PROMISE
TECHNOLOGY

VTrak® D5000 Series

D5000 SR1.3.4 Release Notes

FW 13.04.0000.20

This document is applicable to the following PROMISE VTrak D5000 series models:

Model	Description
D5800xD	4U/28 iSCSI, Dual controller
D5800xS	4U/28 iSCSI, Single controller
D5800fxD	4U/28 FC/iSCSI, Dual controller
D5800fxS	4U/28 FC/iSCSI, Single controller
D5600xD	3U/16 iSCSI, Dual controller
D5600xS	3U/16 iSCSI, Single controller
D5600fxD	3U/16 FC/iSCSI, Dual controller
D5600fxS	3U/16 FC/iSCSI, Single controller
D5300xD	2U/12 iSCSI, Dual controller
D5300xS	2U/12 iSCSI, Single controller
D5300fxD	2U/12 FC/iSCSI, Dual controller
D5300fxS	2U/12 FC/iSCSI, Single controller
D5320xD	2U/24 iSCSI, Dual controller, 2.5" Drive Bays
D5320xS	2U/24 iSCSI, Single controller, 2.5" Drive Bays
D5320fxD	2U/24 FC/iSCSI, Dual controller, 2.5" Drive Bays
D5320fxS	2U/24 FC/iSCSI, Single controller, 2.5" Drive Bays

The supported Expansion subsystems include:

Vendor	Platform	Description
Promise	VTrak J5320s	2U/24-bay JBOD, 12Gbs SAS to 12Gbs SAS (or 6Gbs SAS/SATA), 2.5" Drive Bays
	VTrak J5300s	2U/12 JBOD, 12Gbs SAS to 12Gbs SAS (or 6Gbs SAS/SATA)
	VTrak J5600s	3U/16 JBOD, 12Gbs SAS to 12Gbs SAS (or 6Gbs SAS/SATA)
	VTrak J5800s	4U/24 JBOD, 12Gbs SAS to 12Gbs SAS (or 6Gbs SAS/SATA)
	VTrak J5910s	4U/60-bay JBOD, 12Gbs SAS to 12Gbs SAS
	VTrak J5920s	4U/102-bay JBOD, 12Gbs SAS to 12Gbs SAS

1. Revision History

Build Date	Service Release	Firmware Revision	Description
2018/10/19	SR1.1	13.02.0000.05	First D5000 channel release
2019/01/10	SR1.1.1	13.02.0000.14	Bug fix
2019/04/19	SR1.1.2	13.02.0000.18	Bug fix New feature to support J5910/J5920 for specific region
2019/06/28	SR1.1.3	13.02.0000.27	Bug fix
2019/08/14	SR1.2	13.03.0000.12	Bug fix New features, including Standard Pool/Volume, Block VAAI, NAS VAAI, File Manager for NAS ACL, Volume Replication. * It is not allow downgrading from SR1.2 to lower revision.
2019/12/01	SR1.3	13.04.0000.06	1. Bug fix 2. New features, including Local/Remote Thick Clone, Phone Home, Cloud Backup, WORM, Compression and De-dup. 3. Improvement for the existing features, like ACL and SMB options. * The new features will not work after downgrade from SR1.3 to lower revision.
2020/01/22	SR1.3.1	13.04.0000.11	1. Bug fix 2. Support NAS Share on Standard Pool, which is more suitable for media streaming application.
2020/04/28	SR1.3.2	13.04.0000.13	1. Bug fix 2. Support Promise STSB (6G SAS to SATA bridge board) .
2020/05/28	SR1.3.3	13.04.0000.16	1. Bug fix
2020/10/16	SR1.3.4	13.04.0000.20	1. Bug fix

2. SR1.3.4 Release Summary

VTrak D5000 firmware version 13.04.0000.20 included some bug fixes.

2.1.   SR1.3.4 Bug Fixes

Ref #	Description	Fixed Revision
258589	CRM 20200806114538S: unable to join AD domain, fails for login failure.	13.04.0000.20
258653	Failed to delete "Data Sync Portal" via GUI and CLI command.	13.04.0000.20
259155	CRM 20200818125033S: iSCSI application issue in ESXi 7.0: variations of WARNING: iscsi_vmk: iscsivmk_ConnCommandResponse:2861: SCSI	13.04.0000.20

Ref #	Description	Fixed Revision
	command (opcode=0x84) completed successfully without enough data: 0 < 44 on all of esx hosts.	
259445	CRM 20200915064024S: AD does not update and group permissions do not work.	13.04.0000.20
257702	CRM 20200504082654S: watchdog reset on controller 2	13.04.0000.20
257972	Upgrade the nginx version to 1.18.0 for web server security issue.	13.04.0000.20
33502	Support a minutes schedule type (option of 10，30，60 minutes) for D5000/R3000 Thick clone task.	13.04.0000.20
255126	CTRL1 stay in 'This controller was (held on) reset by the partner controller' after DIU FW update	13.04.0000.20
258397	The volume become read only in Linux Host after completed remote migration during I/Os	13.04.0000.20
259073	Pool operational status stayed in transferring after FO/FB by 'shutdown -a restart -i 2'	13.04.0000.20
258832	Resume thick clone operation will failure when source pool become offline	13.04.0000.20
259075	Unexpected "Object of type 'Exception' is not JSON serializable " error while process of remote thick clone tasks	13.04.0000.20
252528 254616	Add new event for unexpected connection with JBOD (wrong SAS topology)	13.04.0000.20
258858	NAS share at inoperable state after user offline PDs and then force online PD to cause volume become critical status	13.04.0000.20
259098 258607 258445 258722 258767	Improve thick clone related handles	13.04.0000.20
254430	Failed to delete "Data Sync Portal" via GUI and CLI command.	13.04.0000.20
258601 258768	Improve NAS share related handle for capacity/usage display issue and user quota management	13.04.0000.20
259168	Improve SMB related handle to prevent high memory usage and unexpected smbd panic during SMB I/Os.	13.04.0000.20

3. SR1.3.3 Release Summary

VTrak D5000 firmware version 13.04.0000.16 included some bug fixes.

3.1. SR1.3.3 Bug Fixes

Ref #	Description	Fixed Revision
257416	Can't create new NAS share due to GUI show "NAS share capacity exceeds the maximum." if selected small than 1GB capacity Pool at first and then selected another one.	13.04.0000.16
257832	Unable to send out email notification but test email is fine	13.04.0000.16
257932	NASShare operation will not send out SNMP trap immediately but follow the next SNMP trap.	13.04.0000.16
257817	Fix for AL-FTP tool compatibility issue.	13.04.0000.16
248196	NAS IO should not be allowed through management portal IP.	13.04.0000.16

4. SR1.3.2 Release Summary

VTrak D5000 firmware version 13.04.0000.13 included Promise STSB (6G SAS to SATA bridge board) and bug fixes.

4.1. SR1.3.2 New Feature

Ref #	Feature	Description
RT-34449	Promise STSB	Promise STSB (6 Gbps SAS to SATA bridge board) support. It is to replace the Blackjack board, which is EOL.

4.2. SR1.3.2 Bug Fixes

Ref #	Description	Fixed Revision
256058	Pool might become "Unavail" after I/O running over 65 hours.	13.04.0000.13
255046	In FC loop topology with Windows client, IO might stop after restart both controllers in sequence.	13.04.0000.13
256198	Event logs not correct while "PDM" process triggered. It shows "Rebuild cannot be started on a smaller size PD".	13.04.0000.13
255962	System might fail to boot up after firmware update, if there is malfunction PD in the enclosure.	13.04.0000.13
256035	Instant rebuild is not started only when spare drives are plugged in.	13.04.0000.13
254822	If there are large amount of Standard Volume, slave controller may get stuck when booting	13.04.0000.13
256208	When use Standard Volume, data might temporally not synced when controller failover happen.	13.04.0000.13

Ref #	Description	Fixed Revision
255893 255863	When SSD Read Cache is configured, performance may drop dramatically and CPU usage keep 100% after restart CTRL1	13.04.0000.13
256229	I/O to the NAS Share (owned on CTRL 2) will stop running while restarting CTRL 1. (FOFB)	13.04.0000.13
255415	Can't click Send Test Email button after save email configuration	13.04.0000.13
256471	Scheduled Remote Thick Clone tasks can't work after shutdown and then restart destination subsystem.	13.04.0000.13
256239	NAS user/group ACL information is incorrect, when the corresponding group ACL is configured.	13.04.0000.13
256329	ACL page cannot show NAS user account information while boot up, but renew the page can work.	13.04.0000.13
256339	GUI File Browser response is slow when there are over 10,000 files in the folder.	13.04.0000.13
256457	Clear ACL in GUI, the "Deleting" status showing in wrong raw.	13.04.0000.13
256620	The tip appears garbled when invalid character is used in NAS folder name.	13.04.0000.13
255768	Cannot create Advanced pool while heavy I/Os with 5 more pools	13.04.0000.13
255968	PD become PFA after repeat create pool, remove PD, delete pool and insert PD	13.04.0000.13
256045	Fail to NDIU from SR1.1.1 to SR1.3	13.04.0000.13
256310	Ctrl1 stayed in 'This controller was (held on) reset by the partner controller' after 'shutdown -a restart -i 1' during FOFB test	13.04.0000.13
255530	PD medium error cause I/O stop .	13.04.0000.13
256729	IO stopped during failover/failback and both Ctrl1&2 were on rolling reboot.	13.04.0000.13
256797	Inconsistent blocks (truly inconsistent) during Write-Hole test.	13.04.0000.13
256047	CTRL1's standard pool became missed after normal IO and restart it by GUI	13.04.0000.13
256060	CTRL can't boot up (stop at starting i2), after NDIU from SR1.1/1.2 to SR1.3	13.04.0000.13
256092 256096	CTRL2 can't boot up, after NDIU update FW from FCS to SR1.0, or SR1.1 to SR1.3.1	13.04.0000.13
256138	set ACL (windows ACL) it stay in "ACL queue" for long time and didn't apply to NAS share	13.04.0000.13
256167	Posix ACL setting(user1/Read-Write) was gone after NDIU upgrading from SR 1.1 to SR1.3.1	13.04.0000.13
256210	Fail to extend standard NAS share capacity	13.04.0000.13
256032	GUI display "Disable-Running" status after disabled NFS protocol	13.04.0000.13
256039	ACL deadlock and all folder in "Adding" state after assigned permission to a folder	13.04.0000.13
255760	Where there is Incomplete Pool, GUI may pup up alert message "could not convert string to float: (0x4100104)" when click Pool icon	13.04.0000.13

Ref #	Description	Fixed Revision
256342	Create standard NAS share success but the share didn't appear in subsystem	13.04.0000.13
256345	Import License successfully, but current license information is "expired" "remaining:0 Days"	13.04.0000.13
256350	Snapshot IDs are assigned disorderly, least seen when NAS shares created in standard pool exists.	13.04.0000.13
256333	In GUI, repair related details are missing in NAS Share Information page.	13.04.0000.13
256156 256425	Fail to delete standard NAS share	13.04.0000.13
256366	Fail to create Clone when CTRL doing failover process	13.04.0000.13
256326	In CLI, RepairProgress stays in -1% after repairing the NAS share created in standard pool for approximately 30 min	13.04.0000.13
256468	Fail to repair Standard NAS Share after reboot subsystem	13.04.0000.13
256469	In CLI, unable to view Repair related details in non-preferred Controller even after repairing the NAS share	13.04.0000.13
255521	Improve the description and not to show "Failed to start thick clone: Fail to map data key. (0x4100105)" for remote	13.04.0000.13
255889	For NAS share, no detailed description provided for repair modes 'normal' and 'forcezero', in CLI help (nasshare -h)	13.04.0000.13
256036	Pool is doing rebuilding process, but no display rebuilding status in Pool list	13.04.0000.13
256588	CTRL2's pool became "missed" status after CLI restart subsystem	13.04.0000.13
256009	After drive failure NAS Share was not accessible	13.04.0000.13
256693	Hit "Error (0x1102): Request has timed out" when execute "factorydefaults -a restore -t syslog"	13.04.0000.13
256725	Can't re-name file when ACL use Read-Write permission.	13.04.0000.13
255523	CTRL cannot boot success when restart partner CTRL for several times	13.04.0000.13

4.3.   SR1.3.2 Errata & Known Issues

Ref #	Description	Workaround/Solution
256905	All Standard NAS share disappear after start IO (6 FC Volume, 6 iSCSI Volume, 2 Standard Share) around 20 minutes.	Avoid running stress IO on FC/iSCSI Volume and NAS in the same time.
	When create Standard NAS share during heavy IO to volume with same pool, the NAS share created but stay in "unmounted" status and Host cannot discover NAS share.	Workaround steps: - Stop all IO, then new created NAS share become "mounted" status - Disable and enable the NAS share smb protocol, then host side can discover/access the NAS share

5. SR1.3.1 Release Summary

VTrak D5000 firmware version 13.04.0000.11 introduces the NAS Share on Standard Pool. The Standard NAS Share provides all basic NAS functions, and good performance for media streaming application, especially when there are multiple ingest and playback streaming running in the same time.

5.1. SR1.3.1 New Feature

Ref #	Feature	Description
RD-8203	Standard NAS Share support	Support NAS Share on Standard Pool, which is more suitable for media streaming application. It provides all basic NAS functions, 1. SMB/NFS/FTP/HTTP 2. Local/Domain User/Group 3. ACL 4. Quota 5. Cloud backup.
RD-8205	Case-insensitive option for NAS Share	Fro case-insensitive OS like Windows and MacOS, list file operation in NAS Share may become slow when there are more files in a directory. Enable this option to optimize the performance with Windows and MacOS.
RD-7971	ACL Improvement	Improve the time when applying ACL recursively. Fix POSIX ACL problem for different users in the same group.

5.2. SR1.3.1 Bug Fixes

Ref #	Description	Fixed Revision
253732	Pool status might become "missed", when doing disk roaming from other subsystem, and do accept the incomplete Pool	13.04.0000.11
251692	During Battery charge, battery status gets stuck in Charging and does not go to FullyCharged status	13.04.0000.11
255159	BBU LED shows red, but the BBU is normal.	13.04.0000.11
255672	Failed to restore NAS Setting as default, an error message "Fail to reset setting." is shown on the screen	13.04.0000.11
255683	Failed to create Cloud Backup task on controller2 NAS Share.	13.04.0000.11
255720	Create a Cloud Backup task with new NAS Share, task may get stuck at idle.	13.04.0000.11
255775	Can't access NAS shares that owned on CTRL 2 after upgrading firmware from between SR1.3 and SR1.3.1. It also happens when restart subsystem.	13.04.0000.11
255820	Replace one controller might cause WORM function abnormal.	13.04.0000.11

Ref #	Description	Fixed Revision
255810	When NAS Share file path uses Simplified Chinese characters and space character, GUI/CLI cannot show the correct Pool/Volume/Share information when clearing extended attitude of Windows NT ACL. It also happens when switch between POSIX ACL and Windows (NT) ACL.	13.04.0000.11
254700	When old bug cause controller hang, press RSVD and boot up system may cause Memory Write Cache lost and pool degraded.	13.04.0000.11
256060	NDIU to SR1.3 failed. One controller (original master) updates to SR1.3 (13.04.0000.06), but the other controller keeps in old firmware version. To work around it, please hotplug the controller in SR1.3 firmware. Both controller firmware will be synced to old firmware. Then do NDIU to 13.04.0000.11.	13.04.0000.11

5.3. SR1.3.1 Errata & Known Issues

Ref #	Description	Workaround/Solution
255909	When Standard Pool status is "Critical" or "Degraded", NAS Share create is fail.	This is the same limitation as Standard Volume. Please replace the abnormal disk to resolve the "Critical" or "Degraded" state before creating new Standard Volume or NAS Share.

6. SR1.3 Release Summary

VTrak D5000 firmware version 13.04.0000.06 introduces the new features, including Thick Clone, Phone Home, Cloud Backup, WORM, Compression and De-dup. Some features need license to activate, and some features requires more memory support.
It also contains several bug-fixes for SR1.2. The detail information is listed below. For the additional compatibility list, please refer to the compatibility list on Promise web site.

Please note, the new feature will not work after downgrade from SR1.3 to lower revision.

6.1. SR1.3 New Features

Ref #	Feature	Description
RD-7968	Local/Remote Thick Clone	It's under the control of Perfect Metro license. Thick Clone combines snapshot and replication to provide an expert of data backup and recovery. It can prevent data loss from accidental deletion, application crashes, data corruption, and viruses. Thick Clone works for both Volume and NAS Share.

Ref #	Feature	Description
RD-7969	Phone Home	The Phone home function is an automatic handle scheme for FRU failure detection and notification. When D5000 SW received critical events which belong to FRU or hardware component, SW will send notification email to customer and send an API call to Promise CRM to created CRM ticket automatically. When phone home case is created, CRM will send a notification email to customer (product registered email account). TS (technical support) team check case and then set up a backend process to advance replace a FRU spare and recover the original failed unit.
RD-7745	Cloud Backup	It's under the control of Perfect Cloud license and works for NAS Share only. The feature supports file backup/restore with 7 cloud services, including Aliyun, Amazon S3, Azure Blob, Dropbox, Google Drive, OneDrive, and OpenStack Swift.
RD-7683	WORM	It's under the control of Perfect Lock and works for NAS Share only. The feature avoids the modification for the existing data. Data in shared folders can only be written, and cannot be deleted or modified to ensure data integrity within the retention period.
RD-7967	Inline Compression	Compression works for both Volume and NAS Share
RD-7966	Inline De-dup	128G DRAM is required for De-dup support. De-dup works for both Volume and NAS Share. The de-dup-enabled blocks in the same Pool are checked.
RD-7970	New SMB Options	Support recycle-bin and SMB multi-channel options.
RD-7971	ACL Improvement	Improve the time when applying ACL recursively. Fix POSIX ACL problem for different users in the same group. * POSIX ACL has to be reconfigured after firmware update. The speed for this configuration will be much faster.

6.2.   SR1.3 Bug fixes

Ref #	Description	Fixed Revision
254105	IO performance down and GUI slow(login took 2 minutes) around 20~30 minutes after refresh AD account/group	13.04.0000.06
254517	When there is command from non-optimized path, and backend IO busy aborted, it might cause controller crash.	13.04.0000.06
254067	In OpenStack cluster or VMware cluster environment, IO may hang randomly after running several weeks.	13.04.0000.06
254113	"Windows ACL" setting was changed from "Yes" to "No" after DIU upgraded firmware from SR1.1 to SR1.2.	13.04.0000.06
254259	In SR1.2 firmware, when NAS Share is created only on the slave controller, the master controller cannot run NAS protocol correctly, and GUI shows error in protocol page.	13.04.0000.06

Ref #	Description	Fixed Revision
252080	In SR1.2 firmware, host IO abort through iSCSI may not be able to abort the correct command.	13.04.0000.06
254960	Support CIDR format in NFS allow IP page	13.04.0000.06
254349	In SR1.2 firmware, new NAS Share may have default ACL configuration and cannot be deleted.	13.04.0000.06
254752	Use Emulex FC 16G HBA in point-to-point mode in Cent OS 7.0, reboot host may not able to discover the D5000 LUN automatically.	13.04.0000.06
254816	When unexpected power lost occurs, ACL for AD account might be incorrect.	13.04.0000.06
255115	NAS account may be cleared after doing NDIU	13.04.0000.06

6.3. SR1.3 Errata & Known Issues

Ref #	Description	Workaround/Solution
249102	When "CacheMirroring" is disabled, Pool(s) affinity to secondary controller goes to degraded after Power cycling the subsystem.	Always keep "CacheMirroring" enabled.
255163	When Volume Block size is 4K, compression will not be triggered.	Please use 8K and larger block size for compression.
254938	If user enable Compression or De-dup for Thick-Provision Volume, then disable and downgrade to SR1.2, the "Used Capacity" might not be accurate.	Avoid enable and disable SR1.3 features, and then downgrade to SR1.2.

7. SR1.2 Release Summary

VTrak D5000 firmware version 13.03.0000.12 introduces many new features. It also contains several bug-fixes for SR1.1.3. The detail information is listed below. For the additional compatibility list, please refer to the compatibility list on Promise web site.

Please note, it is not allowed to downgrade from SR1.2 to lower revision.

7.1. SR1.2 New Features

Ref #	Feature	Description
RD-7428	Standard Pool/Volume	In SR1.2, we introduce the Standard Pool/Volume, which provides better performance but doesn't support any data service like thin-provision, snapshot. The Pool that supports data service and NAS share is now renamed as Advanced Pool. Here are the major characteristics for Standard Pool.

Ref #	Feature	Description
		1. Better performance but no data service support, including thin-provision, snapshot, clone, replication, NAS share. 2. Except data service and NAS, other specifications are similar to Advanced Pool. Standard Volume and Advanced Volume shares the same RAID mode spec, lunmap setting, spare drive setting, bga behavior, dashboard information, performance monitor. 3. Detail differences for Standard Pool and Advanced Pool - For hybrid-RAID mode (R50, R60), if the HDDs are different capacity, the Standard Pool will use the smallest disk as base for all axles. While in Advance Pool, every axle can use different base of disk size. - Max Volume on a Standard Pool is 31. Max volume on an Advanced Pool is 32. - Cannot create Volume on a Standard Pool which is in "critical" and "degraded" state.
RD-7423	File Manager for NAS ACL	Provide NAS Share/Folder/File ACL Management on WebPAM. It supports configuring either Windows ACL or POSIX ACL.
RD-7915	Block VAAI	Both Standard and Advanced Volumes support VMWare VAAI through FC and iSCSI interface. VAAI features including HW Assisted Locking, Full Copy and Block Zero. UNMAP and Thin Provisioning Stun, are supported for Advanced Volume only.
RD-7699	NAS VAAI	Support NAS NFS Native SS for LC, Space Reserve, File Cloning and Extended Stats by using PRM-ESX-VTrakD5000NasPlugin.
RD-7422	Volume Replication	Support Online Replication and Migration for Advance Volume.
253330	Terminology Change	Change the terminology of management port IP address to avoid confusing Floating IP --> Subsystem Management IP Static IP --> Controller Management IP
253163	Controller activity LED behavior change	The original Controller activity LED policy only reference FC port status. The new policy will reference iSCSI port as well.

7.2.   SR1.2 Bug fixes

Ref #	Description	Fixed Revision
251086	OPAS update firmware not work.	13.03.0000.12
251653	Once configure vlan, system will crash and cannot boot up successfully.	13.03.0000.12
250918	Advanced pool might be auto detached from Memory Write Cache, after restart ctrl1 when battery is recondition	13.03.0000.12
251649	Battery recondition doesn't work in some cases.	13.03.0000.12
253129	Show the sector size when sector size is not 512 bytes.	13.03.0000.12
253062	Fix incorrect information in LUN Map online help.	13.03.0000.12

Ref #	Description	Fixed Revision
252677	Command 'swmgt -n email' show 'Password' not encrypted.	13.03.0000.12
252172	Firmware update by WebPAM may fail if there are controller failover and failback for many times.	13.03.0000.12
252713	When there are 127 or more snapshots, running IO and restart controller may take 20 minutes.	13.03.0000.12
251728	Change snapshot sorting by time, instead of name.	13.03.0000.12
253405	VTrak D5000 cannot detect drives in J5910/J5920 after using 110v power source.	13.03.0000.12
253127	CRM 20190414171358S: Controller 1 went offline. Create large amount of directory on NAS share, and list the share frequently will cause memory leak and controller offline.	13.03.0000.12
253182	In multiple VMware ESXi cluster environment, IO may hang after running for several months.	13.03.0000.12
253047	CRM 20190514090733S: When joining an AD domain, legal usernames with a '.' in them cannot be used to authenticate.	13.03.0000.12
251938	Plug-out Dedicated Spare Disk and then plug-in, the spare disk cannot be configured.	13.03.0000.12
253359	For phydrv -v command, WriteIoRequest is always 0.	13.03.0000.12
253545	"Time Zone" and "Pair" Settings failed while executing "Restore Factory Default" for all items.	13.03.0000.12
253260	Do stress IO on SEAGATE ST10000NM0096, subsystem will report many disk timeout event.	13.03.0000.12
253611	NAS local account was synced to flash if abnormal shutdown.	13.03.0000.12
253751	Manually rebuild doesn't work for the Pool which was extended before.	13.03.0000.12
253808	In a rare case, controller may crash when used dead drive to do manually rebuild.	13.03.0000.12
253811	In 13.02.0000.27, "PhotoMesh Fuser" might have the issue "Failed to read file" when access via SMB.	13.03.0000.12
253796	Battery recondition will cause system running in writethrough mode, and performance drop for some time.	13.03.0000.12
252421	Restart subsystem when battery is low or malfunction, event still show battery is normal.	13.03.0000.12
253816	Manually stop the rebuild for spare drive, and do hotplug the drive. It cannot be used for rebuild again.	13.03.0000.12
253997	Refresh user account in GUI will cause SMB IO stop. Client has to resume IO manually.	13.03.0000.12

7.3.   SR1.2 Errata & Known Issues

Ref #	Description	Workaround/Solution
251389	If not using recommended MPIO/Multipath configuration, IO may be slow. And Promise PerfectPath will not support Windows Server 2016.	Please refer to the technical note for MPIO/Multipath configuration.
249771	It is not allowed to downgrade from SR1.2 to SR1.1 firmware.	N/A
250875	ACL setting cannot work when NAS Share is full.	Please delete files to release the Share space or extend the Share.
248561	NAS I/O might be very slow if there is SAN I/O (FC/iSCSI) running on the same pool.	Separating SAN I/O (FC/iSCSI) and NAS I/O (SMB) into different pools
250126	Use FC and iSCSI on the same host. Map all volume to FC initiator first, and then map some volume to iSCSI initiator. Windows might not able to see the volume mapped to iSCSI.	Do iSCSI logout and login, the volume can be discovered.
252813	Trunk port cannot be deleted when there is portal configure on it.	The design is to keep the Trunk port symmetric configured, so that the portal failover can work correctly. To reconfigure Trunk port, please remove all portals on it first.

8. SR1.1.3 Release Summary

VTrak D5000 firmware version 13.02.0000.27 contains several bug-fixes for SR1.1.2. No major feature changes for this version. For the additional compatibility list, please refer to the compatibility list on Promise web site.

8.1. SR1.1.3 Bug fixes

Ref #	Description	Fixed Revision
252861	Time zone settings show Los Angeles as UTC-9, LA is UTC-8	13.02.0000.27
252662	Change copyright date(s) to 2019	13.02.0000.27
252612	When running ACL setting for large amount of files, NAS performance will drop dramatically.	13.02.0000.27
252422	When doing NDIU from 13.02.0000.14 to 13.02.0000.18, transfer failed. The volumes which are owned by ctrl-1 are all stopped!	13.02.0000.27
252308	Host FC may link down for a short time and then link up. In a rare condition, controller may hang and cannot failover successfully.	13.02.0000.27
251833	In a rare condition, dashboard performance monitor is not updated.	13.02.0000.27

Ref #	Description	Fixed Revision
251861	You cannot copy a filename that starts with a dot underscore (._filename.txt) to a D5000 NAS filesystem, you get a file not found error.	13.02.0000.27
251711	Trunk failover does not work.	13.02.0000.27

8.2. SR1.1.3 Errata & Known Issues

Ref #	Description	Workaround/Solution
248561	NAS I/O might be very slow if there is SAN I/O (FC/iSCSI) running on the same pool.	Separating SAN I/O (FC/iSCSI) and NAS I/O (SMB) into different pools
250126	Use FC and iSCSI on the same host. Map all volume to FC initiator first, and then map some volume to iSCSI initiator. Windows might not able to see the volume mapped to iSCSI.	Do iSCSI logout and login, the volume can be discovered.
251086	OPAS update firmware not work.	Please use Web GUI for firmware update. OPAS update firmware will be supported in later release.
252813	Trunk port cannot be deleted when there is portal configure on it.	The design is to keep the Trunk port symmetric configured, so that the portal failover can work correctly. To reconfigure Trunk port, please remove all portal on it first.

9. SR1.1.2 Release Summary

VTrak D5000 firmware version 13.02.0000.18 contains several bug-fixes for SR1.1.1. VTrak JBOD J5910/J5920 is introduced in this version for certain region of Promise channel. For the additional compatibility list, please refer to the compatibility list on Promise web site.

9.1. SR1.1.2 Bug fixes

Ref #	Description	Fixed Revision
251341	Hot plug controller2, some HDD models might be marked DEAD. Only found such issue with ST2400MM0129 and AL14SEB120N. Update firmware to 13.02.0000.18 can solve the problem.	13.02.0000.18
251486	Stress test for over one week, one host IO may timeout, or one controller may unexpectedly restart.	13.02.0000.18
250923	First one dedicated Spare was deleted and the others dedicated Spare still there after deleting the Pool directly.	13.02.0000.18
250802	Create 8 dedicated Spare Drive for a Pool. Unknown Spare Drive might show	13.02.0000.18

Ref #	Description	Fixed Revision
	in VTrak D5000.	
251096	ptiflash versioninfo 'Enclosure X Running Image Info' is blank at least for attached Promise JBODs.	13.02.0000.18
251071	If GUI is opened from slave controller, service report cannot be downloaded.	13.02.0000.18
250921	Failed to create Raid5/6 pool with >32 phydrvs which returns "Error (0x49846202): Invalid physical drive count in an axle"	13.02.0000.18
249473	Unable to create volume when capacity is not mentioned explicitly, and it fails with the "Error (0x4100107): Fail to create Volume"	13.02.0000.18
248126	With NFS 4.1 connections, Data miscompare occurs during/after Ctrl fail-over/back when running I/O via IO portals	13.02.0000.18
251438	IO failure may occur on fail over, seems because pool(s) stay in 'missing' state for long time	13.02.0000.18
251533	Failed to create dedicated spare when Pool ID is >=20, it returns "Error (0x2013): Invalid setting parameters, specified pool not found"	13.02.0000.18

9.2.   SR1.1.2 Errata & Known Issues

Ref #	Description	Workaround/Solution
248561	NAS I/O might be very slow if there is SAN I/O (FC/iSCSI) running on the same pool.	Separating SAN I/O (FC/iSCSI) and NAS I/O (SMB) into different pools
250126	Use FC and iSCSI on the same host. Map all volume to FC initiator first, and then map some volume to iSCSI initiator. Windows might not able to see the volume mapped to iSCSI.	Do iSCSI logout and login, the volume can be discovered.
251086	OPAS update firmware not work.	Please use Web GUI for firmware update. OPAS update firmware will be supported in later release.

10.   SR1.1.1 Release Summary

VTrak D5000 firmware version 13.02.0000.14 contains several bug-fixes for SR1.1. No major feature changes for this version. For the additional compatibility list, please refer to the compatibility list on Promise web site.

10.1. SR1.1.1 Bug fixes

Ref #	Description	Fixed Revision
250397	When using Windows Cluster in FC environment, LUN mapping might not work after host reboot, volume cannot be discovered by host then. For users who do not use LUN mapping in Windows Cluster and FC environment, the issue can be ignored.	13.02.0000.14
250490	NAS user login works only for Chrome, Safari, Opera, but not for Firefox, Edge and IE.	13.02.0000.14
250381	NAS Group Member only show 20 NAS users.	13.02.0000.14
250149	Restore NAS setting to factory default, will delete all periodic snapshot (both volume, NAS share) job.	13.02.0000.14
250071	"showmount –e" command not show NAS share clone and snapshot.	13.02.0000.14
250131	Periodic Snapshot still running even disables it.	13.02.0000.14
250092	Controller might not restart successfully when use GUI to restart, then click "Log out" button.	13.02.0000.14
250075	Fail to delete folder via HTTP/HTTPS protocol	13.02.0000.14
249720	Fail to modify NAS share when create the NAS share and use "max capacity" option	13.02.0000.14
250055	Some LUN map operation procedure may cause the incorrect LUN map result. An example procedure is shown below, 1. Create two volumes. 2. Map volume 1 to 0. Scan LUN from host. 3. Modify lun mapping setting. Let volume 0 map to 0. Volume 1 map to none. 4. Scan from host.	13.02.0000.14
250093	Trunk deletion may fail after controller failover and failback. Detail step as below. 1. Create Trunk0 on CTRL1. Trunk1 on CTRL2. 2. Create a portal on Trunk0. 3. Reboot CTRL1. 4. After CTRL1 failback, delete Trunk1. 5. Delete fail.	13.02.0000.14
249848	NAS user with read-only permission can delete write and delete the file in the NAS Share.	13.02.0000.14
249309	Modification on AD server doesn't sync to D5000 GUI.	13.02.0000.14
249735	Fail to delete NAS Share where there is NFSv4 client mounted.	13.02.0000.14
249835	Cannot change local user password when join AD domain.	13.02.0000.14
249650	If there are multiple AD server configured as trust domain, but some AD servers are not online, KDC value may become empty.	13.02.0000.14

10.2.   SR1.1.1 Errata & Known Issues

Ref #	Description	Workaround/Solution

250348	When there are huge number of files & folders in the root path of a NAS share, Mac's smb protocl can mount 1PB NAS Share, but might auto unmount after 5 minutes.	This is because Mac takes too long time to list the SMB root path. User should either reduce the file and folder numbers in the root path or modify Mac configuration as below.
		
		Using terminal command "vim /etc/nsmb.conf" on Mac, and adding follow lines.
		
		Note that you must be logged in as an administrator with sudoer privileges to set this file.
		
		`[default]`
		`signing_required=no`
		`max_resp_timeout=180`
		`dir_cache_max_cnt=0`
		`protocol_vers_map=1`

247570	Multipath I/O (MPIO) application in Windows Server 2016	Windows Serve 2016 MPIO has good support for ALUA, we suggest customer to use native MPIO driver for Windows Server 2016. Please follow procedure below to manually add the "Promise Vtrak" model to Microsoft MPIO DSM 1. Search and execute MPIO tool via Server Manager 2. Follow steps in MPIO tool as below. MPIO → Under MPIO Devices → Click add button → Add the Model "Promise VTrak" 3. Reboot Client for the change to be effected.

11.   SR1.1 Release Summary

VTrak D5000 firmware version 13.02.0000.05 is the first official release. It is designed for Windows, Mac and Linux environments.

1.1.   SR1.1 Errata and known issues

Ref #	Description	Workaround/Solution

12.   Contacting Technical Support

PROMISE Support Website at http://www.promise.com/support

PROMISE E-mail Support at http://support.promise.com/

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