



NetApp® SMI-S Provider 5.2.3

Release Notes

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NetApp SMI-S Provider overview

NetApp SMI-S Provider (formerly *Data ONTAP SMI-S Agent*) enables you to manage and monitor storage systems and to manage LUNs and volumes of storage systems, CIMOM configuration settings, and CIM server users.

NetApp SMI-S Provider is a command-based interface that detects and manages platforms that run ONTAP software. SMI-S Provider uses Web-Based Enterprise Management (WBEM) protocols, which enable you to manage, monitor, and report on storage elements.

NetApp SMI-S Provider follows schemas standardized by two organizations:

- Distributed Management Task Force (DMTF)
<http://www.dmtf.org/home>
- Storage Networking Industry Association (SNIA)
<http://www.snia.org/home>

SMI-S Provider replaces the use of multiple managed-object models, protocols, and transports with a single object-oriented model for all components in a storage network.

New in this release

NetApp SMI-S Provider 5.2.3 includes new support enhancements and critical bug fixes.

- Support for ONTAP 9
- Bug fixes
- Support for managing ONTAP SVMs via read-only user in ONTAP

Fixed issues

It is a good practice to review the known issues fixed in a new release before upgrading to it. If a Bugs Online report is available, the bug ID contains a hyperlink to the report.

Bug ID	Description
893748	SMIS: SMI-S Agent cannot manage ONTAP 9 SVM.
975555	SMIS: Need to support vsadmin-readonly ONTAP SVM user in SMI-S Agent.
978158	SMIS: Data ONTAP SMI-S Agent support for vservers DR deployments.
1005396	SMIS: The arrays show zero capacity after the SMI-S server reboots.
1013072	SMIS : Error (26118) Creating snapshot of storage logical unit 12516773-57c8-40db-9017-1c9710612d61 failed with error code 4 [SM_RC_GENERIC_FAILURE]. Failed: Operation Failed.
1013740	SMIS: SMI-S Agent needs to report correct error message if there is no SnapMirror license.
1021086	SMIS: The SMI-S Agent 5.2.3 control panel displays the version as 5.2.2 instead of 5.2.3.
1025677	SMIS: Upgrading SMI-S Agent 5.2.2 to version 5.2.3 displays an error message that another version of this product is already installed.
1024038	RC4 stream cipher vulnerability in NetApp SMI-S Provider (formerly Data ONTAP SMI-S Agent).

Upgrade notes

Upgrade notes describe new requirements and changes in support between the last release of the product and this one, including any deprecated features. Review this information carefully before upgrading to the new release. See the NetApp Interoperability Matrix (IMT) for supported configurations and the product user documentation for complete system requirements.

Supported upgrade path

You can upgrade to NetApp SMI-S Provider 5.2.3 from 5.1.2 and later. However, due to the change in the path of the installation directory and to avoid losing configuration, database, and repository files, you must be aware of the following conditions before upgrading to NetApp SMI-S Provider 5.2.3:

- Windows
 - If you are upgrading from 5.2.1P1 or 5.2.2, you can perform an in-place upgrade to 5.2.3.

- If you are upgrading from 5.1.2 or 5.2.1, you have two options for upgrading:
 - Option 1: You can first upgrade to SMI-S Provider 5.2.1P1 before upgrading to SMI-S Provider 5.2.3.
This two-phase upgrade automatically provides a smooth transition to SMI-S Provider 5.2.3.
 - Option 2: If you do not want to use the recommended two-phase upgrade and instead upgrade directly from a version earlier than 5.2.1P1, then before performing the upgrade you must manually copy configuration and database files (`cfilers.dat` and `cimserver.passwd` along with `hwidcache.dat` and `identity.dat`, if they exist) from their current location `C:\Program Files (x86)\Ontap\smis\pegasus`. You then must uninstall the existing or older versions of SMI-S Provider and install SMI-S Provider 5.2.3 and copy the configuration and database files (`hwidcache.dat`, `identity.dat`, `cfilers.dat`, and `cimserver.passwd`) to the `/usr/netapp/smis/Pegasus` directory.
After the files are copied, you must restart the storage services using the `smis cimserver restart` command.

Resubscribing to get indications

If indications are enabled in SMI-S Provider and clients are subscribed for indications, all indication subscriptions in the SMI-S Provider repository will be lost during the upgrade process. Manually copying these subscriptions might lead to repository corruption. You must resubscribe to get indications using the client after the upgrade installation process is complete.

If resubscribing to indications is not an option, then follow the recommended two-phase upgrade.

For most clients, resubscribing for indications means removing and re-adding SMI-S Provider to their management. If you are managing SMI-S Provider with Microsoft System Center Virtual Machine Manager, you can resubscribe for indications by restarting the storage service using the `smis cimserver restart` command and rescan SMI-S Provider in Microsoft System Center Virtual Machine Manager. This avoids the need to remove and re-add SMI-S Provider under the management of Microsoft System Center Virtual Machine Manager Server.

- Linux

Before performing the upgrade, you must manually copy configuration and database files (`cfilers.dat` and `cimserver.passwd` along with `hwidcache.dat` and `identity.dat`, if they exist) from their current location `/usr/Ontap/smis/ pegasus`.

You then must uninstall the existing or older versions of SMI-S Provider and install SMI-S Provider 5.2.3 and copy the configuration and database files (`hwidcache.dat`, `identity.dat`, `cfilers.dat`, and `cimserver.passwd`) to the `/usr/netapp/smis/Pegasus` directory.

After the files are copied, you must restart the storage services using the `smis cimserver restart` command.

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For most clients, resubscribing for indications means removing and re-adding SMI-S Provider to their management. If you are managing SMI-S Provider with Microsoft System Center Virtual Machine Manager, you can resubscribe for indications by restarting the storage service using the `smis cimserver restart` command and rescan SMI-S Provider in Microsoft System Center Virtual Machine Manager. This avoids the need to remove and re-add SMI-S Provider under the management of Microsoft System Center Virtual Machine Manager Server.

Known limitations

Known limitations identify platforms, devices, or functions that are not supported by this release of the product, or that do not interoperate correctly with it. Review these limitations carefully.

Performance notice for some cimcli commands

For configurations with 5,000 FlexVol volumes or 300,000 Snapshot copies, you might experience performance issues with the following `cimcli` commands:

- `cimcli ei ONTAP_Snapshot -n root/ontap`
- `cimcli ei ONTAP_SnapshotBasedOnFlexVol -n root/ontap`
- `cimcli ei ONTAP_StorageVolumeStats -n root/ontap`

Known issues

Known issues identify problems that might prevent you from using this release of the product successfully. NetApp Bugs Online provides complete information for most known issues, including any workarounds.

[NetApp Bugs Online](#)

If a Bugs Online report is available, the bug ID contains a hyperlink to the report.

Known issue identified in this release

The following issues have been added to the release notes since the last release:

Bug ID	Description
881097	SMIS: Need to implement DSE Security Assessment findings.
923545	SMIS: CVE-BUNDLE-OPENSSL20150611: June 2015 OpenSSL Vulnerabilities in NetApp SMI-S Provider (formerly Data ONTAP SMI-S Agent).
857057	SMIS: MSFT: Need to return information about offline or in-accessible storage system to clients.

Known issues identified in previous releases

The following issues were reported in previous editions of the release notes:

Bug ID	Description
708593	SCVMM 2012 SP1 GUI does not show SVM or storage system name for SMI-S Agent-managed objects.
813952	NetApp SMI-S Provider is not able to discover the file servers from SCVMM 2012 SP1 UR4.
846746	The command <code>smis volumes</code> in NetApp SMI-S Provider returns an empty response.
857057	After a reboot, NetApp SMI-S Provider cannot return information about inaccessible or offline SVMs or Data ONTAP systems operating in 7-Mode.
888382	The file server of a storage system might disappear in the SCVMM if the storage system is down for a long period of time.
889367	VM Provisioning in SCVMM fails with error <code>Insufficient system resources exist to complete the requested service</code> .
899335	Registration or Rescan of NetApp SMI-S Provider in SCVMM fails with <code>HostAgentAccessDenied</code> error.
903859	SCVMM rescan operation failed to locate or communicate with NetApp SMI-S Provider.
911841	New Virtual Disk provisioning workflow in Windows 2012 Server Manager is not supported for Clustered Data ONTAP.
914744	Holes in virtual hard disk (vhd) are not preserved during SCVMM import workflow blocks during library import.
918400	CVE-2015-4000 Diffie-Hellman Export Cipher Suite vulnerability in NetApp SMI-S Provider.

Bug ID	Description
925130	Azure Site Recovery's EnableProtection operation fails in SCVMM for ReplicationGroup or FlexVol with error Relationship with destination <volume> already exists.
929786	The command smis addsecure might fail while trying to add a Data ONTAP system operating in 7-Mode.
950097	NetApp SMI-S Provider returns the No elements in API request error message as a result of the smis add command failing to add a storage system running Data ONTAP operating in 7-Mode.
956197	System Center Virtual Machine Manager UR8 or UR9 is choosing BITS over ODX to deploy Virtual Machines.
956236	Some CIFS share properties are not properly exposed to SCVMM.
959020	NetApp SMI-S Provider returns the “EntityRef: expecting ';" error.
975474	Upgrading from version 5.2D1 to 5.2.1P1 is repeatedly crashing while communicating with SCVMM UR8.

How to get help and find more information

The NetApp Support Site provides access to troubleshooting tools, product documentation, and technical assistance. You can use NetApp Community forums to connect with peers, and the NetApp Library to access technical reports and white papers.

- [*NetApp Support*](#)
Access troubleshooting tools, product documentation, and technical support assistance.
- [*NetApp Communities*](#)
Connect with peers, ask questions, exchange ideas, find resources, and share best practices:
 - [*NetApp Community Blogs: Configuring Data ONTAP SMI-S Agent 5.1 tutorial \(Part 1 of 7: Configuring using PowerShell Cmdlets\)*](#)
 - [*NetApp Community Blogs: Configuring Data ONTAP SMI-S Agent 5.1 tutorial \(Part 2 of 7: Configuring using the GUI\)*](#)
 - [*NetApp Community Blogs: Configuring Data ONTAP SMI-S Agent 5.1 tutorial \(Part 3 of 7: Connecting the hosts\)*](#)
 - [*NetApp Community Blogs: Configuring Data ONTAP SMI-S Agent 5.1 tutorial \(Part 4 of 7: Allocating storage pools\)*](#)
 - [*NetApp Community Blogs: Configuring Data ONTAP SMI-S Agent 5.1 tutorial \(Part 5 of 7: Creating and mapping LUNs\)*](#)
 - [*NetApp Community Blogs: Configuring Data ONTAP SMI-S Agent 5.1 tutorial \(Part 6 of 7: Creating and allocating a LUN\)*](#)
 - [*NetApp Community Blogs: Configuring Data ONTAP SMI-S Agent 5.1 tutorial \(Part 7 of 7: Provisioning a CIFS share\)*](#)
 - [*NetApp Community Blogs: Offload Storage Mirroring Operations with Azure Site Recovery \(Part 1 of 3\)*](#)
 - [*NetApp Community Blogs: Offload Storage Mirroring Operations with Azure Site Recovery \(Part 2 of 3\)*](#)
 - [*NetApp Community Blogs: Offload Storage Mirroring Operations with Azure Site Recovery \(Part 3 of 3\)*](#)
 - [*NetApp Community Blogs: Accelerate Disaster Recovery Plans with NetApp and Microsoft Azure Site Recovery*](#)
 - [*NetApp Community Blogs: NetApp Unveils Support for Microsoft Azure SAN Replication with SMI-S and SnapMirror*](#)
 - [*NetApp Community Blogs: Microsoft Azure Site Recovery SAN Replication with SMI-S 5.2 Deep Dive*](#)
- [*NetApp library of technical reports and white papers*](#)
Access technical reports, white papers, and other documents:
 - [*NetApp White Paper 7215: Azure Site Recovery with SAN Replication to NetApp Private Storage for Microsoft Azure Solution Configuration and Testing*](#)
 - [*NetApp Technical Report 4271: Best Practices and Implementation Guide for NetApp SMI-S Agent 5.2*](#)

- *NetApp Technical Report 4413: Azure Site Recovery Best Practices Guide*
- *NetApp Verified Architecture 0004: NetApp for Microsoft Private Cloud With Windows Server 2012 R2, System Center 2012 R2, and Clustered Data ONTAP*
- *NetApp Verified Architecture 0010: FlexPod Datacenter with Microsoft Private Cloud (Microsoft Private Cloud Fast Track v4 with Windows Server 2012 R2, System Center 2012 R2, and NetApp Clustered Data ONTAP)*

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