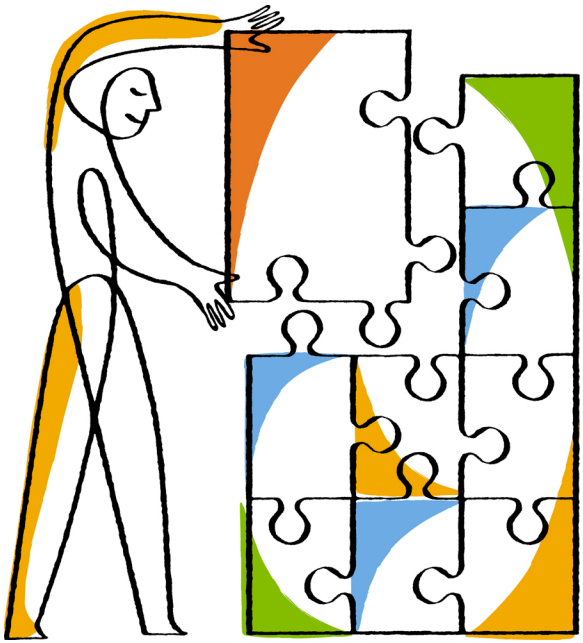
SnapDrive® 7.1.1 for Windows®

Release Notes



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New in this release

SnapDrive 7.1.1 for Windows introduces bug fixes to critical issues found in the previous release.

New features in SnapDrive 7.1.1 for Windows

SnapDrive 7.1.1 for Windows is a maintenance release that includes the following enhancements:

- SnapMirror and SnapVault update capabilities from the same source
- Critical Bug Fixes

SnapDrive 7.1 for Windows adds support for the following features:

- Clustered Data ONTAP 8.3
- MetroCluster
- New cloning capabilities:
  - Clone of clones
  - Split clone
- Dedicated disk optimization
- Thin LUN provisioning

Upgrade notes

Upgrade notes describe important changes in support between the previous release of SnapDrive for Windows and this one, including any deprecated features. You should review this information carefully before upgrading SnapDrive for Windows. You should also 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 7.1.1 for Windows from the following previous versions:

- SnapDrive 7.1 for Windows
- SnapDrive 7.0.x for Windows
- SnapDrive 6.5 for Windows

- SnapDrive 6.4.2 for Windows

Verifying support for your configuration in the IMT

You can use the NetApp Interoperability Matrix (IMT) to verify SnapDrive for Windows support for your configuration: Data ONTAP software, host operating system, and so on. You should verify your configuration before you install or upgrade to SnapDrive 7.1.1 for Windows.

Steps

1. Go to *mysupport.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.

SnapDrive for Windows supported components and system requirements

You must ensure that your storage system and your Windows system meet at least the minimum requirements to properly install and run SnapDrive for Windows.

Note: These SnapDrive for Windows system requirements are accurate as of the date of publication. However, requirements and supported versions might change after the release. For the

latest system requirements information, see the Interoperability Matrix at *mysupport.netapp.com/matrix*.

Component	Supported versions
Supported Data ONTAP storage system versions	• Data ONTAP 8.3 operating in cluster environments • Data ONTAP 8.2.3 operating in 7-Mode and cluster environments • Data ONTAP 8.2.2 operating in 7-Mode and cluster environments • Data ONTAP 8.1.4 operating in 7-Mode and cluster environments • Data ONTAP Edge
Operating systems on the Windows host machine	• Windows Server 2008 • Windows Server 2008 R2 • Windows Server 2012 • Windows Server 2012 R2
.NET Framework requirements	• .NET Framework 3.5 SP1 • .NET Framework 4.0 You must install both .NET Framework 3.5 SP1 and 4.0.
DSM	• Native Microsoft DSM • Data ONTAP DSM 4.0 (supports Windows Server versions earlier than 2012 R2) • Data ONTAP DSM 4.1 P1

Component	Supported versions
Windows hotfixes required for your operating system	Windows Server 2012 R2: • *2903939* Windows Server 2012: • *2859162* • *2894032* Windows Server 2008 R2: • *2522766* • *2528357* • *2494016* • *2520235* • *2531907* • *974930*
Windows PowerShell	• Windows PowerShell 2.0 • Windows PowerShell 3.0 • Windows PowerShell 4.0
Windows Host Utilities Kit	• Windows Host Utilities Kit 6.0.1 • Windows Host Utilities Kit 6.0.2 • Windows Host Utilities Kit 7.0
ESXi	• ESXi 5.0 • ESXi 5.1 • ESXi 5.5
Virtual Storage Console	• 4.2.1 • 4.2.2 • 5.0

Changed commands

You should review changes to SnapDrive for Windows commands before upgrading to SnapDrive 7.1.1 for Windows. You must be sure that the changes do not break any scripts that you use to execute SDCLI commands or PowerShell cmdlets.

SDCLI and PowerShell cmdlet changes introduced in SnapDrive 7.1.1 for Windows

New and changed commands	Change
• `sdcli clone_split clone_estimate` • `sdcli clone_split clone_start` • `sdcli clone_split clone_status` • `sdcli clone_split clone_stop`	Introduces SDCLI support for split clone operations.
• `Get-SdVolumeCloneSplitEstimate` • `Start-SdVolumeCloneSplit` • `Get-SdVolumeCloneSplit` • `Stop-SdVolumeCloneSplit`	Introduces PowerShell cmdlet support for split clone operations.
`-ValidateCloneDepth` in `Mount-SdSnapshot`	Stops your mount request, if you are attempting to mount a clone child that exceeds the clone depth. The default clone depth is two.
`-DeleteParentClones` in `Dismount-SdSnapshot`	Indicates that you want to unmount and delete any offline parent volume clones. You are prompted for confirmation before completing a parent clone volume deletion.
`sdcli snap mount -cn`	Specifies the name of the volume clone you want to mount.
`sdcli disk connect -cn`	Specifies the name of the volume clone you want to mount.

New and changed commands	Change
`sdcli disk create -thin`	Specifies that you want to create a thinly provisioned LUN.

Highlighted fixed issues

It is a good practice to review the bugs fixed in SnapDrive 7.1.1 for Windows before upgrading to the new release.

Highlighted fixed issues in SnapDrive 7.1.1 for Windows

The following BURTs have public reports in Bugs Online. You can click the hyperlink to view additional details.

Issue	Description
856844	SnapDrive for Windows might receive an error when checking for the SnapManager for SQL Server license.
849446	Slow ZAPI performance might cause backup operation failures when you are using HTTPS as a communication protocol in clustered Data ONTAP.
846399	Multiple vulnerabilities for OpenSSL are found in SnapDrive for Windows.
843092	SnapDrive for Windows VMDK backups increase memory usage.
837026	You cannot update your SnapMirror relationships if you have both DP and XDP SnapMirror relationships configured.
811247	LUN provisioning operations might fail because SnapDrive did not correctly enumerate all of your qtrees.
780207	Archiving backup to secondary storage using SnapManager for SQL fails with the `Another update in progress` error message.

Important cautions

Important cautions identify issues that might cause data loss or system failure. You should review these cautions carefully.

Restoring Snapshot copies after 7-Mode to clustered Data ONTAP transition

You cannot use SnapManager products to restore or perform verification operations on Snapshot copies that reside on volumes that have been transitioned from 7-Mode to clustered Data ONTAP using the 7-Mode Transition Tool. After you have transitioned from 7-Mode to clustered Data ONTAP, you should immediately back up your transitioned data, and then you can perform backup, restore, and cloning operations on the new Snapshot copies you created in your clustered Data ONTAP environment.

To learn more about 7-Mode Transition Tool capabilities and limitations, see the 7-Mode Transition Tool documentation set.

Accessing dedicated and shared LUNs after transition

If you do not perform this series of steps after transition from 7-Mode to clustered Data ONTAP, you cannot access your dedicated and shared LUNs:

1. For complete details on accessing disks in Disk Management, see the *7-Mode Transition Supplement for SAN Hosts*.
2. After you have transitioned to clustered Data ONTAP using the 7-Mode Transition Tool, add the clustered Data ONTAP Storage Virtual Machine (SVM) management LIF to the SnapDrive for Windows transport protocol settings.
3. Refresh **Disks** in the SnapDrive for Windows GUI or use the sdcli to see the SnapDrive for Windows disks created prior to the transition.
4. When the disks are available in SnapDrive for Windows, you can perform all regular SnapDrive for Windows operations in clustered Data ONTAP.
5. After your disks are available, you should perform an immediate backup on all the LUNs you have transitioned to clustered Data ONTAP.

Related information

7-Mode Transition Tool 2.0 Data and Configuration Transition Guide
7-Mode Transition Tool 2.0 Data and Configuration Transition Supplement for SAN Hosts
7-Mode Transition Tool 2.0 Release Notes

Known limitations

Known limitations identify platforms, devices, or functions that are not supported by SnapDrive 7.1.1 for Windows, or that do not interoperate correctly with SnapDrive for Windows. You should review these limitations carefully.

Support for concurrent SnapDrive operations

SnapDrive for Windows does not support concurrent SnapDrive operations.

Support for selective LUN mapping

SnapDrive for Windows does not support selective LUN mapping. As a result, you must ensure that you have a data LIF on each cluster node.

Support for VHDX

VHDX sharing is not supported in NAS volumes from Data ONTAP.

7-Mode to clustered Data ONTAP transition limitations

Transitioning from 7-Mode to clustered Data ONTAP using the 7-Mode Transition Tool has the following limitations in SnapDrive 7.1.1 for Windows:

- Mounting SnapShot copies and file-level restore operations fail on Snapshot copies transitioned from 7-Mode environments.

  However, after you have transitioned to clustered Data ONTAP, you should immediately back up your transitioned data, and then you can perform these same operations from the new Snapshot copies that you created in clustered Data ONTAP.
- The ability to clone a clone is not supported on Snapshot copies in a 7-Mode environment.
- You cannot transition a VMDK disk, because Virtual Storage Console does not support 7-Mode Transition Tool.

Interoperability issues with Windows Server 2012 and 2012 R2

- In Windows 2012 and later, you should install Windows Host Utility (WHU) or Data ONTAP DSM, which enables the UNMAP feature.

  For more information, refer to the KB article *3013991*.
- Data ONTAP does not support Windows Server 2012 and 2012 R2 native thin provisioning.
- You should not perform any SnapDrive for Windows disk-related operations on the LUN that hosts the virtual machines during live virtual machine migration and storage migration.

- Although Windows Server 2012 and 2012 R2 enables 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 and 2012 R2, you must remap the LUNs to the new nodes.

Known issues

Known issues identify problems that might cause you inconvenience but do not prevent you from using SnapDrive 7.1.1 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 issues were identified in this release, and you can view information about them at the Bugs Online Web site:

Bug ID	Description
889706	Disk creation cannot be completed while formatting a new thin LUN on FS.0RC2 with a Windows 2012 R2 operating system.
829995	Executing the `new-sdsmbshare` command with mandatory parameters creates conflicts with the template.
888290	The UpdateMirror switch in the `new-sdsnapshot` cmdlet fails to update the SnapMirror destination.
817755 *401641*	Downgrading SnapDrive 7.1 to earlier versions might not work as expected. For example, when you try to install SnapDrive for Windows 7.0 or 7.0.2 on an ESX-Guest Operating System (Windows machines) on which SnapDrive for Windows 7.1 is installed currently, either an error message (on x86) is produced, or SnapDrive for Windows fails to detect the ESX machine as a physical machine (on x64) after the installation.

Known issues identified in previous releases

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

Bug ID	Description
821858	All of your scripts and applications might be required to use PowerShell 4.0 as a result of your SnapDrive for Windows version 7.0.2 and later installation.
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.

Bug ID	Description
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.
724404	SnapManager for SQL Server backup verification or mount operation fails on a Windows Failover Cluster running on VMware when using FC RDM LUNs.
708057	When you perform VMDK SnapRestore operations on a VM running Windows Server 2012 and ESX 5.0U2, data is not restored.
664512	You experience slow restarts when the hotfixes associated with Microsoft KB 2729452 or 2742599 are installed on a Windows Guest account 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 earlier versions of these vSphere version families.
642832	You cannot automatically rename CSV reparse points.
567067	Your pass-through disk delete or disconnect operations fail after changing drive letter

The following issues are not available at the Bugs Online Web site:

Bug ID	Description
861781	Issue: Your SnapDrive for Windows GUI displays the storage system IP address instead of the Storage Virtual Machine (SVM) host name for VMDK disks when you are using MetroClusters in switchover mode. Workaround: None.
851995	Issue: SnapDrive for Windows does not limit the clone level to two when cloning VMDK disks on VMFS datastores. Workaround: None.
826201	Issue: Shrinking a thinly provisioned LUN fails with a connection timeout error. Workaround: Shrink the LUN in smaller increments.

Bug ID	Description
850838	Issue: In MetroCluster environments, after you perform a switchover and switchback operation, the Storage Virtual Machine (SVM) name is changed from vs1 to vs1-mc, and vice versa. In this case, if the SnapDrive for Windows host is using VMDK disks exclusively, restore and mount workflows might fail. Workaround: Restart the SnapDrive service (SWSVC).
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*

Documentation errors and omissions

Review these errors and omissions in the published SnapDrive for Windows 7.1 documentation carefully.

Wrong syntax for sdcli snap delete command

The syntax of the `snap delete` command is referred as `-D MountPointList [. . .]` in the *SnapDrive 7.1 for Windows Administration Guide for SAN Environments*. The correct syntax is `-d MountPoint`.

No information regarding SnapDrive versions to be installed on cluster nodes

The SnapDrive for Windows documents do not specify that all the nodes in the cluster must be running the same version of SnapDrive for Windows.

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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