D&LL Technologies

Dell PowerStoreOS 4.0.1.3 Release Notes

This document describes the new features, changed features, and resolved issues in this release of PowerStoreOS.
Current Release Version: 4.0.1.3 (Build: 2494147)
Release Type: Patch (P)

Topics:

Revision history

Table 1. **Document revision history**

Revision	Date	Description
A00	May 2025	Initial release notes for PowerStoreOS 4.0.1.3 (Build: 2494147)

Product description

The ground-breaking Dell PowerStore storage system achieves new levels of operational simplicity and agility, using a container-based architecture, advanced storage technologies, and intelligent automation to unlock the power of your data.

Based on a scale-out architecture and hardware-accelerated advanced data reduction, PowerStore clusters are designed to deliver enhanced resource utilization and performance that keeps pace with application and system growth.

PowerStore T and PowerStore Q appliances provide organizations with all the benefits of an enterprise unified storage platform for block, file and vVol data, while enabling flexible growth with the intelligent scale-up and scale-out capability of appliance clusters.

Features include:

- All NVMe Platform:
    - o Active/active architecture
    - o Container-based PowerStoreOS
    - o Block, File, and vVols
    - o NVMe Flash and Storage Class Memory (SCM) media support
    - o Front-End Connectivity:
        - FC: 32 Gb NVMe/FC, 32/16/8 Gb FC
        - Ethernet: 100/25/10 GbE, NVMe/TCP: 100/25/10 GbE iSCSI and File
    - o Compact 2U starting form factor
- Enterprise Data Services and Data Reduction:
    - o Inline deduplication and compression
    - o Native asynchronous and synchronous replication
    - o Snapshots and space efficient thin clones
    - o Advanced drive failure protection and sparing technology
- Simple and intelligent Management and Serviceability:
    - o Embedded management
    - o Built in AI for simple, autonomous storage administration and proactive health analytics
    - o CloudIQ (APEX AIOps Infrastructure Observability)
    - o VM Visibility
    - o Anytime Upgrade Program (Lifecycle Extension)
    - o Integration with automation framework
- Flexible and Granular Scalability:
    - o Scale up in single drive increments, up to 5.9 PBe per PowerStore Gen 2 appliance and 6.16 PBe per PowerStore 500 appliance
    - o Scale out to four appliances, up to 24.64 PBe per cluster
    - o Scale down
- VMware: VASA 4.0\vVols 3.0 and VASA 3.0\vVols 2.0 support

PowerStore X model customers: For the latest how-to technical manuals and guides for your model, download the PowerStore 3.2.x Documentation Set from the [PowerStore Info Hub](#).

Changed features

The following features have changed in this release:

Table 2. **Changed features in PowerStoreOS 4.0.1.3**

Functional area	Feature description	Summary of benefits
PowerStore REST API	Added support for downloading the latest five minutes metrics from the PowerStore REST API to users with the Operator role. Previously, only users with the Administrator, Storage Administrator, or Storage Operator role could download the latest five-minute metrics from the REST API.	Users with the operator role can now enable and download the latest five-minute metrics using the PowerStore REST API.

Resolved issues

The following high severity issues are resolved in this release:

Table 3. **Resolved issues in PowerStoreOS 4.0.1.3**

Issue ID	Functional area	Description
MDT-679692	Connectivity - Hosts	Direct-attach Fibre Channel connections to AIX or Solaris hosts may stop working after performing an NDU from PowerStoreOS 3.5.0.2 to 3.6.1.4.
MDT-658766	Data Collection	If a Data Collection occurs on a PowerStore cluster with many drives, the Control Path (CP) may restart because of an out-of-memory condition and some of the Data Collection commands may timeout.
MDT-680525	Data Protection	A PowerStoreOS issue may cause both sides of a metro volume to be assigned the preferred role. As a result, both sides of the metro volume may become accessible to the host, which can lead to potential data errors.
MDT-677918	Data Protection	If an unstable network or a remote node reboot causes the data connection to be lost during replication or migration, a software module on one of the source nodes may restart.
MDT-667640	Data Protection	Creating a metro session for a volume with an iSCSI reservation fails in PowerStoreOS 3.6.x because it is not supported, but a metro reserved state is still assigned to the volume by mistake. As a result, if the cluster is upgraded to PowerStoreOS 4.x and a synchronous replication session is created with the volume, an issue occurs if the replication is paused and resumed, which causes the status of the replication session to change to `System_Paused` and the replication fails to resume.
MDT-592695	Hardware	A PowerStore appliance with a SAS expansion enclosure may encounter a PCIe Switch (PFX) hardware issue that unexpectedly changes the format of SAS drives, potentially impacting I/O service to the appliance.
MDT-676922	Install or Upgrade	Performing an NDU to PowerStoreOS 4.0 may fail if a DataPath (DP) memory override file exists on the PowerStore cluster.
MDT-638456	Install or Upgrade	Performing an NDU to PowerStoreOS 3.6 or later may fail to complete because of discrepancies with the Small Form-Factor Pluggable (SFP) modules.
MDT-685576	Notifications and Alerts	If the SFP cables that are connected to an appliance have the same part number but support different speeds, the alert `SFP failure state has changed. (asymmetric)` may be raised.

Issue ID	Functional area	Description
MDT-683769	PowerStore CLI	When the **pstcli -save_cred** command is run on a host running Red Hat Enterprise Linux 9, the command may fail with the error `A memory allocation error occurred` if there are many partitions on the host.
MDT-684045	Storage - Block	If an NVRAM drive issue occurs during the replacement of a battery backup unit (BBU) on a node of an appliance, the chance of a Data Unavailable (DU) event occurring increases.
MDT-682235	Storage - Block	If one NVRAM drive on a PowerStore 3x00 or lower model appliance or two NVRAM drives on a PowerStore 5x000 or higher model appliance experience data integrity issues before the PowerStore cluster starts, some committed transactions may be dropped, leading to metadata inconsistencies.
MDT-678789	Storage - Block	If there are a large number of volumes or volume groups on a PowerStore cluster, the Volume or Volume Group pages in PowerStore Manager may load slowly.
MDT-678147	Storage - Block	If the PowerStoreOS on a PowerStore cluster has been upgraded multiple times, an internal configuration issue may cause an Add Appliance operation to fail.
MDT-676981	Storage - Block	In rare cases, a smooth flush operation may cause the Data Path (DP) to restart and result in a Data Unavailable (DU) event.
MDT-673827	Storage - Block	If a PowerStore cluster is operating in a Fibre Channel fabric that is oversubscribed or slow, an issue with a third-party driver may cause a PowerStore node to reboot.
MDT-589774	Storage - Block	If a source Virtual Large Block (VLB) page is freed during an XCOPY operation, the PowerStore cluster may experience a Data Unavailable (DU) condition.
MDT-683192	Support	The service script **svc_diag list** omits important appliance information when run with the **--basic** option.

Known issues

The following high severity issues remain unresolved in this release:

Table 4. **Known issues in PowerStoreOS 4.0.1.3**

Issue ID	Functional area	Description	Workaround/Solution
MDT-563875	CloudIQ	For PowerStore clusters with large-scale configurations, the collected configuration data may trigger an out-of-memory condition (OOM) in the service container. This issue may cause the configuration deltas capture script to fail and prevent configuration changes from being displayed in CloudIQ for one hour.	None. There are no additional impacts to the cluster service and the CloudIQ issue resolves itself after approximately one hour.
MDT-431035	Connectivity - Hosts	When users configure a metro host as a uniform host, they must configure the host on both metro clusters. If one host is left partially configured or is already configured on one metro cluster, ESXi may report inconsistent path states.	Complete the configuration of the host on both metro clusters. For more information, see KB article 000202793: PowerStore: Metro volumes are inconsistently presented to ESXi when uniform hosts are partially configured.

Issue ID	Functional area	Description	Workaround/Solution
MDT-367147	Connectivity - Hosts	When Windows clustered hosts are attached to a multi-appliance PowerStore cluster and LUNs are migrated from one appliance to another, the LUNs do not migrate back to the original appliance unless the hosts are rebooted prior to the migration back.	Avoid migrating LUNs back and forth between appliances.
MDT-273055	Connectivity - Hosts	A user can view internal host and volume mappings using PowerStore Manager, but mapping or unmapping operations cannot be performed from PowerStore Manager.	Mapping and unmapping operations can be performed using the PowerStore REST API interface.
MDT-272385	Connectivity - Networks	Large amounts of external IPv6 traffic exposed to Ethernet ports can cause iSCSI performance degradation.	To avoid the problem, use separate VLANs for Storage networks and networks that contain a lot of non-storage related IPv6 traffic. Also, route management VLANs and other VLANs with large amounts of IPv6 traffic to dedicated storage ports.
MDT-211358	Connectivity - Networks	PowerStore Discovery IP by Zeroconf technology stopped advertising.	Perform one of the following actions to work around this issue: • Wait a few minutes for the state of the system to change and try again. • Reset a drive, mezzanine card, or I/O module if available and wait for a few minutes and try again, and then reboot the primary node.
MDT-537011	Data Collection	A Python error may occur when the `svc_arrayconfig` service script is run individually or as part of Data Collection.	None. This issue does not affect the PowerStore cluster and can be ignored.
MDT-628786	Data Protection	In a file synchronous replication configuration, the replication status may show Operating Normally or Synchronizing even when the replication destination is not reachable.	Determine why the destination system is unreachable and correct the issue. Once the replication destination is reachable, the data connection recovers automatically, and the data transfer starts.
MDT-627499	Data Protection	When a protection policy is assigned to a single volume using the Protection Policies page, the Assign Protection Policy dialog box incorrectly states that the resource is a volume group instead of a volume.	None. The operation works as expected, despite the incorrect information displayed in the Assign Protection Policy dialog box.
MDT-624997	Data Protection	The data connection between a PowerStore cluster and PowerProtect DD systems may show `Complete Data Connection Loss` in either of the following scenarios: • When separate storage networks are used for Storage (iSCSI) and Replication purposes. • When multiple storage networks are available for Replication purposes.	Configure a single storage network for both Storage (iSCSI) and Replication purposes to establish a data connection between PowerStore and PowerProtect DD systems. Ensure that both the Storage (iSCSI) purpose and Replication purpose are assigned to the network and IP addresses associated with this network. For more information, see KB article 000224658.

Issue ID	Functional area	Description	Workaround/Solution
MDT-621176	Data Protection	An alert may be raised on a multi-appliance cluster indicating that an appliance-level limit was exceeded for replication.	None. This alert does not block any actions on the affected cluster, and the alert can be acknowledged and cleared.
MDT-620963	Data Protection	A PowerProtect DD remote system may remain in a partial or complete data connection loss state if the system enters an out-of-space condition and then recovers from that condition.	Free up enough space on the affected storage unit of the PowerProtect DD remote system so that it is no longer in an out-of-space condition. For more information and steps to avoid this issue, see KB article 000224842.
MDT-616919	Data Protection	Configuring a metro volume may be blocked from the volume details Metro Volume tab because of internal data that is incompletely refreshed following an action such as unassigning, cloning, or swapping a protection policy.	Go to another area of PowerStore Manager and then go back to the Metro Volume tab or use the Protect > Configure Metro Volume option on the Volumes page.
MDT-613961	Data Protection	Management operations may experience delays when a large number of replication sessions synchronize concurrently for recovery after an extended disruption of replication sessions, because of a network outage or an unreachable remote system, which are later resumed.	None. The issue resolves itself after the replication sessions complete synchronization and all the delayed operations continue as normal. For more information, see KB article 000224091.
MDT-611539	Data Protection	Attempting to add a remote system with file capability using a Fully Qualified Domain Name (FQDN) fails because using an FQDN is not supported.	Add a remote system with file capability using an IP address instead.
MDT-607856	Data Protection	It may take a long time to fail over replication sessions on NAS Servers with many file systems and short Recovery Point Objective (RPO) cycle values because the failover process is interrupted each time an RPO synchronization occurs, and queued RPOs may fail.	For more information and steps to avoid this issue, see KB article 000224004.
MDT-606116	Data Protection	When a PowerProtect DD remote system is configured and in use, copying data from an Instant Access session may result in an unexpected software module panic or a node reboot. This issue typically occurs when the data transfer network is slow.	Utilize a network setting that offers faster data transfer rates or less delay. Contact your service provider for assistance if needed.
MDT-605476	Data Protection	If a user initiates a node shutdown while a restore operation is in progress, the remaining node may reboot, which can lead to a Data Unavailability (DU) condition. The PowerStore cluster automatically recovers after the node reboots.	Avoid shutting down nodes while restore operations are in process.

Issue ID	Functional area	Description	Workaround/Solution
MDT-593753	Data Protection	Scheduled snapshot creation may be missed for some file systems in a highly scaled PowerStore environment.	Separate the scheduled snapshot creation into multiple protection policies and use a different time-based snapshot rule with at least one hour between snapshot rules for each protection policy. In addition, ensure that the number of file systems that are assigned to each protection policy does not exceed 190 file systems.
MDT-582482	Data Protection	When a Data Domain storage unit runs out of space, Instant Access and backup operations fail with an incorrect error message, instead of an out of space error message.	Monitor and ensure that the Data Domain storage unit does not exceed its allocated storage quota.
MDT-563952	Data Protection	When replicating to a PowerStore 500T model cluster from a different type of PowerStore model cluster, the number of snapshots on a destination volume may exceed the snapshot limit on the PowerStore 500T model cluster.	None
MDT-557273	Data Protection	If the serial number of a PowerProtect DD system changes, modifying the PowerProtect DD remote system in PowerStore may fail because of a serial number mismatch error.	Contact your service provider for assistance.
MDT-525692	Data Protection	An issue in the **Refresh Using Related Volume** dialog box may cause the **Refresh** button to become active when the **Create a backup snapshot on the volume being refreshed** check box is cleared, even if a volume is not selected from the **Select volume to refresh from** drop-down menu. Clicking **Refresh** fails when a volume is not selected from the **Select volume to refresh from** drop-down menu.	If clicking **Refresh** fails, ensure that a volume is selected from the **Select volume to refresh from** drop-down menu, and click **Refresh** again.
MDT-520673	Data Protection	The status of Instant Access sessions may change to `Failed` after a node reboot occurs.	A PowerStore cluster does not support high availability (HA) between nodes for Instant Access sessions. For more information, see KB article 000208509: PowerStore: Instant Access session will show failed state after node reboot.
MDT-517565	Data Protection	Attempting to back up more than 125 volumes simultaneously to a PowerProtect DD system may result in failed backup sessions because of Control Path (CP) limitations.	When backing up more than 125 volumes to a PowerProtect DD system, stagger the backups to prevent more than 125 volumes from being backed up simultaneously.
MDT-511829	Data Protection	Instant Access is not supported on ESXi hosts with VMFS datastores. Attempting to mount an Instant Access session resource as a VMFS datastore on an ESXi host may result in an I/O error.	Perform a retrieve operation on the remote snapshot, then create and mount a thin clone of the snapshot on the ESXi host. For more information, see KB article 000213256: PowerStore: Mount of an Instant Access session resource fails with I/O Error.

Issue ID	Functional area	Description	Workaround/Solution
MDT-496905	Data Protection	When a user pauses and resumes a metro volume, the status of the metro volume may change to Fractured.	None. The status of the metro volume returns to Operating Normally (active/active) after the system performs self-healing.
MDT-438935	Data Protection	When multiple remote systems are connected to a PowerStore cluster, reconfiguring the NAS Mobility Network (NMN) after performing a Management Network Reconfiguration (MNR) may fail with the following Data Path (DP) network error if one of the remote systems is not responding: `Modify cluster IP of dpNetwork: {dpNetworkID} failed`	Resolve the issue with the remote system that is not responding or continue to use the other remote systems that are responding.
MDT-414572	Data Protection	The status of replication sessions may be incorrect on the destination PowerStore cluster if the source PowerStore cluster is down.	See the Remote System related information and alerts on the destination PowerStore cluster for up-to-date details and suggested recovery steps.
MDT-312619	Data Protection	When replication IP addresses change, they are not automatically detected. As a result, the status of a replication session changes to System Paused.	Run the **Remote System Verify** operation to update the connectivity matrix. The next synchronization cycle will update the replication IP addresses.
MDT-309462	Data Protection	If the user pauses a replication session on the destination cluster during an NDU of the source cluster, a post-NDU state may occur where the source replication session is in System Paused state and the destination replication session is in Paused state.	Pause the replication session on the source cluster, where the session is in System Paused state, and then resume the replication session.
MDT-293141	Data Protection	If a volume is restored from a PowerProtect DD system to a PowerStore cluster where the volume was deleted or never existed, the Logical Used and Provisioned capacities that are shown in PowerStore Manager may display the same values.	The correct logical volume usage is displayed when the volume is mapped to a host. For more information, see KB article 000208504: PowerStore: After retrieving PowerStore backups from Data Domain, the Logical Used and Provisioned capacities show the same values.
MDT-242915	Data Protection	When a replication destination cluster loses connectivity to the source cluster, the system issues specific alerts, but the state of the replication session may still display Operating Normally. Administrators should check the alerts that are issued by the remote system and resolve the connectivity issues to recover replication sessions.	None

Issue ID	Functional area	Description	Workaround/Solution
MDT-133408	Data Protection	When a volume group is created with member volumes and is protected by a protection policy that includes a replication rule, the volume group members may be delayed in being replicated to the remote system until the next recovery point objective (RPO) cycle. The default replication rule RPO value in PowerStore Manager is one hour, but it can range from five minutes to 24 hours.	If the remote system connection is healthy, the member volumes should automatically be replicated to the destination during the next RPO cycle. To update the member volumes on the destination cluster before the next RPO cycle, go to **Protection** > **Replication**, select the volume group session, and perform a **Synchronize** operation.
MDT-600475	Hardware	Attaching an empty NVMe expansion enclosure to a PowerStore cluster may cause an unexpected node reboot.	Add at least one drive to an NVMe expansion enclosure before attaching it to a PowerStore cluster. For more information and steps to avoid this issue, see KB article 000226415.
MDT-362070	Hardware	If one node comes up 120 seconds before the other node after a dual node reboot, the first node may reboot again to start auto-recovery.	None
MDT-286236	Hardware	In rare cases, a node that has been powered off does not remain powered off.	Power off the node again.
MDT-117061	Hardware	When creating a cluster, the hardware status is incorrectly indicated as not configured for clustering.	Wait a few minutes and try creating the cluster again.
MDT-558763	Import	When adding a remote system in PowerStore Manager for importing external storage, if the user selects a type of system that supports CHAP, selects Single or Mutual from the Session CHAP Mode drop-down menu, and then changes the type of system to PowerMax/VMAX, some of the CHAP username and password fields may remain active, even though these CHAP settings are not supported on the PowerMax/VMAX.	Click Cancel and Discard to close the Add Remote System panel. Then, click Add Remote System again and select PowerMax/VMAX from the Type drop-down menu.
MDT-356233	Import	The Inband Migration Tool (IMT) `Copy Progress Percentage` and `Estimated Completion Time` display an incorrect progress of 0% on the File Imports tab of the Import External Storage page in PowerStore Manager.	Use the PowerStore REST API command /file_import_session/{id} to view the current_operation_progress_percentage and estimated_completion_timestamp for a file import session. If needed, contact your service provider for assistance.
MDT-252560	Import	Importing a volume may fail with the following error: `Import failed because the mirror service could not be enabled on the Destination volume`	Run the verify operation on the remote system to recover data connections. When the verify operation on the remote system completes successfully, retry the import operation.
MDT-625605	Install or Upgrade	An NDU may fail when an appliance is configured with a large number of volume mappings. For more information, see KB article 000226775.	Contact your service provider to confirm that this issue has occurred. Reference KB article 000226775 in the Service Request for expedited handling.

Issue ID	Functional area	Description	Workaround/Solution
MDT-619760	Install or Upgrade	A Pre-Upgrade Health Check may fail without generating a clear error message if a timeout of approximately 20 minutes is exceeded because of resource contention at the time of the health check.	Retry the Pre-Upgrade Health Check.
MDT-589731	Install or Upgrade	If a node is replaced on a PowerStore 500T appliance running PowerStoreOS 3.2 or earlier, performing an NDU to PowerStoreOS 3.5 or 3.6 may fail if the node was not rebooted before the NDU was performed.	Reboot the replaced node before performing the NDU.
MDT-461643	Install or Upgrade	Performing a Pre-Upgrade Health Check on a PowerStore cluster with NVMe expansion enclosures may fail with the following error: `pre fw upgrade state is FW_ UPGRADED_NEEDED_NOT_AVAILABLE`	Check the status of the Access Modules (AM) on the expansion enclosures. If there are no alerts, retry the Pre-Upgrade Health Check. If the problem persists, contact your service provider for assistance.
MDT-401600	Install or Upgrade	If the Health Check package was uploaded on the PowerStore cluster before a new appliance was added to the cluster, the Health Check package is unable to run for the newly added appliance.	Install the same Health Check package again.
MDT-337169	Install or Upgrade	NAS services may fail to start during the initial installation and configuration of PowerStore appliances or during a PowerStore software upgrade.	If NAS services fail to start during the initial installation and configuration of PowerStore appliances, try to install NAS again as described in KB article 000130232: PowerStore: PowerStore Manager displays 'NAS Installation has failed' when trying to configure PowerStore appliance(s). If NAS services fail to start during a PowerStore software upgrade, contact your service provider for assistance.
MDT-265301	Install or Upgrade	When performing an NDU on a PowerStore T model appliance running in Unified mode, the inter-node iSCSI connection may fail when one node is rebooted, which can cause the NAS to panic.	Allow NAS HA services to take care of uninterrupted NAS operations during an NDU. If data unavailability occurs after the NDU is complete, contact your service provider for assistance.
MDT-156905	Install or Upgrade	After performing an NDU, the NAS servers may not fail back automatically to the original node.	Manually fail back the NAS servers using PowerStore Manager.
MDT-135505	Install or Upgrade	Drive firmware updates may not get applied to a single drive or multiple drives within the appliance. This problem may occur because of a timing issue between the nodes of the appliance.	Download and install the drive firmware updates again to ensure that it gets updated on the drives that were missed in the previous attempt.
MDT-573603	Internal Migration	An In-band Migration Tool (IMT) import session may fail if the affected file systems run out of space while the import session is in progress.	Increase the size of the source and destination file systems and resume the import session.

Issue ID	Functional area	Description	Workaround/Solution
MDT-508449	Internal Migration	The Migration Tool (IMT) import session progress may stop updating if a high availability (HA) event occurs on a multi-appliance PowerStore cluster.	Monitor the progress of the import in PowerStore Manager using the **Import External Storage** page or import logs.
MDT-484929	Internal Migration	When VMware vSphere 8.0 hosts are connected to a PowerStore cluster, attempting to migrate powered-off vVol-based VMs that use NVMe storage may fail.	1. Power off the affected VMs. 2. Unregister the VMs from vCenter Server. 3. Migrate the VMs. 4. Re-register the VMs with the vCenter Server. 5. Power on the VMs.
MDT-447218	Internal Migration	Because of VMware DCPN case number 00105337, vVol migration may fail if a vVol is migrated to an appliance on which it was previously located.	For more information and steps to avoid this issue, see KB article 0000204524: PowerStore: When using PowerStoreOS 3.x, vVol Migration may fail if a vVol is migrated to an appliance on which it was previously located.
MDT-359565	Internal Migration	PowerStore Manager does not prevent a user from clicking the **Delete** button during a migration cutover. However, deletion during cutover is not supported and the migration session is not deleted. The delete operation results in a backend error.	None
MDT-239624	Internal Migration	When a VM is being deployed from a VM template, vSphere uses the clone operation to provision vVols of the newly created VM. PowerStore internally translates it into space-efficient clones, which is the same process that is used for vVol snapshots. When a Data Path (DP) family size limit exists, a base vVol cannot have more than a 1000 derivatives, such as snapshots and space-efficient clones. This fact results in the following limitations: • Cloning from a VM template fails if a base vVol of the VM template already has 1000 derivatives. • When the maximum number of family members limit is reached, vVol migration cannot occur because it must create an internal vVol snapshot, which fails. • All vVols are placed to the same appliance in a multi-appliance cluster, so the load is not balanced between appliances.	Use several VM templates created from the same OVF template so that each VM template is used for a reasonable number of VM clones to avoid reaching the DP family limit. This action allows vVols to be distributed between appliances in a multi-appliance cluster for load balancing.
MDT-140927	Internal Migration	After a volume is migrated, a decrease in capacity and performance metrics reporting may occur for that volume at the end of the migration operation.	None
MDT-55667	Monitoring	Storage container capacity metrics are not available until I/O operations begin.	Look at the capacity metrics again after I/O operations on the storage container have been performed.

Issue ID	Functional area	Description	Workaround/Solution
MDT-249810	Monitoring	If the total system capacity is below 10 TB, free page tables are not replenished as this action would consume space that may not be required and waste free pages. The lack of free pages in the table causes a performance impact for writes. For better performance, more capacity should be added.	Ensure that the system capacity is higher than 10 TB.
MDT-454979	Notifications and Alerts	If a PowerStore cluster has a very large number of initiators, hardware-related alerts may be processed more slowly than normal. This issue does not affect PowerStore Manager operation.	None. A 10-30 minute delay may occur when hardware-related alerts are raised and cleared.
MDT-437349	Notifications and Alerts	An alert regarding node failover during an NDU may fail to clear automatically.	Contact your service provider for assistance with manually clearing the alert.
MDT-626874	PowerStore Manager (GUI)	The Antivirus Properties dialog box for a NAS server limits the number of file extensions that can be scanned or excluded from virus scans to 13 file extensions or less, while the actual limit is 50 file extensions.	If more than 13 file extensions must be scanned or excluded from virus scans, use PowerStore Manager to upload a CAVA configuration file that contains the file extensions to scan or exclude.
MDT-613817	PowerStore Manager (GUI)	While objects, such as Volumes, are being added to a PowerStore cluster, repeatedly clicking the **Refresh the table** button in PowerStore Manager may incorrectly show a filtered count, even though no filters are applied.	Wait for PowerStore Manager to refresh the objects so that all corresponding rows are displayed, then click the **Refresh the table** button to refresh the table again.
MDT-566899	PowerStore Manager (GUI)	If appliances with different branding are used to create a cluster, PowerStore Manager may display different branding after a failover of the primary appliance in the affected cluster.	Contact your service provider before creating a cluster.
MDT-546968	PowerStore Manager (GUI)	In rare cases, a `Hard limit reached` event may be raised incorrectly, instead of a `Hard limit exceeded` event.	None
MDT-545229	PowerStore Manager (GUI)	If a huge number of User Quotas are defined on a PowerStore cluster, it may take time for these entries to be displayed in PowerStore Manager.	None
MDT-362809	PowerStore Manager (GUI)	When a certificate file is opened in some text editors, a newline character (\n) is appended to the end of the certificate. A certificate becomes invalid when a newline character (\n) is appended to the end of the certificate.	Open a certificate file using a text editor such as Windows Notepad, which does not append a newline character (\n) to the file. NOTE: If you open the certificate file using an editor such as Notepad++, you must manually remove the newline character (\n) from the certificate file.

Issue ID	Functional area	Description	Workaround/Solution
MDT-261523	PowerStore Manager (GUI)	If Mozilla Firefox is used to upgrade a PowerStore cluster to PowerStoreOS 2.0 or later, a browser cache issue causes the names of some buttons and labels to be displayed as object names instead of the correct button or label names.	Use a different browser such as Google Chrome or Microsoft Edge, or clear the browser cache in Firefox. For instructions, see *How to clear the Firefox cache* on the Mozilla support site.
MDT-118394	PowerStore Manager (GUI)	Uploading a software upgrade package that is larger than 4 GB may fail when using an older version of Microsoft Edge.	Use a different supported browser to upload the software upgrade package.
MDT-624170	Storage - Block	Using the `svc_appliance` service script to shut down the primary appliance of a multi-appliance cluster may result in the loss of cluster management because the `svc_appliance` service script does not perform the same validations that are performed when PowerStore Manager is used to shut down an appliance.	Use PowerStore Manager to shut down the appliance, as documented in the *PowerStore Installation and Service Guide*.
MDT-558612	Storage - Block	In rare cases, a known issue in Python 2.7 may cause a kernel dump to be unexpectedly generated when an internal code exit occurs.	None
MDT-528613	Storage - Block	A node may reboot unexpectedly if two drives fail while the space utilization is very high.	None. The node is expected to recover successfully after it reboots.
MDT-284475	Storage - Block	After mapping a LUN or creating a VM, the LUN or VM appears correctly, but it is inaccessible to hosts.	Unmap the non-working LUN and map it again. For VMs, delete the non-working VM and recreate it.
MDT-242368	Storage - Block	Unable to delete a volume group after deleting a replication session, due to replication session system snapshots that have not been deleted.	Contact your service provider for the procedure to delete the snapshots.
MDT-524910	Storage - File	Performing a bulk delete of file system snapshots may fail.	Retry the bulk delete operation.
MDT-515997	Storage - File	If a PowerStore cluster is under a significant load, gaps may occur in the SDNAS historical metrics that are displayed in the PowerStore REST API and PowerStore Manager.	None
MDT-361933	Storage - File	File system asynchronous replication may use an existing destination NAS server in non-production mode as replication target if it shares the same name as the source NAS server.	Rename the destination NAS server before setting up remote protection for the new NAS server that has the same name. Also, ensure that a NAS server in non-production mode with the same name does not exist.
MDT-314995	Storage - File	In a Unified appliance cluster, after the system exits from an out of space scenario, some of the NAS Servers may fail to return to Read-Write mode when the Control Path (CP) restarts.	Contact your service provider for assistance.

Issue ID	Functional area	Description	Workaround/Solution
MDT-195652	Storage - File	Unable to remove the description from an NFS Export.	To change the description, overwrite the current description with a blank character space. Save the NFS Export with no description, and then go back and update the description.
MDT-147688	Storage - File	SMB clients cannot connect to a NAS server when the NAS server name is more than 15 characters. This issue occurs because the SMB server name takes the NAS server name by default.	Specify a NAS server name with 15 characters or less or specify an SMB server name with 15 characters or less. To modify the name, select all the characters in PowerStore Manager, and type the new name.
MDT-139095	Storage - File	The following error message was returned while trying to create or delete a snapshot: `Addition [or deletion] of NFS Export failed due to [The path [path_name] was not found on the system and cannot be exported.]`	Wait for several minutes and try the action again.
MDT-137232	Storage - File	In rare cases, NAS services could be disrupted if the appliance is close to reaching the maximum used data capacity.	Take one of the following actions on the appliance where the NAS service is installed: • Add capacity to the appliance by adding drives or expansion enclosures. • Increase free capacity on the system by deleting unused snapshots or volumes. • Migrate data off the system.
MDT-116676	Storage - File	The major alert `NAS node <node name> is down` may be seen after changing the Cluster MTU value. Changing the MTU value may cause degradation or disruption in NAS file services.	Wait for the alert to clear before performing any further NAS file operations.
MDT-627838	Support	On a multi-appliance cluster, support notifications are not automatically disabled when an appliance shutdown is performed, which may result in a service request being opened.	Manually disable support notifications before shutting down an appliance in a multi-appliance cluster.
MDT-624486	Support	A remove appliance operation on a multi-appliance cluster may fail because of an incorrect health check failure, which results in an `Unable to perform health check due to communication error` message.	Contact your service provider for assistance with completing the removal of the appliance.
MDT-624242	Support	On a multi-appliance cluster, support notifications are not automatically disabled when a node reboot is performed, which may result in a service request being opened.	Manually disable support notifications before rebooting a node on a multi-appliance cluster.

Issue ID	Functional area	Description	Workaround/Solution
MDT-345741	Support	The upload support materials bundle (`svc_dc upload`) service script may fail with the following error: `No path was found for the data collection`	Wait five minutes and retry the `svc_dc upload` service script.
MDT-612202	Support Connectivity	The connection status on the Support Connectivity page may fail to update automatically after Support Connectivity is enabled.	After enabling Support Connectivity, go to another page in PowerStore Manager, then go back to the Support Connectivity page to refresh the connection status.
MDT-289213	Support Connectivity	If a node failover or node reboot occurs while support data is being uploaded, it may be unclear if the support data was successfully uploaded.	Upload the support data again after the failover or reboot is complete.
MDT-256673	Support Connectivity	Cannot enable the Secure Remote Services (SRS) gateway on an appliance. Version 3.48 of the SRS gateway has an issue with connectivity from some PowerStore systems.	Use a different version of the Secure Remote Services gateway.
MDT-148608	Support Connectivity	Attempting to send a collection of support materials fails when there is insufficient free space on the system.	Delete old data collections to increase the available space on the system so Support Connectivity can make a copy of the support materials to upload.
MDT-597500	Virtualization	I/O timeouts may occur if a single PowerStore node is unavailable in an environment with VMware ESXi 8.0 Update 2 and NVMe/TCP.	For more information and steps to avoid the issue, see KB article 000223711.
MDT-578727	Virtualization	When a virtual machine is migrated from a VMFS datastore to a vVol datastore and a storage protection policy is assigned to the virtual machine, the migration is successful, but the assignment of the storage protection policy may fail occasionally.	Attempt to assign the storage protection policy to the virtual machine again.
MDT-547360	Virtualization	vVol datastores may be inaccessible in an IPv6 environment if the vCenter Server and ESXi hosts are running vSphere 8.0 Update 1.	Upgrade the vCenter Server and ESXi hosts to vSphere 8.0 Update 2 or later.

Limitations

The following limitations exist in this release:

Table 5. **Limitations in PowerStoreOS 4.0.1.3**

Functional area	Limitation
Import	The Unity file import feature does not support multi-protocol NAS servers.
Install or Upgrade	A Solaris host with native multipathing (MPxIO) must be running Oracle Solaris 11.4 SRU 35 or later to handle volume failover during an NDU. Contact your service provider for NDU support on earlier versions of Solaris.
Storage - File	Customers that use an SFTP client to access file data on a PowerStore T model cluster may experience access issues after upgrading to PowerStoreOS 3.0 or later because support for the following insecure key exchange (KEX) algorithms have been removed: • diffie-hellman-group-exchange-sha1 • diffie-hellman-group14-sha1 The access issue occurs if the customer is using an outdated SFTP client that only supports the KEX algorithms that were removed from the PowerStoreOS. To resolve this issue, the customer must upgrade to a newer version of the SFTP client.
Storage - File	The maximum supported number of Access Control Entries (ACE) that can be added to an Access Control List (ACL) for an SMB share is 650.
Storage - File	If an Access Control List (ACL) is set on an SMB share using a security identifier (SID) that can be resolved to a user, the SID is converted to the format `domain\username`.
Storage - File	Cloning write-once read-many (WORM) files on a File-Level Retention (FLR) enabled file system is not supported.
Support Connectivity	Support Connectivity cannot be enabled on PowerStore models that are configured with IPv6 for the management network. Support Connectivity is not supported over IPv6.

Environment and system requirements

Host configuration requirements

For host connectivity to PowerStore appliances, see the E-Lab Navigator Host Connectivity Guides.

Simple Support Matrix

For compatibility and interoperability information, see the *PowerStore Simple Support Matrix*, which can be downloaded from the PowerStore Info Hub.

Installation and upgrade considerations

Always check the Drivers & Downloads page on the Dell Technologies Support site to see if a newer version of PowerStoreOS is available. It is recommended that you upgrade your PowerStore cluster to the most recent version of PowerStoreOS. For the latest information about supported PowerStoreOS upgrade paths, see KB article 000175213: PowerStore: PowerStoreOS Matrix.

Installation considerations

Before installing a PowerStore cluster, review the *PowerStore Deployment Checklist*, which can be downloaded from the PowerStore Info Hub. You are ready to install your system when you have completed all the planning steps in the deployment checklist.

Upgrade considerations

NOTE: PowerStoreOS 4.0 is not supported on PowerStore X model appliances.

Before upgrading the PowerStore cluster, review the *PowerStore Software Upgrade Guide*, which can be downloaded from the PowerStore Info Hub. For a full list of supported PowerStore upgrade paths, see KB article 000175213: PowerStore: PowerStoreOS Matrix.

For systems with Support Connectivity enabled, upgrade packages can be automatically downloaded to the system when they become available on Support. The PowerStore upgrade packages are also available for download from the Support site. However, the upgrade packages can only be accessed when you are logged into the Dell Support Site using an account that is associated with the PowerStore cluster.

NOTE: When using the PowerStore CLI, it is recommended that you use the PowerStore CLI version that accompanies each major release of PowerStoreOS. For example, use PowerStore CLI version 3.5 with PowerStoreOS version 3.5, use PowerStore CLI version 3.6 with PowerStoreOS version 3.6, and use PowerStore CLI version 4.0 with PowerStoreOS version 4.0.

Download the upgrade package for a PowerStore T or PowerStore Q cluster

If automatic download is not enabled on your PowerStore cluster, download the PowerStore upgrade package from the Support site.

1. Open a browser and go to the Dell Technologies Support site.
2. Sign into the support account that is associated with your PowerStore cluster.
3. Go to the product page for your PowerStore model and then go to Drivers & Downloads.
4. Identify the PowerStore upgrade package to download by reading the package descriptions.
   The PowerStore upgrade package is named `PowerStore T OS Upgrade 4.0.1.3- 2494147`.
5. Click Download to download the PowerStore upgrade package. The name of the downloaded PowerStore upgrade package is `PowerStoreT-4.0.1.3- 2494147-retail.tgz.bin`.
6. See the *PowerStore T and PowerStore Q Software Upgrade Guide* for instructions on upgrading your PowerStore cluster.

Where to get help

The Dell Technologies Support site contains important information about products and services including drivers, installation packages, product documentation, knowledge base articles, and advisories.

A valid support contract and account might be required to access all the available information about a specific Dell Technologies product or service.

Notes, cautions, and warnings

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

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.