

IBM Storage Enabler for Windows Failover Clustering
Version 1.2.1

Release Notes



First Edition (June 2015)

This edition applies to version 1.2.1 of the IBM Storage Enabler for Windows Failover Clustering 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 Enabler for Windows Failover Clustering is a software agent that runs as a Microsoft Windows Server service on the nodes of two geographically dispersed clusters, providing failover automation for IBM XIV® storage provisioning on these nodes, and enabling deployment of these nodes in a geo-cluster configuration.

You can download the IBM Storage Enabler for Windows Failover Clustering software package at any time from the IBM Fix Central website at: www.ibm.com/support/fixcentral

Compatibility and requirements

This section specifies the compatibility and requirements of version 1.2.1 of the IBM Storage Enabler for Windows Failover Clustering.

Supported Windows Server versions

The IBM Storage Enabler for Windows Failover Clustering supports different Windows Server versions, service packs, and editions as listed in the following table:

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

Important: Refer to “Required software on the host” on page 2 for information about required operating system updates.

Supported XIV storage systems

The IBM Storage Enabler for Windows Failover Clustering supports different microcode versions of the IBM XIV Storage System, as listed in the following table.

Attention:

- The IBM Storage Enabler for Windows Failover Clustering does not support the asynchronous remote mirroring feature. Only synchronous remote mirroring is supported.
 - Do not map XIV volumes that are used by the cluster to LUN0.
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Storage system	Microcode version	Compatibility note
IBM XIV Storage System	10.2.4 11.0.x, 11.1.x, 11.2.x, 11.3.x, 11.4.0, 11.5.x, 11.6.x	Without support for compressed volumes (through the IBM Real-time Compression™ feature)

Note: Newer microcode versions may also be compatible. When a newer microcode version becomes available, refer to the latest storage system release notes to check whether the new microcode version is also supported.

Required software on the host

Prior to installing the IBM Storage Enabler for Windows Failover Clustering and depending on the installed Windows Server version, specific operating system updates must be installed on the host.

Important:

- The following table contains information that is known at the time of the General Availability (GA) date. Newer or additional hotfixes may be required in distinct cases or in particular production environments. Contact IBM XIV Support if you encounter errors or difficulties.
 - Always refer to the Microsoft documentation (KB article) of any hotfix or set of hotfixes that your system requires.
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Operating system	Service pack	Required hotfixes and components
Windows Server 2003	Service Pack 1	<ul style="list-style-type: none"> • Microsoft Hotfix KB923830 • Microsoft Hotfix KB919117 • Microsoft Hotfix KB928385 • Microsoft Hotfix KB921181 • IBM XIV Host Attachment Kit for Windows (refer to the relevant release notes)
	Service Pack 2	<ul style="list-style-type: none"> • Microsoft Hotfix KB895092 • Microsoft Hotfix KB919117 • Microsoft Hotfix KB928385 • Microsoft Hotfix KB921181 • IBM XIV Host Attachment Kit for Windows
Windows Server 2003 R2	Service Pack 1	<ul style="list-style-type: none"> • Microsoft Hotfix KB923830 • Microsoft Hotfix KB919117 • Microsoft Hotfix KB928385 • Microsoft Hotfix KB921181 • IBM XIV Host Attachment Kit for Windows
	Service Pack 2	<ul style="list-style-type: none"> • Microsoft Hotfix KB895092 • Microsoft Hotfix KB919117 • Microsoft Hotfix KB928385 • Microsoft Hotfix KB921181 • IBM XIV Host Attachment Kit for Windows

Operating system	Service pack	Required hotfixes and components
Windows Server 2008	None	<ul style="list-style-type: none"> • Microsoft Hotfix set KB957311 • IBM XIV Host Attachment Kit for Windows
	Service Pack 1	IBM XIV Host Attachment Kit for Windows
Windows Server 2008 R2	None	IBM XIV Host Attachment Kit for Windows
	Service Pack 1	IBM XIV Host Attachment Kit for Windows
Windows Server 2012	None	IBM XIV Host Attachment Kit for Windows
Windows Server 2012 R2	None	IBM XIV Host Attachment Kit for Windows

Change log

This section summarizes the changes made in different version releases of the IBM Storage Enabler for Windows Failover Clustering.

Version 1.2.1 (June 2015)

Version 1.2.1 resolves the following issues.

Ticket ID	Description
MSCSAGENT-259552	Fixed: Forced failover may fail to change roles for XIV storage systems.
MSCSAGENT-259553	Fixed: In large-scale deployments with number of nodes exceeding 90, the XIV management system may become unresponsive during a failover, due to an increased amount of agent requests.

Version 1.2.0 (December 2013)

Version 1.2.0 introduced support for Microsoft Windows Server 2012 R2. Also, it added support for newer versions of the XIV microcode.

Additional changes in version 1.2.0:

Ticket ID	Description
MSCSAGENT-259512	<p>Enhancement: Added limited support for IBM Hyper-Scale Mobility.</p> <p>Attention: Volumes can be configured for protection by the IBM Storage Enabler for Windows Failover Clustering agent, but only after the migration is completed, after Proxy End mode.</p> <p>To help you determine whether your environment supports IBM Hyper-Scale Mobility together with the IBM Storage Enabler for Windows Failover Clustering, contact IBM Support.</p>
MSCSAGENT-259519	Fixed: The installer fails when the IBM Storage Enabler is installed with IBM XIV Host Attachment Kit (HAK) version 2.0.0, or with a portable HAK installation.

Ticket ID	Description
MSCSAGENT-251103	Fixed: Failover fails if the name of subordinate and master volumes is different.
MSCSAGENT-243376	Fixed: In some cases, a Windows exception is logged when trying to receive device information.
MSCSAGENT-242179	Fixed: The agent service failed and the xiv_mscs_admin command failed because of stale volume mappings.

Version 1.1.0 (September 2012)

Version 1.1.0 added support for Microsoft Windows Server 2012.

Additional changes in version 1.1.0:

Ticket ID	Description
MSCSAGENT-231287	Enhancement: New administrator command options are now available: --force-fail-over-enabled and --force-fail-over-disabled . These commands provide an alternative to the red_button registry key modification. Refer to the user guide for information about these command options.
MSCSAGENT-238508	Enhancements: The forced failover status (enabled or disabled) is now reported in the --report command output.
MSCSAGENT-29727	Fixed: The XIV command line interface (XCLI) credentials that the IBM Storage Enabler uses must be defined on all XIV systems that are detected on the node.
MSCSAGENT-49020	Fixed: When using XIV storage systems of different microcode versions, remote XCLI commands might fail. Note: Because this issue is now resolved, the procedure of upgrading the XIV microcode (provided in the previous release notes) is no longer required.
MSCSAGENT-111979	Fixed: When using Windows Server 2008 or 2008 R2 clusters, consider the following issue: XIV volumes that are defined in the 'Available Storage Group' cluster group cause the --deploy command to add the XIV mirror resource to the Available Storage group.
MSCSAGENT-165347	Fixed: In some cases, a failover operation might reactivate the mirror function even if it was deactivated by the user.
MSCSAGENT-240501	Fixed: A failure occurs if a physical disk resource type is added to the cluster without an actual physical disk connected.

Known issues

Version 1.2.1 contains some known issues, along with possible workarounds (if a workaround is available).

Ticket ID	Description
MSCSAGENT-29797	Resource names in the failover cluster must not contain a caret character (^) because it cannot be processed by the software agent.
MSCSAGENT-18834	Consistency groups are not supported. Volumes in mirrored consistency groups are not supported. Although volumes that depend on IBM XIV mirror resources in a cluster can be defined, the failover does not work, and the roles of these volumes are not switched or changed. Accordingly, mirrored volumes that are defined in mirrored consistency groups cannot be used.
MSCSAGENT-27291	Switch Roles batch issued by the IBM Storage Enabler may trigger an error in the XIV storage system mirroring. In some rare cases, a Switch Roles batch operation on an XCLI controlled cluster node with very low Input/Output Operations Per Second (IOPS) might cause a corruption in the mirroring, resulting in a failover. Currently there is no workaround for this issue.
MSCSAGENT-165290	The XIV CLI (XCLI) storage administrator credentials that are defined on the local XIV system and used by the cluster nodes must also be defined on the remote XIV system. If the credentials are not defined on the remote XIV system, failovers to the remote nodes result in a failure. Currently there is no workaround for this issue.
MSCSAGENT-239130	The --verify command fails when there are disk resources in the cluster representing unreachable physical disks. Currently there is no workaround for this issue.
MSCSAGENT-242191	In some rare cases, the xiv_mscs_service restart command fails. Currently there is no workaround for this issue.

Ticket ID	Description
MSCSAGENT-243606	<p>When upgrading the IBM Storage Enabler from version 1.0.3 to version 1.1.0 on Windows Server 2008, the user receives a notification that when the installation finishes, a restart to the host is needed.</p> <p>Workaround: Disregard this notification and continue with the installation and deployment of the upgrade.</p>
MSCSAGENT-243936	<p>The credentials for accessing XIV storage systems can be set on the node only when the language for non-Unicode programs is set in Windows to 'English (United States)'.</p> <p>When any other language is set as the language for non-Unicode programs, the XIV credentials cannot be authenticated and the connection fails.</p> <p>To resolve this issue, access the regional settings from the Windows control panel, and set 'English (United States)' as the language for non-Unicode programs.</p>
FSP-57561	<p>Disk sector 11 access error message appears when configuring a geographically dispersed cluster.</p> <p>The following storage test error might appear during the initial test of a geographically dispersed cluster:</p> <p>"Failed to access sector 11 on disk..."</p> <p>For more information about this error, refer to the 'Geographically dispersed clusters' section on the following Microsoft support page: http://support.microsoft.com/kb/943984</p>

Related information sources

You can find additional information and publications related to the IBM Storage Enabler for Windows Failover Clustering on the following IBM and Microsoft websites.

- IBM Knowledge Center (ibm.com/support/knowledgecenter)
- IBM XIV Storage System on IBM Knowledge Center (ibm.com/support/knowledgecenter/STJTAG)
- IBM XIV Host Attachment Kit ibm.com/support/knowledgecenter/STJTAG/hsg/hsg_hak_kcwelcome.html/)
- Microsoft Windows Failover Clustering Overview (technet.microsoft.com/en-us/library/hh831579)
- Microsoft Server Clusters Technical Reference ([technet.microsoft.com/en-us/library/cc759014\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc759014(WS.10).aspx))
- Failover Clusters in Windows Server 2008 ([technet.microsoft.com/en-us/library/ff182326\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/ff182326(WS.10).aspx))
- Failover Clusters in Windows Server 2008 R2 ([technet.microsoft.com/en-us/library/ff182338\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/ff182338(WS.10).aspx))
- Microsoft Support page for Windows clustering and geographically separate sites (support.microsoft.com/kb/280743)

- Microsoft Q&A: Geographically Dispersed Clusters ([technet.microsoft.com/en-us/library/cc757840\(W.S.10\).aspx](http://technet.microsoft.com/en-us/library/cc757840(W.S.10).aspx))
- The Microsoft Support Policy for Windows Server 2008 Failover Clusters (support.microsoft.com/kb/943984/en-us)
- Microsoft Clustering and High-Availability blog (blogs.msdn.com/b/clustering/)

Getting information, help, and service

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

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