IBM Storage Management Console for VMware vCenter
Version 3.2.0

Release Notes

IBM

Contents

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.

You can download the IBM Storage Management Console for VMware vCenter software package at any time from the IBM Fix Central website (www.ibm.com/support/fixcentral).

Compatibility and requirements

This section specifies the compatibility and requirements of version 3.2.0 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.

Operating system	Service pack	Architecture
Microsoft Windows Server 2003	SP1, SP2	x86, x64
Microsoft Windows Server 2008	SP1, SP2	x86, x64
Microsoft Windows Server 2008 R2	None, SP1	x64
Microsoft Windows Server 2012	None	x64

Supported storage systems

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

Storage system	Microcode version
IBM Flex System™ V7000	6.4.1
IBM Scale Out Network Attached Storage (SONAS)	1.3.1, 1.3.2
IBM Storwize® V3500	6.4.1
IBM Storwize V3700	6.4.1
IBM Storwize V7000	6.1.0, 6.2.0, 6.3.0, 6.4.0, 6.4.1
IBM Storwize V7000 Unified Storage System	1.3.1, 1.3.2

Storage system	Microcode version
IBM System Storage® DS8000®	6.3.0 – relevant to the 8700 and 8800 Series 7.0.0 – relevant to the 8870 Series
IBM System Storage SAN Volume Controller	5.1.0 6.1.0, 6.2.0, 6.3.0, 6.4.0, 6.4.1
IBM XIV® Storage System	10.2.x 11.0.x, 11.1.x

Required server software

Prior to installing the IBM Storage Management Console, the following software must be installed on the host server (Windows Server):

- VMware vCenter Server 4.0, 4.1, 5.0, or 5.1
- VMware vCenter Server 5.0 U2 if Microsoft Windows Server 2012 is used

Required client software

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

- VMware vSphere Client 4.0, 4.1, 5.0, 5.0 U2, or 5.1
- Microsoft Internet Explorer 7.0 or later (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 3.2.0 (December 2012)

Version 3.2.0 adds support for the following storage systems:

- IBM Flex System V7000
- IBM System Storage DS8000
- IBM Storwize V3500 and IBM Storwize V3700

For more information, see "Supported storage systems" on page 1.

Version 3.2.0 also adds support for the following platforms:

- Microsoft Windows Server 2012
- VMware vCenter 5.0 U2

Additional changes in version 3.2.0:

Ticket ID	Description
VCPLUGIN-240265	**Enhancement**: The creation and use of mirrored virtual disks is now supported for: • IBM Flex System V7000 • IBM Storwize V3500 and IBM Storwize V3700 • IBM Storwize V7000 and IBM Storwize V7000 Unified • IBM System Storage SAN Volume Controller

Ticket ID	Description
VCPLUGIN-243001	**Enhancement**: When compressed volumes are used (applicable to Flex System, Storwize, and SAN Volume Controller), the compression capacity saving and the compression ratio percentage are displayed in the LUN Details pane.
VCPLUGIN-249771	**Change**: The IBM Java™ Runtime Environment (JRE) framework, needed for compatibility with DS8000, is now bundled in the IBM Storage Management Console software package, and is automatically installed with it.
VCPLUGIN-249915	**Fixed**: If VMware vCenter 5.1 is used, an error message stating 'A specified parameter was not correct' appears when trying to unmap a volume from a cluster host, or when trying to delete a mirrored volume.

Version 3.1.1 (December 2012)

Version 3.1.1 includes the following critical fix.

Ticket ID	Description
VCPLUGIN-247515	**Fixed**: After a certain Windows Update installation, the following Internet Explorer security certificate error might appear, causing inability to access the IBM Storage Management Console via a web-based connection: There is a problem with this website's security certificate.

Version 3.1.0 (September 2012)

Version 3.1.0 added support for microcode version 6.4.0 of the IBM Storwize V7000 and IBM System Storage SAN Volume Controller storage systems.

Additional changes in version 3.1.0:

Ticket ID	Description
VCPLUGIN-31737	**Enhancement**: Different graphic icons are shown for unused LUNs that are accessible by all hosts in a cluster, or by some hosts in a cluster.
VCPLUGIN-163997	**Enhancement**: Volume data compression is supported when using IBM Storwize V7000 and IBM SAN Volume Controller of microcode version 6.4 or later.
VCPLUGIN-231485	**Enhancement**: FCoE hardware adapters can be used to connect to IBM Storwize V7000 and IBM SAN Volume Controller of microcode version 6.4 or later.
VCPLUGIN-233960	**Change**: The default multipathing policy for SAN Volume Controller, Storwize V7000, and Storwize V7000 Unified changed to Round Robin.

Ticket ID	Description
VCPLUGIN-203343	**Fixed**: The IBM Storage Management Console may cause performance issues in large datacenters that contain tens of ESX hosts.
VCPLUGIN-236342	**Fixed**: NFS-based datastores on SONAS and Storwize V7000 Unified are displayed on the management console without a server IP.

Version 3.0.0 (April 2012)

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

Additional changes in version 3.0.0:

Ticket ID	Description
VCPLUGIN-43420	**Enhancement**: IBM storage disks are given clearer and more recognizable names in the standard vSphere Add Storage wizard.
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.

Version 2.6.0 (September 2011)

Version 2.6.0 added support for VMware vCenter 5.0 and version 11.0 of the IBM XIV microcode (XIV Gen3).

Additional changes in version 2.6.0:

Ticket ID	Description
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.

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.

Additional changes in version 2.5.1:

Ticket ID	Description
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 System Storage 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:

Ticket ID	Description
VCPLUGIN-33149	**Fixed**: Restrictions on mapping and unmapping operations. XIV 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).

Ticket ID	Description
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.

Ticket ID	Description
VCPLUGIN-20465	**Fixed**: Update failure occurs when two LUNs had the same UUID.
VCPLUGIN-20591	**Fixed**: The displayed unit size of Network Attached Storage (NAS) is in Bytes instead of in Gigabytes.
XIVXSF-21471	**Fixed**: Unicode characters are not recognized in virtual machine or folder names.

Version 1.0.0 (July 2010)

Version 1.0.0 was the initial version, which included only monitoring and limited LUN manipulation capabilities through vSphere Client.

Known issues

This section details the known issues in version 3.2.0, along with possible workarounds (if workarounds are available).

Ticket ID	Description
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 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.

Ticket ID	Description
VCPLUGIN-115542 (see also: VCPLUGIN-137706)	Error message: `The remote name could not be resolved.` 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 SAN Volume Controller and Storwize V7000 system credentials are no longer recognized.
	
	The following error message appears:
	`Storage system <system name> has incorrect details.`
	`You can fix this by modifying or removing the system.`
	
	To avoid this issue <u>before</u> 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 <u>after</u> upgrading:
	1. Right-click the SAN Volume Controller or Storwize V7000 system and then click **Modify**.
	2. Click **Browse** and specify the location of the SSH key.

VCPLUGIN-137706 (see also: VCPLUGIN-115542)	Error message appearing in the vSphere Plug-in Manager: `The remote name could not be resolved.` 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. 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.

Ticket ID	Description

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).

VCPLUGIN-171714	When downgrading from version 3.0.0 to version 2.6.0, the installation of version 2.6.0 fails. To resolve this issue, perform the following procedure: 1. Uninstall version 3.0.0 (for more information, refer to the user guide). 2. Go to the `C:\Windows\Temp` directory and delete the `vc_plugin.db` file. 3. Install version 2.6.0.
VCPLUGIN-195249	When managing both Storwize V7000 and Storwize V7000 Unified with the same IBM Storage Management Console, volume names might not be properly displayed. 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. 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.

VCPLUGIN-205222	Internet Explorer error message:
	
	`A script on this page is causing Internet Explorer to`
	`run slowly.`
	
	This error may appear when creating a large number of volumes and a significant amount of server operation is required in the background.
	
	To resolve this Internet Explorer issue, refer to the following Microsoft Support article:
	http://support.microsoft.com/kb/175500

Ticket ID	Description
VCPLUGIN-207243	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. Currently there is no workaround for this limitation (VCPLUGIN-207243).
VCPLUGIN-251002	High memory consumption and CPU utilization during cache update operations. Up to 2 GB of memory is used during an update, and freed only when the operation is complete. This might affect performance in large environments. To reduce the frequency of these cache updates, you can prolong the time interval (in seconds) between each cache update operation, by modifying the `cache_update_interval` registry key on the vCenter server. The registry key is located at: `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\IBMConsoleForvCenter\Parameters` For more information, refer to the user guide.
XPYV-250349	The IBM Storage Management Console service fails to restart on the vCenter server after the server is restarted (Windows Server restart). To resolve this issue, change the startup type of the IBM Storage Management Console service (Windows service) on the vCenter server from 'Automatic' to 'Automatic (delayed start)'.

Related information and publications

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 Host Software Solutions Information Center (publib.boulder.ibm.com/infocenter/strhosts/ic)
- IBM Flex System Information Center (publib.boulder.ibm.com/infocenter/flexsys/information)
- IBM Scale Out Network Attached Storage (SONAS) Information Center (publib.boulder.ibm.com/infocenter/sonasic/sonas1ic)
- IBM Storwize V3500 Information Center (publib.boulder.ibm.com/infocenter/storwize/v3500_ic)
- IBM Storwize V3700 Information Center (publib.boulder.ibm.com/infocenter/storwize/v3700_ic)
- IBM Storwize V7000 Information Center (publib.boulder.ibm.com/infocenter/storwize/ic)

- IBM Storwize V7000 Unified Information Center (publib.boulder.ibm.com/infocenter/storwize/unified_ic)
- IBM System Storage SAN Volume Controller Information Center (publib.boulder.ibm.com/infocenter/svc/ic)
- IBM System Storage DS8000 Information Center (publib.boulder.ibm.com/infocenter/dsichelp/ds8000ic)
- IBM XIV Storage System Information Center (publib.boulder.ibm.com/infocenter/ibmxiv/r2)
- VMware ESXi and ESX Info Center (www.vmware.com/products/vsphere/esxi-and-esx)
- VMware Product Support for VMware vSphere (www.vmware.com/support/product-support/vsphere), including support for ESX, ESXi, and vCenter
- VMware Technical Resources (www.vmware.com/technical-resources)
- VMware Documentation (www.vmware.com/support/pubs)
- VMware knowledgebase (kb.vmware.com)
- Microsoft TechNet website for Windows Server (technet.microsoft.com/en-us/windowsserver)

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