

Promise[®] VessRAID 1000f/1000i/1000s Series SR5 Compatibility List

Date: April 15,2011

VessRAID Systems Covered:

- VessRAID 1820i – 2U/8-bay iSCSI to SAS/SATA RAID System
- VessRAID 1720i+ – 2U/8-bay iSCSI to SAS/SATA RAID System
- VessRAID 1720i – 2U/8-bay iSCSI to SAS/SATA RAID System
- VessRAID 1830i – 2U/12-bay iSCSI to SAS/SATA RAID System
- VessRAID 1830i+ – 2U/12-bay iSCSI to SAS/SATA RAID System
- VessRAID 1830s – 2U/12-bay SAS to SAS/SATA RAID System
- VessRAID 1830s+ – 2U/12-bay SAS to SAS/SATA RAID System
- VessRAID 1730i – 2U/12-bay iSCSI to SAS/SATA RAID System
- VessRAID 1730s – 2U/12-bay SAS to SAS/SATA RAID System
- VessRAID 1840i – 3U/16-bay iSCSI to SAS/SATA RAID System
- VessRAID 1840i+ – 3U/16-bay iSCSI to SAS/SATA RAID System
- VessRAID 1840s – 3U/16-bay SAS to SAS/SATA RAID System
- VessRAID 1840s+ – 3U/16-bay SAS to SAS/SATA RAID System
- VessRAID 1740i – 3U/16-bay iSCSI to SAS/SATA RAID System
- VessRAID 1740s – 3U/16-bay SAS to SAS/SATA RAID System
- VessRAID 1840f – 3U/16-bay Fibre to SAS/SATA RAID System
- VessRAID 1840f+ – 3U/16-bay Fibre to SAS/SATA RAID System

Systems Versions Covered:

- BootLoader – Version 3.04.0000.00 [Mar 3, 2011]
- Firmware – Version 3.04.0000.00 [Mar 3, 2011]
- Software – Version 3.04.0000.00 [Mar 3, 2011]

DEVICE COMPATIBILITY NOTE:

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

The EOL of 3rd party device may not be in the current list, user can refer older version of Promise compatibility list to get those test result.

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.

Some listed devices may go EOL. AVL listing does not imply market availability.

Document History

Date	Release Label	Release Version	Notes
March 18, 2009	FCS	First release	VessRAID SAS Release
April 27, 2009	SR1.0	Based on original Compatibility List and qualified some new devices: <ul style="list-style-type: none"> ● Host System: 1 new model ● SAS HBA: 2 new models ● SAS Hard Drive: 2 new models ● SATA Hard Drive: 7 new models ● Web browser: 5 new versions 	
July 07, 2009	SR2.0	Based on original Compatibility List and qualified some new devices: <ul style="list-style-type: none"> ● Host System: 1 new model ● SAS Hard Drive: 4 new models ● SATA Hard Drive: 6 new models ● Operating System: 8 new OS ● Web browser: 1 new version ● USB Flash Drive: 6 new models ● UPS: 2 new models 	VessRAID iSCSI Release
September 18, 2009	SR2.1	Based on original SR2 Compatibility List and qualified some new devices: <ul style="list-style-type: none"> ● SATA Hard Drive: 3 new models ● NIC Initiator: 3 new models ● Operating System: 5 new OS ● SAS HBA: 1 new HBA 	
December 01, 2009	SR2.1	Based on original SR2.1 Compatibility List and qualified some new devices: <ul style="list-style-type: none"> ● SATA Hard Drive: 4 new models 	
May 7, 2010	SR3.0	Based on original SR2.1 Compatibility List and qualified some new devices: <ul style="list-style-type: none"> ● SATA Hard Drive: 1 new models ● Operating System: 6 new OS 	VessRAID NAS Release
July 25, 2010	SR4.0	Based on original SR3 Compatibility List and qualified some new devices: <ul style="list-style-type: none"> ● SATA Hard Drive: 2 new models and 2 new FW of hard drive update. ● SAS Hard Drive: 5 new models ● SAS HBA: 1 new model ● Operating System: 3 new OS ● Add VessRAID 1840f VMware certified 	VessRAID Fibre Release
October 11, 2010	SR4.1	Based on original SR4 Compatibility List and qualified some new devices: <ul style="list-style-type: none"> ● Add Multi-Path Support ● Add Microsoft ADS support ● Update SAS HBA Promise TX8668 BIOS/Driver 	
December 15, 2010	SR4.1	Based on original SR4.1 Compatibility List and qualified some new devices: <ul style="list-style-type: none"> ● Add WDC WD1003FBYX 	
April 15, 2011	SR5.0	Based on original SR4.1 Compatibility List and qualified some new devices: (for blue-color highlights) <ul style="list-style-type: none"> ● SATA Hard Drive: 1 new model ● SAS Hard Drive: 2 new models ● SAS HBA: 1 new models ● NIC: 2 new models ● Operating System: 4 new OS series ● Add Citrix ready support ● Add Linux NIS support 	VessRAID plus series Release

1. SATA Hard Drives

Vendor	Family	Model	Capacity	Firmware	Buffer	Drive Transfer Rate	Form Factor	NCQ / TCQ	
HITACHI	Ultrastar A7K1000	HUA721010KLA330	1TB	GKAOAB0A	32MB	3Gb/s	3.5"	NCQ	
		HUA721075KLA330	750GB	GK80AB0A	32MB	3Gb/s	3.5"	NCQ	
		HUA721050KLA330	500GB	GK60AB0A	16MB	3Gb/s	3.5"	NCQ	
	Ultrastar A7K2000	HUA722020ALA330	2TB	20N	32MB	3Gb/s	3.5"	NCQ	
				3EA ^[3]					
	Ultrastar A7K3000	HUA723030ALA640	3TB	580	64MB	6Gb/s ^[1]	3.5"	NCQ	
	Deskstar E7K1000 ^[3]	HDE721010SLA330	1TB	ST30A31B	32MB	3Gb/s	3.5"	NCQ	
			HDE721075SLA330	750GB	ST40A31B	32MB	3Gb/s	3.5"	NCQ
			HDE721050SLA330	500GB	ST30A31B	32MB	3Gb/s	3.5"	NCQ
SAMSUNG	Spinpoint F1	HE103UJ	1TB	1AA01111	32MB	3Gb/s	3.5"	NCQ	
				1AA01118					
		HE753LJ	750GB	1AA01117	32MB	3Gb/s	3.5"	NCQ	
		HE502IJ	500GB	1AA01113	16MB	3Gb/s	3.5"	NCQ	
SEAGATE	Barracuda ES.2	ST31000340NS	1TB	SN06	32MB	3Gb/s	3.5"	NCQ	
		ST3750330NS	750GB	SN06	32MB	3Gb/s	3.5"	NCQ	
		ST3500320NS	500GB	SN06	32MB	3Gb/s	3.5"	NCQ	
	SV35.3	ST31000340SV	1TB	SV16	32MB	3Gb/s	3.5"	NCQ	
		ST3750330SV	750GB	SV16	32MB	3Gb/s	3.5"	NCQ	
		ST3500320SV	500GB	SV17	32MB	3Gb/s	3.5"	NCQ	
	SV35.4	ST3320410SV	320GB	CV12	16MB	3Gb/s	3.5"	NCQ	
	Constellation ES	ST31000524NS	1TB	SN11	32MB	3Gb/s	3.5"	NCQ	
		ST32000644NS	2TB	SN11	64MB	3Gb/s	3.5"	NCQ	
WDC	WD VelociRaptor	WD1500HLFS	150GB	04.04V01	16MB	3Gb/s	3.5"	NCQ	
		WD6000HLHX	600GB	04.05G04	32MB	6Gb/s ^[1]	3.5"	NCQ	
	WD RE2	WD7500AYYS	750GB	30.04G30	16MB	3Gb/s	3.5"	NCQ	
	WD RE2-GP	WD1000FYPS	1TB	02.01B01	16MB	3Gb/s	3.5"	NCQ	
		WD7500AYPS	750GB	02.01B01	16MB	3Gb/s	3.5"	NCQ	
		WD5000ABPS	500GB	02.01B01	16MB	3Gb/s	3.5"	NCQ	
	WD RE4-GP	WD2002FYPS-02W3B0 ^[2]	2TB	04.01G01	64MB	3Gb/s	3.5"	NCQ	

Vendor	Family	Model	Capacity	Firmware	Buffer	Drive Transfer Rate	Form Factor	NCQ / TCQ
WDC	WD RE3	WD1002FBYS	1TB	03.00C05	32MB	3Gb/s	3.5"	NCQ
		WD7502ABYS	750GB	03.00C05	32MB	3Gb/s	3.5"	NCQ
		WD5002ABYS	500GB	02.03B02	16MB	3Gb/s	3.5"	NCQ
	WD RE4	WD1003FBYX	1TB	01.01V01	64MB	3Gb/s	3.5"	NCQ
		WD2003FYYS	2TB	01.01D01	64MB	3Gb/s	3.5"	NCQ

- ⚡ In a RAID array setup, we recommend using the enterprise level hard drive as it has much better command timeout control and features stable reliability to vibration compared to desktop one for critical applications.
- ⚡ Some listed devices may go EOL. AVL listing does not imply market availability.
- ⚡ Note [1]: Initiator still runs in 3Gb/s mode.
- ⚡ Note [2]: Drives produced after May 31, 2010 run compatible at 3Gb/s with the VessRAID.
- ⚡ Note [3]: Support MAID2.0 intelligent power management standard.

2. SAS Hard Drives

Vendor	Family	Model	Capacity	Firmware	Buffer	Drive Transfer Rate	Form Factor
FUJITSU	MBA3 RC	MBA3147RC	147GB	0103	16MB	3.0Gb/s	3.5"
HITACHI	Ultrastar 15k300	HUS153030 VLS300	300GB	A410	16MB	3.0Gb/s	3.5"
		HUS153014VLS300	147GB	A410	16MB	3.0Gb/s	3.5"
	Ultrastar 15K450	HUS154545VLS300	450GB	A750	16MB	3.0Gb/s	3.5"
	Ultrastar15K600	HUS156045VLS600	450GB	A392	64MB	6Gb/s ^[1]	3.5"
SEAGATE	Barracuda ES.2	ST31000640SS	1TB	0001	16MB	3.0Gb/s	3.5"
	Constellation ES	ST32000444SS	2TB	0005	16MB	6Gb/s ^[1]	3.5"
	Cheetah 15k.5	ST3146855SS	146GB	0002	16MB	3.0Gb/s	3.5"
	Cheetah 15K.6	ST3300656SS	300GB	0004	16MB	3.0Gb/s	3.5"
		ST3146356SS	146GB	0005	16MB	3.0Gb/s	3.5"
	Cheetah 15K.7	ST3600057SS	600GB	0005	16MB	6Gb/s ^[1]	3.5"
		ST3300657SS	300GB	0006	16MB	6Gb/s^[1]	3.5"
		ST3450857SS	450GB	0006	16MB	6Gb/s^[1]	3.5"
	Cheetah NS.2	ST3450802SS	450GB	0004	16MB	6Gb/s ^[1]	3.5"
ST3600002SS		600GB	0002	16MB	6Gb/s ^[1]	3.5"	

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- ⚡ Some listed devices may go EOL. AVL listing does not imply market availability.
- ⚡ Note [1]: Initiator still runs in 3Gb/s mode.

3. SAS Host Bus Adapters

Vendor	Model	BIOS/FW	Windows Driver	PCI Interface	External Channels	Raid Function
Adaptec	ASC-1045 ^[1]	5.0.1.0	5.0.1.0	PCIe	4 ports	Non-RAID
DELL	SAS 5/E Adapter	FW: 0.10.51.00-IT BIOS:MPTBIOS-6.12.05.00	1.31.02	PCIe	8 ports	Non-RAID
	SAS 6G HBA	FW: 2.15.63.00-IT BIOS: 07.01.33.00	2.0.12.20	PCIe	8 ports	Non-RAID
LSI	SAS3801X	FW:1.30.00.00-IT BIOS:6.30.00.00	1.33.1.0	PCI-X	8 ports	Non-RAID
	SAS3801E	FW: 1.31.02.00-IT BIOS: 6.32.00.00	1.33.1.0	PCIe	8 ports	Non-RAID
	SAS3442X	FW: 1.31.00.00 BIOS: 6.32.00.00	1.33.1.0	PCI-X	4 ports	Non-RAID
	SAS9200-8e	FW: 08.00.00.00 BIOS: 7.15.00.00	2.0.2.71	PCIe	8 ports	Non-RAID

† Note [1]: Only support one LUN (this is Adaptec ASC-1045's limitation).

4. iSCSI Host Bus Adapters

Vendor	Model	BIOS / FW	Win Driver Ver.	Interface	Port	TCP/IP Offload	iSCSI Offload	HW/SW iSCSI Initiator
QLogic	QLA4010C	BIOS: 1.11 FW: 3.0.0.18	2.1.4.19	PCI-X	1	yes	yes	HW
	QLA4050C	BIOS: 1.15 FW: 3.0.1.53	2.1.5.15	PCI-X	1	yes	yes	HW
	QLA4052C	BIOS: 1.15 FW: 3.0.1.53	2.1.5.15	PCI-X	2	yes	yes	HW
	QLE4060C	BIOS: 1.15 FW: 3.0.1.53	2.1.5.15	PCIe	1	yes	yes	HW
	QLE4062C	BIOS: 1.15 FW: 3.0.1.53	2.1.5.15	PCIe	2	yes	yes	HW

5. NIC Initiators List

Vendor	HBA Model	Controller Model	Win / Linux Drv. Ver.	Interface	Port	Data Rate
Broadcom	BCM95708A0804F	Broadcom BCM5708C	12.54.06 / 6.0.53	PCIe 4x	1	1Gb/s
	BCM95721A211	Broadcom BCM5721	14.2.0.5a / 6.0.53	PCIe 1x	1	1Gb/s
Chelsio	S302E	Chelsio controller	1.5.13.46 / 1.5.0.3	PCIe 4x	2	1Gb/s
DELL	BCM95709A0907G	Broadcom BCM5709C	14.2.0.A00 / 6.0.53	PCIe 4x	1	1Gb/s
D-Link	DGE-530T	Marvell 88E8001	9.0.0 / 6.50	PCI	1	1Gb/s
HP	NC382T PCI Express Dual Port Multifunction Gigabit Server Adapter	Broadcom BCM5709CC0KPBG	6.0.22.0 / 6.0.53	PCIe 4x	2	1Gb/s
Intel	PRO/1000GT Desktop Adapter (PWLA8391GTBLK)	Intel 82541PI	16.0.19.0 / 1.2.20	PCI	1	1Gb/s
	PRO/1000PT Dual Port Server Adapter (D33682)	Intel 82571GB	16.0.19.0 / 1.2.20	PCIe 2x	2	1Gb/s
	PRO/1000 PT Quad Port Server Adapter (EXPI9404PTBLK)	Intel 82571GB	1.3.10a	PCIe 4x	4	1Gb/s
	Gigabit ET Dual Port Server Adapter (E1G42ET)	Intel 82576GB	11.7.32.0 / 1.3.10a	PCIe 2x	2	1Gb/s
	Gigabit CT Desktop Adapter	Intel 82574L	11.7.32.0 / 1.3.10a	PCIe 1x	1	1Gb/s
	Ethernet Server Adapter I340 – T4(E85683-001)	Intel 82580	11.9.35.0 / 2.4.13	PCIe 2x	4	1Gb/s

6. Ethernet Switches

Vendor	Model	Ports	Speed (Mbs)	User Configuration
3Com	4200G	12	10/100/1000	Yes
	Baseline Switch 2824	24	10/100/1000	No
Cisco	Catalyst 2960G-8TC-L	8	10/100/1000	Yes
D-Link	DGS-1008D	8	10/100/1000	No
	DGS-3024	24	10/100/1000	Yes
	DGS-1248T	48	10/100/1000	Yes
	DGS-1224T	24	10/100/1000	Yes
HP	ProCurve Switch 1800-24G	8	10/100/1000	Yes
Planex	FXG-241RM	24	10/100/1000	No
ZyXEL	GS-2024	24	10/100/1000	Yes

7. Fibre Channel Host Bus Adapters

Vendor	Model	BIOS	FW	Windows Driver	Linux Driver
ATTO	FC-42ES	3.24	2010_7_30	2.66.20	2.66
	FC-82EN	3.24	2010_7_30	1.32.2.0	1.24
Brocade	415Fibre	FCHBA2.3.0.0	FCHBA2.3.0.2	2.3.0.2	2.3.0.2
	815Fibre	FCHBA2.3.0.0	FCHBA2.3.0.2	2.3.0.2	2.3.0.2
	825Fibre	FCHBA2.3.0.2	FCHBA2.3.0.2	2.3.0.2	2.3.0.2
Emulex	LPe11000	NA	ZS2.82A4	7.2.40.5	0:8.2.0.86
	LPe12002	NA	VS1.11A5	7.2.4.05	0:8.2.0.86
LSI	LSI7104XP-LC	2.02.06	NA	1.27.10	4.00.43rh
Qlogic	QLA2462	3.00	5.04.01	9.1.9.25	8.03.04.12.06.0-k0
	QLE2462	3.00	5.04.01	9.1.9.25	8.03.04.12.06.0-k0
	QLE2560	3.00	5.04.01	9.1.9.25	8.03.04.12.06.0-k0
	QLE2562	3.00	5.04.01	9.1.9.25	8.03.04.12.06.0-k0

8. Fibre Channel Switches

Vendor	Model	Ports	Firmware
Brocade	BR-320-0004	8x4Gb	v6.2.0c
	BR-320-0008	8x8Gb	v6.2.0c
Qlogic	SANBox 5800	8x8Gb	7.4.0.10.0
	SANBox 3810	8x8Gb	7.4.0.16.0
	SANBox 5200	8x2Gb	4.2.0.18-0

9. Fibre Channel SFPs

Vendor	Model	Type
Brocade	8G SWL (P/N:57-1000012-01)	8Gb Multi-mode
	4G SWL (P/N:57-1000013-01)	4Gb Multi-mode
Finisar	FTLF8528P2BCV	8Gb Multi-mode
	FTLF8528P2BNV	8Gb Multi-mode
	FTLF8524P2BNL	4Gb Multi-mode
Avago	AFBR-57D7APZ	8Gb Multi-mode
	AFBR-57R5APZ	4Gb Multi-mode
Picolight	PLRXPL-VE-SG4-62	4Gb Multi-mode

10. Operating Systems

Vendor	Core Platform	Type
Microsoft	Windows XP Professional w/ SP2	x64
	Windows XP Professional w/ SP3	x86
	Windows Server 2003 Enterprise Edition R2 w/ SP2	x86/x64
	Windows Vista Enterprise w/ SP2	x86/x64
	Windows Server 2008 Datacenter Edition w/ SP2	x86/x64
	Windows 7 Ultimate	x86/x64
	Windows Server 2008 R2 Datacenter Edition	x64
RedHat	Enterprise Linux 6	x86/x64
	Enterprise Linux 5.5	x86/x64
	Enterprise Linux 5.6	x86/x64
	Enterprise Linux AS 4 Update 8	x86/x64
	Enterprise Linux AS 3 Update 9	x86/x64
SUSE	LINUX Enterprise Server 9 + SP4	x86/x64
	LINUX Enterprise Server 10 + SP2	x86/x64
	LINUX Enterprise Server 10 + SP3	x86/x64
	LINUX Enterprise Server 11	x86/x64
	LINUX Enterprise Server 11 + SP1	x86/x64
Netware	Netware 6.5 SP8 (Data Drive)	x86
FreeBSD	FreeBSD 7.2 (Data Drive)	x86
	FreeBSD 8.0 (Data Drive)	x86/x64
CentOS	5.4	x86/x64
	5.5	x86/x64
Ubuntu	Server Edition 10.10	x86/x64

11. Web Browsers

Browsers Name
AOL Explorer 1.5001.7.1
Mozilla Firefox 3.6.13
Google Chrome 4.1.249.1064
Internet Explorer 7 (Version:7.0.5730.13)
Internet Explorer 8 (Version:8.0.6001.18702)
Netscape Navigator 9.0.0.6
Opera 11.00 build 3370
Safari 5.0.3

⚡ Note: Promise always strives to test latest web browsers as soon as they become available.

12. USB Flash Drive

Vendor	Model	Capacity
A-DATA	Sport Series S701 Flash Drive	8GB
	Classic Series My Flash	4GB
Apacer	Handy Steno AH320	1GB
	Handy Steno AH323	16GB
SanDisk	Cruzer Contour SDCZ8-4096RB	4GB
SONY	Micro Vault Click USM4GL	4GB
	Micro Vault Click USM8GLX	8GB
	Micro Vault Click USM16GL	16GB
TOSHIBA	TransMemory	2GB
	TransMemory	8GB
Transcend	JetFlash 2.0/BLUE	256MB

13. UPS

Vendor	Model	HW Rev.	APC OS	APP. Module SW
APC	Smart-UPS 1500	667.18.D	v3.5.5	v3.5.5
	Smart-UPS 3000	666.6.D	v3.5.5	v3.5.5

14. Multi-Path Support

Verified this feature with following MPIO driver version:

RAID System \ OS Type	Windows Server 2003 R2 SP2	Windows Server 2008 SP2	RHEL 6.0	SLES 11.0
	VessRAID 1000i Series	v2.08	v6.0.6002.0	v0.4.9
VessRAID 1000f Series	NA	v6.0.6002.0	v0.4.9	v0.4.8

15.JBODs Support

- (1) PROMISE® VessJBOD

16.VMware® Support

Certified this feature with

- (1) VessRAID 1000i Series iSCSI Feature

- VMware® ESX 4.0
- VMware® ESX 4.0 U1

The link of VMware Compatibility Guide:

<http://www.vmware.com/resources/compatibility/search.php?action=search&deviceCategory=san&productId=1&advancedORbasic=advanced&maxDisplayRows=50&key=VessRAID&release%5b%5d=-1&datePosted=-1&partnerId%5b%5d=71&arrayTypeId%5b%5d=1&isSVA=0&rorre=0>

- (2) VessRAID 1000i Series NAS Feature

- VMware® ESX 4.0 U1

The link of VMware Compatibility Guide:

<http://www.vmware.com/resources/compatibility/search.php?action=search&deviceCategory=san&productId=1&advancedORbasic=advanced&maxDisplayRows=50&key=VessRAID&release%5b%5d=-1&datePosted=-1&partnerId%5b%5d=71&arrayTypeId%5b%5d=3&isSVA=0&rorre=0>

- (3) VessRAID 1000f Series Fibre Channel

- VMware® ESX 4.0 U1 [8G FC Switched]

The link of VMware Compatibility Guide:

<http://www.vmware.com/resources/compatibility/search.php?action=search&deviceCategory=san&productId=1&advancedORbasic=advanced&maxDisplayRows=50&key=VessRAID&release%5b%5d=-1&datePosted=-1&partnerId%5b%5d=71&arrayTypeId%5b%5d=2&isSVA=0&rorre=0>

17.Citrix® Support

Certified this feature with

- (1) VessRAID 1000i Series iSCSI and NAS Feature

- XenServer 5.6

The link of Citrix:

<http://www.citrix.com/ready/partners/promise/products/vessraid1000iseries>

18.Microsoft® Windows Hyper-V

Verified this feature under VessRAID series with

- (1) Microsoft® Windows Server 2008 Datacenter w/ SP1 64 bit
- (2) Microsoft® Hyper-V Server 2008

19.Microsoft® Windows Failover Cluster Services

Verified this feature with following combination:

OS Type RAID System	Microsoft® Windows Server 2003 Enterprise R2 SP2 Edition	Microsoft® Windows Server 2008 R2 Datacenter SP2 Edition
VessRAID 1000f Series	Qlogic QLE2560	Qlogic QLE2560
VessRAID 1000i Series	Qlogic QLA4052C	Qlogic QLA4052C
VessRAID 1000s Series	LSI SAS3801E	LSI SAS3801E

20.Microsoft® ADS Support

Verified this feature under VessRAID NAS with

- (1) Microsoft® Windows Server 2003 Enterprise R2 SP2 Edition
- (2) Microsoft® Windows Server 2008 Datacenter SP2 Edition

21. Linux NIS Support

Verified this feature under VessRAID NAS with

- (1) [RedHat_Enterprise_Linux_6.0](#)
- (2) [SUSE Linux Enterprise_server_11](#)