

IBM Spectrum Accelerate Family Provider
for Microsoft Windows Volume Shadow Copy
Service
2.12.0

Release Notes



First Edition (December 2021)

This edition applies to IBM® Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service 2.12.0 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.

© **Copyright International Business Machines Corporation 2009, 2021.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

- Overview.....1**
- What's new in 2.12.0..... 3**
- Compatibility and requirements.....5**
 - Supported Windows Server versions.....5
 - Supported VMware platforms.....5
 - Supported storage systems..... 5
- Change log..... 7**
 - 2.12.0 (December 2021)..... 7
 - 2.11.0 (June 2021)..... 7
 - 2.10.0 (January 2019)..... 7
 - 2.9.0.1 (June 2018)..... 7
 - 2.9.0 (June 2017)..... 7
- Known issues..... 9**
- Known interoperability issues..... 13**
- Related information and publications..... 15**
- Getting information, help, and service..... 17**
- Notices..... 19**
 - Terms and conditions for product documentation..... 20

Overview

The IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service (VSS) is a software module that runs as a service on Microsoft Windows Server and automatically creates snapshots of Windows-based or VMware-based applications.

The module uses the Windows Server VSS framework for its management interface, and the IBM Spectrum Accelerate Family product as the storage system on which snapshot data is stored and maintained.

You can download the IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service software package at any time from the [IBM Fix Central website](http://www.ibm.com/support/fixcentral) (www.ibm.com/support/fixcentral).

What's new in 2.12.0

IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service 2.12.0 adds Microsoft Windows Server 2022 support.

Compatibility and requirements

This section specifies the compatibility and requirements of IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service 2.12.0.

Supported Windows Server versions

The IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service is compatible with different versions of Microsoft Windows Server, as detailed in the following table.

Operating system	Service Pack	Architecture
Microsoft Windows Server 2008	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
Microsoft Windows Server 2016	None	x64
Microsoft Windows Server 2019	None	x64
Microsoft Windows Server 2022	None	x64

Important:

- Refer to [HyperSwap issues and limitations for Windows Server 2008 and 2008 R2](#) under [Known interoperability issues](#) for important information about prerequisites for Windows Server support with HyperSwap®.
- Microsoft .NET Framework 4.5 must be installed on all supported Windows Server versions.
- Microsoft Windows Hyper-V host operating system (OS) supports Windows Server 2012 and later.
- Microsoft Windows Hyper-V guest OS supports Windows Server 2008 and later.

Supported VMware platforms

The IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service supports different VMware platforms, as detailed in the following table.

VMware platform	Version
ESXi	5.0, 5.1, 5.5, 6.0, 6.5, 6.7, 7.0
vCenter Server	5.0, 5.1, 5.5, 6.0, 6.5, 6.7, 7.0

Supported storage systems

The IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service supports different IBM storage systems, as listed in the following table.

Storage system	Microcode version
IBM FlashSystem® A9000 and A9000R	12.3.2.b or later
IBM XIV® Storage System	11.6.2.x
IBM Spectrum Accelerate	11.5.3.c, 11.5.4

Note:

- A snapshot will not be created if the free snapshot space is less than or equal to 17 GB.
- Newer microcode versions may also be compatible. When a newer microcode version becomes available, refer to the latest storage system release notes or the [Lifecycle and support matrix](#) in IBM Documentation to check whether the new microcode version is also supported.

Change log

This section summarizes the changes made in different version releases of the IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service.

2.12.0 (December 2021)

IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service 2.12.0 adds Microsoft Windows Server 2022 support.

2.11.0 (June 2021)

IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service 2.11.0 added Microsoft Windows Server 2019 support and the following additional VMware platforms:

- vSphere ESXi Server: 6.5, 6.7, 7.0
- vCenter Server: 6.0, 6.5, 6.7, 7.0

2.10.0 (January 2019)

Version 2.10.0 added support for the following system microcode versions:

- IBM FlashSystem A9000 12.3.0
- IBM FlashSystem A9000R 12.3.0

Version 2.10.0 also included the following enhancement:

Ticket ID	Description
VSSP-261178	Enhancement: Support for IBM FlashSystem Multi-site High Availability and Disaster Recovery (HA/DR) functionality added.

2.9.0.1 (June 2018)

Version 2.9.0.1 included the following enhancement and fix.

Ticket ID	Description
VSSP-261176	Enhancement: Support for TLS 1.2 added.
VSSP-261174	Fixed: The VSS Provider didn't support TLS 1.2 after disabling TLS 1.0/1.1 on Windows Server.

2.9.0 (June 2017)

Version 2.9.0 added support for IBM FlashSystem A9000 and IBM FlashSystem A9000R 12.1.0, including IBM HyperSwap.

Additional enhancements in version 2.9.0:

Ticket ID	Description
VSSP-261155	Enhancement: Support for high availability snapshots added.

Ticket ID	Description
VSSP-261159	Change: Product name changed from "IBM XIV Provider for Microsoft Windows Volume Shadow Copy Service" to "IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service."
VSSP-261154	Enhancement: Private APIs for FlashCopy Manager (FCM) created to provide capability to manage a snapshot of a snapshot in order to perform mailbox level restores.

Known issues

This section details the known issues in version 2.12.0, along with possible workarounds (if workarounds are available).

Ticket ID	Description
VSSP-6698	<p>Warning message about storage identifiers that are not supported on Windows Server 2008.</p> <p>The following warning message is displayed for storage systems that support TPGS: The provider has reported a storage identifier that is not supported by VSS.</p> <p>This warning message does not affect the normal operation of VSS and you can ignore it. For more information, refer to the relevant Microsoft Support website (support.microsoft.com/kb/951793)</p>
VSSP-8889	<p>Shadow set creation may fail on Windows Server 2008 R2 after LUN resynchronization.</p> <p>Shadow sets creation may fail after performing LUN resynchronization on Windows Server 2008 R2. This is a known Microsoft VSS issue.</p> <p>Until Microsoft releases a KB hotfix, you must restart the VSS service after each LUN resynchronization.</p>
VSSP-17662	<p>The VSS operation may fail during import on Windows 7 and Windows Server 2008 R2.</p> <p>A timeout may occur in the VSS process during an import of a shadow set. As a result, one or more snapshots may be missing from the system after a rescan, even if they are mapped to the host by the XIV system. The Microsoft hotfix 977096 (support.microsoft.com/kb/977096) resolves this issue:</p> <p>This issue was fixed in Windows Server 2008 R2 Service Pack 1.</p>
VSSP-64302	<p>An exception occurs when trying to repair a working VSS Provider installation via the Repair option of the installation wizard.</p> <p>To resolve this issue:</p> <ol style="list-style-type: none">1. Go to Control Panel > Programs and Features > Add or Remove Programs.2. Select the IBM Spectrum Accelerate Family Provider entry and then click Uninstall or Remove. The uninstallation begins. Note: During the uninstallation, ignore any exception error message.3. After the uninstallation is complete, the IBM Spectrum Accelerate Family Provider entry continues to appear in the list of installed programs.4. Select the IBM Spectrum Accelerate Family Provider entry and then click Repair or Change > Repair5. Follow the Repair wizard until the repair is complete.

Ticket ID	Description
VSSP-84189	<p>On VMware ESX servers, the VSS Provider does not rescan for Host Bus Adapters (HBAs) after unmapping Raw Device Mappings (RDMs).</p> <p>Because the unmapping of RDMs is performed in single mode, manually re-scanning for the HBAs of every single unmapped RDM is a time consuming procedure during which the VSS service may be timed out.</p> <p>To save time, wait for the VMware ESX server to automatically rescan for the HBAs instead of re-scanning manually.</p>
VSSP-147364	<p>The VSS Provider DLL is left registered after an installation failure.</p> <p>When performing a rollback to an older version after an installation failure, the VSS Provider DLL may still be registered in DCOM.</p> <p>To remove the DLL from DCOM:</p> <ol style="list-style-type: none"> 1. Click Start > Run and type dcomcnfg.exe in the command box. 2. Go to Component Services > Computers > My Computer > DCOM Config 3. On the right pane, click the Provider component, and then press Delete on the keyboard. A message box is displayed to confirm the deletion of the component. 4. Click Yes.
VSSP-164293	<p>On some occasions, when running Windows Server 2003 or Windows Server 2008 as a guest operating system on a VMware platform connected to XIV version 11.0.0, importing a VSS hardware snapshot created on a RDM device results in a VSS enumeration issue.</p> <p>To avoid this issue or to resolve it upon occurrence, perform the following procedure before importing VSS hardware snapshots:</p> <ol style="list-style-type: none"> 1. Open the command prompt window. 2. Enter: net stop xProv 3. Enter: net stop vss 4. Retry the import operation.
VSSP-243718	<p>The VSS Provider cannot be installed in a directory that is named with anything other than English characters.</p> <p>Currently there is no workaround for this limitation.</p>
VSSP-258222	<p>The VSS Provider snapshot map parameter (MapSnapshot) in the Windows registry might get a wrong host name.</p> <p>This occurs due to low-case characters that Windows Server might record in the DeviceIdentifierPage registry parameter, located at:</p> <p>HKEY_LOCAL_MACHINE\HARDWARE\DEVICEMAP\Scsi\Scsi Port 3\Scsi Bus 0\Target Id 0\Logical Unit Id 0\DeviceIdentifierPage</p> <p>To resolve this issue, restart Windows.</p>

Ticket ID	Description
VSSP-259229	<p>The VSS Provider service (named "xProv") and the Microsoft VSS service must be restarted on the Windows Server host after the status of mirrored snapshots is changed from Disabled to Enabled.</p> <p>In such a case, without a service restart, snapshots are not created on mirrored volumes.</p> <p>Currently there is no workaround for this limitation.</p>
VSSP-261047	<p>The VSS provider cannot unmap a volume when the unmap_vol_set_default_idle_time setting on XIV 11.4.0 is not zero.</p> <p>Workaround: Set unmap_vol_set_default_idle_time to zero (0) before deleting or masking a snapshot.</p>
VSSP-261185	<p>XIVVSS does not function well and cannot be uninstalled completely if installed in the same environment as SVCVSS. There is, however, a workaround to uninstall XIVVSS completely.</p> <p>Workaround: To uninstall XIVVSS completely if it has been installed in the same environment as SVCVSS, complete the following steps:</p> <ol style="list-style-type: none"> 1. Uninstall SVCVSS. 2. Reinstall XIVVSS. 3. Under the install root path (the default root path is C:\Program Files\IBM\IBM XIV Provider for Microsoft Windows Volume Shadow Copy Service), change directories by entering the command <code>cd Native</code>. 4. Run <code>regsvr32 /u xProv.dll</code>. 5. Uninstall XIVVSS in the control panel. 6. If the above steps do not work the first time, try them again.
VSSP-261200	<p>SnapshotOfSnapshot function does not work with IBM FlashSystem A9000 and A9000R systems.</p>

Known interoperability issues

This section describes known issues or limitations that could arise when using this version of IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service in conjunction with other components in the production environment, such as hardware switches, host bus adapters (HBAs), other IBM products, or different software platforms such as operating systems, clustering solutions, virtual machine servers, multipathing solutions, and other third-party components.

HyperSwap issues and limitations for Windows Server 2008 and 2008 R2

In Windows Server 2008 and 2008 R2, an attempt to failover a cluster group results in a Stop error on the new active node. This stems from the inability of the Microsoft Device-Specific Module driver to allocate sufficient memory from the Report Target Port Groups (RTPG) command.

IBM Technote S1010299, **IBM FlashSystem A9000 and A9000R HyperSwap support notes for Windows Server hosts**, provides important guidance for using HyperSwap with Windows Server 2008 and Windows Server 2008 R2.

Related information and publications

You can find additional information and publications related to the IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service on the following websites.

- [IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service in IBM Documentation](https://ibm.com/docs/en/spectrumaccel-vss) (ibm.com/docs/en/spectrumaccel-vss)
- [IBM XIV Storage System in IBM Documentation](https://ibm.com/docs/en/xiv-storage-system) (ibm.com/docs/en/xiv-storage-system)
- [IBM Spectrum Accelerate in IBM Documentation](https://ibm.com/docs/en/spectrum-accelerate) (ibm.com/docs/en/spectrum-accelerate)
- [IBM FlashSystem A9000 in IBM Documentation](https://ibm.com/docs/en/flashsystem-a9000) (ibm.com/docs/en/flashsystem-a9000)
- [IBM FlashSystem A9000R in IBM Documentation](https://ibm.com/docs/en/flashsystem-a9000r) (ibm.com/docs/en/flashsystem-a9000r)
- [IBM Hyper-Scale Mobility Overview and Usage](http://www.redbooks.ibm.com/redbooks.nsf/redpieceabstracts/redp5007.html) (www.redbooks.ibm.com/redbooks.nsf/redpieceabstracts/redp5007.html)
- [Microsoft MSDN web page for Volume Shadow Copy Service](https://msdn.microsoft.com/en-us/library/bb968832.aspx) (msdn.microsoft.com/en-us/library/bb968832.aspx)
- [Microsoft Windows Server troubleshooting center](https://technet.microsoft.com/en-us/windowsserver) (technet.microsoft.com/en-us/windowsserver)
- [VMware ESXi and ESX Info Center](https://www.vmware.com/products/vsphere/esxi-and-esx) (www.vmware.com/products/vsphere/esxi-and-esx)
- [VMware Product Support for VMware vSphere](https://www.vmware.com/support/product-support/vsphere) (www.vmware.com/support/product-support/vsphere), including support for ESX, ESXi, and vCenter
- [VMware knowledgebase](https://kb.vmware.com) (kb.vmware.com)
- [Videos Related to IBM Spectrum Accelerate Family Provider for Microsoft Windows Volume Shadow Copy Service](https://www.youtube.com/channel/UCRIw6cXxi--bHnMWG45VgNw) (www.youtube.com/channel/UCRIw6cXxi--bHnMWG45VgNw)

Getting information, help, and service

If you need help, service, technical assistance, or want more information about IBM products, you can find various sources to assist you. You can view the following websites to get information about IBM products and services and to find the latest technical information and support.

- [IBM \(ibm.com®\)](http://ibm.com)
- [IBM Publications Center \(www.ibm.com/shop/publications/order/\)](http://www.ibm.com/shop/publications/order/)
- [IBM Directory of Worldwide Contacts \(www.ibm.com/planetwide\)](http://www.ibm.com/planetwide)

Notices

These legal notices pertain to IBM Storage Host Software Solutions product documentation.

This information was developed for products and services offered in the U.S.A. This material may be available from IBM in other languages. However, you may be required to own a copy of the product or product version in that language in order to access it.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

*IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.*

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

*Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
1623-14, Shimotsuruma, Yamato-shi
Kanagawa 242-8502 Japan*

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

*IBM Corporation
Attn: Office of Legal Counsel
650 Harry Road*

San Jose, CA 95120-6099
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

Terms and conditions for product documentation

Permissions for the use of these publications are granted subject to the following terms and conditions.

IBM Privacy Policy

At IBM we recognize the importance of protecting your personal information and are committed to processing it responsibly and in compliance with applicable data protection laws in all countries in which IBM operates.

Visit the IBM Privacy Policy for additional information on this topic at <https://www.ibm.com/privacy/details/us/en/>.

Applicability

These terms and conditions are in addition to any terms of use for the IBM website.

Personal use

You can reproduce these publications for your personal, noncommercial use provided that all proprietary notices are preserved. You cannot distribute, display, or make derivative work of these publications, or any portion thereof, without the express consent of IBM.

Commercial use

You can reproduce, distribute, and display these publications solely within your enterprise provided that all proprietary notices are preserved. You cannot make derivative works of these publications, or reproduce, distribute, or display these publications or any portion thereof outside your enterprise, without the express consent of IBM.

Rights

Except as expressly granted in this permission, no other permissions, licenses, or rights are granted, either express or implied, to the Publications or any information, data, software or other intellectual property contained therein.

IBM reserves the right to withdraw the permissions that are granted herein whenever, in its discretion, the use of the publications is detrimental to its interest or as determined by IBM, the above instructions are not being properly followed.

You cannot download, export, or reexport this information except in full compliance with all applicable laws and regulations, including all United States export laws and regulations.

IBM MAKES NO GUARANTEE ABOUT THE CONTENT OF THESE PUBLICATIONS. THE PUBLICATIONS ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.

IBM trademarks

IBM, the IBM logo, and [ibm.com](http://www.ibm.com) are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available at <http://www.ibm.com/legal/copytrade.shtml>.



Printed in USA