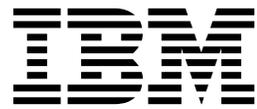


IBM Storage Management Pack for Microsoft System  
Center Operations Manager (SCOM)  
Version 2.7.0

*Release Notes*



**First Edition (December 2017)**

This edition applies to version 2.7.0 of the IBM Storage Management Pack for Microsoft System Center Operations Manager software package. Newer document editions may be issued for the same product version in order to add missing information or amend typographical errors. The edition is reset to 'First Edition' for every new product version.

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## Overview

The IBM® Storage Management Pack for Microsoft System Center Operations Manager (SCOM) is a set of software modules, or management packs, which allow you to access and monitor IBM storage systems using the host-based Microsoft SCOM interface.

Each individual management pack includes modules for monitoring the storage system's alerts, events, health state, physical components, and logical components. In addition, graphic diagrams show a visual representation of the hierarchy and relationship of selected storage system components, with more detailed information.

You can download the IBM Storage Management Pack for Microsoft SCOM software package at any time from the IBM Fix Central website ([www.ibm.com/support/fixcentral](http://www.ibm.com/support/fixcentral)).

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## Compatibility and requirements

This section specifies the compatibility and requirements of version 2.7.0 of the IBM Storage Management Pack for Microsoft SCOM.

### Supported operating systems

The IBM Storage Management Pack for Microsoft SCOM can be installed on any Microsoft Windows or Windows Server operating system that is supported by the Microsoft SCOM version that you are using.

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**Note:** This version of the IBM Storage Management Pack for Microsoft SCOM can be installed on all site servers that run SCOM agents, in addition to the regular installation on the SCOM management server.

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- For a complete list of operating systems supported by Microsoft System Center Operations Manager 2012 (including SP1 and R2), see the Microsoft System Center Operations Manager 2012 technical information website ([technet.microsoft.com/en-us/library/hh205990.aspx](http://technet.microsoft.com/en-us/library/hh205990.aspx)).

### Supported storage systems

Version 2.7.0 of the IBM Storage Management Pack for Microsoft SCOM supports different IBM storage systems, as listed in the following table.

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**Important:** The IBM Storage Management Pack for Microsoft SCOM can detect the following IBM storage systems over IPv4 connections only.

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| Storage system          | Microcode version   | Compatibility note |
|-------------------------|---|--------------------|
| IBM FlashSystem® A9000  | 12.0.x, 12.1.x, 12.2.x  | N/A                |
| IBM FlashSystem A9000R  | 12.0.x, 12.1.x, 12.2.x  | N/A                |
| IBM XIV® Storage System | 10.2.2, 10.2.4.x<br>11.0.0, 11.1.x, 11.2.x, 11.3.x,<br>11.4.x, 11.5.x, 11.6.x | N/A                |

| Storage system                             | Microcode version                              | Compatibility note   |
|--|--|--|
| IBM Spectrum Accelerate™                   | 11.5.x   | N/A  |
| IBM Storwize® V3500                        | 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 8.1.x  | N/A  |
| IBM Storwize V3700                         | 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 8.1.x  | N/A  |
| IBM Storwize V5000                         | 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 8.1.x       | N/A  |
| IBM Storwize V7000                         | 7.1, 7.2, 7.3, 7.4, 7.5, 7.6., 7.7, 7.8, 8.1.x | N/A  |
| IBM Storwize V7000 Unified                 | 1.4.2, 1.4.3, 1.5.0                            | Only block storage is supported. File shares and file systems are not supported. |
| IBM SAN Volume Controller                  | 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 8.1.x  | N/A  |
| IBM FlashSystem V9000                      | 7.7, 7.8, 8.1.x                                | N/A  |
| IBM Spectrum Virtualize (as software only) | 7.7.1  | N/A  |
| IBM DS8700                                 | 5.4.3, 5.5.1                                   | N/A  |
| IBM DS8800                                 | 6.x  | N/A  |
| IBM DS8870                                 | 7.0, 7.1, 7.2, 7.3, 7.4, 7.5                   | N/A  |
| IBM DS8880                                 | 8.0, 8.1, 8.2, 8.3                             | N/A  |
| IBM CIM Agent for DS8000® Open API         | 5.4.3, 5.5.1, 5.6.x                            | Applies to the embedded DS CIM agent version                                     |
|  | 5.7.0, 5.7.1, 5.7.2, 5.7.4, 5.8.1              |  |
|  | 5.4.0  | Applies to the proxy DS CIM agent version  |

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**Note:** Newer microcode versions may also be compatible. When a newer microcode version becomes available, refer to the Lifecycle and support matrix page on IBM Knowledge Center to check whether the new microcode version is also supported.

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**Attention:** Although the proxy DS8000 CIM agent supports IBM DS8000, IBM DS6000™, and IBM Enterprise Storage Server® (ESS) systems, the DS6000 and ESS systems are not supported by the IBM Storage Management Pack for Microsoft SCOM.

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## Required software on the host

Prior to installing the IBM Storage Management Pack for Microsoft SCOM, one of the following Microsoft SCOM versions must be installed on the host system.

- Microsoft System Center Operations Manager 2012
- Microsoft System Center Operations Manager 2012 SP1
- Microsoft System Center Operations Manager 2012 R2
- Microsoft System Center Operations Manager 2016

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## Change log

This section summarizes the changes made in different version releases of the IBM Storage Management Pack for Microsoft SCOM.

### Version 2.7.0 (December 2017)

Version 2.7.0 adds support for Microsoft System Center Operations Manager 2016 and the following storage system releases:

- IBM FlashSystem A9000 versions 12.0.x, 12.1.x, and 12.2.x
- IBM FlashSystem A9000R versions 12.0.x, 12.1.x, and 12.2.x
- IBM Storwize V3500 versions 7.8 and 8.1.x
- IBM Storwize V3700 version 7.8 and 8.1.x
- IBM Storwize V5000 version 7.8 and 8.1.x
- IBM Storwize V7000 version 7.8 and 8.1.x
- IBM SAN Volume Controller version 7.8 and 8.1.x
- IBM FlashSystem V9000 7.8 and 8.1.x
- IBM DS8880 8.2 and 8.3

This version also includes the following enhancement:

| Ticket ID   | Description   |
|-------------|---|
| SCOM-261272 | <p><b>Enhancement:</b> The following properties have been added to the IBM Storage Management Pack for Microsoft System Center Operations Manager user interface for the IBM Spectrum Virtualize™ Family management pack to make it easier to distinguish between different IBM Spectrum Virtualize Family storage systems being managed:</p> <ul style="list-style-type: none"><li>• <b>code_level:</b> The software release version on the storage system being managed.</li><li>• <b>product_name:</b> The IBM product name of the storage system being managed.</li></ul> |

### Version 2.6.0 (August 2016)

Version 2.6.0 added support for IBM FlashSystem V9000 version 7.7 and included the following enhancement.

| Ticket ID   | Description   |
|-------------|---|
| SCOM-261263 | <p><b>Enhancement:</b> The former IBM SAN Volume Controller and Storwize series management packs have been combined into one IBM Spectrum Virtualize Family management pack, which also includes support for IBM FlashSystem V9000.</p> |

### Version 2.5.0 (June 2016)

Version 2.5.0 added support for the following storage system releases:

- IBM FlashSystem A9000 version 12.0.1
- IBM FlashSystem A9000R version 12.0.1

- IBM Storwize V3500 version 7.7
- IBM Storwize V3700 version 7.7
- IBM Storwize V5000 version 7.7
- IBM Storwize V7000 version 7.7
- IBM SAN Volume Controller version 7.7

Additional fix in this version:

| Ticket ID   | Description  |
|-------------|--|
| SCOM-261255 | <b>Fixed:</b> SCOM could not connect to XIV or Spectrum Accelerate using LDAP. |

## Version 2.4.0 (June 2015)

Version 2.4.0 added support for the following storage system releases:

- IBM Storwize V3500 version 7.5
- IBM Storwize V3700 version 7.5
- IBM Storwize V5000 version 7.5
- IBM Storwize V7000 version 7.5
- IBM SAN Volume Controller version 7.5
- IBM XIV Storage System version 11.6.x
- IBM Spectrum Accelerate version 11.5.0.b

Additional enhancements and fix in this version:

| Ticket ID   | Description   |
|-------------|---|
| SCOM-261245 | <b>Enhancement:</b> Minimal VVOL support added for IBM Storwize V3500 version 7.5, IBM Storwize V3700 version 7.5, IBM Storwize V5000 version 7.5, IBM Storwize V7000 version 7.5, and IBM SAN Volume Controller version 7.5. |
| SCOM-261244 | <b>Enhancement:</b> Minimal VVOL support and compression visibility support added for IBM XIV Storage System version 11.6.x.  |
| SCOM-261242 | <b>Fixed:</b> The status of the SAN Volume Controller iSCSI port or Storwize iSCSI port is incorrect if the port is configured and the state of the link is not active.   |

## Version 2.3.0 (December 2014)

Version 2.3.0 added support for the XIV multi-tenancy feature, which applies only to XIV microcode version 11.5 or later (non-domain users have access only when the access policy is set to "Open").

Additional fixes in this version:

| Ticket ID   | Description  |
|-------------|--|
| SCOM-261162 | <b>Fixed:</b> For SAN Volume Controller and Storwize systems, cluster monitoring is dependent on FlashCopy® consistency group unit monitoring, while single system monitoring is dependent on array unit monitoring. If either of the required unit monitoring is not used, the cluster or system monitoring returns to the uninitialized state. |
| SCOM-261241 | <b>Fixed:</b> Updated the IBM Storage Solutions External Runtime Components (previously named "XPyV") to version 1.4.4 to resolve man-in-the-middle (MITM) security attacks.   |

## Version 2.2.1 (June 2014)

Version 2.2.1 resolved the following critical issue.

| Ticket ID   | Description  |
|-------------|--|
| SCOM-261210 | <b>Fixed:</b> OpenSSL security vulnerability (also known as the Heartbleed bug) could have an impact on the connection to storage systems.<br><br>Version 2.2.1 uses OpenSSL version 1.0.1h, which resolves this security issue. |

## Version 2.2.0 (December 2013)

Version 2.2.0 added support for the following storage systems:

- IBM Storwize V5000
- IBM Storwize V7000 Unified

Version 2.2.0 also added support for newer microcode versions of the previously supported storage systems (see "Supported storage systems" on page 1), and for:

- Microsoft Windows Server 2012 R2
- Microsoft System Center Operations Manager 2012 R2

Additional fix in this version:

| Ticket ID   | Description  |
|-------------|--|
| SCOM-261154 | <b>Fixed:</b> For XIV storage systems, only one volume is displayed as a logical component in SCOM if there are two or more volumes that share the same name with different uppercase and lowercase letters. |

## Version 2.1.0 (July 2013)

Version 2.1.0 added support for the IBM Storwize V3700 and IBM Storwize V3500 storage systems and for newer microcode versions of the already supported storage systems.

Additional enhancements and fixes in this version:

| Ticket ID  | Description   |
|--|---|
| SCOM-249670  | <b>Enhancement:</b> Only active alerts are provided in the alerts view. Closed alerts are filtered out.   |
| SCOM-255587  | <b>Enhancement:</b> Support for device type renaming.   |
| SCOM-255882  | <b>Enhancement:</b> IBM Hyper-Scale Mobility (online volume migration) operations can now be monitored for XIV systems of microcode 11.3 or later.  |
| SCOM-238291  | <b>Fixed:</b> When the IBM Storage Management Pack is installed on a SCOM agent and the connected storage system has a large amount of volumes (about 300 volumes per storage system), the discovery data package may exceed the SCOM size limit (4MB). |
| SCOM-242651  | <b>Fixed:</b> XIV remote mirroring information cannot be viewed from SCOM if the user account is not defined on the XIV storage system as a storage administrator.  |
| <b>Note:</b> If you are upgrading to version 2.1.0 by installing it over version 1.1.1, run the <b>upgrade_config.cmd</b> CLI utility after version 2.1.0 is installed. For more information, refer to the user guide. |   |

## Known issues

This section details the known issues in version 2.7.0, along with possible workarounds (if workarounds are available).

### Note:

- For comprehensive information about known issues in Microsoft System Center Operations Manager 2012, see the Microsoft System Center Operations Manager 2012 online release notes ([technet.microsoft.com/en-us/library/hh561709.aspx](http://technet.microsoft.com/en-us/library/hh561709.aspx)).

| Ticket ID   | Description  |
|-------------|--|
| SCOM-238811 | The detection of DS8000 storage systems stops if volumes on these systems have names with non-ASCII characters.<br><br>Currently there is no workaround or solution for this limitation (SCOM-238811).   |
| SCOM-260923 | In some cases, the monitoring host can not be discovered after a certain IBM management pack is manually deleted and then and imported again.<br><br>To resolve this issue, delete the same management pack again and then import it again. Alternatively, you can shorten the management pack object discovery interval to 30 seconds or less (for more information, refer to the relevant Microsoft SCOM documentation). |

| Ticket ID   | Description   |
|-------------|---|
| SCOM-261133 | <p>After upgrading to the latest version by installing it over version 1.1.0, the configuration that was made with version 1.1.0 is no longer valid.</p> <p>To resolve this issue, run the <b>upgrade_config.cmd</b> CLI utility after to the latest version is installed. For more information, refer to the user guide.</p>   |
| SCOM-261147 | <p>For SAN Volume Controller and Storwize systems, the same event might be displayed several times under <b>Events</b>, each time with a different timestamp. This occurs if the event is reported by the storage system each time with an updated timestamp.</p> <p>This is a design behaviour that might be changed in a future management pack version.</p> <p>Currently there is no workaround or solution for this limitation (SCOM-261147).</p> |
| SCOM-261151 | <p>Physical drives with an empty enclosure ID are not displayed for Storwize V3500 or Storwize V3700 systems.</p> <p>Currently there is no workaround or solution for this limitation (SCOM-261151).</p>  |
| SCOM-261196 | <p>XIV volume information is not updated after the volume is migrated to another storage pool.</p> <p>To resolve this issue, remove the XIV storage system and then add it again by using the <b>scomu.cmd</b> utility.</p>   |
| SCOM-261197 | <p>Information regarding the relationship between FlashCopy consistency group and FlashCopy mapping is not updated for Storwize systems.</p> <p>Currently there is no workaround or solution for this limitation (SCOM-261197).</p>   |
| SCOM-261198 | <p>For IBM Flex System<sup>®</sup> systems, only the target volume is displayed in the FlashCopy mapping relationship list.</p> <p>Currently there is no workaround or solution for this limitation (SCOM-261198).</p>  |
| SCOM-261200 | <p>The IBM Storage Management Pack only works when the SCOM Root Management Server (RMS) and SCOM agents reside in the same domain.</p> <p>Currently there is no other workaround or solution for this limitation (SCOM-261200).</p>  |
| SCOM-261238 | <p>The digital signature cannot be verified in Windows 2008.</p>  |
| SCOM-261243 | <p>The ID and System Name of the system are showing as the same value in the web console.</p>   |

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## Related information and publications

You can find additional information and publications related to the IBM Storage Management Pack for Microsoft SCOM on the following information sources.

- IBM Storwize V3500 on IBM Knowledge Center ([ibm.com<sup>®</sup>/support/knowledgecenter/STLM6B](http://ibm.com/support/knowledgecenter/STLM6B))
- IBM Storwize V3700 on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STLM5A](http://ibm.com/support/knowledgecenter/STLM5A))
- IBM Storwize V5000 on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STHGJJ](http://ibm.com/support/knowledgecenter/STHGJJ))
- IBM Storwize V7000 on IBM Knowledge Center ([ibm.com/support/knowledgecenter/ST3FR7](http://ibm.com/support/knowledgecenter/ST3FR7))
- IBM Storwize V7000 Unified on IBM Knowledge Center ([ibm.com/support/knowledgecenter/ST5Q4U](http://ibm.com/support/knowledgecenter/ST5Q4U))
- IBM SAN Volume Controller on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STPVGU](http://ibm.com/support/knowledgecenter/STPVGU))
- IBM DS8700 on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STUVMB](http://ibm.com/support/knowledgecenter/STUVMB))
- IBM DS8800 on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STXN8P](http://ibm.com/support/knowledgecenter/STXN8P))
- IBM DS8870 on IBM Knowledge Center ([ibm.com/support/knowledgecenter/ST8NCA](http://ibm.com/support/knowledgecenter/ST8NCA))
- IBM DS8880 on IBM Knowledge Center ([ibm.com/support/knowledgecenter/ST5GLJ](http://ibm.com/support/knowledgecenter/ST5GLJ))
- IBM XIV Storage System on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STJTAG](http://ibm.com/support/knowledgecenter/STJTAG))
- IBM Spectrum Accelerate on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STZSWD](http://ibm.com/support/knowledgecenter/STZSWD))
- IBM FlashSystem A9000 on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STJKMM](http://ibm.com/support/knowledgecenter/STJKMM))
- IBM FlashSystem A9000R on IBM Knowledge Center ([ibm.com/support/knowledgecenter/STJKN5](http://ibm.com/support/knowledgecenter/STJKN5))
- Microsoft System Center Technical Resources website ([technet.microsoft.com/en-us/systemcenter](http://technet.microsoft.com/en-us/systemcenter))

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- IBM Support Portal website ([www.ibm.com/storage/support](http://www.ibm.com/storage/support))
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