

VTrak[®] Ex30 Series

Ex30 SR6.2 Release Notes

FW 10.17.2270.00

IMPORTANT NOTE: If you are currently using a Firmware Version of 4.09.xxxx.xx or before, you must first upgrade to VTrak EX30 Firmware SR4 version 4.10.0000.00 before flashing this Firmware.

1. Release Summary

VTrak firmware version **10.17.2270.00** is a point release update to the SR6.1 Release. It is designed for Windows, Mac and Linux environments. It contains all of the added features of the previous release:

- Support for connecting members of the Promise J5000 family of JBODs at 6Gbs.
- TRIM support for (1) SAS SSD's if they support SCSI UNMAP, and (2) SATA SSD's if they support TRIM RZAT (DZAT) and are connected with a Blackjack interposer (available from Promise).

In addition the SR 6.2 Release contains the following fixes:

Ref #	
220979	Addressed corner case reboot loop condition that could occur in the previous SR 6.1 Release in either of these 2 conditions: <ul style="list-style-type: none"> • When a rebuild was trying to start during boot with configured PD's missing in an array. • During a boot with configured PD's missing in an Array that contained spares.
221323	Addressed a small corner case SW problem with memory battery module
220841	Addressed a long term manageability issue when VAAI is enabled.
221028	Addressed a case seen when SATA PD's are attached using AMUX's which could result in a reboot loop.
126159	Enhanced the internal diagnostic information for completeness when two J930's are attached to the EX30
219693	Enhanced functionality for Controller's SSD TRIM Support which would get enabled when the user enabled "coercion" in the GUI.
220761	Change made so that a Host System will be able to see LD 0 even when LUNMap is enabled and LD0 is mapped to a non-zero LUN .

This document is applicable to the following PROMISE VTrak Ex30 series models:

Model	Description
VTE830fD	4U/24 FC, dual controller
VTE830fS	4U/24 FC, single controller
VTE630fD	3U/16 FC, dual controller
VTE630fS	3U/16 FC, single controller

This Release continues its support for the EX30 to be used as a Node in a Promise A-Class Network File System High Availability Cluster with any of the following A-Class Enclosures and the G1100 NAS Gateway.

Model	Description
A3800fDM	4U/24 FC, dual controller
A3800fSL	4U/24 FC, single controller
A3600fDM	3U/16 FC, dual controller
G1100	NAS Gateway

The supported platforms for this release include:

Vendor	Platform	Type	Multipath
Microsoft	Windows Server 2008 SP2	x86/x64	PerfectPath 4.1.0.8
	Windows Server 2008 R2	x64	PerfectPath 4.1.0.8
	Windows Server 2012 R2	X64	PerfectPath 4.1.0.8
Apple	Mac OS X 10.9	X64	
	Mac OS X 10.10	X64	
RedHat	Enterprise Linux 6.3	x86/x64	PerfectPath 0.0.0.9
	Enterprise Linux 6.5	x86/x64	PerfectPath 0.0.0.9
	Enterprise Linux 6.6 (2.6.32-504.el6.x86_64)	X64	PerfectPath 0.0.0.9
SUSE	SLES 11 SP2(3.0.13-0.27-default)	X64	PerfectPath 0.0.0.9
	SLES 11 SP3(3.0.101-0.8 x86_64)	X64	PerfectPath 0.0.0.9
VMware	ESX Server v6.0	x64	Embedded

The supported Expansion subsystems include:

Vendor	Platform	Description
Promise	VTrak J630s	3U/16-bay 6Gbs SAS to 6Gbs SAS/SATA
	VTrak J830s	4U/24-bay 6Gbs SAS to 6Gbs SAS/SATA
	VTrak J930s	4U/60-bay 6Gbs SAS to 6Gbs SAS

Vendor	Platform	Description
Promise	VTrak J5320s*	2U/24 JBOD 12Gbs SAS to 12Gbs SAS/6Gbs SATA, 2.5" Drive Bays
	VTrak J5300s*	2U/12 JBOD 12Gbs SAS to 12Gbs SAS/6Gbs SATA
	VTrak J5600s*	3U/16 JBOD 12Gbs SAS to 12Gbs SAS/6Gbs SATA
	VTrak J5800s*	4U/24 JBOD 12Gbs SAS to 12Gbs SAS/6Gbs SATA

*Connection to the EX30 is at 6Gbs

Please Note: The 10.17.2270.00 firmware will update any attached VTrak J630's or J830's to Expander version 6.14.0000.05 which is the supported version for this firmware. (This doesn't apply to the J930 or the J5000 family). Jx30's that will be directly attached to a SAS HBA should not be upgraded. Please reference the Firmware Upgrade Procedure in the product manual available online at www.promise.com

2. Product Restrictions

Ref #	Description	Workaround/Solution
	OPAS is not started when two specific models of USB device are inserted, even though the subsystem detects the devices.	Try different brands of USB device. Refer to the compatibility list.
	During failover/failback of primary Ctr1, Windows Veritas Cluster node faults causing lost volume.	This is a limitation. It only works with Veritas DDI Q2 DSM5.1 for Windows.
	If you mistakenly completely reboot the RAID head before you boot an attached expansion chassis (JBOD), arrays may not come online. (5687367)	Always boot any attached JBOD's before booting the Ex30
219390	For SSDs: The mixing of SAS and SATA SSD drives in the same array is not supported	Don't configure Arrays with a mixture of SAS and SATA SSD's.
	Mixing Trim supporting SSDs and Non-TRIM supporting SSDs in the same array is not supported.	Don't configure Arrays with a mixture of SSD drives that support TRIM with drives that don't support Trim. A drive

Ref #	Description	Workaround/Solution
		that does not support TRIM will be displayed as a regular HDD in the GUI.

3. Current Ex30 Limitations

Ref #	Note	Workaround/Solution
General Ex30 Controller Information		
<u>219806</u>	If there is an SSD configured in the Ex30, flashing the SR5.0 build Firmware (10.13.2270.59) to the SR6.2 build Firmware (10.17.2270.00), the logical drive in the SSD goes to the Offline state in Windows Disk management.	Go into Disk Administrator and force the drive back online
<u>219374</u>	<p>If there are SATA drives in the Ex30, as per firmware design, the Blackjack firmware that is the interface to SATA drives will be only updated on the master controller.</p> <p>In NDIU case going from SR5.0 build Firmware (10.13.2270.59) to the SR6.0 build Firmware (10.17.2270.00), when the first controller updates to the new Firmware, it comes up as slave. So Blackjack firmware is not updated. And when the second controller is updated, the first controller becomes master by the failover process. So PD discovery doesn't happen and the Blackjack firmware doesn't get updated.</p> <p>As a work around, system need to be rebooted for Blackjack firmware update.</p>	When using the NDIU option with SATA drives in the Ex30 enclosure, reboot the Ex30 when going from SR5.0 build Firmware (10.13.2270.59) to the SR6.0 build Firmware (10.17.2270.00).
<u>126187</u>	If the configuration has VAAI enabled and LUN Affinity is enabled and there is a background synch running on a RAID 5 or RAID 6, it is possible for there to be some data corruption during an Extended Copy command. It is suggested that users disable LUN Affinity if they have VAAI enabled.	Disable LUN affinity if VAAI is enabled. This is usually only enabled when VMWare 5.x support is required.

Ref #	Note	Workaround/Solution
<u>126237</u>	Inconsistent blocks can occur if the controller reboots during a Quick initialization on a RAID 1E.	Run full initialization on a RAID 1E.
<u>126262</u>	If an Ex30 subsystem is rebooted during a Rebuild, on a rare occasion it was seen that one of the controllers was hung after booting up. The user can either remove and replace the controller or, optionally, reboot the chassis.	Either remove and replace the controller or, optionally, reboot the chassis.
<u>126269</u>	When migrating from a RAID 10 to a RAID 1e, if a controller failover occurs, the booting controller could get hung during the boot. The user can either remove and replace the controller or, optionally, reboot the chassis.	Either remove and replace the controller or, optionally, reboot the chassis.
<u>126246</u>	If an array is created with the maximum number of LD's (32) on a RAID 1e, sometimes a subsystem lock can occur.	Retrying the command to create the LD's should succeed.
<u>219627</u>	When flashing an Ex30 that has mixed JBODs attached that include both to J5000s and J930s, sometimes Controller 2 goes into maintenance mode	Either disconnect the J930 JBOD before flashing, or if the controller goes into Maintenance mode, rebooting the Controller in Maintenance mode should resolve the problem.
<u>220105</u>	After removing a Spare drive and reinserting it, or inserting a new drive in any slot, the drive may not be seen or be marked as "not useable". Rebooting the Controller fixes this.	Users who wish to remove a spare should delete the spare and then remove it. If a newly inserted drive is not useable because this procedure wasn't followed, then rebooting the controller may fix this issue.
<u>216432</u>	Deleting multiple "Logical Drives" can sometimes cause a Mac host to reboot when connected through a Promise SANLink2.	Avoid deleting multiple LD's at the same time with this configuration if it is imperative that the host not reboot.
Software Issues		
<u>221229</u>	In MAC OS X, if LD0 is mapped to a NON ZERO LMM entry AND if the Capacity is expanded (migration), the new capacity is not reported in Mac OS x without a reboot of the OS X Host	Reboot the OS X host in such an instance following a Capacity Expansion.

Ref #	Note	Workaround/Solution
<u>219116</u>	When and EX30 has a mixture of both J5000 and Jx30 JBODS, removing a cable could result in the last JBOD not being displayed in the GUI.	Reinserting the missing cable and restarting the controller that has gone into maintenance mode solves the problem.
<u>218975</u>	If the PSU1 is removed from a J5600 (3U16), the GUI Operational Status is "Powered On and Functional" when it should be "N/A".	Ignore the incorrect status in the GUI.

4. Contacting Technical Support

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

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

PROMISE Disclaimer

Notice:

Although PROMISE Technology, Inc. has attempted to ensure the accuracy of the content of this document; it is possible that this document may contain technical inaccuracies, typographical, or other errors. PROMISE Technology assumes no liability for any errors in this publication, and for damages, whether direct, indirect, incidental, and consequential or otherwise, that may result from such error, including, but not limited to loss of data or profits.

PROMISE Technology provides this publication "as is" without warranty of any kind, either express or implied, including, but not limited to implied warranties of merchantability or fitness for a particular purpose. The published information in the manual is subject to change without notice. Promise Technology reserves the right to make changes in the product design, layout, and driver revisions without notification to its users. This version of this document supersedes all previous versions.

© 2015 PROMISE Technology, Inc. All Rights Reserved. PROMISE, the PROMISE logo, VTrak, SmartStor, SuperTrak, FastTrak, VessRAID, Vess, PerfectPATH, PerfectRAID, SATA150, ULTRA133 and GreenRAID are registered or pending trademarks of PROMISE Technology, Inc. in the U.S. and other countries. All other trademarks are the property of their respective owners. Information regarding products, services and offerings may be superseded by subsequent documents and are subject to change without notice.