

IBM Spectrum Virtualize Family Storage  
Replication Adapter  
3.7.0

*Release Notes*



**First Edition (December 2021)**

This edition applies to IBM Spectrum Virtualize Family Storage Replication Adapter 3.7.0 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.

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# Overview

The IBM Spectrum Virtualize 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 Spectrum Virtualize 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.



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## What's new in 3.7.0

IBM Spectrum® Virtualize Family Storage Replication Adapter 3.7.0 introduces the following enhancements.

### **Improving troubleshooting**

This release improves troubleshooting by adding various performance patches.

### **Resolved issues**

This release resolves new found issues, including a common security issue. For more information about the resolved issues, see [3.7.0 \(December 2021\)](#).





# Compatibility and requirements

The compatibility and requirements for IBM Spectrum Virtualize Family SRA 3.7.0 are documented in the following topics.

## Supported storage systems

The IBM Spectrum Virtualize Family SRA supports the following IBM® Storage products.

Storage system	Microcode version	Compatibility note
IBM FlashSystem® 5000	8.2.1 to 8.4.x	
IBM FlashSystem 5100	8.2.1 to 8.4.x	
IBM FlashSystem 5200	8.4.0.1 or later	
IBM FlashSystem 7200	8.3.1 to 8.4.x	
IBM FlashSystem 9100	8.2.x to 8.4.x	
IBM FlashSystem 9200	8.3.1 to 8.4.x	
IBM Storwize® V3700	7.8.x	
IBM Storwize V5000 Gen1	7.8.x	
IBM Storwize V5000 Gen2	7.8.x to 8.3.x	
IBM Storwize V5000E	8.2.1 to 8.4.x	
IBM Storwize V5100	8.2.1 to 8.4.x	
IBM Storwize V7000	7.8.x to 8.4.x	
IBM Storwize V7000 Unified	1.5.2 to 1.6.2	Only block storage is supported. File systems and file shares are not supported.
IBM SAN Volume Controller	7.8.x to 8.4.x	Requires the Remote Mirror and FlashCopy® features to be enabled.
IBM FlashSystem V9000	7.8.x to 8.3.x	
IBM Spectrum Virtualize as software only	7.8.x to 8.3.x	

### Note:

- Newer microcode versions may also be compatible. When a newer microcode version becomes available, refer to the [Lifecycle and support matrix page](#) in IBM Documentation to check whether the new microcode version is also supported.
- All storage systems listed above run the IBM Spectrum Virtualize software.

## 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, 8.3, 8.4 (Virtual Appliance)

## Required VMware client software

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

- VMware vSphere Web Client 6.0 U3 or later

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## Change log

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

### 3.7.0 (December 2021)

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IBM Spectrum Virtualize Family Storage Replication Adapter 3.7.0 introduces the following fix:

Ticket ID	Description
<b>VMSS-260970</b>	<b>Fixed:</b> In some cases, during a testfailover or failover scenario, storage LUNs are exported to undesired hosts during the failback process.
<b>VMSS-260972</b>	<b>Fixed:</b> Common security issue. For more information about this security issue, see <a href="#">CVE-2021-45046</a> on the Common Vulnerabilities and Exposures (CVE) information website ( <a href="http://cve.mitre.org">cve.mitre.org</a> ).

### 3.6.0 (February 2021)

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Spectrum Virtualize Family Storage Replication Adapter (SRA) 3.6.0 added support for the microcode versions 8.4.0 and 8.4.0.1 as well as included the following fixes and enhancements.

Ticket ID	Description
<b>VMSS-260956</b>	<b>Enhancement:</b> Support was added for Data Reduction Volume during test failover.
<b>VMSS-260958</b>	<b>Enhancement:</b> Support was added for SRA Check Tool in a container environment.
<b>VMSS-260966</b>	<b>Fixed:</b> Multiport support for SRA on 1:1 Spectrum Virtualize topology, and Data Sync issue with CG resolved.

### 3.5.0 (August 2019)

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Spectrum Virtualize Family Storage Replication Adapter (SRA) 3.5.0 added support for the following storage system microcode versions:

- IBM FlashSystem V9000 8.3.0
- IBM FlashSystem 9100 8.3.0
- IBM SAN Volume Controller 8.3.0
- IBM Storwize V5000 8.3.0
- IBM Storwize V7000 8.3.0
- IBM Spectrum Virtualize (deployable software) 8.3.0

Spectrum Virtualize Family SRA 3.5.0 also included the following enhancement.

Ticket ID	Description
<b>VMSS-260946</b>	<b>Enhancement:</b> Support was added for VMware SRM 8.2 (Virtual Appliance).

### 3.4.0 (August 2018)

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Spectrum Virtualize Family Storage Replication Adapter (SRA) 3.4.0 added support for the following storage system microcode versions:

- IBM FlashSystem V9000 8.1.3
- IBM FlashSystem 9100 8.2.0
- IBM SAN Volume Controller 8.1.3
- IBM Storwize V5000 8.1.3
- IBM Storwize V7000 8.1.3 and 8.2.0
- IBM Spectrum Virtualize (deployable software) 8.1.3

Spectrum Virtualize Family SRA 3.4.0 also included the following fixes and enhancements.

Ticket ID	Description
<b>VMSS-260812</b>	<b>Fixed:</b> The error code returned for invalid device ID (4) was incorrect and actually means "Invalid Array ID." The correct error code (77777 "CMMVC6270E Invalid device.\n") is now returned.
<b>VMSS-260837</b>	<b>Fixed:</b> The Spectrum Virtualize <code>attachvolume</code> function only returned the return code value from the last time the target host mapping operation was performed. As a result, when subsequent failover operations were run, the mapping operation was not run again for hosts that were previously mapped successfully, which led to failover operation failure.
<b>VMSS-260864</b>	<b>Enhancement:</b> Return code check for host mapping during <code>testfailoverstart</code> operation added.
<b>VMSS-260878</b>	<b>Enhancement:</b> Added support for a new IBM storage product, IBM FlashSystem 9100.

### 3.3.3 (March 2018)

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Spectrum Virtualize Family Storage Replication Adapter (SRA) 3.3.3 added support for the following storage system microcode versions:

- IBM FlashSystem V9000 8.1.2
- IBM SAN Volume Controller 8.1.2
- IBM Storwize V5000 8.1.2
- IBM Storwize V7000 8.1.2
- IBM Spectrum Virtualize (deployable software) 8.1.2

Spectrum Virtualize Family SRA 3.3.3 also included the following fix.

Ticket ID	Description
<b>VMSS-260853</b>	<b>Fixed:</b> Defensive programming check in <code>preparefailover</code> was not working.

### 3.3.2 (December 2017)

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Spectrum Virtualize Family Storage Replication Adapter (SRA) 3.3.2 added support for the following storage system microcode versions:

- IBM FlashSystem V9000 8.1.1
- IBM SAN Volume Controller 8.1.1

- IBM Storwize V5000 8.1.1
- IBM Storwize V7000 8.1.1
- IBM Spectrum Virtualize (deployable software) 8.1.1

Spectrum Virtualize Family SRA 3.3.2 also included the following enhancement and fixes.

<b>Ticket ID</b>	<b>Description</b>
<b>VMSS-260785</b>	<b>Enhancement:</b> Improved performance when querying stretched cluster volumes from storage systems.
<b>VMSS-260727</b>	<b>Fixed:</b> Protection site volumes could not be attached to the host when running reprotect after running disaster failover using iSCSI.
<b>VMSS-260789</b>	<b>Fixed:</b> Since version 3.3.0, the log in the SRA check configuration tool did not display configuration changes.

### 3.3.1 (September 2017)

Spectrum Virtualize Family Storage Replication Adapter (SRA) 3.3.1 added support for Spectrum Virtualize host cluster starting with IBM SAN Volume Controller 7.7.1. It also added support for the following storage system microcode versions:

- IBM FlashSystem V9000 8.1
- IBM SAN Volume Controller 8.1
- IBM Storwize V5000 8.1
- IBM Storwize V7000 8.1
- IBM Spectrum Virtualize (deployable software) 8.1

### 3.3.0 (November 2016)

Spectrum Virtualize Family Storage Replication Adapter (SRA) 3.3.0 added support for the following storage system microcode versions:

- IBM FlashSystem V9000 7.8
- IBM SAN Volume Controller 7.8
- IBM Storwize V3700 7.8
- IBM Storwize V5000 7.8
- IBM Storwize V7000 7.8
- IBM Storwize V7000 Unified 1.6.2

Additional enhancement in Spectrum Virtualize Family SRA 3.3.0:

<b>Ticket ID</b>	<b>Description</b>
<b>VMSS-260704</b>	<b>Enhancement:</b> IBM Storwize Family Storage Replication Adapter renamed to IBM Spectrum Virtualize Family Storage Replication Adapter.



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## Known issues

This section details the known issues in IBM Spectrum Virtualize Family Storage Replication Adapter (SRA) 3.7.0, along with possible workarounds (if workarounds are available).

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Ticket ID	Description
<b>VMSS-260691</b>	<p>The direction of the GMCV replications shown in SRM will sometimes display incorrectly if devices are manually discovered after a Recovery operation. This issue only reproduces against GMCV.</p> <p>After a failover, the GMCV becomes idle, and SRM cannot detect the direction of the replication relationship. No other operations, such as Reprotect, however, are impacted.</p>
<b>SVCSRA-5161</b>	<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><b>Workaround:</b> Stop the remote copies with the <b>access</b> option enabled on the storage system before running the secondary recovery.</p>

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## Related information and publications

You can find additional information and publications related to the IBM Spectrum Virtualize Family Storage Replication Adapter at the following websites:

- [IBM FlashSystem 5200, 5000, 5100, Storwize V5100 and V5000E in IBM Documentation \(ibm.com®/docs/en/flashsystem-5x00\)](https://ibm.com/docs/en/flashsystem-5x00)
- [IBM FlashSystem 7200 and Storwize V7000 in IBM Documentation \(ibm.com/docs/en/flashsystem-7x00\)](https://ibm.com/docs/en/flashsystem-7x00)
- [IBM Storwize V7000 Unified in IBM Documentation \(ibm.com/docs/en/flashsystem-v7000u\)](https://ibm.com/docs/en/flashsystem-v7000u)
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- [IBM Publications Center website \(www.ibm.com/resources/publications\)](http://www.ibm.com/resources/publications)
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