

Vess R2000 Series SR1.2 Compatibility List

Date: June 6th, 2013

Version: 1.0

Vess R2000 Series Systems Covered:

- **Vess R2600fiD** – 3U/16-bay Fibre/iSCSI to SAS/SATA RAID System
- **Vess R2600fiS** – 3U/16-bay Fibre/iSCSI to SAS/SATA RAID System
- **Vess R2600iD** – 3U/16-bay iSCSI to SAS/SATA RAID System
- **Vess R2600iS** – 3U/16-bay iSCSI to SAS/SATA RAID System

Systems Versions Covered:

- **BootLoader** – Version 0.00.0000.37
- **Firmware** – Version 1.01.0000.31
- **Software** – Version 1.01.0000.31

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
August 29, 2012	FCS	First release Qualified some devices: ● SAS Hard Drive: 5 models ● SATA Hard Drive: 9 models ● iSCSI HBA: 2 models ● NIC: 9 models ● Ethernet Switch: 6 models ● Fibre HBA: 7 models ● Fibre Switch: 4 models ● Fibre SFP+: 7 models ● OS: 11 sets ● Web browser: 8 new versions ● USB Flash Drive: 9 models ● UPS: 2 models ● Multit Path: 1 version ● JBOD: 1 model	Vess R-Class fibre and iSCSI Release
January 23, 2013	SR1	Based on FCS Compatibility List with new added disk drive devices: (blue and orange-color highlights) ● SAS Hard Drive: 20 models ● SATA Hard Drive: 9 models ● Solid State Drive: 1 model	
March 28, 2013	SR1.1	Based on SR1 Compatibility List with new added disk drive devices: (blue and orange-color highlights) ● SAS Hard Drive: 1 model ● SATA Hard Drive: 1 model ● Add Citrix ready support ● Add Windows Hyper-V support ● Add VMware certified ● OS: 1 set	
June 6, 2013	SR1.2	Based on SR1.1 Compatibility List with new added disk drive devices: (blue and orange-color highlights) ● SAS Hard Drive: 5 models ● SATA Hard Drive: 3 models ● Add Windows Cluster Services support	

1. SATA Hard Drives

Vendor	Family	Model	Capacity	Firmware	Buffer	Drive Transfer Rate	Form Factor	NCQ / TCQ
HGST	MegaScale 4000	HMS5C4040ALE640	4TB	MPAOA3W0	64MB	6Gb/s	3.5"	NCQ
	Ultrastar 7K4000	HUS724040ALA640	4TB	MFAOA8B0	64MB	6Gb/s	3.5"	NCQ
		HUS724030ALA640	3TB	MFAOA8B0	64MB	6Gb/s	3.5"	NCQ
		HUS724020ALA640	2TB	MFAOA8B0	64MB	6Gb/s	3.5"	NCQ
		HUS724040ALE640	4TB	MJAOA3B0	64MB	6Gb/s	3.5"	NCQ
		HUS724030ALE640	3TB	MJAOA3B0	64MB	6Gb/s	3.5"	NCQ
		HUS724020ALE640	2TB	MJAOA3B0	64MB	6Gb/s	3.5"	NCQ
	Ultrastar 7K3000	HUA723030ALA640	3TB	MKAOA580	64MB	6Gb/s	3.5"	NCQ
				MKAOAA10				
		HUA723020ALA640	2TB	MK7OA5C0	64MB	6Gb/s	3.5"	NCQ
	Ultrastar A7K2000	HUA722010CLA330	1TB	JP4OA3EA	32MB	3Gb/s	3.5"	NCQ
SEAGATE	Constellation ES.2	ST33000650NS	3TB	0001	64MB	6Gb/s	3.5"	NCQ
	Constellation ES	ST2000NM0011	2TB	SN02	64MB	6Gb/s	3.5"	NCQ
	Constellation CS	ST3000NC002	3TB	CN01	64MB	6Gb/s	3.5"	NCQ
		ST2000NC001	2TB	CN01	64MB	6Gb/s	3.5"	NCQ
		ST1000NC001	1TB	CN01	64MB	6Gb/s	3.5"	NCQ
Toshiba	MKx002TSKB	MK2002TSKB	2TB	MT2A	64MB	6Gb/s	3.5"	NCQ
WDC	WD RE4	WD2003FYYS	2TB	01.01D02	64MB	6Gb/s	3.5"	NCQ
		WD1003FBYX	1TB	01.01V02	64MB	3Gb/s	3.5"	NCQ
	WD RE	WD2000FYYZ	2TB	01.01K01	64MB	6Gb/s	3.5"	NCQ
		WD4000FYYZ	4TB	01.01K01	64MB	6Gb/s	3.5"	NCQ
		WD3000FYYZ	3TB	01.01K01	64MB	6Gb/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.

✚ **BLUE Models are new additions actual in test to this release.**

✚ **ORANGE Capacities are assumed to work but were not tested.**

✚ Additional AA-Mux adapter is required when use with SATA 3Gb drive, while SATA 6Gb drive requires BlackJack adapter.

✚ Verified all listed SATA drives with 3Gb AA-Mux adapter and 6G BlackJack adapter.

✚ When you use SATA 6Gb/s drive with 3Gb AA-Mux adapter in the disk array system, the drive runs at 3Gb/s speed.

2. SAS Hard Drives

Vendor	Family	Model	Capacity	Firmware	Buffer	Drive Transfer Rate	Form Factor
HGST	Ultrastar 7K3000	HUS723030ALS640	3TB	A222 A440	64MB	6Gb/s	3.5"
		HUS723020ALS640	2TB	A222 A440	64MB	6Gb/s	3.5"
	Ultrastar 15K600	HUS156060VLS600	600GB	A5D0	64MB	6Gb/s	3.5"
		HUS156045VLS600	450GB	A392	64MB	6Gb/s	3.5"
	Ultrastar C10K900	HUC109090CSS600	900GB	A2D0	64MB	6Gb/s	2.5"
		HUC109060CSS600	600GB	A2D0	64MB	6Gb/s	2.5"
		HUC109045CSS600	450GB	A2D0	64MB	6Gb/s	2.5"
		HUC109030CSS600	300GB	A2D0	64MB	6Gb/s	2.5"
	Ultrastar C10K1200	HUC101212CSS600	1.2TB	A35A	64MB	6Gb/s	2.5"
SEAGATE	Constellation ES.2	ST33000650SS	3TB	0002 A003 0004	64MB	6Gb/s	3.5"
		ST32000645SS	2TB	0004	64MB	6Gb/s	3.5"
	Constellation ES	ST2000NM0001	2TB	0001	64MB	6Gb/s	3.5"
	Constellation ES.3	ST4000NM0023	4TB	0001	128MB	6Gb/s	3.5"
		ST3000NM0023	3TB	0001	128MB	6Gb/s	3.5"
		ST2000NM0023	2TB	0001	128MB	6Gb/s	3.5"
		ST1000NM0023	1TB	0001	128MB	6Gb/s	3.5"
	Cheetah 15K.7	ST3600057SS	600GB	0005	64MB	6Gb/s	3.5"
		ST3300657SS	300GB	0006	64MB	6Gb/s	3.5"
	Savvio 10K.7	ST1200MM0007	1.2TB	0001	64MB	6Gb/s	2.5"
TOSHIBA	MG03SCA	MG03SCA300	3TB	1001	64MB	6Gb/s	3.5"
	MKx001TRKB	MK1001TRKB	1TB	1001	16MB	6Gb/s	3.5"
WDC	WD RE	WD4001FYYG	4TB	VR02	32MB	6Gb/s	3.5"
		WD3001FYYG	3TB	VR02	32MB	6Gb/s	3.5"
		WD2001FYYG	2TB	VR02	32MB	6Gb/s	3.5"
		WD1001FYYG	1TB	VR02	32MB	6Gb/s	3.5"
	WD XE	WD9001BKHG	900GB	SR04	32MB	6Gb/s	2.5"

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⚠ **ORANGE** Capacities are assumed to work but were not tested.

3. SSD Drives

Vendor	Family	Model	Capacity	Firmware	Type	Drive Transfer Rate	Form Factor	NCQ / TCQ
Intel	SSD 520 series	520 – 240GB	240GB	400i	MLC	6Gb/s	2.5"	NCQ

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4. iSCSI Host Bus Adapters

Vendor	Model	BIOS / FW	Win / Linux Drv. Ver.	Interface	Port	TCP/IP Offload	iSCSI Offload	iSCSI Initiator Type
QLogic	QLE4060C	BIOS: 2.09 FW: 3.00.01.53	2.1.4.26/ 5.02.15.05. 05.06-C0	PCle	1	yes	yes	HW
	QLE4062C	BIOS: 2.09 FW: 3.00.01.53	2.1.4.26/ 5.02.15.05. 05.06-C0	PCle	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	PCle 4x	1	1Gb/s
	BCM95721A211	Broadcom BCM5721	15.2.0.5 / 3.108	PCle 1x	1	1Gb/s
	Broadcom BCM5709CC0KPBG	BCM5709C	14.2.0.A00/6.0.53	PCIE 4x	2	1Gb/s
Intel	PRO/1000PT Dual Port Server Adapter (D33682)	Intel 82571GB	9.15.17.0 / 3.4.7	PCle 2x	2	1Gb/s
	PRO/1000 PT Quad Port Server Adapter (EXPI9404PTBLK)	Intel 82571GB	9.15.17.0 / 2.0.0.1	PCle 4x	4	1Gb/s
	Gigabit ET Dual Port Server Adapter(E1G42ET)	Intel 82576	11.17.27.0 / 3.4.8	PCle 1x	2	1Gb/s
	Ethernet Server Adapter I340 – T4(E85683-001)	Intel 82580	11.14.49.0/ 3.4.8	PCle 4x	4	1Gb/s
	Intel® Gigabit ET2 Quad Port Server Adapter	E1G44ETBLK	11.17.27.0/ 3.4.8	PCle 4x	4	1Gb/s
	Intel® Ethernet Server Adapter I350 T4	Intel I350	11.17.27.0/ 3.4.8	PCle 4x	4	1Gb/s

6. Ethernet Switches

Vendor	Model	Ports	Speed (Mbs)	User
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				Configuration
Cisco	WS-C3560-24T-L	24	10/100/1000	Yes
D-Link	DGS-1024D	24	10/100/1000	Yes
	DGS-1248T	48	10/100/1000	Yes
	DGS-1224T	24	10/100/1000	Yes
	DGS-3620-28TC(EI)	28	10/100/1000	Yes
HP	ProCurve Switch 1800-24G	24	10/100/1000	Yes

7. Fibre Channel Host Bus Adapters

Vendor	Model	BIOS	FW	Windows Driver	Linux Driver
ATTO	FC-82EN	3.24	2010_7_30	1.36.2.0	1.34
Brocade	815Fibre	2.3.0.0	FCHBA3.1.0.0	3.1.0.0	3.1.0.0
	825Fibre	3.1.0.0	FCHBA3.1.0.0	3.1.0.0	3.1.0.0
Emulex	LPe11000	NA	Zd2.82A4	7.2.40.5	0:8.3.5.17
	LPe12002	NA	VS1.11A5	7.2.4.05	0:8.2.0.86
Qlogic	QLE2560	3.00	5.06.04	9.1.9.47	8.03.07.13.06.0-k
	QLE2562	3.00	5.06.04	9.1.9.47	8.03.07.13.06.0-k

8. Fibre Channel Switches

Vendor	Model	Ports	Firmware
Brocade	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
Finisar	FTLF8528P2BCV	8Gb Multi-mode
	FTLF8528P2BNV	8Gb Multi-mode
	FTLF8528P3BNV	8Gb Multi-mode
	FTLF8524P2BNL	4Gb Multi-mode
Avago	AFBR-57D7APZ	8Gb Multi-mode
	AFBR-57R5APZ	4Gb Multi-mode

10. Operating Systems

Vendor	Core Platform	Type
Microsoft	Windows Server 2003 Enterprise Edition R2 w/ SP2	x86/x64
	Windows Server 2008 Datacenter Edition w/ SP2	x86/x64
	Windows Server 2008 R2 SP1 Datacenter Edition	x64
	Windows 2012 Datacenter	x64
RedHat	Enterprise Linux 5.7	x86/x64
	Enterprise Linux 6.3	x86/x64
SUSE	LINUX Enterprise Server 10 + SP4	x86/x64
	LINUX Enterprise Server 11 + SP2	x86/x64
CentOS	5.8	x86/x64
	6.2	x86/x64
Ubuntu	Server Edition 11.10	x86/x64
	Server Edition 12.04	x86/x64

✦ SUSE LINUX Enterprise Server 10 + SP4-32bit can't support dual controller boot from SAN

✦ SUSE LINUX Enterprise Server 11 + SP2-32bit can't support dual controller boot from SAN

11.Web Browsers

Browsers Name
Mozilla Firefox 14.0.1
Google Chrome 20.0.1132.57 m
Internet Explorer 7 (Version:7.0.5730.13)
Internet Explorer 8 (Version:8.0.6001.18702)
Internet Explorer 9 (Version:)
Safari 5.1.7 for Windows
Safari 5.1.7 for MAC
Mozilla Firefox for Linux 3.6.13

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

12.USB Flash Drive

Vendor	Model	Capacity
A-DATA	N005 USB3.0	64GB
	Classic C103 USB3.0	16GB
Apacer	Handy Steno AH323	16GB
	Handy Steno AH552 USB 3.0	64GB
SONY	Micro Vault Click USM8GLX	8GB
	Micro Vault Click USM16GL	16GB
	Micro Vault USM-Q USB3.0	64GB
Transcend	JetFlashUSB 3.0 700 64GB	64GB
PATRIOT	XPORTER XT	32GB

13.UPS

Vendor	Model	HW Rev.	APC OS	APP. Module SW
APC	Smart-UPS 1500	667.18.D	V5.0.3	V5.0.3
	Smart-UPS 3000	666.6.D	V5.0.3	V5.0.3

14.Multi-Path Support

Verified this feature with following MPIO driver version:

RAID System	OS Type	Windows Server 2003 R2 SP2	Windows Server 2008 R2 sp1	RHEL 6.0	SLES 11.0
Vess R-Class		v2.08	v6.1.7601.17514	V6.0	V6.0

15.JBODs Support

- (1) PROMISE[®] Vess J2600

16.VMware[®] Support

Certified this feature with

- (1) Vess R2600 Series iSCSI Feature

- VMware[®] ESXi 5.1

The link of VMware Compatibility Guide:

https://www.vmware.com/resources/compatibility/detail.php?deviceCategory=san&productid=34556&deviceCategory=san&keyword=34556&isSVA=1&page=1&display_interval=10&sortColumn=Partner&sortOrder=Asc

- (2) Vess R2600 Series Fibre Channel

- VMware[®] ESXi 5.1 [8G FC Switched]

The link of VMware Compatibility Guide:

http://partnerweb.vmware.com/comp_guide2/detail.php?deviceCategory=san&productid=34256&deviceCategory=san&partner=71&releases=171&arrayTypes=2&isSVA=1&page=1&display_interval=10&sortColumn=Partner&sortOrder=Asc

17.Citrix[®] Support

Certified this feature with

- (1) Vess R2600 Series iSCSI and Fibre Channel

- XenServer 6.1

The link of Citrix:

<https://www.citrix.com/ready/en/promise-technology-inc/vess-r2000-series>

18. Microsoft[®] Windows Hyper-V

Verified this feature under Vess R2600 series with

(1) Microsoft[®] Hyper-V Server 2008 R2 sp1

19. Microsoft[®] Windows Failover Cluster Services

Verified this feature with following combination:

RAID System	OS Type	Microsoft [®] Windows Server 2012 Datacenter
Vess R2000 Series - iSCSI		Qlogic QLE4062C
		Qlogic QLE4050
Vess R2000 Series -FC		BROCADE 825
		BROCADE 815