

IBM DS8000 Storage Replication Adapter
Version 2.4.2

Release Notes



First Edition (September 2020)

This edition applies to version 2.4.2 of the IBM® DS8000® 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 International Business Machines Corporation 2010, 2020.**

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

Contents

- Overview.....1**
- Download site..... 3**
- Compatibility and requirements.....5**
 - Supported storage systems..... 5
 - Required VMware server software..... 5
 - Required VMware client software..... 5
- Change log..... 7**
 - 2.4.2 (September 2020)..... 7
 - 2.4.1 (August 2020)..... 7
 - 2.3.3 (December 2019)..... 7
 - 2.3.2 (September 2017)..... 7
 - 2.3.1 (January 2016)..... 7
 - 2.3.0 (November 2014)..... 8
 - 2.2.1 (December 2013)..... 8
 - 2.2.0 (May 2013)..... 8
 - 2.1.0 (March 2013)..... 8
- Known issues..... 11**
- Related information and publications.....13**
- Getting information, help, and service.....15**
- Notices.....17**
 - Trademarks..... 18

Overview

The IBM DS8000 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 with supported storage systems.

The IBM DS8000 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 DS8000 SRA from the VMware website.

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

Compatibility and requirements

This section specifies the compatibility and requirements of version 2.4.2 of the IBM DS8000 SRA.

Supported storage systems

The IBM DS8000 SRA supports the following storage products.

Storage system	Microcode version
IBM DS8870	7.5
IBM DS8880	8.0 to 8.5.x
IBM DS8900	9.0 to 9.0.x

Note: Newer microcode versions may also be compatible. When a newer microcode version becomes available, refer to the [Lifecycle and support matrix page](#) on IBM Knowledge Center 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 8.2 or 8.3 (Virtual Appliance)

Required VMware client software

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

- VMware vSphere Web Client 6.0 U3 or later

Change log

This section summarizes the changes made in different version releases of the IBM DS8000 SRA.

2.4.2 (September 2020)

This version includes the following enhancement.

Ticket ID	Description
SRADSK-261282	Enhancement: IBM DS8000 SRA updated to use Python 3 instead of Python 2.

2.4.1 (August 2020)

This version added support for IBM DS8900 9.0 and VMware Site Recovery Manager 8.2 and 8.3 (Virtual Appliance). It also included the following fix.

Ticket ID	Description
SRADSK-261276	Fixed: Copy Service Manager could not be used with an SRA preconfigured environment.

2.3.3 (December 2019)

This version added support for versions 8.4 and 8.5 of IBM DS8880 and included the following enhancement.

Ticket ID	Description
SRADSK-261264	Enhancement: Improved performance when querying remote copy relationships from storage systems.

2.3.2 (September 2017)

This version added support for versions 8.1 to 8.3 of IBM DS8880 and included the following fix.

Ticket ID	Description
SRADSK-261222	Fixed: The remote mirroring definition could not be found during preconfig disaster failover in GM/Master subordinate configuration.

2.3.1 (January 2016)

This version added support for IBM DS8880 8.0 and included the following enhancements.

Ticket ID	Description
SRADSK-261217	Enhancement: Extent Space Efficient (ESE) volumes support added, for when creating flash copies in Test, Backup Target, and Reprotect.
SRADSK-261218	Enhancement: If the SRA is running in non-preconfigured mode, the GM Flashcopy is removed on the source site after Reprotect runs successfully.

2.3.0 (November 2014)

This version included the following enhancements and fix.

Ticket ID	Description
SRADSK-261140	Enhancement: The Check Configuration tool determines whether the configuration is correct and troubleshoots problems.
SRADSK-261182	Enhancement: M–N Metro Mirror enables Peer-to-Peer Remote Copy (PPRC) connections to more than one DS8000 SRA.
SRADSK-261177	Fixed: IBM DS8000 SRA will not suspend Metro Mirror for a Metro Global Mirror function during testFailover. Note: This fix stops Tivoli® Storage Productivity Center for Replication (TPC-R) from operating incorrectly and affecting other unrelated replications.

2.2.1 (December 2013)

This version added support for IBM DS8000 7.2 and included the following enhancement.

Ticket ID	Description
SRADSK-261183	Enhancement: Support for Transport Layer Security (TLS) 1.2.

2.2.0 (May 2013)

This version included the following enhancements and fixes.

Ticket ID	Description
SRADSK-259754	Enhancement: Improved lock mechanism to avoid conflicting with new volume IDs.
SRADSK-261184	Enhancement: The Name Filter parameter limits device discovery to a subset of devices that are managed by SRM. This parameter can be used to limit the discovery, for example, to replicated volumes or session IDs whose names begin with a specified string.
SRADSK-258327	Fixed: DiscoverDevices returns incorrect Peer-to-Peer Remote Copy (PPRC) direction. An error occurs during Global Mirror failover or test failover, when one recovery plan is in the process of reprotect and another recovery plan invokes DiscoverDevices .
SRADSK-260190	Fixed: DiscoverDevices returns incorrect PPRC direction. An error occurs during Global Mirror reprotect, where some PPRCs within the same Global Mirror might experience reprotect while others might not.

2.1.0 (March 2013)

This version added the following features:

Metro Mirror

Metro Mirror between the storage systems.

Global Mirror

Multiple Global Mirrors between the storage systems.

Metro Global Mirror

Metro Global Mirror between the storage systems.

Note: The DS8000 SRA does not support failover to the intermediate site.

Master Subordinate Global Mirror

Global Mirror with master and subordinate between the storage systems.

Tivoli Storage Productivity Center for Replication

Global Mirror and Metro Mirror practice mode that is managed by TPC-R.

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.

Known issues

This section details the known issues in version 2.4.2, along with possible workarounds (if workarounds are available).

Ticket ID	Description
SRADSK-261207	<p>If the IBM DS8000 on the protected site is enabled for VMware vStorage APIs for Array Integration (VAAI) Atomic Test & Set (ATS) and the DS8000 on the recovery site is ATS-disabled or does not support VAAI, VMWare SRM fails to run Test Failover and Failover. This result is because the copied datastore on the recovery site cannot be mounted successfully. For example, if you have one DS8000 R7.3 on which VAAI is enabled by default on the protected site and one DS8000 R6.3 on which VAAI is not supported on the recovery site, this problem occurs. You can find the DS8000 VAAI support matrix in the the compatibility guide (http://www.vmware.com/resources/compatibility/detail.php?deviceCategory=san&productid=1223).</p> <p>Workaround: Disable the VAAI ATSONly on the VMware Virtual Machine File System (VMFS) datastore on the DS8000 on the protected site and run the SRM operation again. The steps can also be found on the VMware Knowledge Base (http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2030416)</p>

The following workaround command can be used:

```
vmkfstools --configATSONly 0  
/vmfs/devices/disks/device-ID :Partition
```

Where device-ID is the NAA ID of the LUN on which the VMFS datastore was created and Partition is the partition number on which the VMFS datastore was created. For example:

```
vmkfstools --configATSONly 0  
/vmfs/devices/disks/  
naa.6006016055711d00ce5e65664ee011:1
```

Related information and publications

Additional information and publications that are related to the IBM DS8000 SRA can be found at the following websites:

- [IBM Knowledge Center](#)
- [IBM DS8000 Copy Services for Open Systems](#)
- [VMware vCenter Site Recovery Manager Documentation](#)
- [VMware Technical Resource Center](#)
- [VMware Knowledge Center](#)

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.

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.

Trademarks

IBM, the IBM logo, and [ibm.com](http://www.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](http://www.ibm.com/legal/us/en/copytrade.shtml) (<http://www.ibm.com/legal/us/en/copytrade.shtml>).

VMware, the VMware logo, 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