IBM Storage Management Console for VMware vCenter

Version 3.0.0

Release Notes

First Edition (April 2012)
First Edition (April 2012)

This edition applies to version 3.0.0 of the IBM Storage Management Console for VMware vCenter 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 Console for VMware® vCenter™ is a software plug-in that integrates with the VMware vCenter server platform and enables VMware administrators to independently and centrally manage their storage resources on IBM storage systems.

The plug-in runs as a Microsoft® Windows Server® service on the vCenter server. Any VMware vSphere™ client that connects to the vCenter server detects the service on the server, and automatically enables the IBM storage management features on the vSphere client.

Compatibility and requirements

This section specifies the compatibility and requirements of version 3.0.0 of the IBM Storage Management Console for VMware vCenter.

Note: For information about the compatibility and requirements of a previous version, refer to its relevant release notes.

Supported operating systems

The IBM Storage Management Console for VMware vCenter is compatible with different versions of Microsoft Windows Server, as detailed in the following table.

<table>
<thead>
<tr>
<th>Operating system</th>
<th>Architecture</th>
<th>Compatibility note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Windows Server 2003</td>
<td>x86, x64</td>
<td>Tested with Service Pack 2</td>
</tr>
<tr>
<td>Microsoft Windows Server 2008</td>
<td>x86, x64</td>
<td>Tested with Service Pack 2</td>
</tr>
<tr>
<td>Microsoft Windows Server 2008 R2</td>
<td>x64</td>
<td>Tested without and with Service Pack 1</td>
</tr>
</tbody>
</table>

Supported storage systems

The IBM Storage Management Console for VMware vCenter supports three different IBM storage products, as listed in the following table.

<table>
<thead>
<tr>
<th>Storage system</th>
<th>Microcode version</th>
<th>Compatibility note</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM XIV® Storage System</td>
<td>10.2.x</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>11.0.x, 11.1.x</td>
<td></td>
</tr>
<tr>
<td>IBM Storwize® V7000</td>
<td>6.1, 6.2, 6.3</td>
<td>N/A</td>
</tr>
<tr>
<td>IBM Storwize V7000 Unified</td>
<td>1.3.1</td>
<td>N/A</td>
</tr>
<tr>
<td>Storage system</td>
<td>Microcode version</td>
<td>Compatibility note</td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>IBM System Storage® SAN Volume Controller (SVC)</td>
<td>5.1</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>6.1, 6.2, 6.3</td>
<td></td>
</tr>
<tr>
<td>IBM Scale Out Network Attached Storage (SONAS)</td>
<td>1.3.1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Required server software**

Prior to installing the IBM Storage Management Console, VMware vCenter 4.x (4.0, 4.1) or 5.0 must be installed on the host server (Windows Server).

**Required client software**

The following software must be installed on the administrator client host:

- VMware vSphere Client 4.x (4.0, 4.1) or 5.0
- Microsoft Internet Explorer 7.0 or later (currently, other browsers are not supported)

**Change log**

This section summarizes the changes made in different version releases of the IBM Storage Management Console for VMware vCenter.

**Version 3.0.0 (April 2012)**

Version 3.0.0 adds support for IBM Storwize V7000 Unified and IBM Scale Out Network Attached Storage (SONAS).

Additional changes in version 3.0.0:

**VCPLUGIN-43420  Enhancement:** Consistent display of volume names in the vSphere environment.

Any IBM storage volume that was created via the IBM Storage Management Console is displayed in the vSphere Add Storage wizard and all other vSphere panels with exactly the same name given to it in its creation, making it more recognizable.

**Note:** Volumes that were not created via the IBM Storage Management Console are still displayed as IBM disks with a long-form ID number.

**VCPLUGIN-126683  Enhancement:** The multipath policy for the ESX and ESXi servers can now be changed from the IBM Storage Management Console GUI.
**VCPLUGIN-167220**  **Enhancement**: The volume creation wizard can now create multiple identical volumes (if needed) in one single operation.

**VCPLUGIN-33430**  **Fixed**: Asymmetric LUN mapping between cluster hosts is not indicated in the IBM Storage tab.

**VCPLUGIN-34046**  **Fixed**: Prior to volume creation and mapping, the IBM Storage plug-in does not check whether the related storage system appears on the host target list, and whether the host is defined on the storage system.

**VCPLUGIN-45181**  **Fixed**: Registry key values return to default values when upgrading from a previously installed version.

**VCPLUGIN-53710**  **Fixed**: Automatic setting of multipath policy is disabled.

**VCPLUGIN-169276**  **Fixed**: A volume might have a different LUN ID on different hosts, but no proper warning message is displayed in such a case.

**VCPLUGIN-170641**  **Fixed**: Names of new volumes created on IBM storage systems can include only up to 15 characters.

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**Version 2.6.0 (September 2011)**

Version 2.6.0 added support for:

- VMware vCenter 5.0
- Version 11.0 of the IBM XIV microcode (XIV Gen3).

Additional changes in version 2.6.0:

**VCPLUGIN-154090**  **Enhancement**: Added support for XIV user login authentication over Lightweight Directory Access Protocol (LDAP).

**VCPLUGIN-171857**  **Fixed**: A volume name cannot contain more than 63 characters.

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**Version 2.5.1 (July 2011)**

Version 2.5.1 added support for version 6.2 of the Storwize V7000 and SAN Volume Controller microcode (see Supported storage systems).

Additional changes in version 2.5.1:
VCPLUGIN-130066  **Fixed:** An error occurs on the IBM Storage tab when using an NFS-based datastore.

In version 2.5.0, using a datastore on a Network File System storage location (can be added via Host ➔ Configuration ➔ Storage ➔ Add Storage ➔ Network File System) results in an error message: "VMware NAS object has no attribute".

**Version 2.5.0 (June 2011)**

Version 2.5.0 introduced support for IBM Storwize V7000 and IBM SAN Volume Controller (SVC), in addition to the IBM XIV Storage System that was supported in the previous version.

Additional changes in version 2.5.0:

VCPLUGIN-33149  **Fixed:** Restrictions on mapping and unmapping operations.

XIV-based volume mapping and unmapping operations may be unavailable, based on different factors and conditions.

VCPLUGIN-75299  **Fixed:** LUN creation fails when XIV clustered hosts have private mapping.

'Boot From SAN' and LUN creation errors occur when working with ESX hosts that have privately mapped LUNs (not visible to other hosts).

VCPLUGIN-91484  **Fixed:** Redundant SSL connections to the XIV storage system cause disconnection.

The IBM Storage Management Console GUI stops communicating with the XIV storage system when the Admin Node is out of resources due to the creation of multiple and redundant SSL connections to the XIV storage system.

**Version 2.0.0 (March 2011)**

Version 2.0.0 introduced a new and improved graphical user interface (GUI), as well as brand new and powerful management features and capabilities, including:

- Full control over XIV-based storage volumes (LUNs), including volume creation, resizing, renaming, migration to a different storage pool, mapping, unmapping, and deletion.

- Easy and integrated allocation of volumes to VMware datastores, used by virtual machines that run on ESX hosts, clusters, or datacenters.

**Version 1.0.1 (September 2010)**

Version 1.0.1 resolved the following issues:
Known issues

This section details the known issues in version 3.0.0, along with possible workarounds (if workarounds are available).

VCPLUGIN-33938 XIV GUI version 3.x allows volume creation in both GiB and GB units.

The IBM XIV Storage System management GUI (XIV GUI) version 3.0 (or later) supports the creation of volumes in Gigabyte (GB) or in Gibibyte (GiB) units, as follows:

- If GB units are chosen, a single storage unit is regarded as $10^9$ (10,000,000,000) bytes
- If GiB units are chosen, a single storage unit is regarded as $2^{30}$ bytes, or 1024 mebibytes (1 mebibyte = 1,048,576 bytes)

Although the management GUI does support Gibibyte units, the IBM Storage Management Console for VMware vCenter does not support XIV-based volume creation in Gibibyte units.

VCPLUGIN-75436 Error message: "Navigation to this web page was canceled."

If the DNS and proxy settings are not properly configured in Microsoft Internet Explorer, the above navigation error message may appear when clicking the IBM Storage tab or any link within it.

To resolve this issue, check and configure your Internet Explorer DNS and proxy settings. When Internet Explorer is properly configured, you should be able to access the vCenter server by entering the server's IP address in the address bar.
**VCPLUGIN-114931**  Error message: "Unable to connect to the remote server."

If for any reason the IBM Storage Management Console service in Windows Server is stopped (for example, after restarting the system), the above error is displayed in the vCenter Plug-in Manager.

In such a case, start the IBM Storage Management Console service in Windows Server.

**VCPLUGIN-115542**  Error message: "The remote name could not be resolved."

(see also: VCPLUGIN-137706)

When the fully qualified hostname cannot be resolved to the IP address on the host, the above error is displayed in the vCenter Plug-in Manager.

To resolve this issue, specify the IP address and FQDN relationship in: C:\Windows\System32\drivers\etc\hosts.

For example: 9.123.245.34 WIN-VPHM.us.ibm.com

**VCPLUGIN-135148**  After upgrading from version 2.5.0 to 3.0.0, the SVC and Storwize V7000 system credentials are no longer recognized.

The following error message appears:

"Storage system <system name> has incorrect credentials. You can fix this by modifying or removing the system."

To avoid this issue before upgrading:

1. Before you start the upgrade, go to the keys_temp subfolder in the installation directory ($INSTALLDIR; default directory: C:\Program Files\IBM\IBM Management Console for VMware vCenter).
2. Copy the SSH key to a temporary folder outside the IBM Storage Management Console directory.
3. Perform the upgrade to version 3.0.0.
4. Copy the SSH key from the temporary folder to the installation directory without using a subfolder ($INSTALLDIR; default directory: C:\Program Files\IBM\IBM Management Console for VMware vCenter).

To resolve this issue after upgrading:

1. Right-click the SVC or Storwize V7000 system and then click **Modify**.
2. Click **Browse** and specify the location of the SSH key.
VCPLUGIN-137706  Error message appearing the Plug-in Manager: "The remote name could not be resolved."

(see also: VCPLUGIN-115542)  Although the same error message appears in a different case, it may appear due to a missing Windows Firewall exception definition.

To resolve this issue, add an exception for the port number that is used by the IBM Storage Management Console ("vcPlugin") web component, as shown in the following figure:

![Windows Firewall Settings](image)

In addition, make sure that your vSphere client station can communicate through any additional firewall that might be in place on the remote side and may be blocking communication with the vCenter server.

VCPLUGIN-169996  Error message: EFSSG0002C Command exception found: Total file system capacity allows up to <value> inodes in the <name> file system.

When working with Storwize V7000 Unified or SONAS, the independent file sets use their own inode space. The error message above appears when all inode space is already used by the file system inodes (may occur when working with a small file system), leaving no inode space for file sets.

To resolve this issue, reduce the inode number used by the file system using Storwize V7000 Unified or SONAS command-line interface (chfs command).
<table>
<thead>
<tr>
<th>VCPLUGIN-171714</th>
<th>When downgrading from version 3.0.0 to version 2.6.0, the installation of version 2.6.0 fails.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To resolve this issue, perform the following procedure:</td>
</tr>
<tr>
<td></td>
<td>1. Uninstall version 3.0.0 (for more information, refer to the user guide).</td>
</tr>
<tr>
<td></td>
<td>2. Go to the \C:\Windows\Temp directory and delete the \vc_plugin.db file.</td>
</tr>
<tr>
<td></td>
<td>3. Install version 2.6.0.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VCPLUGIN-195249</th>
<th>When managing both Storwize V7000 and Storwize V7000 Unified with the same IBM Storage Management Console, volume names might not be properly displayed.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If possible, avoid managing Storwize V7000 Unified and its backend Storwize V7000 with the same IBM Storage Management Console, especially if storage pools with identical names are attached. Use a separate vCenter server and management console for Storwize V7000 Unified and Storwize V7000 systems.</td>
</tr>
<tr>
<td></td>
<td>If only one vCenter server is available, check whether storage pools with identical names are used. If found, detach one of the identically named storage pools.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VCPLUGIN-203343</th>
<th>When using VMware datacenters, datacenter size limitations may apply.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The IBM Storage Management Console may cause performance issues in large datacenters that contain tens of ESX hosts.</td>
</tr>
<tr>
<td></td>
<td>Currently there is no workaround for this limitation (VCPLUGIN-203343).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VCPLUGIN-205222</th>
<th>Internet Explorer error message: &quot;A script on this page is causing Internet Explorer to run slowly&quot;.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This error may appear when creating a large number of volumes and a significant amount of server operation is required in the background.</td>
</tr>
<tr>
<td></td>
<td>To resolve this Internet Explorer issue, refer to the following Microsoft Support article:</td>
</tr>
<tr>
<td></td>
<td><a href="http://support.microsoft.com/kb/175500">http://support.microsoft.com/kb/175500</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VCPLUGIN-207243</th>
<th>If the IBM Storage Solutions External Runtime Components are uninstalled before the IBM Storage Management Console for VMware vCenter is uninstalled, the vCenter user database library is lost.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Currently there is no workaround for this limitation (VCPLUGIN-207243).</td>
</tr>
</tbody>
</table>
Download site

The IBM Storage Management Console for VMware vCenter is available for download from the IBM Fix Central website at the following web address:

http://www.ibm.com/support/fixcentral

Reference information and notices

This section includes notices regarding reference publications, performance of IBM and non-IBM products, documentation format, help information, amendments, and trademarks.

Publications and related information

You can find additional information and publications related to the IBM Storage Management Console for VMware vCenter on the following IBM, VMware, and Microsoft websites.

- IBM Storage Management Console for VMware vCenter, User Guide, available on the IBM XIV Storage System Information Center:
  http://publib.boulder.ibm.com/infocenter/ibmxiv/r2
- IBM Storwize V7000 Information Center:
  http://publib.boulder.ibm.com/infocenter/storwize/ic
- IBM Storwize V7000 Unified Information Center:
  http://publib.boulder.ibm.com/infocenter/storwize/unified_ic
- IBM SAN Volume Controller (SVC) Information Center:
  http://publib.boulder.ibm.com/infocenter/svc/ic
- IBM Scale Out Network Attached Storage (SONAS) Information Center:
  http://pic.dhe.ibm.com/infocenter/sonasic/sonas1ic
- VMware ESXi and ESX Info Center:
- VMware Product Support for VMware vSphere, including support for ESX, ESXi, and vCenter:
  http://www.vmware.com/support/product-support/vsphere
- VMware Technical Resources:
  http://www.vmware.com/technical-resources
- VMware Documentation:
  http://www.vmware.com/support/pubs
• VMware knowledgebase:
  http://kb.vmware.com
• Microsoft Windows Server troubleshooting information:

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• IBM home page (ibm.com)
• IBM Support Portal (www.ibm.com/storage/support)
• IBM Directory of Worldwide Contacts (www.ibm.com/planetwide)

Documentation format

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