VTrak Ex30 SR3 Compatibility List

Updated 1/3/2013

Supports Service Release 3
Date of Service Release: 08/24/2012

VTrak Systems Covered:

- **VTrak E630f** – 3U/16-bay 8Gb Fibre to 6Gbs SAS/SATA RAID System
- **VTrak E830f** – 4U/24-bay 8Gbs SAS to 6Gbs SAS/SATA RAID System
- **VTrak J630s** – 3U/16-bay 3Gbs SAS to 6Gbs SAS/SATA Expansion JBOD System
- **VTrak J830s** – 4U/24-bay 6Gbs SAS to 6Gbs SAS/SATA Expansion JBOD System
- **VTrak J930s** – 4U/60-bay 6Gbs SAS to 6Gbs SAS Expansion JBOD System

System Versions Covered:

- **VTrak Ex30 BootLoader**   – Version 0.19.0000.30 [Jan 10, 2011]
- **VTrak Ex30 Firmware**   – Version 4.09.0000.00 [June 15, 2012]
- **VTrak Ex30 Software**   – Version 4.09.0000.00 [June 15, 2012]
- **6Gbs VTrak Jx30s Firmware**   – Version 6.13.0000.08 [Apr 06, 2012]
- **6Gbs J930 Firmware**   – Version 5.02.0000.02 [June 01, 2012]
- **Windows PerfectPath MPIO DSM**   – Version 4.00.0000.00 [WHQL Certified]

Document History

Date	Editor	Revision	Deviation
05/05/2012	R Thomas	1.0	1. Initial list for VTrak Ex30 SR3 Compatibility
06/18/2012	R Thomas	1.1	2. Updated version details for SR3 release
08/08/2012	R Brose	1.2	3. Footnote for Intel 320 SSD's other than 300GB
08/24/2012	R Brose	1.3	4. Added Hitachi 4TB and A222 FW to 7K3000
09/06/2012	R Brose	1.4	5. Change Intel 710 SSD Part number, Corrected SSD Types
10/17/2012	R Brose	1.5	6. Added support for Cisco 9124
01/02/2013	R Brose	1.6	7. Added WD RE SAS and WD 9001 SAS drives. Hitachi A352 FW for 7K3000 SAS drives.

DEVICE COMPATIBILITY NOTE:
Basic compatibility between the 3rd party device and Promise device has been verified in typical configurations, unless otherwise stated.

DISCLAIMERS:
Only the versions available at time of testing have been verified, as listed. Corner cases may exist depending on user configuration etc. Individual 3rd party units may exhibit problems that did not show up in through the Promise test process. Published performance is not assured with configuration deviations.

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Operating Systems

Supported Operating Environments			
Vendor	**Core Platform**	**Type**	**Notes**
Microsoft	Windows Server 2008 w/SP2	x86/x64	ALUA support with PerfectPath v4.00 or later.
	Windows Server 2008 R2	x64	ALUA support with PerfectPath v4.00 or later.
RedHat	Enterprise Linux 6.0	x86/x64	LUN Affinity/ALUA natively supported.
	Enterprise Linux 6.1	x86/x64	LUN Affinity/ALUA natively supported.
SuSE	Linux Enterprise Server 11.1	x86/x64	LUN Affinity/ALUA natively supported.
VMware	ESX Server v4.1 Update 1	x64	LUN Affinity/ALUA natively supported
	ESX Server v5.0	x64	LUN Affinity/ALUA natively supported

Note: VMware has been qualified by Promise and then certified by VMware.

Fibre Channel Switches and SFPs

Fibre Channel Switches			
Vendor	**Model**	**Ports**	**Firmware**
Brocade	SilkWorm 200E	16x4Gb	v5.1.0
	Brocade 300	24x8Gb	v6.4.1b
	Brocade 5100	40x8Gb	v6.4.1b
	Brocade 5000	32x4Gb	v6.1.1
	Brocade 8000	24x10Gb FCoE/iSCSI 8x8Gb FC	v6.4.1b
Cisco	MDS 9020	20x4Gb	v2.1
	MDS 9124*	24x8Gb	v5.2
	MDS 9148	48x8Gb	v5.2
	NEXUS 5010	20x10Gb FCoE/iSCSI 6x8Gb FC	v4.1(3)N2(1)
IBM	TotalStorage SAN16B-2	16x4Gb	v6.2.2c
Qlogic	SANbox 5600Q	16x4Gb	v7.4.0.22.0
	SANbox 9000 - 4Gb blade	32-128x4Gb	v7.8.0.8.0
	SANbox 9000 - 8Gb blade	32-128x8Gb	v7.8.0.8.0
	SANbox 1400	10x4Gb	v5.0.1.10
	SANbox 5802V	20x8Gb	v7.4.0.16

*Model MDS 9124 was not tested, but compatibility is derived from MDS 9148 testing with v5.2

SFP Interoperability Matrix (Shortwave)		
Vendor	**Model**	**Description**
Apple	4Gb SFP to SFP	2.9M 4Gb SFP Copper Cable (Qlogic 4Gb and 8Gb only)
Avago	AFBR-57D7APZ	Digital Diagnostic SFP, 850 nm, 8.5/4.25/2.125 GBd Low Voltage (3.3 V) - 85°C
Brocade	57-1000012-01	Brocade 8Gb Shortwave SFP
Cisco	DS-SFP-FC8G-SW	Cisco 8Gb Shortwave SFP
Finisar	FTLF8528P2BCV	Digital Diagnostic SFP, 850 nm, 8.5/4.25/2.125 GBd Low Voltage (3.3 V) - 70°C
Finisar	FTLF8528P2BNV	Digital Diagnostic SFP, 850 nm, 8.5/4.25/2.125 GBd Low Voltage (3.3 V) - 85°C
Finisar	FTLF8524P2BNL	Digital Diagnostic SFP, 850 nm, 4.25/2.125 GBd Low Voltage (3.3 V) - 70°C
Finisar	FTLF8524P2BNV	Digital Diagnostic SFP, 850 nm, 4.25/2.125 GBd Low Voltage (3.3 V) - 85°C

Fibre Channel Host Bus Adapters

Fibre Channel HBAs							
Vendor	**Model**	**BIOS**	**Firmware**	**Fcode**	**Windows**	**Linux**	**VMware Tested**
Brocade	FC425	v3.0.3.0	v3.0.3.0		v3.0.0.0	v3.0.3.0	Supported
	FC825	v3.0.3.0	v3.0.3.0		v3.0.0.0	v3.0.3.0	Certified
Emulex	LightPulse LPe12000	2.12a6	2.00a4	3.10a3	2.70.014	8.3.5.60	Supported
	LightPulse LPe12002	2.12a6	2.00a4	3.10a3	2.70.014	8.3.5.60	Certified
	LightPulse LPe12004	2.12a6	2.00a4	3.10a3	2.70.014	8.3.5.60	Supported
	LightPulse LPe1250	2.12a6	2.00a4	3.10a3	2.70.014	8.3.5.60	Supported
	LightPulse LPe11000	2.12a6	2.82a4	3.10a3	2.70.014	8.3.5.60	Supported
	LightPulse LPe11002	2.12a6	2.82a4	3.10a3	2.70.014	8.3.5.60	Certified
	LightPulse LPe11004	2.12a6	2.82a4	3.10a3	2.70.014	8.3.5.60	Supported
	LightPulse LPe1150	2.12a6	2.82a4	3.10a3	2.70.014	8.3.5.60	Supported
Qlogic	SANblade QLE2560	3	5.04.04	3.15	9.1.9.27	8.03.07.13	Supported
	SANblade QLE2562	3	5.04.04	3.15	9.1.9.27	8.03.07.13	Supported
	SANblade QLE2564	3	5.04.04	3.15	9.1.9.27	8.03.07.13	Certified
	SANblade QLE2460	3	5.04.04	3.15	9.1.9.27	8.03.07.13	Supported
	SANblade QLE2462	3	5.04.04	3.15	9.1.9.27	8.03.07.13	Supported
	SANblade QLE2464	3	5.04.04	3.15	9.1.9.27	8.03.07.13	Certified
LSI	LSI7204EP	2.02.06	1.03.27	1.00.49	1.27.01	4.00.43	Supported
	LSI7404EP	2.02.06	1.03.27	1.00.49	1.27.01	4.00.43	Supported
ATTO	Celerity FC84EN	3.24	3.24		1.32	1.33	Supported
	Celerity FC82EN	3.24	3.24		1.32	1.33	Supported

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† 'VMware Tested' column indicates the level of support for VMware ESX 4.1 Update 1. 'Certified' indicates the controller was fully qualified by Promise and was used in the VMware certification test process using the Workbench test suite. 'Supported'

implies the controller should work at the same level as the certified model as it is based on the same driver level and some spot testing has been performed.

Hard Disk Drives

SAS Drives

VTrak Ex30 and Jx30 Drive Compatibility List							
Vendor	Family	Model	Part Number	Firmware	Capacity	RPM	Interface
Hitachi	Ultrastar 7K3000	HUS723030ALS640	0B26311	A100, A222, A352	3000GB	7,200	6Gb/s SAS
		HUS723020ALS640	0B26312	A100, A222, A352	2000GB	7,200	6Gb/s SAS
		HUS156030VLS600	0B23661	A5D0	300GB	15,000	6Gb/s SAS
		HUS156045VLS600	0B23662	A5D0	450GB	15,000	6Gb/s SAS
	Ultrastar 15K600	HUS156060VLS600	0B23663	A5D0	600	15,000	6Gb/s SAS
Seagate		ST500NM0001	9YZ262-001	2	500GB	7,200	6Gb/s SAS
		ST1000NM0001	9YZ264001	2	1000GB	7,200	6Gb/s SAS
		ST2000NM0001	9YZ268-001	2	2000GB	7,200	6Gb/s SAS
		ST32000444SS	9JX248-003	6	2000GB	7,200	6Gb/s SAS
		ST31000424SS	9JX244-003	6	1000GB	7,200	6Gb/s SAS
	Constellation ES SAS Models	ST3500414SS	9JX242-003	6	500GB	7,200	6Gb/s SAS
		ST33000650SS	9SM260-002	3	3000GB	7,200	6Gb/s SAS
	Constellation ES2	ST32000645SS	9SM260-002	4	2000GB	7,200	6Gb/s SAS
		ST3600057SS	9FS066-008	8	600GB	15,000	6Gb/s SAS
	Cheetah 15K.7	ST3450857SS	9FR066-008	8	450GB	15,000	6Gb/s SAS
Toshiba		MK1001TRKB	HDD3A02CZK51	105	1000GB	7,200	6Gb/s SAS
		MK2001TRKB	MK2001TRKB	105	2000GB	7,200	6Gb/s SAS
Western Digital	WD RE SAS	WD4001FYYG	WD4001FYYG-01SL3W0	VR01, VR02	4000GB	7,200	6Gb/s SAS
		WD3001FYYG	WD3001FYYG-01SL3W0	VR01, VR02	3000GB	7,200	6Gb/s SAS
		WD3001FYYG	WD2001FYYG-01SL3W0	VR01, VR02	2000GB	7,200	6Gb/s SAS
		WD3001FYYG	WD1001FYYG-01SL3W0	VR01, VR02	1000GB	7,200	6Gb/s SAS
	XE SAS	WD9001BKHG	WD9001BKHG-02D22V1	SR03	1000GB	7,200	6Gb/s SAS

SATA Drives*

VTrak Ex30 and Jx30 Drive Compatibility List							
Vendor	Family	Model	Part Number	Firmware	Capacity	RPM	Interface
Hitachi	Ultrastar 7K4000	HUS724040ALE640	0F14683	A390	4000GB	7,200	SATA-600
	Ultrastar 7K3000	HUA723020ALA640	0F12455	5C0	2000GB	7,200	6Gb/s SATA
		HUA723030ALA640	0F12456	5C0	3000GB	7,200	6Gb/s SATA
		HUA722020ALA330	0F10452	3EA	2000GB	7,200	3Gb/s SATA
		HUA722010CLA330	0A39289	3EA	1000GB	7,200	3Gb/s SATA
	Ultrastar A7K2000	HUA722050CLA330	0F11000	3EA	500GB	7,200	3Gb/s SATA
Western Digital	RAID Edition 4	WD2003FYYS	WD2003FYYS-02W0B0	1D01	2000GB	7,200	3Gb/s SATA
		WD1503FYYS	WD1503FYYS-02W0B0	1D01	1500GB	7,200	3Gb/s SATA
Toshiba		MK1002TSKB	HDD3B04CZK51	MT2A	1000GB	7,200	6Gb/s SATA
		MK2002TSKB	MK2002TSKB	MT2A	2000GB	7,200	6Gb/s SATA

*Not supported on J930s

SSD Drives*

VTrak Ex30 and Jx30 Drive Compatibility List							
Vendor	Family	Model	Part Number	Firmware	Capacity	Type	Interface
Intel	710 SSD Series	SSDSA2BZ100G301	SSDSA2BZ100G301	362	100GB	MLC	3Gb/s SATA
		SSDSA2BZ200G301	SSDSA2BZ200G301	362	200GB	MLC	3Gb/s SATA
	320 SSD Series	SSDSA2CW600G3**	SSDSA2CW300G3B5**	362	600GB	MLC	3Gb/s SATA
		SSDSA2CW300G3	SSDSA2CW300G3B5	362	300GB	MLC	3Gb/s SATA
		SSDSA2CW160G3**	SSDSA2CW160G3K5**	362	160GB	MLC	3Gb/s SATA
		SSDSA2CW120G3**	SSDSA2CW120G310**	362	120GB	MLC	3Gb/s SATA
		SSDSA2CW080G3**	SSDSA2CW080G310**	362	80GB	MLC	3Gb/s SATA
	X25-E	SSDSA2SH064G101	SSDSA2SH064G101	8860	64GB	SLC	3Gb/s SATA
		SSDSA2SH032G101	SSDSA2SH032G101	8860	32GB	SLC	3Gb/s SATA
STEC	Mach16 SSD	M16ISD2-200UCU	M16ISD2-200UCU	184	200GB	SLC	3Gb/s SATA

* Not supported on J930s

** These SSD drives require an updated VTrak firmware available from Promise Support. The 300 GB Intel 320 SSD does NOT require this update. Please contact technical support @ 408-228-1400 or via web https://support.promise.com Reference this compatibility list.

Hard Disk Drive APM Support Level with MAID 2.0

Supported Disk Drives with Advanced Power Management						
				VTrak MAID Support		
Vendor	**Family**	**Firmware**	**Interface**	**Park Heads Level-1**	**Reduce RPM Level-2**	**Spin-down Level-3**
Hitachi	**Ultrastar A7K2000**	3EA	3Gb/s SATA	YES	YES	YES
	Ultrastar A7K3000	5C0	6Gb/s SATA	YES	YES	YES
Intel	**X25-E**	8850	3Gb/s SATA	n/a	n/a	n/a
Seagate	**Cheetah 15K.7**	0008	6Gb/s SAS	YES	NO	YES
	Constellation ES	0006	6Gb/s SAS	YES	YES	YES
	Constellation ES 2	0003	6Gb/s SAS	YES	YES	YES
Western Digital	**RAID Edition 4**	1D01	3Gb/s SATA	YES	NO	YES

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‡ Promise qualified drives will be the only supported drives for the VTrak systems. The support requirements will be derived from the drive part numbers listed above and not necessarily by the model number. Using unqualified disk drives with the system may appear to work but cannot be guaranteed for the service life.

UPS Appliances

UPS Support*	HW Rev.	APC OS	APP. Module SW
[§]APC Smart-UPS 1500VA - North America	667.18.D	v3.6.1	v3.5.8
[§]APC Smart-UPS 2200VA - North America	667.18.D	v3.6.1	v3.5.8
[§]APC Smart-UPS 3000VA - North America	667.18.D	v3.6.1	v3.5.8

*Tested with Ex30 Initial Release

USB Flash Drives (OPAS Service Port)

Vendor**	Family	MFG Part Number	Capacity
HP	v125w	P-FD4GBHP125-EF	4GB
Pretec	i-Disk	Q3U04G	4GB

Promise Validated Applications

Validated Applications			
Vendor	Product	Version	Description
Microsoft	Microsoft Cluster Service	2008 Server R2	Fail-over Cluster Service
	Exchange Server	Microsoft Echange Server 2010	Mailbox management with HA service
Oracle	Lustre Filesystem	v1.8.5	Clustered Filesystem
	OCFS2	v1.6.3	HA Cluster File System
RedHat	Global Filesystem	GFS2	Clustered Filesystem
	RH Cluster	RHEL 6 and 6.1	Fail-over Cluster Service

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§ The above UPS models were fully validated for use with a properly configured VTrak Ex30 system. For other regions that use different power sources, such as Japan, using the APC Smart-UPS equivalent will be supported.

** There is a large variety of USB Flash Drive vendors to select from on the market. The Promise qualification team selected only a handful to represent only a sampling of available Flash Drives. The above list shows the drives that have passed a rigorous read/write/discovery test process are deemed worthy of use out-of-the-box. There were other USB Flash drives that did not function properly out-of-the-box, and required a partition and format in order to use them.

Promise Validated Browsers for WebPAM PROe

Validated Web Browsers for Ex30 WebPAM PROe	
Product	Version
Internet Explorer	8.0.7601.17514
Safari for Mac	5.1
Safari for Windows	5.1
Mozilla Firefox for Windows	7.0.1
Mozilla Firefox for RHEL	7.0.1
Mozilla Firefox for SLES 11.1	7.0.1

♠ End of Report ♠