

Dell Storage Manager 2016 R3 Release Notes

Dell Storage Manager allows an administrator to manage and monitor multiple Storage Centers, PS Series groups, FluidFS clusters, and Fluid Cache for SAN clusters. Dell Storage Manager 2016 R3 introduces new features and enhancements, and fixes issues present in the previous release.

Revision History

Revision	Date	Description
A	February 2017	Initial release of Storage Manager 2016 R3
B	February 2017	General fixes
C	May 2017	Release of Storage Manager 2016 R3.10
D	June 2017	Update for SC5020 storage systems
E	July 2017	Update for Storage Center 7.2.11
F	August 2017	Release of Storage Manager 2016 R3.20
G	October 2017	Update for SCv3000 series storage systems
H	November 2017	Update for SC5020F and SC7020F all-flash storage systems

Contents

Management Compatibility.....	1
Software and Hardware Requirements.....	2
New in This Release.....	4
Notes and Limitations.....	7
Fixed Issues.....	7
Open Issues.....	14
Support Resources.....	30

Management Compatibility

Storage Manager manages Dell storage products and also provides management integration for Microsoft and VMware products.

Storage Manager is compatible with the products listed in the following table.

Product	Versions
Dell Storage Center	Storage Center versions 6.5–7.2
PS Series group firmware	7.0–9.1
Dell FluidFS	4.0–6.0
Microsoft System Center Virtual Machine Manager (SCVMM)	2012, 2012 SP1, 2012 R2, and 2016
VMware vCenter Site Recovery Manager (SRM)	5.5, 5.8, 6.0, 6.1.1, and 6.5






Product	Versions
Dell Storage Replication Adapter (SRA)	16.3.10
CITV	4.0 and later

Software and Hardware Requirements

The following sections list the requirements for the Storage Manager Data Collector, Storage Manager Client, and Storage Manager Server Agent.

Storage Manager Client Requirements




The following table lists the requirements for the Storage Manager Client.

Component	Requirements
Operating system	<p>Any of the following 32-bit or 64-bit operating systems (with the latest service packs):</p> <ul style="list-style-type: none"> · Windows 8 · Windows 8.1 · Windows 10 <p>Any of the following 64-bit operating systems:</p> <ul style="list-style-type: none"> · Windows Server 2008 R2 · Windows Server 2012 · Windows Server 2012 R2 · Windows Server 2016 · Red Hat Enterprise Linux 6.7 · Red Hat Enterprise Linux 7 · Red Hat Enterprise Linux 7.1 · Red Hat Enterprise Linux 7.2 · Red Hat Enterprise Linux 7.3 · SUSE Linux Enterprise 12 · Oracle Linux 6.5 · Oracle Linux 7.0 <p> NOTE: Windows Server Core is not supported.</p>
CPU	<p>32-bit (x86) or 64-bit (x64) microprocessor</p> <p> NOTE: Linux versions of the Storage Manager Client support only 64-bit microprocessors.</p>
Software	Microsoft .NET Framework 4.0 (Windows only)
Linux VM Access Client	<ul style="list-style-type: none"> · VMware vSphere Web Client · Hyper-V Manager
Web browser	<p>Any of the following web browsers:</p> <ul style="list-style-type: none"> · Internet Explorer 11 · Firefox · Google Chrome · Microsoft Edge <p> NOTE: Other web browsers might work but are not officially supported.</p>

Data Collector Requirements

The following table lists the Storage Manager Data Collector requirements.

 **NOTE: For best results, install the Data Collector on a Windows Server VM on a traditional volume sourced from shared storage. Do not use a VVol for the Data Collector VM.**

Component	Requirements
Operating system	Any of the following 64-bit operating systems with the latest service packs: <ul style="list-style-type: none">Windows Server 2008 R2Windows Server 2012Windows Server 2012 R2Windows Server 2016 <p> NOTE: 32-bit operating systems are not supported, and Windows Server Core is not supported.</p>
Windows User Group	Administrators
CPU	64-bit (x64) microprocessor with two or more cores The Data Collector requires four cores for environments with 100,000 or more Active Directory members or groups
Memory	Varies based on size of the storage environment <ul style="list-style-type: none">4 GB: 1–5 storage arrays or 1–3000 total volumes8 — 32GB: 6–10 storage arrays or 3001 or more total volumes or 100,000 or more Active Directory members or groups
Disk space	At least 20 GB; additional space is required to manage FluidFS cluster software updates
Software	Microsoft .NET Framework 4.0 Full
Web browser	Any of the following web browsers: <ul style="list-style-type: none">Internet Explorer 11FirefoxGoogle ChromeMicrosoft Edge <p> NOTE: Other web browsers might work but are not officially supported.</p>
External database	One of the following databases: <ul style="list-style-type: none">Microsoft SQL Server 2008 R2Microsoft SQL Server 2008 R2 Express (limited to 10 GB)Microsoft SQL Server 2012Microsoft SQL Server 2012 Express (limited to 10 GB)Microsoft SQL Server 2014Microsoft SQL Server 2014 Express (limited to 10 GB)Microsoft SQL Server 2016MySQL 5.5MySQL 5.6MySQL 5.7 <p> NOTE: The embedded database stored on the file system can be used instead of an external database. However, the embedded database is limited to 64 GB and retains only the last 30 days of data. The embedded database is not recommended for a production environment.</p>



Dell Storage Manager Virtual Appliance Requirements

The Dell Storage Manager Virtual Appliance requires the following conditions.

Component	Requirement
Server operating system	VMware vSphere 5.5, 6.0, or 6.5 with 64-bit hardware
Datastore size	55 GB
CPU	64-bit (x64) microprocessor with two or more cores The Data Collector requires four cores for environments with 100,000 or more Active Directory members or groups
Memory	Varies based on size of the storage environment <ul style="list-style-type: none">4 GB: 1–5 storage arrays or 1–3000 total volumes8 — 32GB: 6–10 storage arrays or 3001 or more total volumes or 100,000 or more Active Directory members or groups
Software	<ul style="list-style-type: none">VMware vCenter ServerVMware vSphere High Availability

Server Agent Requirements

The following table lists the requirements for the Storage Manager Server Agent for Windows-based servers.

Component	Requirements
Operating system	Any of the following 64-bit operating systems (with the latest service packs): <ul style="list-style-type: none">Windows Server 2008 R2 (full or core installation)Windows Storage Server 2008 R2Windows Server 2012 (full or core installation)Windows Server 2012 R2 (full or core installation)
CPU	64-bit (x64) microprocessor
Microsoft .NET Framework	4.0 Full

New in This Release

The following features were added to Dell Storage Manager 2016 R3.

Conservation and Emergency Mode Alerts

Dell Storage Manager 2016 R3 displays alerts when a Storage Center enters Conservation or Emergency Modes.

Data Progression Improvements

In Storage Center version 7.0 Data Progression was changed to reduce the impact on Storage Center performance.

Data Progression runs daily at specified time and continues until all tasks are completed. If all the tasks are not completed, those tasks are completed in the next Data Progression cycle. Data Progression still follows schedules set on the Storage Center. To improve Data Reduction, set the **Data Progression Max Run Time** field to **Unlimited**.

Drive Spare Rightsizing

When Storage Center consumes a spare drive, Drive Spare Rightsizing allows Storage Center to modify the size of a larger capacity spare drive to match the capacity of the drive being replaced in the tier. After Storage Center modifies the size of the drive, the drive cannot be modified to its original size without assistance from Dell Technical Support. Drive Spare Rightsizing is enabled by default for all controllers running Storage Center version 7.2.11 or later.

This feature allows Dell Technical Support to dispatch larger capacity drives of the same disk class when the same size drive is not available, providing faster delivery times.

Disk Power On Time Report

Dell Storage Manager 2016 R3 allows users to view a report on the age and status of a drive on a Storage Center version 7.1 or higher.

Dell Storage Manager Scalability

To optimize performance and prevent connectivity issues, Dell recommends that one Data Collector manages no more than ten Storage Centers. A Data Collector may exceed that recommendation depending on the network latency, I/O load, and number of volumes.

Support for FluidFS Version 6

Dell Storage Manager 2016 R3 includes support for FluidFS version 6. FluidFS version 6 includes these new features:

- Multitenancy
- SMB3.1 and SMB3.1.1
- SMB3 Multi-Channel
- SMB3 Dynamic Access Control
- SMB Change Notify Full Support
- NFSv4 Advisory Locks
- FTP and FTPS User Authentication and Encryption
- Display More Details On Connected SMB Sessions
- One To Many and Cascaded Replication
- Replication WAN Optimization
- Active Directory Organizational Unit
- Control Local Account UID and GID
- Metadata Tiering
- 128 TB Files
- SNMP v3
- Automated Scheduled Reports
- Statistics on NAS Volume Contents

For more information, see the *Dell FluidFS Version 6 Release Notes*.



Stretched Storage With SRA

Dell Storage Manager 2016 R3.10 and Dell Storage Replication Adapter (SRA) version 16.3.10 includes support for Live Volumes with VMware Site Recovery Manager (SRM) and Stretched Storage. SRA with Live Volumes and Stretched Storage does not support Remote Data Collectors.

 **NOTE: Apply the following advanced settings on the recovery site to allow SRM to operate properly with Live Volumes with SRA 16.3.10. If you have an active/active configuration, apply these settings to both sites.**

- Increase the **storageProvider.stretchedDevicesMatchTimeout** value to 1000 seconds.
- Increase the **storage.commandTimeout** value to 90 seconds for each Live Volume managed by SRM. For example, if there are five Live Volumes, the **storage.commandTimeout** value should be set to 450 seconds.
- Clear the **Automatically save and validate restore points** checkbox in the **Edit Data Collector Settings** dialog box to prevent restore points to become degraded after disaster recovery.

For more information, see [Open Issues Related to Dell Storage Replication Adapter \(SRA\)](#).

Support for SCv3000 Storage Systems

Dell Storage Manager 2016 R3.20 supports SCv3000 series storage systems.

Support for SC5020 Storage Systems

Dell Storage Manager 2016 R3.10 supports SC5020 storage systems.

Support for SC5020F Storage Systems

Dell Storage Manager 2016 R3.20 supports SC5020F all-flash storage systems and SC420F all-flash expansion enclosures.

Support for SC7020F Storage Systems

Dell Storage Manager 2016 R3.20 supports SC7020F all-flash storage systems and SC420F all-flash expansion enclosures.

PS Group Volume Import Support for Linux

In Dell Storage Manager 2016 R3, importing PS Group volumes supports Linux operating systems. The following operating systems are supported:

- Red Hat Enterprise Linux 6.7
- Red Hat Enterprise Linux 7
- SUSE Linux Enterprise 11 or 12
- Oracle Linux 6.5
- Oracle Linux 7.0
- VMware ESXi 5.5 or later
- Windows Server 2008 R2 or later

Notes and Limitations

This section contains information important to the release of Dell Storage Manager 2016 R3.

Cross-Platform Replication Snapshots

After replicating a volume from a Storage Center to a PS Series group, snapshots replicated to the PS Series group do not expire based on the Snapshot Profile set on the source volume. To prevent the snapshots from consuming excessive space, manually delete the PS Series group snapshots in Storage Manager.

Documentation Corrections

The Dell Storage Manager 2016 R3 Administrator's Guide and Online Help contain the following incorrect Storage Center version requirement for creating Live Migrations:

The source and destination Storage Centers must have version 7.1 or later.

The Storage Center version requirement for creating Live Migrations should state:

The source and destination Storage Centers must have version 6.7.30 or later.

Fixed Issues

The following sections summarize the issues fixed in Storage Manager R3.

Fixed Issues Related to Management of PS Series Groups

The following issues are fixed in Dell Storage Manager 2016 R3.

Table 1. Issues Fixed in Storage Manager 2016 R3.1

Issue	Description
DSM-21915	Storage Manager is not able to manage a PS Group with a session banner of more than 255 characters.
DSM-19815	Storage Manager fails to manage a PS Group after updating to Storage Manager 2016 R1 from an earlier version.
DSM-17313, DSM-17379	After refreshing the Storage Manager Client, Storage Manager does not update the % Full, InUse Space , or Number of Snapshots columns for a PS Series group volume.

Fixed Issues Related to the Data Collector

The following issues are fixed in Dell Storage Manager 2016 R3.

Table 2. Issues Fixed in Storage Manager 2016 R3.20

Issue	Description
DSM-31950	Resolved a directory traversal vulnerability (CVE-2017-14384). In Dell Storage Manager versions earlier than 16.3.20, the EMConfigMigration service is affected by a directory traversal vulnerability. A remote malicious user could potentially exploit this vulnerability to read unauthorized files by supplying specially crafted strings in input parameters of the application. A malicious user cannot delete or modify any files via this vulnerability.
DSM-30415	Resolved a hard-coded password vulnerability (CVE-2017-14374). The SMI-S service in Dell Storage Manager versions earlier than 16.3.20 is protected using a hard-coded password. A remote user with the knowledge of the password might potentially disable the SMI-S service via



Issue	Description
	HTTP requests, affecting storage management and monitoring functionality via the SMI-S interface. This issue only affects a Windows installation of the Data Collector (not applicable to the virtual appliance).
DSM-30030	Enabling a proxy server on the Storage Manager Data Collector requires access to google.com. If google.com is blocked by firewall, a proxy server cannot be enabled on the Data Collector.
DSM-24894, DSM-25133, DSM-25353, DSM-26301, DSM-27796	The Data Collector might intermittently disconnect from Storage Centers and FluidFS clusters.
DSM-19627	Storage Manager might fail to login to a Storage Center with LDAP enabled while attempting to reconnect to the Storage Center.

Table 3. Issues Fixed in Storage Manager 2016 R3.10

Issue	Description
DSM-27846	After updating to Storage Manager 2016 R3.1 the Data Collector service may fail to start up due to database tables failing to update.
DSM-26650	After importing an SSL Certificate then restarting the Data Collector or restarting the server hosting the Data Collector the Data Collector reverts back to the original certificate.
DSM-26646	The Data Collector does not allow SSL common names with wildcard FQDNs.

Table 4. Issues Fixed in Storage Manager 2016 R3.1

Issue	Description
DSM-25701	A Remote Data Collector might use up TCP/IP connections causing remote desktop connections to fail.
DSM-24548	When configuring Active Directory with Kerberos Authentication Storage Manager does not attempt other Kerberos Key Distribution Center (KDC) when the first attempt fails.
DSM-24477	Logging in to a Remote Data Collector using the Data Collector Manager fails after updating to Storage Manager 2016 R2 if multiple summary plugins are enabled for that user.
DSM-21154	After updating the Data Collector all Storage Centers might be disconnected and the Data Collector is unable to reconnect to the Storage Centers.
DSM-20623	After updating to Storage Manager 2016 R1, the Data Collector service might fail to start.
DSM-19302	The Data Collector service might fail to start if the Data Collector is updated to Storage Manager version 2016 R1 immediately after migrating the Data Collector database from Microsoft SQL to MySQL.
DSM-13469	A Remote Data Collector attempts to connect to a Storage Center every 2 minutes. This issue causes logs that incorrectly indicate that new user mappings are being created.

Fixed Issues Related to Replication and Live Volumes

The following issues are fixed in Dell Storage Manager 2016 R3.

Table 5. Issues Fixed in Storage Manager 2016 R3.20

Issue	Description
DSM-29627	When converting multiple replicas to Live Volumes using multiple admin users, Storage Manager might delete volume mappings causing volume outages.

Table 6. Issues Fixed in Storage Manager 2016 R3.1

Issue	Description
DSM-26188	When performing a reprotect using Dell Storage Replication Adapter (SRA) random restore points that are not affiliated with the current replication might get changed to Degraded.
DSM-23316	VMware SRM reprotect might fail to reverse replications on larger systems.
DSM-22405	Adding array managers to SRM might fail with the following configuration: <ul style="list-style-type: none"> • SRM 6.1 • SRA 16.2.1.213 • Dell Storage Manager 2016 R2 • Live Volume is not licensed on the Storage Centers
DSM-21143	Performing a reprotect using a Remote Data Collector fails when SRM attempts to use the original restore point for the reprotect.
DSM-20963	The status of the original-source Storage System does not update to the new target Storage System after a successful reprotect.
DSM-20308	The Storage Replication Adapter (SRA) for Storage Manager 2016 R1 displays all replication objects even ones that are not being used by VMware SRM.
DSM-20047	Storage Manager does not show the option to select a specific replay for disaster recovery activation.
DSM-18365	After performing a force delete on a Live Volume, Storage Center might delete the mappings from the volume to the host.
DSM-18016	After activating disaster recovery when the source Live Volume goes down, Storage Manager displays partial or no information for server objects.
DSM-16870	With Storage Manager 2016 R1, the Storage Replication Adapter (SRA) displays Live Volumes for SRM 6.0 which does not support Stretched Storage.

Fixed Issues Related to Storage Management

The following issues are fixed in Dell Storage Manager 2016 R3.

Table 7. Issues Fixed in Storage Manager 2016 R3.10

Issue	Description
DSM-28371	On Storage Centers with many view volumes, Storage Manager might fail to add an SMI-S provider after an update.
DSM-27326	After updating Storage Manager to version 2016 R2 and updating Storage Center, Storage Manager might not display some Storage Centers.
DSM-26738, DSM-26176	In some instances when removing a Storage Center, Storage Manager does not allow the Storage Center to be managed again stating "User is already connected to Storage Center."
DSM-25741	After attempting to modify the IP addresses in a fault domain, Storage Manager incorrectly reports unknown ports as down.



Table 8. Issues Fixed in Storage Manager 2016 R3.1

Issue	Description
DSM-25301	Storage Manager might erroneously report Storage Centers as down.
DSM-25172	The Configure IO Card Change wizard shows only the final page for SC7020 not allowing changes to the IO card to be configured.
DSM-17218	When multiple email addresses are configured for alerts, Storage Manager does not recognize the valid email format.
DSM-15214	An erroneous error appears when creating a server from localhost on an iSCSI SCv2000 series storage system.
SCOS-15072	Creating a fault domain without VLAN tagging with a port that was previously in a fault domain with VLAN tagging enabled causes errors and connectivity issues.

Fixed Issues Related to User Management

The following issues related to user management are fixed in Dell Storage Manager 2016 R3.

Table 9. Issues Fixed in Storage Manager 2016 R3.10

Issue	Description
DSM-15408	Storage Manager does not support SMTP authentication.

Fixed Issues Related to the Virtual Appliance

The following issues are fixed in Dell Storage Manager R3.

Table 10. Issues Fixed in Storage Manager 2016 R3.20

Issue	Description
DSM-29418	Users added to the Storage Manager Virtual Appliance in an Active Directory group fail to log in.

Table 11. Issues Fixed in Storage Manager 2016 R3.10

Issue	Description
DSM-30067	The Storage Manager Virtual Appliance might fail to start after performing an update from Storage Manager Virtual Appliance 2016 R3.1.
DSM-28225	When configuring the Storage Manager Virtual Appliance from a browser and operating system with the language set to French, the Data Collector and Database pages in the Storage Manager Virtual Appliance setup wizard appear blank.
DSM-28214	After deploying a new Storage Manager Virtual Appliance and selecting a static IPv6 address, the Storage Manager Virtual Appliance might not use the selected IPv6 address.

Table 12. Issues Fixed in Storage Manager 2016 R3.1

Issue	Description
DSM-27025	When updating the Storage Manager Virtual Appliance, the Storage Manager Virtual Appliance allows you to select a file that is not the update zip file. If that file is too large, it may take up too much space on the partition for the Storage Manager Virtual Appliance causing the Dell Storage Manager service to fail to start.
DSM-25665	Deploying the Storage Manager Virtual Appliance OVF template fails when using vSphere 6.5.

Issue	Description
DSM-25657	Attempting to expand the embedded database of a Virtual Appliance might fail from the CLI if the database is at 100 percent capacity.
DSM-22782	The Storage Manager Virtual Appliance does not allow the time to be modified manually.
DSM-22781	The Storage Manager Virtual Appliance does not check that the IP address for an NTP server is correct and allows an invalid IP address to be configured.
DSM-24951	Sending SupportAssist information using the Storage Manager Virtual Appliance causes nearly 100 percent CPU usage.
DSM-25449	Storage Manager does not display logs for Storage Centers running version 6.7 and below when using the Storage Manager Virtual Appliance.
DSM-25646	When the embedded database for the Storage Manager Virtual Appliance reaches full capacity, the Storage Manager Virtual Appliance fails and users are unable to expand the database.
DSM-20767	During an initial setup of the Storage Manager Virtual Appliance, if the DHCP option is selected in an environment where DHCP is not available, the Storage Manager Virtual Appliance fails.

Fixed Issues Related to Virtual Volumes

The following issues are fixed in Dell Storage Manager.

Table 13. Issues Fixed in Storage Manager R3.10

Issue	Description
DSM-27377	After updating to Storage Manager 2016 R3, the VASA key store file might become corrupted causing the Data Collector to fail to start.
DSM-27120, DSM-27094	Registering the VASA Provider using the Storage Manager Virtual Appliance fails due to an incorrect URL for the Dell VASA Provider.

Table 14. Issues Fixed in Storage Manager R2.1

Issue	Description
DSM-14771	If the Dell Storage Manager IP is changed, the VASA Provider needs to regenerate a VASA certificate and reregister.

Fixed Issues Related to Cross-Platform Replication

The following issues are fixed in Dell Storage Manager 2016 R3.

Table 15. Issues Fixed in Storage Manager 2016 R3.20

Issue	Description
DSM-20325	After a cross-platform replication creates the limit of snapshots (1025) on the Storage Center, the replication goes down and Storage Manager does not show an error.
DSM-19875	For replications from Storage Center to PS Group Storage Manager does not report if the delegated space is full. The replication fails but Storage Manager reports a successful replication.
DSM-16157	Enabling replication to a PS Series group from a Storage Center fails if another replication is already set up from that volume.



Table 16. Issues Fixed in Storage Manager 2016 R3.10

Issue	Description
DSM-20355	Creating an iSCSI connection for a cross-platform replication succeeds, but an error message is displayed.

Table 17. Issues Fixed in Storage Manager 2016 R3.1

Issue	Description
DSM-25563	Storage Manager displays the source storage system as the destination and the destination storage system as the source in the Summary tab for cross-platform replications.
DSM-25285	The Total Replica Reserve Space value in the Replication and Live Volumes view is incorrect for replications from a PS Group to Storage Center.
DSM-24058	After deleting a cross-platform replication, Storage Manager does not delete the mapping from the Storage Center volume to the PS Group.
DSM-21078	An Access Control List is not retained for replications from Storage Center to PS Group.
DSM-20347	When attempting to increase the delegated space for a cross-platform replication beyond the available space an error appears. That error does not describe the cause of the failure.
DSM-20343	Storage Manager cannot modify the Delegated Space for a cross-platform replication.
DSM-20165	Storage Manager might not display the correct state or a cross-platform replication that has failed due to lack of space on the source PS Group. In Group Manager, the replication status is paused remote resize failed . In the Storage Manager Client, the Synced status is No .
DSM-19561	Storage Manager allows a PS Series group volume that has been promoted to primary after activating disaster recovery to be configured for replication. This is not a supported operation.
DSM-19019	Creating a replication from Storage Center to PS Group fails if Delegated Space is set to 0 and shows an error that does not describe the failure.
DSM-18696	When attempting to create a chained replication from a cross-platform replication, an error appears that does not properly describe the cause of the error. Chained replications are not supported with cross-platform replications.
DSM-18124	Making configuration changes after configuring cross-platform replication with replication schedules can lead to replication failures and partner-down conditions. Do not make any iSCSI configuration changes after you have started the cross-platform replication process. For more information, see the <i>PS Series v9 Release Notes</i> .
DSM-17503	Storage Manager does not show an error when attempting to delete an in-progress cross-platform replication. In-progress replications cannot be deleted.
DSM-15720	Storage Manager might show 0 MB as the size of the used space in a destination volume from a PS Series group to a Storage Center.
DSM-14688	After deleting a replication, the restore points for that replication might still appear in the Storage Manager Client. The Storage Manager Client does not display information for the restore points.
DSM-14676	Modifying CHAP settings for replications between Storage Centers and PS Series storage arrays from the Fault Domains node might cause the remote iSCSI connection to fail.
DSM-10610, DSM-19255	Error occurs when restoring a cross-platform replication if the user creates an access point during the restore operation.

Fixed Issues Related to User Interface

The following issues are fixed in Dell Storage Manager R3.

Table 18. Issues Fixed in Storage Manager 2016 R3.10

Issue	Description
DSM-28442	When connected to a Storage Manager Virtual Appliance, the Storage Manager client might freeze after selecting the Historical Usage tab for a Storage Type.
DSM-11209	Users are unable to delete automated reports when using a Microsoft SQL database with the Data Collector.

Table 19. Issues Fixed in Storage Manager 2016 R3.1

Issue	Description
DSM-24619	Saving storage usage information from the Volume Growth tab causes an error.
DSM-23950	After acknowledging alerts for a server, Storage Manager disables the alert indicator on the server but it does not disable the alert indicator on the server folder.
DSM-21146	Storage Manager might display erroneous error messages in the Hardware Tab for environments managing FluidFS clusters running v4.
DSM-16191	Dell Storage Manager Client does not show the correct status of expansion enclosure ports connected to an SCv2000 storage controller.
DSM-15955	Storage Manager does not update the statistics in the Summary tab for a Storage Type when the page refreshes.

Fixed Miscellaneous Issues

The following issues are fixed in Dell Storage Manager 2016 R3.

Table 20. Issues Fixed in Storage Manager 2016 R3.10

Issue	Description
DSM-26833	Trend Micro's Zero Day Initiative (ZDI) identified a security vulnerability in Storage Manager 2016 R2. The vulnerability has been fixed.
SCOS-42111	An SC7020 or SC5020 storage system might lock access to drives connected to the Storage Enclosure Processor (SEP) if the storage system is unable to read the chassis signature for the SEP firmware.

Fixed Issues Related to SupportAssist and Updating

The following issues are fixed in Dell Storage Manager 2016 R3.

Table 21. Issues Fixed in Storage Manager 2016 R3.20

Issue	Description
DSM-29377	Storage Manager might send an email alert indicating that there is a FluidFS update available after updating a FluidFS.



Table 22. Issues Fixed in Storage Manager 2016 R3.10

Issue	Description
DSM-28371	On Storage Centers with many view volumes, Storage Manager might fail to add an SMI-S provider after an update.
DSM-27326	After updating Storage Manager to version 2016 R2 and updating Storage Center, Storage Manager might not display some Storage Centers.
DSM-26738, DSM-26176	In some instances when removing a Storage Center, Storage Manager does not allow the Storage Center to be managed again stating "User is already connected to Storage Center."
DSM-25741	After attempting to modify the IP addresses in a fault domain, Storage Manager incorrectly reports unknown ports as down.

Table 23. Issues Fixed in Storage Manager 2016 R3.1

Issue	Description
DSM-26174	After updating to Storage Manager 2016 R2, Storage Manager might fail to send support data using SupportAssist.
DSM-18948	Storage Manager might fail to save some SupportAssist data in large storage environments.

Fixed Issues Related to the Web UI

The following issues are fixed in Dell Storage Manager.

Table 24. Issues Fixed in Storage Manager 2016 R3.20

Issue	Description
DSM-27046	The Freeze Time and Expire Time is off by 6 hours for snapshots created using the Unisphere.
DSM-18722	After Removing a Storage Center from the Data Collector then adding it back, the Unisphere retains the username and password but fails to log in.

Table 25. Issues Fixed in Storage Manager 2016 R2.1

Issue	Description
DSM-18625	Configuring a proxy server for the Storage Manager Virtual Appliance with an invalid IP address does not display an error. Instead the Storage Manager Virtual Appliance restarts and attempts to use the invalid IP address.

Open Issues

The following issues are present in Dell Storage Manager 2016 R3.20.

Open Issues Related to Management of PS Series Groups

The following open issues are related to managing PS Series groups with the Dell Storage Manager Client.

Issue	Description
DSM-26532	Storage Manager might not clear alerts for an issue after fixing the issue on a PS Series group. Workaround: None
DSM-23693	Storage Manager displays a PS Series group as inactive after a controller failover on the PS Series group. Workaround: Remove the PS Series group from Storage Manager then add it back.

Issue	Description
DSM-17321	Storage Manager displays alerts and alarms for PS Series groups that have been cleared to the recycling bin in Group Manager. Workaround: Delete the alerts and alarms from the recycling bin in Group Manager.
DSM-15839	After updating a PS Series group managed by Storage Manager from version 8.0 to 9.0 using Group Manager, Storage Manager fails to refresh the status of the PS Series group. Workaround: Restart the Storage Manager Client.
DSM-14934	After restoring a volume from a snapshot to an offline state, the volume appears to be online in Storage Manager. Workaround: Refresh the page in the Storage Manager Client.
DSM-13871	After performing an online Thin Import of a boot volume from a PS Series group to a Storage Center, the server is unable to boot from the volume after mapping it to the server. Workaround: Online Thin Import is not supported with boot volumes.

Open Issues Related to Data Reduction

The following are open issues that are related to Data Reduction.

Issue	Description
DSM-16853	Storage Manager displays incorrect data for the Snapshot Overhead statistic for Storage Centers running version 6.7 and below. Workaround: None
SCOS-13237	The Storage Type Data Reduction statistics might be incorrect if the amount of data eligible for Data Reduction contains fewer than 256 pages. Workaround: None

Open Issues Related to the Dell Unisphere

The following issues related to the Dell Unisphere are open.

Issue	Description
DSM-26892	Applying automated report settings to other Storage Centers using the Unisphere fails to enable the Daily, Weekly, or Monthly checkboxes. Workaround: Verify that the automated reports settings are correct for each Storage Center.
DSM-25451	The Unisphere allows you to add a domain user as a Volume Manager or Reporter level user without selecting a user group. Workaround: None
DSM-25107	Some performance charts in the Unisphere might display "NaN" instead of the actual data. Workaround: None
DSM-24667	Sending SupportAssist data using the Unisphere might incorrectly display an error even though the information was sent successfully. Workaround: None
DSM-24302	Snapshots created in the Unisphere might display incorrect start and end times. Workaround: None



Issue	Description
DSM-24193	Storage Manager might lock a Storage Manager account after half the number of log in attempts than allowed by the account lockout threshold. Workaround: Increase the account lockout threshold to double the desired amount.
DSM-21139	Attempting to update a Data Collector installed on a Windows Server using the System Updates option in the Unisphere causes an error. The System Updates option is used only for the Storage Manager Virtual Appliance. Workaround: None
DSM-20806	The Unisphere displays primary Data Collector functions for remote Data Collectors. Initiating those functions might cause replication using that remote Data Collector to fail. Workaround: None
DSM-20769	The Generate Fault Domain Configuration option in the Configure Fibre Channel Fault Tolerance wizard is not available in the Unisphere. Workaround: Use the Storage Manager Client to generate the default Fibre Channel fault domain.
DSM-20746	When attempting to reconnect a Storage Center connected using a host name without a suffix, the Unisphere might fail to connect reporting that the host name is incorrect. Workaround: Reconnect the Storage Center using the full host name with the suffix.
DSM-19661	After restarting the Virtual Appliance, the Unisphere displays the login screen before the Virtual Appliance is fully up and ready for logins. Workaround: Wait for the Virtual Appliance to fully start up before logging in.
DSM-18844	Creating multiple volumes with Group or Volume QoS Profiles from a server in the Unisphere fails to set the QoS Profiles on the volumes. Workaround: Set the QoS Profile on the volumes after creating the volumes.
DSM-18409	Storage Manager does not show an error if it fails to connect to a Data Collector database after changing the data source. Instead, the Change Data Source wizard returns to the first page. Workaround: Correct the connection failure with the Data Collector database then attempt to change the data source again.
DSM-17754	After changing the source Storage Center when creating a volume, the volume folder does not change to a folder on the new Storage Center. Workaround: Change the volume folder after changing the Storage Center.
DSM-16444	After creating a rule for a Snapshot Profile, the Unisphere uses UTC time instead of the time zone set on the Storage Center. This issue can cause the start time of the rule to be off by multiple hours. Workaround: Create the rule and adjust for the time difference or create the rule using the Storage Manager Client.
DSM-16373, DSM-16368	The Unisphere does not show the progress of a Data Collector data source change. Workaround: Use the Dell Storage Manager Client to change the data source of a Data Collector.
DSM-16267	The Unisphere does not require the user to specify a new IP address when adding a port to a VLAN. This issue causes the operation to fail. Workaround: Use the Storage Manager Client.
DSM-16075	The Unisphere does not enable Allow Storage Profile Selection in the User Preferences dialog by default. Workaround: Enable Allow Storage Profile Selection .

Issue	Description
DSM-16062	An error occurs after switching SNMP from SNMP v3 to SNMP v1/v2 using the Unisphere. Workaround: Use the Storage Manager Client.
DSM-15789	While migrating a Data Collector, the summary page in the Unisphere incorrectly states that the database is an internal database and that there is not an administrator user. Workaround: None
DSM-15748	The Est. Full column in the Storage Centers table displays the incorrect time. It shows AM in place of PM and PM in place of AM. Workaround: None
DSM-15151	After switching the display language from English to Chinese, the Unisphere still displays English. Workaround: None
DSM-15130	Resizing the window on the Unisphere causes buttons and information to overlap. Workaround: Refresh the page in the Storage Manager Client.

Open Issues Related to Cross-Platform Replication

The following open issues are related to cross-platform replication between Storage Centers and PS Series groups.

Issue	Description
DSM-28871	Attempting to recreate an iSCSI connection in a cross-platform replication after deleting the iSCSI connection fails. Workaround: Contact Dell Technical Support.
DSM-26371	Storage Manager might incorrectly display the progress of a cross-platform replication as 100% after pausing a cross-platform replication at 50% then restarting the lead controller on the PS Group. Workaround: Resume the replication.
DSM-25944	Storage Manager displays an incorrect name for the operating system of a Remote PS Group. Workaround: None
DSM-25697	After attempting to configure an iSCSI connection from a Storage Center to a PS Group that is already setup, then selecting another PS Group that is not setup, Storage Manager attempts to setup a connection to the PS Group that was selected first. Workaround: Close the Configure iSCSI Connection then reopen it and select the correct PS Group.
DSM-25282	If a remote PS Group fails to respond 90 seconds after creating an iSCSI connection the connection was still created successfully. However, the Configure iSCSI Connection wizard remains open. Clicking Finish again attempts to create the same connection again and fails. Workaround: Do not click Finish . Close the window then refresh the Storage Manager Client.
DSM-24885	The Create QoS dialog box appears behind the Create Replication dialog box when replicating multiple volumes without a QoS definition created. Workaround: Create a QoS definition before replicating volumes or move the Create Replication dialog box to access the Create QoS dialog box.
DSM-23428	Storage Manager might freeze when activating disaster recovery on a large number of volumes. Workaround: Close the Storage Manager Client then reopen it.



Issue	Description
DSM-23309	Storage Manager is unable to configure replications to a PS Group for multiple volumes from the Volumes node in the Storage tab. Workaround: Configure the replications individually.
DSM-20532	When the Free Reserved Space is fully consumed, Storage Manager reports the value as the full configured value. Workaround: View the Free Reserved Space from Group Manager.
DSM-20458	Storage Manager does not prevent the user from deleting a port used in replication. Deleting the port from the fault domain breaks the replication. Workaround: Contact Dell Technical Support to restart the replication if a port has been deleted.
DSM-19844	The Modify Space Settings option appears for PS Groups when cross-platform replication is not configured. Workaround: None
DSM-19667	Storage Manager does not immediately display restore points for unplanned disaster recovery activations. Workaround: Refresh the Replications view in the Storage Manager Client.
DSM-17647	Storage Manager does not show replication information for PS Group volumes when the PS Group volumes were created with different Storage Manager administrator users. Workaround: Use the same Storage Manager user to create cross-platform replications.
DSM-17016	Storage Manager displays replication schedules for replications from PS Group to PS Group. Storage Manager does not manage replications between PS Groups. Workaround: None
DSM-16754	When replicating more than 16 volumes from a PS Series group to a Storage Center, Storage Manager displays replications in a Waiting state as Down. Workaround: Replicate no more than 16 volumes at a time.
DSM-16737	Storage Manager does not allow you to set up a replication from a Storage Center to a PS Series group when creating a volume on the Storage Center. Workaround: Set up replication to the PS Series group using the Replicate Volume wizard.
DSM-16448	Restore points for deleted Storage Center to PS Series group replications might still appear in the Activate Disaster Recovery dialog box. Workaround: None
DSM-16095	Storage Manager might not display the proper volume information in the volumes list for volumes replicated from a PS Series group to a Storage Center. Workaround: Select the volume to view the volume information individually.
DSM-15904	Storage Manager displays an incorrect error after setting up a replication from a Storage Center to a PS Series group with insufficient delegated space. Workaround: Modify the amount of delegated space on the PS Series group to accommodate the replication.
DSM-14648	Storage Manager does not automatically map a volume to the server after activating disaster recovery on a replication from a PS Series group to a Storage Center. Workaround: Manually map the volume to the server.

Issue	Description
DSM-13404	The Replication Validation plug-in on the Summary page for a Storage Center does not display volumes replicated from a PS Series group to a Storage Center. Workaround: None
DSM-13191	After deleting a replication partnership between a Storage Center and a PS Series group, users are unable to set up a replication partnership between the same Storage Center and PS Series group. Workaround: Contact Dell Technical Support.
DSM-12865	Selecting Replicate Now for multiple volumes on a PS Series group replicates only the first volume. Workaround: Replicate the volumes individually.
DSM-10616	Storage Manager does not retain the server-to-volume mappings after restoring from a disaster recovery. Workaround: Map the volumes back to the servers.
DSM-10461	After selecting multiple volumes to replicate to a PS Series group, PS Series groups do not appear as a destination storage array. Workaround: Replicate the volumes individually.

Open Issues Related to the Storage Manager Virtual Appliance

The following open issues are related to the Storage Manager Virtual Appliance.

Issue	Description
DSM-30095	An error might appear after successfully sending SupportAssist data. Workaround: None
DSM-28390	After setting up the Storage Manager Virtual Appliance with a static IPv4 address, the VM might display an IPv6 address if DHCP is not available on the network. Workaround: Restart the VM.
DSM-24018	Changing the time zone on the Virtual Appliance does not change the time displayed for the Virtual Appliance in the Unisphere. Workaround: None
DSM-19776	Logging in to the Virtual Appliance using an Open LDAP username with a domain suffix fails. Workaround: Add the user without using the domain suffix.
DSM-15808	After migrating to the Storage Manager Virtual Appliance, the Storage Manager Virtual Appliance does not have the same time zone as the original Data Collector. Workaround: Change the time zone on the Storage Manager Virtual Appliance.
DSM-15341	The Virtual Appliance CLI menu in the VMware Console appears in English for a Virtual Appliance deployed for Japanese or Chinese languages. Workaround: Access the Virtual Appliance CLI using SSH.



Open Issues Related to VVols

The following open issues are related to virtual volumes (VVols).

Issue	Description
DSM-30674	<p>After restarting the Data Collector service, VVols storage containers might be inactive.</p> <p>Workaround: Unregister the VASA provider then register the VASA provider again.</p>
DSM-27446	<p>Storage Manager does not display information for VVols or VMFS volumes in the Connectivity tab in the Servers view.</p> <p>Workaround: View VVols or VMFS information from the Storage view.</p>
DSM-16665	<p>After upgrading an ESXi host from version 5.5 to 6.0, Dell Storage Manager does not properly reflect the host and its attributes as being ESXi 6 capable, in particular the recognition of the protocol endpoint. An extra artifact is that a VVol datastore is identified with improper size of 0B.</p> <p>Workaround: Remove the server and then add it back to Dell Storage Manager.</p>
DSM-16659	<p>If a VVol VM's disk is resized, and you perform Update information, the storage container's configured space does not reflect the modified value.</p> <p>Workaround: Exit and restart the Dell Storage Manager. The Dell Storage Manager client shows the changes to the disk size.</p>
DSM-16656	<p>If you select the Auto Manage Virtual Machines On Storage Centers option during the initial Dell Storage Manager registration of a vCenter server, all the discovered ESXi hosts along with their VMs are rendered within the Servers tree of the Storage panel. If any of these VMs are later deleted from vCenter, they still remain in the Dell Storage Manager view.</p> <p>Workaround: To remove these deleted VMs from Dell Storage Manager, right-click the VM and then delete it.</p>
DSM-16248	<p>On rare occurrences, selecting Update information in the Dell Storage Manager Server view results in the error <code>java.net.SocketException: Unexpected end of file from server</code>.</p> <p>Workaround: Despite the vCenter appearing to be online and able to accept connections, a restart of vCenter is needed to reestablish proper connectivity between Dell Storage Manager and vCenter. A case for this has been logged with VMware.</p>
DSM-15980	<p>By design, a storage container on the Storage Center created by one Dell Storage Manager Data Collector cannot be managed by another Dell Storage Manager. However, you can select the storage container, and attempt to create a datastore. Dell Storage Manager should filter out storage containers it does not manage from the list of available storage containers.</p> <p>Workaround: Select a storage container which was created by the same Dell Storage Manager. Alternatively, use vCenter to create the datastore from an existing storage container. vCenter properly filters the available storage containers.</p>
DSM-15879	<p>When establishing an integrated environment with Dell Storage Manager and VMware, various options are available for you to import the VMware known inventory into Dell Storage Manager for enhanced management benefits. You can choose to add hosts individually, or by creating and registering from a vCenter server.</p> <p>Workaround: Although the option exists in the Storage tab to create from vCenter server, the preferred and more reliable method is to use the Dell Storage Manager Server tab. Select the Server folder then Register Server → Add VMware vCenter Server. Then, select Auto Manage Storage Centers to populate the Storage Center.</p>
DSM-15803	<p>In rare circumstances when migrating a VVol VM from one VVol datastore to another, a config or data VVol might become orphaned on the original datastore. This VVol counts against the total VVol scale, and takes up unnecessary space.</p>

Issue	Description
	<p>Workaround: Contact Dell Technical Support to handle the removal of the VM.</p>
DSM-15302	<p>If you attempt to delete a datastore which is populated (not empty) using Dell Storage Manager, an error results. A false indicator of connectivity is represented by a red X on the vCenter server.</p> <p>Workaround: Click the Update Information button in the top-level menu.</p>
DSM-14891	<p>A fast clone VM shows history with the VM from which it was created. Hence the data VVols of this clone VM inherit the settings of the data VVols of the original VM. This shared history also has the following consequences:</p> <ul style="list-style-type: none"> • Changing a storage container's Data Reduction profiles might cause future fast cloned VMs to be created with mismatched Data Reduction profiles for the config and data VVols. • If a user applies a VM Storage Policy to the original VM, the same changes apply to the data VVols of the fast clone VM and conversely. <p>Workaround: None.</p>
DSM-14806	<p>Migrate or Clone operations on virtual machines with snapshots might fail if not enough space is available in the VVol datastore hosting the VM. The temporary space overhead required by these operations depends on the size of the individual disks and the number of snapshots of the VM.</p> <p>Workaround:</p> <ol style="list-style-type: none"> 1. Check if the VVol datastore (storage container) is nearing capacity. 2. Increase the size of the VVol datastore to sufficiently accommodate the overhead and then retry the operation.
DSM-14570	<p>If you attempt to register the VASA Provider with a DSM user with Reporter privilege, it fails as expected. However, an incorrect error message <code>Username or password is incorrect</code> is reported. The correct error should be <code>user with Reporter privilege is not allowed to register VASA provider</code>.</p> <p>Workaround: Ignore the error message, and register VASA Provider with a DSM user with Administrator privilege.</p>
DSM-14301	<p>The Datastore Connectivity tab in the Dell Storage Manager Data Collector user interface is blank when viewing a datastore on a vCenter 6.0 server or an ESXi 6.0 host.</p> <p>Workaround: Use the vCenter or ESXi 6.0 client to view connection information.</p>
DSM-14149	<p>If you try to apply a new VM Storage Policy while Storage vMotion of a VM is in progress, the compliance status of the VM goes to <code>Out of Date</code>.</p> <p>Workaround: Reapply the new storage policy after Storage vMotion has completed.</p>
DSM-13801	<p>If you have any applications or folders open during the Dell Storage Manager update process, you might not be able to start the Dell Storage Manager Data Collector. It could fail with the error <code>Error setting up JBoss: deleting joboss directory</code>. The folders mentioned in this directory could be VASA logs folder, server logs folder, and the msa Service folder. Dell recommends that you close all applications and folders before proceeding with the update.</p> <p>Workaround:</p> <ol style="list-style-type: none"> 1. In Windows Explorer, select Control Panel → Programs and Features. 2. Select the Storage Manager Data Collector, then click Change. In the Change window, you can choose to do a repair. It reinstalls the files, including the JBoss directory.
DSM-13316	<p>After increasing the storage container size in Dell Storage Manager, the vCenter user interface shows the datastore with the new size. However, it still displays an error for insufficient space when it tries to create a VM.</p> <p>Workaround: Unmount and then remount the datastore.</p>



Issue	Description
DSM-13274	<p>The Dell Storage Manager VASA Provider, whether using VASA1 or VASA2, can have only one vCenter server registered to it at any time. You cannot register multiple vCenter servers to the Dell VASA Provider at the same time. If you register a vCenter server to Dell Storage Manager and then register the server to the Dell VASA Provider, you first must unregister the server from the VASA Provider before registering a different vCenter server to the Dell VASA Provider.</p> <p>Workaround: If you try to register any vCenter server to the Dell VASA Provider, and the registration fails, make sure that no other vCenter servers are registered to the Dell VASA Provider.</p>
DSM-13042	<p>Under rare circumstances, usually involving VVol operations (cloning and snapshots) on multiple VMs concurrently using scripting and eventual deletion of VVols, an attempt to delete a VVol VM might result in VVols not being deleted. This scenario results in inefficient space consumption and reduction in total VVols available for future use.</p> <p>Workaround: Removal of the VVols is not a user-level corrective option. Contact Dell Technical Support for assistance. Avoid running concurrent VVol operations using scripting. Instead, script sequential operations or operations with interjected delays.</p>
DSM-12732	<p>It is possible to create a storage container, and a subsequent VVol datastore using it, of a logical size that exceeds the physical capacity of the storage array. The capacity values (in the vCenter user interface) for an oversubscribing container reflect the actual free or total physical capacity values of the array instead of the logical storage container values.</p> <p>Workaround: None.</p>
DSM-12728	<p>In rare occurrences, the space consumption information for a volume might be blank.</p> <p>Workaround: Close and reopen your client.</p>
DSM-11945	<p>Even after unregistering VASA, powered-off VMs are accessible and VVol datastores are active. If you try to power on the VMs or create a new VM, vCenter eventually discovers that the VASA Provider is not present and it marks the VVol datastores as inactive.</p> <p>Workaround: None.</p>
DSM-11417	<p>When high availability (HA) is configured between two hosts, VVols are migrated from the active host to the standby host when management network access to the active host is lost. This situation is similar to VMFS, and is the expected behavior. However, if only the data network goes down, VMFS datastores migrate to the standby host, but VVols do not fail over. VMCP currently is not supported with VVols.</p> <p>Workaround: No workarounds are available when the data network goes down, but the management network stays up. However, if the management network to the active host goes down, failover is triggered, regardless of the state of the data network .</p>
DSM-9825	<p>If you create a storage container in Dell Storage Manager, and then create a datastore from vCenter, there could be a delay before the VASA Provider detects the datastore.</p> <p>Workaround: Dell recommends that you create VVol datastores from Dell Storage Manager. This task creates the storage container on the Storage Center and the datastore on vCenter in one operation. If you want to create the storage container in Dell Storage Manager, and then create the datastore from vCenter, you will need to wait 1-2 minutes after creating the storage container in Dell Storage Manager before it is visible in vCenter. After the new storage container is visible in vCenter, the VVol datastore can be created.</p>
DSM-151	<p>vCenter displays the VVol datastore as active even after a storage container is deleted from Dell Storage Manager. If you try to create a VM on the datastore, it is marked as inactive.</p> <p>Workaround: None.</p>

Open Issues Related to the Data Collector

The following open issues are related to the Data Collector.

Issue	Description
DSM-28366	Storage Manager does not allow custom SSL certificates with CN names that do not match the hostname of the server hosting the Data Collector. Workaround: Ensure that the CN name matches the hostname of the Data Collector server.
DSM-27877	Storage Manager does not change the time to account for Data Collectors in different time zones. Workaround: None
DSM-14882	Storage Manager retains reporting data in a Data Collector MySQL database for longer than the limit allows. This can use excessive space on the server. Workaround: Manually delete the data in the MySQL database.
DSM-9482	When completing the Data Collector setup, the setup wizard cannot continue if the Data Collector service does not start in time. Workaround: Close the setup wizard. Then, log in to the Data Collector Manager.

Open Issues Related to Dell Storage Replication Adapter (SRA)

The following open issues are related to the Dell Storage Replication Adapter (SRA).

Issue	Description
DSM-29251	If the language in Windows is set to Portuguese (Brazil), the version for SRM is incorrect and causes errors. Workaround: Change the language in Windows from Portuguese (Brazil) to English.
DSM-28723	Performing the Forced DR workflow in SRM with Live Volumes might cause some restore points to be in a degraded state and some protected VMs to fail to register on the secondary system. Workaround: Perform the following steps to avoid this issue: <ol style="list-style-type: none">1. In Storage Manager, click Edit Data Collector Settings.2. Click Schedules.3. Clear the Automatically save and validate restore points checkbox.4. Click OK.5. Run the Forced DR workflow again.
DSM-28137	SRM planned failovers with Live Volumes fail when vMotion is not enabled in the environment. Workaround: Dell Storage Replication Adapter (SRA) with Stretched Storage and Live Volumes requires vMotion. Enable vMotion.
DSM-28278	Recovering a Live Volume using SRM can fail intermittently if the Live Volume was created using a remote Data Collector. Workaround: Validate the restore points for the Live Volume in the Storage Manager Client. Then, start the recovery process again in SRM.
DSM-27978	The support link is broken when setting up Dell Storage Replication Adapter (SRA) on SRM 5.8. Workaround: None
DSM-27783	Reprotect operation might fail if the source and destination volumes of a replication managed by SRM have the same volume index. Workaround: Contact technical support.



Issue	Description
DSM-26741, DSM-27865	In some cases, duplicate restore points are created when running multiple recovery plans at once with SRM and Dell Storage Replication Adapter (SRA). Workaround: Run recovery plans individually.
DSM-25732, DSM-18751	The installation wizard for the Dell Storage Replication Adapter (SRA) allows you to begin updating from an older version of SRA. Updating from previous versions of the SRA is not supported. Workaround: Uninstall the previous version of SRA then install the new version.
DSM-25234	While running the SRM 6.5 workflow with vCenter 5.5, the Synchronize Storage step might show an erroneous warning message. Workaround: Ignore the message.

Open Issues Related to Replications and Live Volumes

The following open issues are related to replications, Live Volumes, and Copy, Mirror, and Migrate.

Issue	Description
DSM-28520	After performing a test activate disaster recovery, Storage Manager does not allow you to delete that volume from the Replications and Live Volumes tab. Workaround: Unmap then delete the volume from the Storage view.
DSM-27850	The QoS tab in the Replications and Live Volumes view does not display the correct number of devices for the secondary QoS node in a Live Volume. Workaround: None
DSM-25028	Storage Manager fails to create a Live Volume if the volume uses a consistent snapshot profile. Workaround: Change the snapshot profile on the original volume.
DSM-24076	After mapping a destination volume to a server, Storage Manager might incorrectly show that there is no destination volume for the restore point in the Restore Points tab. Workaround: None
DSM-15338	Disaster recovery activation fails if the Snapshot Profile assigned to the restore point has been deleted. Workaround: Edit the restore point to remove the Snapshot Profile.
DSM-9421	A reprotect might fail and cause the recovery site to core dump if an RDM VM uses a recovery plan and protection group that manage more than one RDM VM. Workaround: Use a single protection group and a single recovery plan for each RDM VM.
DSM-9478	After a Copy or Migrate operation completes, Storage Manager does not delete the Copy or Migrate object when the Copy or Migrate was scheduled. Workaround: Manually delete the Copy or Migrate object.
DSM-9294	When creating multiple replications or Live Volumes simultaneously, correcting a configuration error and resuming the process can create duplicate replications or Live Volumes. Workaround: If a creation operation fails, do not use the wizard to correct the configuration error and continue. Instead, exit and restart the wizard, then resume creating replications or Live Volumes from the point of failure.
SCOS-41191	Attempting to delete Replication, Live Volume, or Live Migrate objects when directly connected to a Storage Center fails and displays an error.

Issue	Description
	Workaround: Connect to the Storage Center using a Data Collector.
SCOS-12067	When importing a volume, Storage Manager does not allow you to select 0 as the LUN number. Workaround: None

Open Issues Related to Storage Management

The following open issues are related to managing volumes, Storage Profiles, snapshots, and Data Progression.

Issue	Description
DSM-29001	Creating a server object for the local server might fail if the local server is running Windows Server 2016. Workaround: Restart the server then relaunch the Create Server from localhost wizard.
DSM-28683	Storage Manager displays an error after applying the High Priority Storage Profile to all volumes on an ESXi server. Workaround: Apply the Storage Profile to each volume individually.
DSM-28481	In some cases, the Shut Down/Restart dialog box remains open after restarting a Storage Center using Storage Manager. Workaround: Verify that the Storage Center successfully restarted then close the Shut Down/Restart dialog box manually.
DSM-28354	Storage Manager might not display information for some Hyper-V virtual machine volumes monitored with the Server Agent in the Servers view. Workaround: View information for those volumes in the Storage view.
DSM-28297	Discover and Configure Storage Centers wizard displays an incorrect size for disks on a discovered Storage Center. Workaround: None
DSM-28295	After reinstalling the Server Agent, it might fail to register the server with Storage Manager. Workaround: Register the server in the Storage Manager Client.
DSM-27862	The Discover and Configure Storage Centers wizard configures the key management server for SEDs but it does not manage the SEDs in a Secure Data folder. Workaround: Manage the SEDs in a Secure Data folder after completing the Discover and Configure Storage Centers wizard.
DSM-27655	The Storage Manager Server Agent fails to format a volume on a server during a map and format operation on servers running Windows Server 2016 and displays an error message. The volume is successfully mapped to the server. Workaround: Format the volume on the server manually.
DSM-20038	During initial setup of Storage Center, the Discover and Configure Storage Centers wizard might close while updating the Storage Center. You will not be able to open the Discover and Configure Storage Centers wizard to complete the setup until the controllers finish restarting. Workaround: Wait for the controllers to power on, reconnect to the Storage Center, then launch the Discover and Configure Uninitialized Storage Centers wizard.
DSM-20037	Creating a server using the Create Server from VMware vSphere or vCenter wizard fails if the host contains adapters that are not VMware software iSCSI adapters. Workaround: Create the server manually using the Create Server dialog box.



Issue	Description
DSM-19752	<p>Storage Center does not change the Data Progression Start Time if the time was changed by one hour only.</p> <p>Workaround: Change the Data Progression Start Time by at least one hour before changing it to the desired time.</p>
DSM-17166	<p>Storage Manager allows you to create a fault domain using the same target address and/or VLAN ID as an existing fault domain.</p> <p>Workaround: None</p>
DSM-16903	<p>After removing and reinserting a controller on an SC7020 the ports are unbalanced but Storage Manager does not immediately display the option to rebalance the ports.</p> <p>Workaround: Restart the Storage Manager Client.</p>
DSM-15660	<p>After adding disks to tier two in a three-tiered Storage Type that exceeds the limit for single redundancy level, tier three is forced to dual redundant instead of tier two.</p> <p>Workaround: None</p>
DSM-14705	<p>The Estimated Full Time for a volume might show an incorrect date of Jan 1, 1970 12:00:00 AM.</p> <p>Workaround: None</p>
DSM-13534	<p>The Class of Service Priority field in the Fault Domain node might not match the iSCSI priority set on the ports in the fault domain as seen when viewing the Data Center Bridging Information for that port.</p> <p>Workaround: None</p>
DSM-13200	<p>Storage Manager does not delete a Snapshot Profile until a refresh if the Snapshot Profile was deleted without the recycle bin and was assigned to a volume.</p> <p>Workaround: Refresh the Storage Manager Client.</p>
DSM-11762	<p>When creating a volume using the Server Agent, Storage Manager might show a warning that the label contains illegal characters if another volume on the Storage Center contains unsupported characters.</p> <p>Workaround: Correct the label of the volume with unsupported characters.</p>
DSM-10124	<p>Storage Manager allows users to set preallocated storage on a new volume being mapped to a down server. The operation fails.</p> <p>Workaround: None</p>
DSM-9478	<p>After a Copy/Mirror/Migrate schedule is complete, the schedule still appears in the client.</p> <p>Workaround: Delete the schedule.</p>
DSM-9428	<p>Creating a server cluster using the Create Server from vSphere or vCenter wizard creates server cluster Storage Center objects for each node in the server cluster.</p> <p>Workaround: None</p>
DSM-9390	<p>Creating an RDM for a VM hosted on an ESXi or vSphere host maps the volume to the server in the cluster instead of the cluster object.</p> <p>Workaround: Manually promote the volume to the ESXi server cluster mappings. Then, rescan for hosts on the vCenter server.</p>
SCOS-14951	<p>After deleting volumes and snapshots, Storage Center does not immediately report the deleted volume space as free space for a disk folder.</p> <p>Workaround: Contact Dell Technical Support.</p>

Open Issues Related to SupportAssist and Updating

The following open issues are related to SupportAssist and updating Storage Center and Dell Storage Manager.

Issue	Description
DSM-16901	<p>After initiating a service-affecting Storage Center update, an error might appear stating “SC Update not found”.</p> <p>Workaround: Accept the error message then reconnect to the Storage Center. The update is still in-progress.</p>

Open Issues Related to the Dell Storage Manager Client

The following issues related to Dell Storage Manager Client user interface are currently open.

Issue	Description
DSM-28859	<p>The welcome screen for the Storage Manager Linux client appears blank when using an unsupported Linux clients and French is set as the default language.</p> <p>Workaround: Use one of the following clients to launch the Linux VM:</p> <ul style="list-style-type: none">• VMware vSphere Web Client• Hyper-V Manager
DSM-26168	<p>Storage Manager displays the option to delete when volumes and volume folders are selected.Storage Manager does not support deleting volumes and volume folders in one action and attempting to do so fails.</p> <p>Workaround: Delete volumes and volume folder separately.</p>
DSM-25083	<p>Updating the Storage Manager Client from version 2015 R1 to a later version on Linux causes an error.</p> <p>Workaround: Uninstall the Storage Manager Client then reinstall the client.</p>
DSM-24010	<p>After updating Storage Center, Storage Manager might not show some storage statistics in the Summary tab for a Storage Center.</p> <p>Workaround: Select a specific node from the navigation pane to see the statistics for that type of storage object.</p>
DSM-20153	<p>The Message column in the Audit Logs tab of the Monitoring view does not display messages for PS Series groups.</p> <p>Workaround: Use Group Manager to view the messages for Audit Logs.</p>
DSM-14987	<p>Storage Manager displays iSCSI ports on an SC4020 that are connected to a server but not configured in red and in a down state.</p> <p>Workaround: None</p>
DSM-14009	<p>Refreshing the Dell Storage Manager Client does not clear the red dot indicator from the Storage Center node.</p> <p>Workaround: Restart the Dell Storage Manager Client.</p>
DSM-13758	<p>When restarting a peer controller, a blank warning dialog box appears.</p> <p>Workaround: None. Acknowledge the dialog box.</p>
DSM-12518	<p>The Mappings tab for a volume might not include a horizontal scroll bar.</p> <p>Workaround: None</p>



Issue	Description
DSM-9577	The front-end SAS card for an SCv2000 series controller does not provide WWN information to ESXi hosts. Workaround: Record the SAS WWN information before installing it in an ESXi hosts.
DSM-9548	Server Agent information in the Servers view does not display information for servers connected over iSCSI. Workaround: Refresh the Storage Manager Client.
DSM-9477	Storage Manager might report that a restart in sequence has completed when the restart has not completed. Workaround: Verify that the restart has completed before continuing.
DSM-7908	The I/O Usage report exported in XML format does not display all the information for the French output when opened in a web browser. Workaround: Open the report using a text editor such as Notepad.
SCOS-12316	Storage Manager displays multi-VLAN tagging options for I/O cards that do not support multi-VLAN tagging. Workaround: Do not enable multi-VLAN tagging on Qlogic cards that do not support it.

Open Issues Related to User Management

The following are open issues related to management of Storage Center and Dell Storage Manager users.

Issue	Description
DSM-28536	After updating Storage Manager to version 2016 R3.10, Storage Manager might display an error on the Preferences tab in the Edit Storage Center Settings dialog box for the user that initiated the update. Workaround: Remove the Storage Center from the Storage Manager Data Collector then add the Storage Center back to the Data Collector.
DSM-24536	Using the characters < or > in fields in the settings for a user causes an error. Workaround: Do no use those characters.
DSM-15445	Adding Storage Manager to Active Directory fails if you are using the distinguished name (DN) of a user. Workaround: Use the user principal name (UPN) to add Storage Manager to an Active Directory realm.
DSM-12329	After unlocking a user, the status might not change to unlocked immediately. Workaround: Refresh the Storage Manager Client.
SCOS-14309	Storage Center does not restrict directory service communication to manually defined LDAP servers. This issue might cause delays when joining Storage Center to a directory environment or failures when adding directory users and groups to Storage Center for authentication. Workaround: None
SCOS-11192	Storage Center cannot authenticate directory service users that are configured to use an alternate DNS suffix. Workaround: None

Open Vendor Issues

The following open issues are caused by products not produced by Dell but that impact Dell Storage Manager.

Issue	Description
DSM-15535	<p>If you choose to reboot the Storage Center for any reason, you are given the option of choosing sequential or simultaneous for how controller reboots are handled. If you choose simultaneous, it is possible that powered-off VVol VMs hosted by that Storage Center are displayed as inaccessible in the vCenter user interface after access has been restored. To recover the VMs, remove them from vCenter inventory and add them back to the inventory by browsing the datastore.</p> <p>Workaround: See VMware Knowledge Base article number 2126021.</p>
DSM-15000	<p>A VVol VM snapshot with quiesce guest file-system option fails.</p> <p>Workaround: Install the VMware Tools without the VSS feature. For more information, see VMware Knowledge Base article number 2069952.</p>
DSM-14997	<p>When using sDRS with VVols, vCenter incorrectly recommends migrating the VM when both VVols are on the same Storage Center.</p> <p>Workaround: Review the recommendations from vCenter before taking any actions.</p>

Miscellaneous Open Issues

The following issues are open in Dell Storage Manager and Storage Center.

Issue	Description
DSM-28784	<p>The Total Space of a disk folder in Storage Manager does not match the size of the same disk folder reported in SCVMM.</p> <p>Workaround: None</p>
DSM-28532	<p>After changing the Chargeback department of a volume that has the same index as a volume on a different Storage Center, Storage Manager might not show that the volume changed Chargeback departments. Storage Manager might also change the Chargeback department of the volume with the same index on the other Storage Center.</p> <p>Workaround: None</p>
DSM-28524, SCOS-41051	<p>When connected to a Storage Center through a Data Collector, Storage Manager does not allow you to change the name of an enclosure.</p> <p>Workaround: Connect directly to the Storage Center then change the name.</p>
DSM-27414	<p>When changing the BMC interface configuration mode from static to DHCP, the IP addresses setup in static mode remain. Also, if you change the configuration mode from DHCP to static, and modify only the IPv4 address, Storage Manager changes the netmask and gateway IP addresses to invalid values.</p> <p>Workaround: After modifying the configuration mode, ensure that the IP addresses are correct.</p>
DSM-27252	<p>Forwarding Storage Center logs to a syslog server using Storage Manager fails.</p> <p>Workaround: Setup Storage Center to post syslogs directly to the syslog server instead of forwarding through Storage Manager.</p>
DSM-26037	<p>SMI-S might show incorrect numbers for space remaining and used space.</p> <p>Workaround: None</p>
DSM-16593	<p>Applying SNMP setting to other Storage Centers without SNMP enabled fails without displaying an error.</p>



Issue	Description
	Workaround: Enable SNMP on the Storage Center before applying any settings.
DSM-16280	The Edit BMC Setting dialog box implies that BMC is accessed through the management Ethernet port. This information applies only to SCv2000 series and SC4020 storage systems. Workaround: None
DSM-16100	Storage Manager Web UI does not prevent you to attempt to have two ports as primary transport on legacy Storage Centers. Workaround: Use the Dell Storage Manager Client to ensure that one port is the primary transport and the other port is the reserve transport.
DSM-15879	The Host Setup wizard for VMware does not allow you to select an HBA on an ESXi host that contains adapters that are not VMware software iSCSI adapters. Workaround: Set up the server manually using the Create Server dialog box.
DSM-15757	When recovering a replay using the vSphere Web Client plugin, the default name given to the datastore shows an incorrect time. Workaround: None
DSM-8608	When a multi-page automated report is printed in portrait orientation, the first page is printed in portrait orientation and subsequent pages are incorrectly printed in landscape orientation. Workaround: Save the report as a PDF then print it using a different application.
CQ00420311	The Dell Storage Manager Client might lose connection to the Data Collector if it has up and been running for a period of time. If this issue occurs, the following error is generated: Unable to obtain JDBC connection from DataSource. Workaround: Apply the Microsoft fix, which can be downloaded from: http://support.microsoft.com/kb/2577795 .

Support Resources

The following section provides resources for finding more information on using Storage Manager.

Related Documentation

The following documents are available for Storage Manager version 2016 R3.20.

- *Dell Storage Manager 2016 R3.20 Installation Guide* (Document number: 680-028-021)
Provides installation and setup instructions.
- *Dell Storage Manager 2016 R3.20 Administrator's Guide* (Document number: 680-017-024)
Provides instructions for using the Data Collector Manager and the Dell Storage Manager Client.
- *Dell Storage Manager 2016 R3.20 Online Help*
Provides context-sensitive help for the Dell Storage Manager Client, Data Collector Manager, and the Storage Manager Server Agent.
- Dell Storage Manager 2016 R3.20 Web UI Administrator's Guide (Document number: 680-122-001)
Contains instructions and information for managing dellstorage devices using the Dell Storage Manager Web UI.

Finding Documentation

The following locations contain documentation that might be useful when managing Dell Storage products with Storage Manager.

- *Dell Support*
Provides documentation for Dell Storage Products. Go to: www.dell.com/support.

- *Dell TechCenter*

Provides technical white papers, best practice guides, and frequently asked questions about Dell Storage products. Go to: <http://en.community.dell.com/techcenter/storage/>.

Contacting Dell

For more information and customer support, go to www.dell.com/support.

