

IBM Storwize Family Storage Replication Adapter
Version 2.3.1.1

Release notes



First Edition (June 2015)

This edition applies to version 2.3.1.1 of the IBM Storwize Family Storage Replication Adapter and to all subsequent releases and modifications until otherwise indicated in a newer publication. 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 IBM Corporation 2010, 2015.

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

Contents

Overview	1
Download site	1
Compatibility and requirements	1
Supported storage systems	1
Required VMware server software	1
Required VMware client software	2
Change log	2
Version 2.3.1.1 (June 2015)	2
Version 2.3.1 (March 2015)	2
Version 2.3.0.1 (December 2014)	2
Version 2.3.0 (June 2014)	2
Version 2.2.1 (December 2013)	3
Version 2.2.0 (September 2013)	3
Version 2.1.0 (January 2013)	4
Known issues	4
Related information and publications	5
Getting information, help, and service	5
Notices	7
Trademarks	8

Overview

The IBM® Storwize® Family Storage Replication Adapter (SRA) is a software add-on that integrates with VMware vCenter Site Recovery Manager (SRM) solution and enables SRM to perform failovers together with supported storage systems.

The IBM Storwize Family SRA extends SRM capabilities and uses replication and mirroring as part of the SRM comprehensive Disaster Recovery Planning (DRP) solution. VMware administrators can automate the failover of a storage system at the protected (primary) SRM site to a storage system at a recovery (secondary) SRM site.

Download site

You can download the IBM Storwize Family SRA from the VMware website.

<http://www.vmware.com/go/download-srm>

Compatibility and requirements

The compatibility and requirements for version 2.3.1.1 of the IBM Storwize Family SRA are documented in the following topics.

Supported storage systems

The IBM Storwize Family SRA supports the following IBM Storage products.

Storage system	Microcode version	Compatibility note
IBM FlashSystem V9000	7.4.1	
IBM SAN Volume Controller	5.1.10 to 7.5	Requires the Remote Mirror and FlashCopy® features to be enabled.
IBM Storwize V3700	7.1.0.1 to 7.5	
IBM Storwize V5000	7.1 to 7.5	
IBM Storwize V7000	6.1 to 7.5	
IBM Storwize V7000 Unified	1.3 to 1.5.2	Only block storage is supported. File systems and file shares are not supported.

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 VMware server software

The following server software must be installed at both the protected (primary) and recovery (secondary) sites.

- VMware Site Recovery Manager 5.x or 6.0

Required VMware client software

The following software must be installed on the administrator client station.

- VMware vSphere Client 5.0, 5.1, or 5.5
- VMware vSphere Web Client 5.5 U2 or later

Change log

This section summarizes the changes made in different version releases of the IBM Storwize Family Storage Replication Adapter (SRA).

Version 2.3.1.1 (June 2015)

Version 2.3.1.1 includes the following enhancement and fixes.

Ticket ID	Description
VMSS-260672	Enhancement: Array specific Mdisk group configurations for multiple arrays on one site.
VMSS-260655	Fixed: In CheckTool, disabled SSLv3 to avoid man-in-the-middle (MITM) attacks.
VMSS-260668	Fixed: For security, disabled DH and DHE algorithms to prevent SSL Logjam attacks.

Version 2.3.1 (March 2015)

Version 2.3.1 added support for VMware Site Recovery Manager 6.0 and included the following fix:

Ticket ID	Description
VMSS-260656	Fixed: An error occurs when setting a managed disk (Mdisk) group for target protection, and the operation fails.

Version 2.3.0.1 (December 2014)

Version 2.3.0.1 added support for the following storage system microcode versions:

- IBM SAN Volume Controller 7.4
- IBM Storwize V3700 7.4
- IBM Storwize V5000 7.4
- IBM Storwize V7000 7.4

and included the following fix:

Ticket ID	Description
VMSS-260651	Fixed: Disabled SSLv3 to prevent man-in-the-middle (MITM) attacks.

Version 2.3.0 (June 2014)

Version 2.3.0 added support for the following storage system microcode versions:

- IBM SAN Volume Controller 7.3

- IBM Storwize V3700 7.3
- IBM Storwize V5000 7.3
- IBM Storwize V7000 7.3
- IBM Storwize V7000 Unified 1.4.3 (block storage only)

and also included the following enhancements and fix:

Ticket ID	Description
VMSS-260576	Enhancement: IP replication partnerships. IP replication only supports Storwize Family version 7.2 or later. For information about configuring IP replication, see the IBM Storwize V7000 information center.
SRADSK-261140	Enhancement: The Check Configuration Tool determines whether the configuration is correct and troubleshoots problems.
SVCSRA-5161	Fixed: The IBM Storwize Family SRA fails if the name of the consistency group has the string " grp. "

Version 2.2.1 (December 2013)

Version 2.2.1 added support for the following storage system microcode versions:

- IBM Flex System[®] V7000 Storage Node 7.2
- IBM SAN Volume Controller 7.2
- IBM Storwize V3700 7.2
- IBM Storwize V5000 7.1 to 7.2
- IBM Storwize V7000 7.2
- IBM Storwize V7000 Unified 1.4.2 (block storage only)

and included the following enhancement:

Ticket ID	Description
VMSS-260606	Enhancement: Support for Transport Layer Security (TLS) 1.2.

Version 2.2.0 (September 2013)

Version 2.2.0 added support for the following systems:

- IBM Flex System V7000 Storage Node
- IBM SAN Volume Controller
- IBM Storwize V3700
- IBM Storwize V7000
- IBM Storwize V7000 Unified

Note: Only block storage is supported for IBM Storwize V7000 Unified. File systems and file shares are not supported.

Version 2.2.0 also added support for the IBM Storwize V5000 storage system microcode version 7.1, along with the following enhancements:

Ticket ID	Description
VMSS-260605	Enhancement: Support for compressed volumes (compressed volumes can be created during SRM operations).
VMSS-260604	Enhancement: Adding a Volume Name filter (Opaque).

Version 2.1.0 (January 2013)

Version 2.1.0 added the following features.

Global Mirror Change Volume

Global Mirror Cycling mode between the storage systems.

Fiber Channel/ISCSI communication

iSCSI and Fibre Channel communications between host and storage.

Preconfigured failover

Pre-configured environment settings for data migration.

Non-preconfigured failover

Non-preconfigured environment settings for data migration.

Space Efficient Volume

Space Efficient FlashCopy target volume.

Version 2.1.0 included the following fixes:

Ticket ID	Description
SVCSRA-5192	Fixed: The Site Recovery Manager reports 4096 error code and causes test failover failure.
SVCSRA-5201	Fixed: The space efficient volume is not created when the Storage Replication Adapter is configured in space efficient mode during testfailoverstart .
SVCSRA-5202	Fixed: Test snapshot is not cleaned up during testfailoverstop .
SVCSRA-5207	Fixed: Failover failed when the SAN Volume Controller protection site is down.

Known issues

This section details the known issues in version 2.3.1.1, along with possible workarounds (if workarounds are available).

Ticket ID	Description
SVCSRA-5161	<p>If the vCenter/SRM/ESX server is down while the IBM storage is still working, the secondary recovery action might fail when the primary site is recovered.</p> <p>Workaround: Stop the remote copies with the access option enabled on the storage system before running the secondary recovery.</p>

Related information and publications

Additional information and publications related to the IBM Storwize Family SRA can be found on the following IBM and VMware websites.

- IBM Knowledge Center
- VMware vCenter Site Recovery Manager Documentation
- VMware Technical Resource Center
- VMware Knowledge Center
- SAN Volume Controller V4.3.0 Advanced Copy Services
- SAN Volume Controller Best Practices and Performance Guidelines

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 website (ibm.com[®])
- IBM Support Portal website (www.ibm.com/storage/support)
- IBM Directory of Worldwide Contacts website (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.

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.

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of the 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 on the Copyright and trademark information website (ibm.com/legal/us/en/copytrade.shtml).

VMware, ESX, ESXi, vSphere, vCenter, and vCenter Site Recovery Manager are trademarks or registered trademarks of VMware Corporation in the United States, other countries, or both.

Other product and service names might be trademarks of IBM or other companies.



Printed in USA