBM Hardware Management Pack on a management server in the same Active Directory as the root management server, the installation program prompts you to identify a root management server. If you exit without identifying an RMS, the installation program fails and the installation rolls back. No damage occurs. This is a known problem when installing IBM Hardware Management Pack, Version 2.2 on a Windows Server 2008 system.

### **14. Operations Manager Administrators user role is required when installing the IBM Hardware Management Pack**

When importing the three IBM management packs within IBM Hardware Management Pack, Version 2.2, a connection to the Management Group must exist during the installation. To connect to the Management Group, you must be a member of the Operations Manager Administrators user role. Otherwise, you might encounter problems trying to import the management packs.

### **15. Disconnected or disabled NIC in a dual-NIC system always indicates an error on the managed system**

Some managed IBM servers might have dual network interface card (NIC) connections. If you disable or unplug the connection cable to one of the NICs, the IBM Hardware Management Pack displays a warning icon for the NIC and an error in the Health Explorer view of the managed system.

### **16. Knowledge articles are not available on a console that is open during the installation of the IBM Hardware Management Pack, Version 2.2**

If you keep the Operations Console open during the installation of the IBM Hardware Management Pack, Version 2.2, you cannot display the IBM knowledge articles.

**Workaround:** Close the Operations Console and reopen it to enable the links to the IBM knowledge articles.

### **17. All IBM event number IDs are displayed as "0" in the IBM Hardware Management Pack, Version 2.2 Event view**

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This is a known issue for IBM Hardware Management Pack, Version 2.2.

**Workaround:** Use the **Event Detail** view to get more specific data.

### **18. "Not available" shows on media module name and alert source**

If the media module is removed from a BladeCenter chassis before a discovery, the media module name and alert source might be displayed as "Not available".

This is a known issue for IBM Hardware Management Pack, Version 2.2.

**Workaround:** If the media module is replaced in the BladeCenter chassis, the next discovery updates the display of the media module data correctly.

### **19. Critical alerts will show on Both Director Core Service and RSA if Director Version is 6.1.2**

Only systems that have only RSA and don't have BMC/IMM are not supported by Platform agent version 6.1.2. Systems with BMC, regardless of having RSA, are supported by Platform agent version 6.1.2.

While Operations manager will display Critical Alerts on both "Director Core Service" software and "IBM RSA Daemon" software if the Platform agent version is 6.1.2.

This is a known issue for IBM Hardware Management Pack, Version 2.2.

### **20. Warning states will show in the Event Viewer of Operations Manager**

EventID 1000 or 1001 will show in the Event Viewer of Operations Manager. They remind that the BladeCenter is started discovery or successfully discovered.

This is a normal behavior for IBM Hardware Management Pack, Version 2.2.

### **21. Not monitored value will show for the "IBM System Blade-BladeCenter Health association"**

"Not monitored" value will show for the "IBM System Blade-BladeCenter Health association" of IBM System Blade Servers. Alert monitor for IBM BladeCenter OOB state reflection will not work.

This is a known issue for IBM Hardware Management Pack, Version 2.2.

### **Other known issues and limitations**

The following issues and limitations are related to monitoring IBM systems.

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## 1. No events are generated for logging on to a System x or xSeries server through the IBM Remote Supervisor Adaptor (RSA) II

Install the most current firmware for the IBM Remote Supervisor Adaptor II to enable event logging.

This is a known limitation for the IBM RSA II card.

## 2. No alerts are generated when the RSA event log crosses the capacity threshold, or when the event log is full

When the event log is 75% full or full, no events or alerts are displayed on the Microsoft System Center Operations Manager 2007 server. However, events are displayed on the IBM Systems Director server.

Install the most current firmware for the IBM Remote Supervisor Adaptor II to enable event logging.

This is a known limitation for the IBM RSA II card.

## 3. Not all components in every system are discoverable, and not all hardware events are reportable events on every system

Component discovery and health monitoring depend on hardware capability, firmware support, and management software support. Some systems might have more than one physical power supply, for example, but perhaps 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 on all hardware platforms.

This is normal behavior for the Hardware Management Pack.

**Workaround:** To achieve full health monitoring and management coverage of your entire hardware system, upgrade to a newer system that is equipped with a Baseboard Management Controller (BMC) service processor, or that is equipped with RSA-II.

## 4. All WinEvents are reported under one monitor

The IBM Hardware Management Pack has limited support for tools like `WinEvent.exe` that generate IBM Director events, but do not fully prescribe specific target instances.

In some circumstances, the `WinEvent.exe` tool does not support correctly the event ID and the event description. This improper support makes the `WinEvent.exe` tool unreliable for displaying all events.

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Successfully simulated events are displayed in the Operations Manager Console under the Alerts view and the Events view.

**Note:**

Monitored systems that have IBM Director Agent 5.1.x installed and that use the `WinEvent.exe` tool can cause errors to resurface even after you manually clear the alerts from the Health Explorer view. To eliminate such event recurrence, delete the `IBM\director\cimom\data\health.dat` file and all `IBM\director\cimom\data\health.dat\*.evt` files from the client system and restart the system.

## **5. Lingering WinEvents can cause errors with Director Agent 5.1.x**

The managed systems display a critical error icon, but do not display any alerts.

When viewing the Health Explorer, errors display for the regular "Health check up monitor for all IBM storage - All storage".

This is a known problem when IBM Director level 1 5.10 or 5.10.x is installed.

## **6. Some BladeCenter alerts and events might not display if an old firmware version is installed on the management module**

A BladeCenter chassis management module might not generate all of the proper alerts and events for the chassis and its components if the management module has an old firmware level. Download the current firmware from the IBM support Web site.

## **7. Removing the primary management module in a BladeCenter chassis does not generate an alert**

A BladeCenter chassis management module cannot generate an alert to the root management server (RMS) when the management module is removed because there is no outbound connection for the event to be communicated. You can examine the event log of the management module to see if corresponding entries exist for such events.

## **8. The root management server (RMS) can miss BladeCenter chassis events and alerts when the activity level is extremely high**

BladeCenter chassis components can rarely generate so many BladeCenter events that the management module is overwhelmed and cannot report all of the alerts and events to the IBM Hardware Management Pack.

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

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## 9. Alert of Handle Count Threshold Exceeding of Health Service and the corresponding monitor reports error on Operations Manager servers, after installing IBM Hardware Management Pack v2.2

On a Microsoft Windows Server 2008 server that hosts the Microsoft System Center Operations Manager 2007 server, an alert might occur and the Operations Manager server might be displayed in a critical state.

Open Health explorer to check the alert. Click **Performance** -> **Windows local Application Health Rollup** -> **Performance** -> **Health Service Performance** -> **Health Service** -> **Handle Count Threshold** to find the "Too many rules and monitors are loaded from all the management packs this Health Service has been configured with." message.

**Workaround:** If you encounter this error, consult 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> on the Microsoft Web for more details, and consult Microsoft for a fix to this problem. Alternatively, you can restart the Health Service and reset the health state manually every time such an error occurs.

## 10. BladeCenter Chassis can not be detected or discovered on SCOM 2007 R2 if the SCOM server has Multiple network connections

IBM BladeCenter may not be discovered through Operations Manager's Network Device Discovery Wizard on SCOM 2007 R2 if this SCOM server has multiple network connections, users should contact Microsoft for help.

**Workaround:** Disable all other network connections and keep one connection only enabled or add all the IP addresses to the BladeCenter's AMM protocol setting.

## 11. No power supply instances in xSeries 335 system with Director Core service 5.20.31.

Operations manager will not report power supply instances in some xSeries 335 systems with Director Core service 5.20.31.

## 12. Same events will show different results on different versions of IBM Director Agent

Some events may show critical alerts if using Core Services 5.20.31 while show only warnings if using Platform Agent 6.1.2

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## 13 Multi-slots blade servers can not be discovered

Operations manager may not display a multi-slots blade servers in a chassis with AMM firmware Build ID BPET50C.

**Workaround:** Downgrade the AMM firmware with BPET48N.

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