

SnapDrive® 6.4 for Windows®

Release Notes

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SnapDrive 6.4 for Windows Release Notes

These release notes describe new features, installation requirements, fixed issues, and known issues for SnapDrive 6.4 for Windows.

New features in SnapDrive 6.4 for Windows

SnapDrive 6.4 for Windows introduces support for Data ONTAP 8.1 Cluster-Mode. You can create disks on a Vserver in Cluster-Mode.

For detailed information, see the *SnapDrive 6.4 for Windows Installation and Administration Guide*.

Features not supported in SnapDrive 6.4 for Windows

You must be aware of some of the features that are not supported in SnapDrive 6.4 for Windows for Cluster-Mode.

- RPC protocol
However, HTTP and HTTPS are supported as transport protocols.
- SnapVault and qtree SnapMirror
- IPv6
- Single sign-on
- File-based thin provisioning configuration
- File-based RBAC and OnCommand-based RBAC
- EMS logging and VMDK
- Volume move operation

SnapDrive 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.

The storage system and Windows system components that you use with SnapDrive, as well as the minimum versions SnapDrive requires, are as follows:

Operating system on the storage system

- Data ONTAP 7.2.7 and later releases in the 7.2 release family
- Data ONTAP 7.3.1 and later releases in the 7.3 release family
- Data ONTAP 8.0.x 7-Mode
- Data ONTAP 8.1 or later

Note: For the most current list of supported Data ONTAP software versions, see the Interoperability Matrix.

Licenses enabled on the storage system

- iSCSI, if you want to use iSCSI-accessed LUNs
- FC, if you want to use FC-accessed LUNs
- SnapRestore, if you want to restore LUNs from Snapshot copies
- SnapMirror, if you want to use the SnapMirror option
- FlexClone, if you want to enable volume clone functionality
- SnapVault, if you want to use SnapVault for archiving LUN backup sets. This is supported in SnapDrive only for 7-Mode.
- MultiStore, if you want to create iSCSI LUNs on vFiler units

Note: The iSCSI and FC licenses supplied with SnapDrive enable all the CIFS functionality necessary for using SnapDrive. If you also want full-featured, direct CIFS access to a particular storage system, you must install a separate CIFS license on that storage system.

DataFabric Manager server

If you are using DataFabric Manager server to provide RBAC with SnapDrive, you must upgrade to OnCommand Core Package 5.0. This is supported only in 7-Mode. For information about using RBAC with SnapDrive for Windows, see the *SnapDrive 6.4 for Windows Installation and Administration Guide*.

Hardware on the Windows host

- CPU
 - For 32-bit: 2.8 GHz Pentium 4 or any compatible version
 - For 64-bit: Intel Xeon, AMD Opteron
- Memory
 - 1-GB RAM
- HBA and NICs

To determine the number and types of HBAs and NICs required by each system in your SnapDrive configuration, see the section on selecting a

SnapDrive configuration in the *SnapDrive 6.4 for Windows Installation and Administration Guide*.

The NIC you use to facilitate data transfer for Microsoft iSCSI Software Initiator can come from any vendor, but it must be approved by Microsoft for use with Windows Server.

- **Host Utilities and Software Initiator**
To ensure high network bandwidth and ease of configuration, obtain the latest firmware and drivers for the HBAs and NICs you are using. You can accomplish this by installing the appropriate Host Utilities or iSCSI Software Initiator, and by following these best practices:
 - Navigate to the software download page on the NetApp Support Site for the latest supported FC HBAs and drivers.
From this gateway, navigate to the FC Host Utilities for Windows software download page.
 - Download Microsoft iSCSI Software Initiator from the Microsoft site.
 - Navigate to the software download page on the NetApp Support Site or the latest supported iSCSI HBA and drivers.
From this gateway, navigate to the iSCSI Host Utilities for Windows software download page.

Multipath I/O

DSM software support version for Windows MPIO

See the Data ONTAP DSM for Windows MPIO Description page on the Download Software page for any installation requirements.

Note: See the Interoperability Matrix for the latest information about the supported configurations.

Operating system on the Windows host machine

- Windows Server 2003 SP2
 - Edition: Standard or Enterprise
 - Platforms: x86, x64
- Windows Server 2008, Windows Server 2008 R2 Server Core and non-Server Core installations, and Windows Server 2008 R2 SP1 Server Core and non-Server Core installations:
 - Edition: Standard or Enterprise
 - Platforms: x86, x64

.NET Framework

.NET Framework 3.5 SP1 is required before installing SnapDrive.

.NET is not supported on Windows Server 2008 Server Core; it is, however, supported on Windows Server 2008 R2 Server Core and later versions.

Microsoft Windows hotfixes

Before you can install SnapDrive 6.4 for Windows, your host system must have the appropriate Microsoft hotfixes installed.

Note: The following Microsoft hotfixes must be requested directly from Microsoft Product Support Services.

Windows Server 2003 SP2 (x86, x64 or DC edition)

If your system is running Windows Server 2003 with Service Pack 2, you must install the following hotfixes:

- 919117
- 931300
- 932755
- 937382

Windows Server 2008

If your system is running Windows Server 2008 (x86, x64 or DC edition), you must install the following hotfixes:

- 950927
- 952790
- 955656

If your system is running Windows Server 2008 x64, you must install the following hotfix:

- 956697 (This hotfix is not required on virtual machines.)

Windows Server 2008 R2

If your system is running Windows Server 2008 R2, either Server Core or non-Server Core, and you are using the Hyper-V feature, you must install the following hotfix:

- 977096

If your system is running Windows Server 2008 R2 SP1, see the following Knowledge Base articles to install the required hotfixes:

- Knowledge Base article 2494016 *Virtual Machines crash when CSV goes into redirected mode*
- Knowledge Base article 2520235 *Stop error when more than 200 hard disks are presented to a WSFC*
- Knowledge Base article 2531907 *SCSI Device Vital Product Data (VPD) test runs on online disks causing data corruption*

Related information

NetApp Interoperability Matrix - <http://now.netapp.com/NOW/products/interoperability/>

Microsoft Product Support Services - <http://support.microsoft.com>

Microsoft Knowledge Base article 2494016

Microsoft Knowledge Base article 2520235

Microsoft Knowledge Base article 2531907

VMware ESX guest OS requirements

To properly install and run SnapDrive for Windows in a VMware ESX environment, you must ensure that you are using compatible operating systems, host utilities, VMware Tools, and controllers.

See the Interoperability Matrix for the latest supported ESX guest OS components.

ESX server OS

- ESX 4.0 Update 3
- ESX 4.1 Update 1
- ESX 5.0

Windows guest OS

- Windows Server 2003 SP2 (x86, x64 or DC edition), Windows Server 2008 (x86, x64 or DC edition), or Windows Server 2008 R2, with the hotfixes specified in the SnapDrive host requirements.
- .NET Framework 3.5 SP1

FC HBA

For the latest list of supported host utilities and HBAs, see the Interoperability Matrix for details.

iSCSI Initiator

For the latest list of all supported iSCSI initiators, see the Interoperability Matrix for details.

Storport Miniport driver LSI Logic SCSI controller

SCSIport Miniport driver is the default LSI Logic SCSI controller included when Windows Server 2003 SP2 is installed as the guest OS in VMware ESX server.

If you are using RDM LUNs, the LSI Logic SCSI controller must be updated with the Storport Miniport driver for proper SnapDrive operations.

The minimum required driver version for x86 is 1.21.15.00, and the minimum required driver version for x64 is 1.20.17.00.

You can download the x86 or x64 version of this driver from the LSI Logic site by searching for “LSI Logic Fusion-MPT SCSI Driver (Storport)”, or you can contact LSI Logic.

For more information, see the VMware Knowledge Base article 1006224 *Windows Guests Installed with LSI Logic Storport Driver 1.26.05 Crash while Booting* on the VMware site.

Windows Server 2008 includes the Storport Miniport driver and does not need to be updated.

- VMware Tools** VMware Tools must be installed before the SnapDrive installation in the guest OS.
- Multiple SCSI controllers** To support more than 15 LUNs, the virtual machine must be preconfigured with 4 SCSI controllers, creating a total of 60 LUNs. However, one RDM LUN or VMDK is assigned to each SCSI controller, leaving 56 LUNs available for SnapDrive provisioning.

Related information

NetApp Interoperability Matrix - <http://now.netapp.com/NOW/products/interoperability/>
VMware Knowledge Base article 1006224 - [http://kb.vmware.com/selfservice/microsites/](http://kb.vmware.com/selfservice/microsites/search.do?)
<http://www.lsi.com/>

ALUA support requirements

SnapDrive provides support for ALUA when you create LUNs using FC initiators on ESX 4 servers. ALUA is enabled by default on the resulting igroup that SnapDrive automatically creates.

SnapDrive also has the following ALUA support requirements and limitations:

- You can use SnapDrive to create LUNs and then map them manually to existing ALUA-enabled igroups.
- You cannot use the same FC initiator for both ALUA-enabled and ALUA-disabled igroups.
- ALUA is not supported on a VMware MSCS cluster.

If SnapDrive is used to create a shared disk on an ESX 4 VMware MSCS cluster, ALUA is disabled on the initiator group that SnapDrive automatically creates.

If you use SnapDrive to create a shared disk in a VMware MSCS cluster when an FC igroup already exists with ALUA enabled, SnapDrive automatically creates an igroup with ALUA disabled and logs an error in the Event Viewer, indicating that ALUA is enabled for one of the initiators on the storage system.

Note: In Cluster-Mode, ALUA will be enabled by default for FC.

Support requirements for Snapshot copy operations in VMDKs

Before you can use SnapDrive to perform Snapshot copy operations in VMDKs on NFS and VMFS datastores, you must be aware of the SnapDrive requirements for enabling VMDK support.

- Virtual Storage Console 2.1.1 must be installed and the appropriate IP address must be configured in SnapDrive for Windows.
- Data ONTAP 7.3.4 must be installed on your storage system for SnapDrive to use the space reclamation feature in VMDK files.
- Virtual Storage Console must be installed on the same system running the vCenter Server or on another 32-bit or 64-bit Windows computer.
- Attached VMDKs must only be basic disks.
- The guest OS must be able to communicate with the IP address or storage system configured in the Virtual Storage Console server.
- This is supported only in 7- Mode.

Fixed issues

SnapDrive 6.4 for Windows includes several bug fixes. For more information, see Bug Tools on the the NetApp Support Site and search using the bug ID.

- Bug 471127** SnapDrive does not list the shared disk in the passive node of Windows 2008 failover clustering.
- Bug 514571** Backup verifications fail in SnapManager for Exchange several times as SnapDrive for Windows fails to mount the Snapshots copies for verification.
- Bug 522400** SnapDrive for Windows is able to connect to a LUN only if all the initiators in initiator group can be connected to LUN.
- Bug 451580** SnapDrive fails to enumerate the VMs with virtual hard disks mounted on Volume GUIDs.
- Bug 486007** SnapDrive connects the LUNs inside a Snapshot copy to the wrong host.
- Bug 382025** Resize operation using SnapDrive MMC snap-in fails on a 2-TB MBR LUN.
- Bug 509156** SnapDrive 6.3.1 does not list a SnapMirror relationship for a LUN in a qtree.
- Bug 529905** SnapDrive for Windows fails to unmount and deferred verification on an archived dataset backup on the host node of the cluster fails.
- Bug 470646** RDM LUN creation fails in a VM with the error "Failed to Add virtual disk:Exception message: File [xxxx].vmdk was not found".
- Bug 541814** Run one concurrent SnapManager for Exchange backup verification job at a time.
- Bug 513004** Improved disk enumeration in cluster configuration by enabling Volume and CSV caching.
- Bug 515927** Removing a LUN from an ESX host causes multipath software to report that all the paths to the LUN are down.
- Bug 371320** SnapDrive for Windows might not enable the ALUA attribute on initiator groups.
- Bug 514715** SnapDrive enumeration might terminate the SnapDrive service on the parent HyperV machine unexpectedly.
- Bug 400932** SnapDrive installation with vCenter credentials fails when a virtual machine is part of a virtual application.
- Bug 506675** SnapDrive retrieves the list of mapped disks of all the users instead of a particular user's mapped drive in a storage system.

Known issues

Some unexpected and potentially undesired behaviors are known to affect functionality in this release of SnapDrive for Windows. You can take actions to work around some of these behaviors.

SnapDrive for Windows installation fails after .NET 4.0 is installed

Message	SnapDrive installation detected that the .Net 3.5 Framework SP1 is not installed in the system. Please install .Net 3.5 Framework SP1 and launch the installation again.
Issue	This issue occurs when you attempt to install SnapDrive for Windows after installing .NET 4.0 Framework on your Windows server.
Cause	SnapDrive requires .NET 3.5 SP1 during installation. If .NET 3.5 SP1 is not installed, the SnapDrive installation fails.
Corrective action	Install both .NET 3.5 SP1 and SnapDrive for Windows before upgrading to .NET 4.0.

Error adding raw device mapping -GetLunInformation returned false

Message	Error adding raw device mapping -GetLunInformation returned false.
Description	This message is displayed when running the <code>sdcli disk create</code> command in a virtual machine.
Cause	This issue occurs when the paths are no longer valid on the ESX server.
Corrective action	Remove the invalid paths on the ESX server, and run the <code>disk create</code> command again.

VMware tools requires upgrade when virtual machine migrates from platform other than ESX

Issue	SnapDrive does not recognize virtual machines created on a platform other than an ESX server (for instance, a VMware workstation) and then migrated to an ESX server configuration until VMware tools are upgraded.
Cause	This problem is caused by missing registry keys required by SnapDrive.
Corrective action	1. Uninstall VMware Tools on the ESX server. 2. Reboot the system. 3. Reinstall VMware Tools. 4. Reboot the system.

RBAC access check fails when correct account information is not provided

Issue	This issue occurs when using the SnapManager Configuration wizard to create or reuse a dataset within Operations Manager for SnapVault with SnapDrive 6.4 for Windows installed.
Cause	This issue occurs when you are running DataFabric Manager server 3.7 or later on a Linux-based Operations Manager server to provide role-based access control with SnapDrive 6.4 for Windows or later.
Corrective action	Make sure the following conditions exist for your Linux-based configuration and try again: • The sdcli user account must be a valid Operations Manager server user account with the appropriate roles assigned. • The SnapManager service account must be added to the Operations Manager server with the appropriate roles assigned. For more information, see the Knowledge Base article kb58272 on the NetApp Support Site.

New OnCommand user entry example

The following example shows a new user and the roles for that user being added to a Linux-based DataFabric Manager server:

```
# dfm user add windomain\\snapuser
Warning: windomain\\snapuser does not exist in the administrator
database(s), so login is disabled for this administrator.
Added administrator windomain\\snapuser.

# dfm user list
Id Administrator Email Pager
-----
5980 windomain\\snapuser windomain\\snapuser
29 Everyone
30 root

Assign a role or roles to the user:
# dfm user role add windowsdomain\\snapuser GlobalFullControl
Added 1 role to administrator windowsdomain\\snapuser.

# dfm user role list windowsdomain\\snapuser
Role Id Role Name
-----
28 GlobalFullControl
```

Related information

NetApp support site - <http://support.netapp.com>

LUN includes SCSI reservation but is not mapped

- | | |
|--------------------------|--|
| Description | Connecting a LUN on a Microsoft cluster fails. |
| Cause | A bug in Microsoft failover clusters and in Data ONTAP software. |
| Corrective action | <p>You can resolve this problem in one of three ways.</p> <ul style="list-style-type: none"> • Clear the SCSI reservation on your storage system by entering the following command:
lun persistent_resv clear • Clear the persistent reservation (PR) bit on the Windows server by entering the following command:
cluster nodename /clearpr:disk# • Complete the following steps on one of the Microsoft cluster nodes: <ol style="list-style-type: none"> 1. Note the dependencies in the associated cluster resource group and then delete the group. 2. Remove the disk from the Available Storage list. |

3. On the same server or a new one, add the disk back to the Available Storage list and re-create the cluster resource group with the dependencies you noted in Step 1.

Snapshot copy LUN import operations fail when mounting to a Windows Server 2008 R2 host

Issue	Operations that try to import (mount) a Snapshot copy LUN onto the host fail, including file-level restoration for files in the boot LUN, generic Snapshot copy mount for copying files or file verification by third-party tools, and VSS Snapshot copy of scenarios that require Snapshot copy mount.
Cause	This is caused by a limitation with the Snapshot copy of the LUN when using the system reserved partition introduced by Microsoft in Windows Server 2008 R2. The system reserved partition is created by the Windows installer during a fresh installation unless you choose not to include the boot LUN system recovery option. The problem only occurs if the system reserved partition is on the boot volume when the Snapshot copy is created.
Corrective action	You can avoid this problem in one of three ways, depending on your situation: • During Windows installation, choose the option not to create the recovery partition. • Delete the recovery partition later, if possible. • If you are using Windows Server 2008 before upgrading to Windows Server 2008 R2, choose the option to upgrade rather than performing a fresh installation.

Requested LUN size is too large

Description	This message occurs when, using Data ONTAP 7.3.1, you use the <code>lun create -o nonreserve -s 16t</code> command in an attempt to increase LUN size. In earlier versions of Data ONTAP, this command succeeded and automatically created the largest possible non-space-reserved LUN (17,555,552,340,480 bytes or 16439 GB). This problem also exists for the <code>lun-create-by-size</code> ZAPI that is used by SnapDrive for Windows. When you use SnapDrive for LUN management, creating a LUN by entering the LUN size as 16 TB fails.
Corrective action	Create a non-space-reserved LUN sized 16349 GB which results in the same maximum LUN size that you created using Data ONTAP 7.3.

Input string was not in a correct format

Cause	The message occurs in SnapDrive 6.x during LUN enumeration, when you change the Regional and Language options from the default of English (US), which might cause the thousands separator to change to a character other than a period (.).
Corrective action	In the Regional and Language options, change the value in the Decimal symbol field to a period (.) instead of a comma (,) or any other symbol.

Space Reclaimer does not reclaim blocks for an RDM LUN

Issue	The space reclaimer feature does not reclaim blocks from an RDM LUN on an ESX 4.1 VM after data is deleted from the LUN.
Corrective action	None.

FCP disk enumeration fails with Data ONTAP 8.0.1 7-Mode on a system takeover

Issue	An FCP-connected LUN fails to enumerate on a hosted virtual instance running Data ONTAP 8.0.1 7-Mode.
Corrective action	None.

Drive letter missing for MBR disk during a SnapRestore operation

Cause	This issue occurs when LUN size and the size of LUN inside the snapshot is not matching.
Corrective action	1. Go to diskmgmt.msc and you can see the disk without the drive letter or mount point. 2. Right-click the disk and assign drive letter to the disk. 3. Ignore the Format disk pop-up. 4. Refresh SnapDrive MMC. You can see the disk with the assigned drive letter.

SnapDrive for Windows fails to enumerate MSCS or WFC solutions that use dedicated disks

Issue	Microsoft Exchange Server 2007 CCR or Microsoft Exchange Server 2010 Data Availability Groups do not expose the disks to all the nodes. SnapDrive for Windows tries to enumerate all the disks and fails if there are firewall or port restrictions.
Corrective action	None.

Pass-through disk might not be enumerated after it is restored to a smaller size

Issue	After you restore a pass-through disk to a smaller size, it is not listed when you try to view all the LUNs connected to the host. The Microsoft Windows format dialog box is displayed.
Corrective action	• Click Cancel in the format dialog box. • Open Disk Management in MMC. • Rescan all the disks. • Refresh the Disks list in MMC snap-in. Alternatively, enter the <code>sdcli disk list</code> command.
Result	The disk is displayed in the list.

SnapDrive host lists LUNs of the original virtual machine after a reboot

Issue	When you stop the SnapDrive service and reboot the host after cloning LUNs to a destination virtual machine, SnapDrive lists LUNs that are not related to the host.
Corrective action	Reinstall SnapDrive for Windows.

Pass-through disk provisioning in high-availability virtual machine fails

Issue	Pass-through disk provisioning (create and connect operations) fails on a high-availability virtual machine (HA VM).
Cause	This issue occurs when a dedicated pass-through disk already exists in the HA VM - for example, while mounting a Snapshot copy as a pass-through disk from the HA VM using SnapDrive for Windows.
Corrective action	Detach the dedicated pass-through disk before performing provisioning operations on HA VMs.

Independent disks are excluded during backup when VMware snapshots are used

Issue	When a VMware snapshot of a VMDK disk already exists, you cannot use a SnapDrive Snapshot copy created on an independent disk (persistent or nonpersistent) to mount or restore a VMDK disk.
Corrective action	• Remove the VMware snapshot. • Create a Snapshot copy of VMDK disks.

Silent install feature does not set DFM_SERVER_COMM_PORT_SELECTION switch to HTTPS

Issue	The silent install feature does not set the DFM_SERVER_COMM_PORT_SELECTION command-line installation switch to HTTPS. You can reset the switch through manual installation. However, manual installation to reset the switch every time can be a potential issue for mass deployment requirements in large physical environments.
Corrective action	Install SnapDrive for Windows without OnCommand. You can install OnCommand later using <code>sdcli.exe</code> after SnapDrive installation.

SnapDrive cannot mount a LUN

Issue	SnapDrive might fail to mount a LUN or a clone and displays the following error message: VDS volume object for the LUN s/n 'xxxxx' has not been found.
Corrective action	• Restart VDS service. • If it is a shared disk on Windows 2003, install ONTAP DSM 3.5.

Unable to reset DFM_SERVER_COMM_PORT_SELECTION command-line installation switch

Issue	During an unattended installation of SnapDrive, the DFM_SERVER_COMM_PORT_SELECTION switch is not updated when you reset it to HTTPS protocol. The switch displays HTTP by default.
Corrective action	None.

Running parallel backups of a CSV results in offline CSV

Issue	When you run parallel backup operations of a CSV by using the Data ONTAP Volume Shadow Copy Service Hardware Provider, the backup process is stopped and the CSV goes offline.
Corrective action	None.

LUN creation fails on an ESX cluster setup with iSCSI initiator

Issue	Shared LUN creation fails on a cluster setup with iSCSI initiator, displaying the following error message: Mixed initiators across nodes are not supported for shared disks.
Corrective action	Create the shared LUN using automatic igroup selection option.

Error in RDM LUN creation in SnapDrive

Issue	When two nodes in the cluster are VMs in different sites and register with different vCenters, SnapDrive fails to create RDM LUN with the following error message: Error in fetching number of VMFS datastores.
Corrective action	Disable the cluster service on both the cluster nodes.

SnapMirror relationship is broken after SnapRestore is performed

Issue	SnapMirror relationship is broken after SnapRestore is performed in Data ONTAP 8.1 7-Mode. This causes SnapManager for Exchange Business Continuanace to fail during reverse resync SnapMirror operation.
Corrective action	Update the snapmirror.conf file.

SnapManager for Exchange Business Continuanace fails during SnapMirror replication with Data ONTAP Cluster-Mode

Issue	SnapManager for Exchange Business Continuanace fails during synchronous SnapMirror replication with Data ONTAP Cluster-Mode. The following error message is displayed: No Mirrors qualified for the 'Resync' operation.
Corrective action	Perform a manual resync.

SnapDrive service takes time to start

Issue	SnapDrive service takes time to start because SnapDrive is trying to locate the VM in the primary vCenter.
Corrective action	Do not enable ESX or vCenter credentials if you are not using RDM and VMDK in the same VM.

SnapDrive operations fails during takeover mode in the storage system

Issue	When the storage system is in takeover mode, SnapDrive operations fail because there is no connection between the host and the storage system.
Corrective action	None.

SnapDrive fails while testing Broadcom 57712 converged network adapter

Cause	The command <code>sdcli snap unmount</code> fails as there is an existing mount point in the storage system.
Corrective action	• Add the storage system in "Preferred Storage System IP Addresses" list. • Configure the storage system and host with same IP protocol (IPV4 or IPV6).

Scheduled backup and concurrent verification jobs fail to mount Snapshot copy

Issue	Running scheduled backup and concurrent verification jobs fail to mount a Snapshot copy with error The parameter is incorrect.
Corrective action	None.

SnapDrive displays 0 MB LUN size

Issue	The command <code>sdcli disk resize</code> cannot be executed.
Corrective action	Set the preferred IP in the storage system.

SnapDrive fails to locate active LUNs on a system

Issue	SnapDrive fails to locate active LUNs on a system. However, Disk Management in MMC snap-in displays all the LUNs.
Corrective action	Add the virtual server entry to the transport protocol setting by using MMC snap-in or <code>sdcli.exe</code> .

Windows 2008 R2 SP1 installation fails if SnapDrive is installed

- Workaround**
1. Disable SnapDrive Service.
 2. Enable Automount by running any one of the following commands on command prompt:
 - a. Enter `mountvol /E`.
 - b. Enter `diskpart`. At diskpart prompt, enter `automount enable`.
 3. Restart the system.
 4. Install Windows 2008 SP1.
 5. Change SnapDrive Service startup type to Automatic.
 6. Start SnapDrive Service.

Documentation changes

Some additional information to the *SnapDrive 6.4 for Windows Installation and Administration Guide* has become available.

- Add this section under Using SnapMirror with SnapDrive for Windows > SnapMirror overview
Data consistency is ensured in SnapDrive with up-to-date SnapMirror synchronous operation. If the synchronous operation is not updated, SnapDrive reverts to previous Snapshot copies. However, if the SnapMirror synchronous operation is up-to-date, the destination system contains Snapshot copies and SnapDrive connects to the current active file system, ensuring that the data is consistent.
- Add this note under Managing SnapDrive > Adding and removing initiators with SnapDrive
Add/Remove initiator is not a valid operation in ESX environment.

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