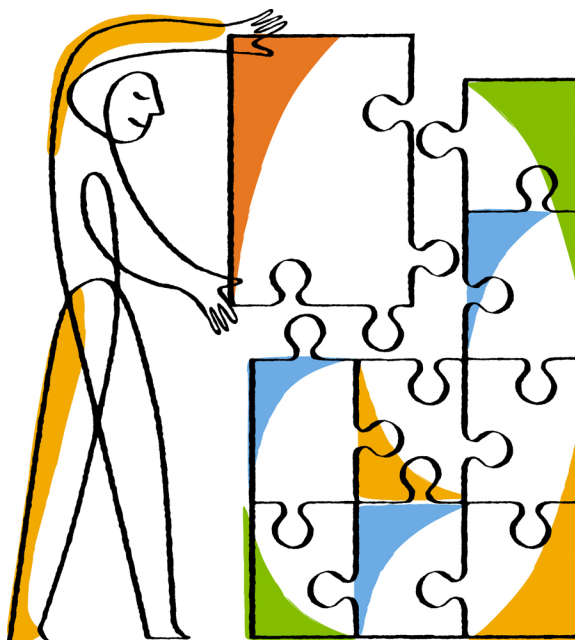




SnapDrive® 7.0.3 for Windows®

Release Notes



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New in this release

SnapDrive 7.0.3 for Windows introduces fixes to a critical issue found in 7.0.2. See the *Highlighted Fixed Issues* section of this document for more information.

New features in SnapDrive 7.0.3 for Windows

SnapDrive 7.0.3 for Windows is a maintenance release that includes the following enhancements:

- Bug fixes

New features in SnapDrive 7.0.2 for Windows

SnapDrive 7.0.2 for Windows is a maintenance release that includes the following enhancements:

- Windows Server 2012 R2 support
- Bug fixes

Upgrade notes

Upgrade notes describe important changes in support between the last release of SnapDrive and this one, including any deprecated features. Review this information carefully before upgrading SnapDrive. Make sure to check the NetApp Interoperability Matrix (IMT) for the most up-to-date information on supported configurations.

Supported upgrade paths

You can upgrade to SnapDrive 7.0.3 for Windows from the following previous versions:

- SnapDrive 7.0.2 for Windows

Note: If you have deployed SnapDrive 7.0.2 and are using Fibre Channel, it is strongly recommended that you upgrade to 7.0.3.

- SnapDrive 7.0.1 for Windows
- SnapDrive 7.0 for Windows
- SnapDrive 6.5 for Windows
- SnapDrive 6.4.2 for Windows

Changes to Data ONTAP support

SnapDrive 7.0.3 supports the following versions of Data ONTAP:

- Data ONTAP 8.0.5 operating in 7-Mode environments
- Data ONTAP 8.1.2 operating in 7-Mode and cluster environments

- Data ONTAP 8.1.3 operating in 7-Mode and cluster environments
- Data ONTAP 8.1.4 operating in 7-Mode and cluster environments
- Data ONTAP 8.2.1 operating in 7-Mode and cluster environments

Changes to Windows Server support

SnapDrive 7.0.3 for Windows supports the following additional version of Windows Server:

- Windows Server 2012 R2

Changes to ESX support

SnapDrive 7.0.3 for Windows supports the following additional versions of ESX:

- VMware ESXi 5.5 (RDM support)
- VMware vSphere 5.5 (VMDK support)
- VMware ESXi 5.0 U2 and U3, ESXi 5.1 U1 and U2, and ESXi 5.5 (required for RDM LUNS support)

Changes to Virtual Storage Console support for VMDK support

- Virtual Storage Console 4.1
- Virtual Storage Console 4.2.1
- Virtual Storage Console 5.0

Changes to required hotfixes

- Microsoft hotfix 2908783 is required if you are using iSCSI.
[Microsoft Support Article 2908783: Data corruption occurs on iSCSI LUNs in Windows](#)
- Microsoft hotfix 2894032 is required if you are running Hyper-V with Fibre Channel.
[Microsoft Support Article 2894032: Clustered virtual machine cannot access LUNs over a Synthetic Fibre Channel after you perform live migration on Windows Server 2012 or Windows Server 2012 R2-based Hyper-V hosts](#)

Verifying support for your configuration in the IMT

You can use the NetApp Interoperability Matrix (IMT) to verify SnapDrive support for your configuration: Data ONTAP software, host operating system, and the like. Verify your configuration before you install or upgrade to SnapDrive 7.0.3 for Windows.

Steps

1. Go to support.netapp.com/matrix.
2. If SnapDrive for Windows is not the selected Storage Solution, click **Change** and select it under the Software | Management Software | Server Suite category:



3. In the **Component Explorer** pane, select each component you want to verify.

Tip: Select the parent of a set of components to select all its children.

You are prompted to add the components to the worksheet.

4. Click **Add**.
5. When you are satisfied with your choices, click **Show Results**.
6. When the IMT lists each supported configuration, take one of the following actions:
 - Scroll across a configuration to view the supported components and any notes or alerts for the configuration.
 - Click the configuration name to display complete information for supported components, including support history and NetApp policies and guidelines for the selected Storage Solution category.

If no results are returned for your configuration, you should provide feedback using the **Feedback** control in the upper right corner of the IMT.

Changed commands

Review these changes to SnapDrive commands before upgrading to SnapDrive 7.0.3 for Windows. You need to be sure that the changes will not break any scripts that you use to execute SDCLI commands.

SDCLI changes introduced in SnapDrive 7.0.3 for Windows

No new SDCLI commands are introduced in SnapDrive 7.0.3 for Windows.

SDCLI changes introduced in SnapDrive 7.0.2 for Windows

New SDCLI command	Change
sdcli igroup modify	In Windows Server 2012 and 2012 R2 environments, you can use <code>sdcli igroup modify</code> to update your igroup with both sets of initiators for virtual Fibre Channel (vFC) environments. This new SDCLI command enables you to perform live migration operations in environments where vFC is enabled. The syntax for this command is as follows: <pre>sdcli igroup modify[-m <i>MachineName</i>] -f <i>StorageSystem</i> -ig <i>igroupName</i></pre>

Highlighted fixed issues

It is a good practice to review the bugs fixed in SnapDrive 7.0.3 before upgrading to the new release.

Highlighted fixed issues in SnapDrive 7.0.3 for Windows

Issue	Description
810812	You might encounter a service disruption during some disk resizing operations using SnapDrive 7.0.2 for Windows.

Highlighted fixed issues in SnapDrive 7.0.2 for Windows

Issue	Description
773417	Installing SnapDrive 7.0.1 causes your Microsoft Exchange 2010 MMC to fail.
776141	You might experience SnapDrive exception errors when you perform SnapManager for SQL Server backup operations on VMDK disks with consistent and inconsistent Snapshot copies.
740976	SnapDrive 7.0 does not support virtual Fibre Channel (vFC) on a clustered physical Hyper-V machine.

Known issues

Known issues identify problems that might cause you inconvenience but do not prevent you from using SnapDrive 7.0.3 for Windows successfully.

NetApp Bugs Online provides complete information about most bugs, including any workarounds. If a Bugs Online report is available, the bug ID column in the table contains a hyperlink that you can click to view the report.

Known issues identified in this release

The following issue was identified in this release:

Bug ID	Description
Microsoft hotfix 2908783	Windows Server 2008 R2, Windows Server 2012, and Windows Server 2012 R2 environments display data corruption issues when there are connections to multiple iSCSI storage array targets. Workaround: Download and install Microsoft hotfix 2908783. Microsoft Support Article 2908783: Data corruption occurs on iSCSI LUNs in Windows

Known issues identified in previous releases

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

Bug ID	Description
768623	Your FlexClone volume disk disconnect operations fail if SMI-S Agent and SnapDrive are using the same virtual storage server.
767205	SnapManager for Hyper-V backup operations fail if the VM configuration name or Snapshot copy location name do not end in a trailing backslash.
757590	You might experience difficulty installing SnapDrive on systems without Internet access.
743215	You might not be able to immediately create Snapshot copy backups on volume shares when a restore operation is in progress.
739462	You encounter error messages when SnapDrive deletes certain LUNs.
708057	When you perform VMDK SnapRestore operations on a VM running Windows Server 2012 and ESX 5.0U2, data is not restored.

Bug ID	Description
664512	You experience slow restarts when the hotfixes associated with Microsoft KB 2729452 or 2742599 are installed on Windows Guest with SnapDrive and ESX integration.
656135	You cannot create an RDM LUN larger than 2 TB when SnapDrive is configured with vCenter credentials. This issue is fixed in vSphere versions 5.0U3, 5.1U2, and 5.5 GA; this issue still exists if you are working on systems with older versions of these vSphere version families.
642832	You cannot automatically rename CSV reparse points.

Documentation errors and omissions

Review these errors and omissions in the published documentation carefully.

Changes to “Using SnapDrive in Microsoft environments”

You should be aware of some updates and changes to the text in the “Using SnapDrive in Microsoft environments” text of SnapDrive 7.1 for Windows Administration Guide for SAN Environments.

Interoperability issues with Windows Server 2012

You should be aware of some limitations when deploying Windows Server 2012 on SnapDrive 7.0 for Windows.

- The Windows Host Utility kit, which is mandatory for Windows Server 2012 on both physical and guest operating systems, disables the Windows Server 2012 native space reclamation feature.
- Data ONTAP does not support Windows Server 2012 native thin provisioning.
- You cannot perform storage replication from Hyper-V Replica.
- You should not perform any SnapDrive disk-related operations on the LUN that hosts the virtual machines during live virtual machine migration and storage migration.
- Although Windows Server 2012 allows you to create a disk larger than 16 TB, you cannot create a Data ONTAP LUN larger than 16 TB.
- When you add new nodes to your cluster on Windows Server 2012, you must remap the LUNs to the new nodes.

Hyper-V pass-through disk support limitations

SnapDrive supports Hyper-V pass-through disks; however, there are some limitations related to this feature.

- SnapDrive does not support direct-attached storage to a Hyper-V parent host. Only Data ONTAP iSCSI and FC LUNs are supported.
- SnapDrive does not support LUNs that are already mapped to a Hyper-V parent host. A pass-through disk must be freshly provisioned from a storage system to be added dynamically.
- Windows 2008 R2 does not support pass-through disks using IDE. Windows 2008 R2 supports only SCSI disks.
- Microsoft cluster shared volume (CSV) disks are not supported.
- Pass-through LUN creation fails when Data ONTAP DSM for Windows MPIO is installed on Hyper-V virtual machines.

Note: Removing MPIO does not remove MPIO iSCSI sessions that SnapDrive might have been using. After removing MPIO, you must remove existing iSCSI sessions and, if needed, create new iSCSI sessions.

- Due to a Microsoft limitation, if a pass-through disk is not running, the virtual machine to which the disk is assigned cannot be restarted.
To reboot the virtual machine, you must bring the pass-through disk back online, or remove it from the virtual machine using Microsoft Hyper-V Manager or another Microsoft remote server management tool.
- If OnCommand Unified Manager Core Package role-based access control is enabled on a Hyper-V parent host, you cannot dynamically add or remove pass-through disks with SnapDrive in a Hyper-V virtual machine.
- Windows Server 2008 Server Core does not support the ability to dynamically add and remove Hyper-V pass-through disks, because Server Core does not support Windows Communication Foundation (WCF) Web services that are required to dynamically add and remove pass-through disks.
- In a clustered environment with multiple HA VMs residing in different clustered disks with different owner nodes, parallel LUN management operations can lead to an inconsistent SnapDrive state.

Enabling thinly provisioned LUNs in clustered Data ONTAP

Some instructions for enabling thinly provisioned LUNS in clustered Data ONTAP environments were omitted from the SnapDrive 7.1 for Windows Administration Guide for SAN Environments. You can add an additional task to the “Managing space on storage system volumes” section in “Using SnapDrive in Microsoft Environments”.

Before you begin

- You have enabled HTTPS using options `ssl.enable` and `secureadmin setup ssl`.
- You are logged in to the storage system as root.

Steps

1. From your Windows host, use System Manager, the storage system CLI, or PowerShell Toolkit to check your volume's `space-guarantee` attribute.
2. To enable thin provisioning for a LUN, set the `space-guarantee` value to **none**.

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.

Resource	Description
NetApp Support Site	Access troubleshooting tools, product documentation, and technical support assistance.
NetApp Community public forum	Connect with peers, ask questions, exchange ideas, find resources, and share best practices.
NetApp Library	Access technical reports, white papers, and other documents.

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