Dell PowerVault Network Attached Storage (NAS) Systems
Troubleshooting Guide

Notes, Cautions, and Warnings

NOTE: A NOTE indicates important information that helps you make better use of your computer.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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1

Installation Issues

The following section discusses various installation issues.

RAID 5 Configuration Defaults To RAID 1 After A Hard Drive Replacement

Description After replacing the hard drives, the system's RAID 5 configuration defaults to the RAID 1. This issue occurs because the operating system reinstallation media cannot find an operating system partition of 120 GB or larger on Virtual Disk 0.

Workaround/ Solution To workaround this issue, perform the following steps:

NOTE: The operating system can only be installed on LUN 0 of the internal controller. To configure a RAID configuration other than RAID 1, create a virtual disk with LUN ID 0 before reinstalling the operating system.

1. If applicable, backup data on all virtual disks.
2. Reboot your system and enter the Dell PowerEdge RAID controller (PERC) BIOS.
   For more information, see the PERC documentation at **support.dell.com/manuals**.
3. Create a virtual disk with the desired RAID configuration, LUN ID 0, and a capacity of 120 GB or more.
4. Reboot the Dell PowerVault Network Attached Storage (NAS) using the operating system reinstallation media.

RAID Configuration Does Not Match Factory Configuration After Reinstalling The Operating System

Description After reinstalling the operating system, the RAID configuration on the system does not match the factory configuration and defaults to RAID 1. This issue occurs because the operating system reinstallation media cannot find an operating system partition of 120 GB or larger on Virtual Disk 0.

Workaround/ Solution To workaround this issue, perform the following steps:

NOTE: The operating system can only be installed on LUN 0 of the internal controller. To configure a RAID configuration other than RAID 1, create a virtual disk with LUN ID 0 before reinstalling the operating system.

1. If applicable, backup data on all virtual disks.
2. Reboot your system and enter the Dell PowerEdge RAID controller (PERC) BIOS.
   For more information, see the PERC documentation at **support.dell.com/manuals**.
3. Create a virtual disk with the desired RAID configuration, LUN ID 0, and a capacity of 120 GB or more.

4. Reboot the Dell PowerVault Network Attached Storage (NAS) using the operating system reinstallation media.

The iSCSI Target Icon Is Missing In The Server Manager

Description	After installing the iSCSI Target software, the iSCSI Target icon is not present in the Server Manager. This issue occurs because the system is not properly refreshed.
Workaround/ Solution	To workaround this issue, perform one of the following steps: • Refresh the Server Manager. • Close and restart the Server Manager. • Launch the **Microsoft iSCSI Target Management** tool. Click **Start → Administrative Tools → Microsoft iSCSI Target.**

Error: -5000 Shows Unexpected System Error Message

Description	A required system resource cannot be located or is faulty.
Workaround/Solution	This issue occurs because either the operating system reinstallation media, optical drive, or the system is in an invalid state. This is a known issue.

Error: -5001 Shows Invalid System Error Message

Description	System restore is being performed on an unsupported system. This issue occurs because the operation is not supported on the system.
Workaround/Solution	To resolve this issue, remove the operating system reinstallation media immediately.

Error: -5002 Shows Unsupported Hardware Configuration Error

Description	The system is unable to locate a supported RAID controller.
Workaround/ Solution	To workaround this issue, perform one of the following steps: • Ensure that the disk controller card is connected to the internal drives and is properly seated in the correct slot. For more information about connecting the card, see the *Hardware Owner's Manual* at **support.dell.com/manuals**. • Enter the PERC BIOS during the operating system boot operation and ensure that the internal drive controller is functional. For more information, see the PERC documentation at **support.dell.com/manuals**. • Ensure that your system supports an internal drive controller. For information about the internal drive controllers supported on your system, see the system hardware documentation at **support.dell.com/manuals**.

Error: -5003 Occurred While Creating An Operating System Volume

Description	Invalid operating system drive configuration. The layout of physical disks to be used as operating system disks do not meet the required layout for the device.
Workaround/ Solution	To workaround this issue, perform one of the following steps: • Ensure that all drives in the operating system drive slots are correctly attached and do not have data on them. Physical disks for the operating system must be of the same type and must be greater than 120 GB. • Enter the PERC BIOS during the operating system boot operation and ensure that there are no foreign configurations, drives are clean of all data, the drives meet the minimum size requirement, and are fully functioning and accessible. For more information, see the PERC documentation at **support.dell.com/manuals**.

Error: -5004 Occurred While Creating An Operating System Volume

Description	Drives in the slots dedicated for operating system drives are empty.
Workaround/ Solution	To workaround this issue, perform one of the following steps: • Ensure that all drives in the operating system drive slots are correctly attached and do not have data on them. Physical disks for the operating system must be of the same type and must meet the minimum size requirements. • Enter the PERC BIOS during the operating system boot operation and ensure that there are no foreign configurations, drives are clean of all data, the drives meet the minimum size requirement, and are fully functioning and accessible. For more information, see the PERC documentation at **support.dell.com/manuals**.

Error: -5005 Occured While Creating An Operating System Volume

Description	Drives in expected operating system slots have existing foreign configurations.
Workaround/Solution	To workaround this issue: Enter the PERC BIOS during the operating system boot operation and ensure that: • there are no foreign configurations • drives are clean of all data • the drives meet the minimum size requirement, and are fully functioning and accessible. For more information, see the PERC documentation at **support.dell.com/manuals**.

Error: -5006 Occurred While Creating An Operating System Volume

Description	Unable to locate the PowerVault operating system reinstallation media.
Workaround/ Solution	To workaround this issue, perform one of the following steps:

- Ensure that the operating system reinstallation media is loaded in the optical drive. If the media is present in the drive, the drive may be faulty. For information about troubleshooting the drive, see the *Hardware Owner's Manual* at **support.dell.com/manuals**.
- Ensure that the drive is still functional. Reboot the PowerVault NAS using the operating system reinstallation media to restart the process.

Error: -5007 Occurred While Creating An Operating System Volume

Description	A pre-existing virtual disk with LUN ID 0 that is not being used for the NAS operating system has been encountered.The operating system on the PowerVault NAS system must be on virtual disk 0.
Workaround/ Solution	To workaround this issue, the current virtual disk with LUN ID 0 must be deleted for the operating system reinstallation to proceed.

1. Backup all data on virtual disk 0 if possible.
2. Reboot your system and boot into the PERC controller BIOS during POST. For more information about booting into the PERC controller BIOS, see PERC user's guide at **support.us.dell/manuals**.
3. Delete the virtual disk with LUN ID 0.
4. Reboot the PowerVault NAS using the operating system reinstallation media.

Third-party Tools And Utilities Error

Description	This error occurs due to the third party tools and utilities.
Workaround/ Solution	To workaround this issue, follow the instructions in the error message. If the error cannot be resolved, contact Dell. To resolve this issue, contact Dell. See Getting Help in the *Hardware Owner's Manual*.

Package Provided Is Not A NAS Appliance Software

Description	The package provided for the **PowerVault NAS Initial Configuration Wizard** is not a recognized NAS appliance software.
Workaround/Solution	Ensure that the package downloaded from **support.dell.com** is compatible with your system.

Cannot Install PowerVault NAS Appliance Software On The NAS System

Description	The wrong NAS software appliance has been provided on the system.
Workaround/Solution	Go to **support.dell.com** and download the appropriate NAS appliance software for the system.

Reinstallation Error Message Stays On The LCD

Description	The last error message remains on the LCD until the operating system is successfully reinstalled.

Workaround/ Solution	To resolve this issue, change the user defined string to the default option or User Defined String. Enter the BIOS and select the **Embedded Server Management** screen. Change the option to either default or type a new string.

Display Log Console Displays A Wrong Date

Description	The display log console displays a wrong date during the operating system reinstallation process.
Workaround/Solution	This is a known issue and does not affect the system.

2

Deployment Issues

The following section discusses various deployment issues.

Default Password Missing

Description	Unable to find the default password of the system.
Workaround/Solution	The default password for your PowerVault storage solution is Stor@ge!

Errors Due To PERC Cards

Description	This error is caused due to the PERC cards.
Workaround/Solution	To resolve the issue, see the PERC documentation at **support.dell.com/manuals**.

Firewall Exceptions On PowerVault Systems

Description

These are the default firewall settings configured on PowerVault NAS systems.
The following ports are open by default:

- UDP port = 80: http
- UDP port = 111: Portmap UDP
- UDP port = 162: SNMP
- UDP port = 1071
- UDP port = 137: NetBIOS Name

Service — UDP port = 138: NetBIOS
Datagram service:

- UDP port = 328:
- UDP port = 6389:
- UDP port = 1205:
- UDP port = 1062:
- UDP port = 2730:
- TCP port = 80: IIS
- TCP port = 135: RPC
- TCP port = 3260: ISCSI
- TCP port = 111: Portmap TCP
- TCP port = 25: Storage Processor
- TCP port = 4244: DCOM/RPC

- TCP port = 137: NetBIOS TCP
- TCP port = 139: NetBIOS Session

Service:

- TCP port = 445: SMB over TCP
- TCP port = 3389: Remote Desktop
- TCP port = 2463:
-

Workaround/Solution This feature is working as designed.

PowerVault NAS Initial Configuration Wizard Does Not Install Non-English Languages

Description The PowerVault NAS Initial Configuration Wizard does not successfully install the language on the system. An error occurs while installing the non-English language packs.

Workaround/ Solution Perform the following steps to reinstall the language packs:

1. Click **Start** → **Control Panel** → **Clock, Language, and Region** → **Change Display Language**.
   The **Regional and Language Options** window appears.
2. From the **Keyboards and Languages** tab, select **Install/Uninstall Languages** to install the required language.
3. Select Install Language and browse to **C:\dell\mui**<*country_abbreviation*> where the MUI files are located.

Continuous Launch Of The PowerVault NAS Initial Configuration Wizard

Description The PowerVault NAS Initial Configuration Wizard experiences a continuous launching error after an unsuccessful attempt at installing a non-English language pack.

Workaround/ Solution Perform the following steps to reinstall the language packs:

1. Click **Start** → **Control Panel** → **Clock, Language, and Region** → **Change Display Language**.
   The **Regional and Language Options** window appears.
2. From the **Keyboards and Languages** tab, select **Install/Uninstall Languages** to install the required language.
3. Select Install Language and browse to **C:\dell\mui**<*country_abbreviation*> where the MUI files are located.

3

Management Issues

The following section discusses various management issues.

Desktop Displays Incorrect System Information

Description	The information present on the desktop does not match the actual system information. This issue occurs because the **Dell Desktop System Information Utility** does not refresh automatically. If you make any changes while the system is running, the changes may not be reflected in real time.
Workaround/ Solution	To workaround the issue, perform one of the following steps: • Log off and log on. • Run the **Dell Desktop System Information Utility**. • Reboot the system.

Insufficient Disk Space On A Volume Dedicated For iSCSI Virtual Disk

Description	System runs out of disk space on a volume dedicated for an iSCSI virtual disk or device. System displays a warning or a message that the system is running out of disk space on a newly created volume for iSCSI LUN.
Workaround/ Solution	This message is for your information only. The system ensures the **.vhd** file is the same size as the volume it resides on. This issue occurs due to the Microsoft iSCSI software target architecture. To find out the actual free space on the disk, view the capacity from the client connected to the disk.

Single Instance Storage (SIS) And File Server Resource Manager (FSRM) Display Incorrect Disk Space

Description	If SIS is enabled on a volume, FSRM may incorrectly report the amount of disk space used on that volume for a user.
Workaround/ Solution	This is a design characteristic of the operating system and occurs when the files are migrated to the SIS common store.

Cannot Install SIS On A Volume Without A Mount Point

Description	If you install SIS on a volume without a mount point, such as a drive letter or folder mount point, the operation fails while incorrectly displaying a message similar to the following: `SIS has been initialized on volume '\\?\Volume{f2eb8ac f-0ad7-49b3-bd92- b93ce5680c85}\'. Restarting the Groveler service...`
Workaround/ Solution	To workaround this issue, assign a valid mount point to the volume before enabling SIS for the volume.

Groveler Service May Not Recognize A Volume After Changing The Drive Letter

Description	SIS requires that all volumes using SIS must be assigned either a drive letter or a folder mount point. If you use disk management to change the mount point or drive letter of a SIS volume, the Groveler service may fail to recognize the new configuration immediately. The Groveler service adapts to the change within an hour and restores full functionality.
Workaround/ Solution	To correct the issue, type `sisadmin.exe /I` at the command prompt.

Turning Off The Firewall

Description	To turn off the firewall follow the steps given below.
Workaround/Solution	1. Launch **Server Manager** and navigate to the **Configuration** snap-in. 2. Expand the snap-in and right-click **Windows Firewall with Advance Security**. 3. Select **Properties** and turn off the required firewall.

4

Update Issues

The following section discusses various update issues.

PowerVault NAS Update Package Provided Is Not A NAS Appliance Software

Description	The package provided for the **PowerVault NAS Initial Configuration Wizard** is not a recognized NAS appliance software package.
Workaround/Solution	Ensure that the package downloaded from **support.dell.com** is compatible with your system.

Cannot Install The PowerVault NAS Update Package On The NAS System

Description	The wrong NAS software appliance has been provided for the system.
Workaround/Solution	Go to **support.dell.com** and download the appropriate NAS appliance software for the system.

Unable to Detect The Dell OpenManage Server Administrator On The System

Description	Dell OpenManage Server Administrator cannot be found on the system.
Workaround/ Solution	To workaround this issue, download the latest version of the OpenManage Server Administrator from **support.dell.com**. 1. Launch the installer and follow the instructions on the screen. 2. After installing the OpenManage Server Administrator, reboot the system. 3. After the system boots up, the **PowerVault NAS Initial Configuration Wizard** launches. 4. Complete the initial configuration steps.