



The Vess R2000 Series

The Ultimate in Value, Flexibility, and Reliability

The Vess R2000 Series provides SMBs a cost-effective way to keep data online longer while allowing fast access and the capability to scale into the enterprise cloud. The Vess R2000 Series is an ideal backup and archiving solution, and is certified with the industry's top virtualization platforms, including VMware vSphere, Citrix XenServer, and Microsoft Hyper-V. Delivering the industries best price/performance ratio, the Vess R2000 provides SMBs with a low cost entry point that can easily grow along with their business needs.



Why the Vess R2000 Series?

Best Price/Performance

The Vess R2000 Series is built for SMBs with a limited IT budget who require a cost effective solution without sacrificing performance. With the best price/performance ratio in the industry, Vess has fast become the storage solution the world's leading companies rely on.

Low Cost, High Capacity Backup and Archiving Solution

With new advanced data protection features, including Advanced Battery Flash Backup, the Vess R2000 Series is an ideal low cost backup and archiving solution with an outstanding track record for reliability.

Virtualization Ready

Ready to confront any challenge in today's virtualized IT environment, the Vess R2000 is certified with DataCore SANsymphony-V, VMware vSphere, Citrix XenServer, and Microsoft Hyper-V. Additionally, the Vess R2000 Series now supports VMWare VAAI which reduces resource overhead on VMWare vSphere ESXi hosts, significantly improving performance for storage-intensive operations.

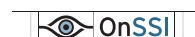


Outstanding Scalability

The Vess R2000 Series meets the needs of SMBs for an easy and cost effective solution that can seamlessly scale into the enterprise as their business grows. The Vess R2000 Series supports latest 6TB hard disk drives which allows each single storage node to scale up to an impressive 672TB of raw capacity through cascading JBOD expansion units.

Optimized for Video Surveillance

The Vess R2000 Series features an operating mode for IT and for video surveillance environments. Surveillance mode delivers more reliable and stable performance for video recording, especially when an array is in critical state or during rebuild. Additionally, Vess is certified and tested with the world's leading video management software solutions.



Unified Storage

Unified storage solutions present integrated SAN and NAS from one vendor, for both your higher performance block data applications and file sharing needs. Unified storage solutions provide a means to manage all your storage access needs, from file sharing to video surveillance streaming to an integrated solution with backup and archiving capabilities.

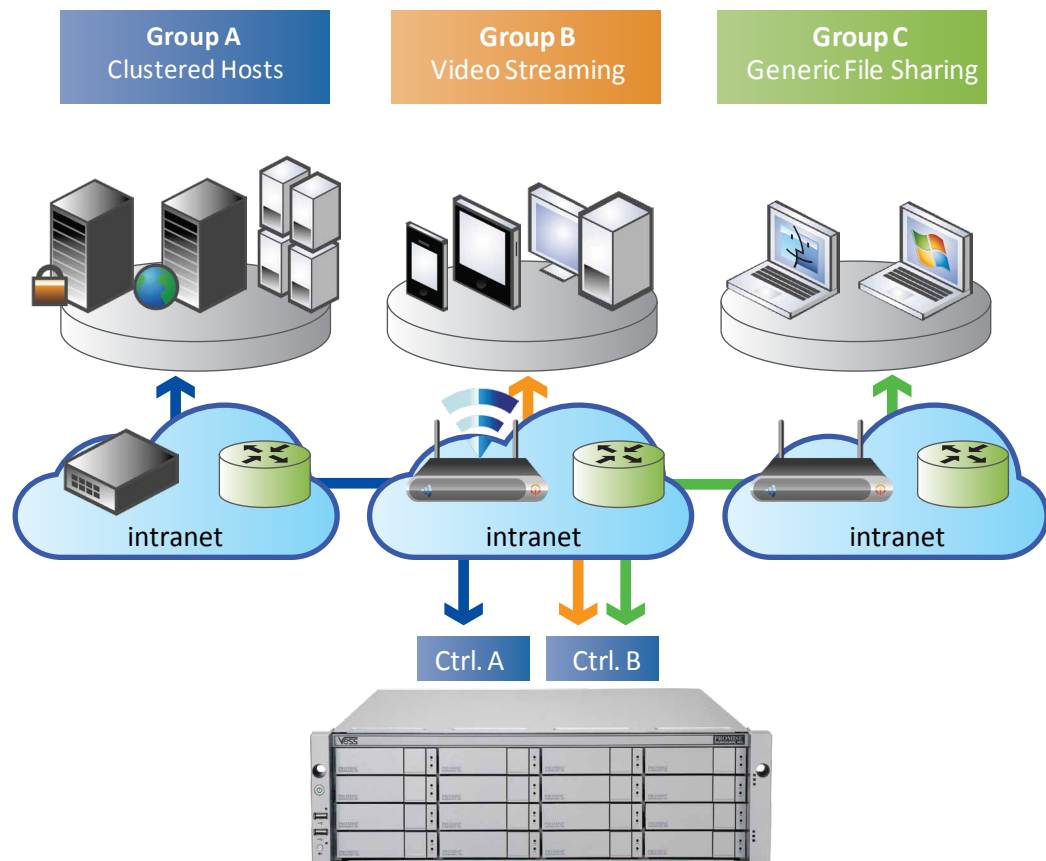
Why the Vess R2000 Series?

New and Improved!

The Vess R2000 delivers countless improvements over the 1000 Series, including dramatically improved performance as the dual controller models on average are 4x faster than 1000 Series. Plus, you can directly move the hard disk drive from your VessRAID 1000 to the Vess R2000, making data migration an extremely convenient process.

Innovative Dual Controller High Availability NAS Solution

As one of the first vendors to provide a dual controller high availability NAS Solution, PROMISE continues its unparalleled track record for innovation with the Vess R2000 Series. The dual controller high availability NAS solution delivers high performance throughput and supports remote replication.



User Friendly Design NEW Power Button

The power button is located on the front panel, creating a smooth experience when powering on the unit because users no longer need to go to the back of the unit to turn off the power switch, an inconvenience when dealing with multiple units (RAID + JBOD) in rack housing.

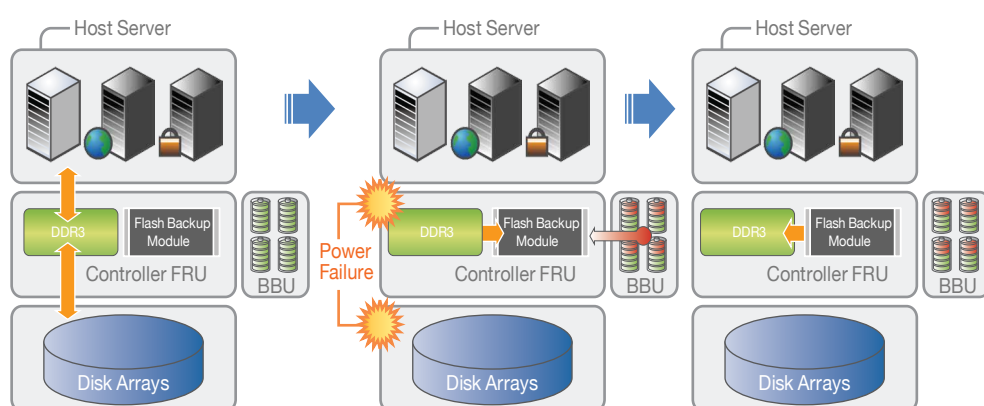
Mute Alarm Button

Conveniently located on the front panel so customers can easily mute the alarm. Previously, customers had to first connect a laptop to the unit and then access the web management UI console of the LCD module to mute the alarm.

What's New?

Advanced Battery Flash Backup

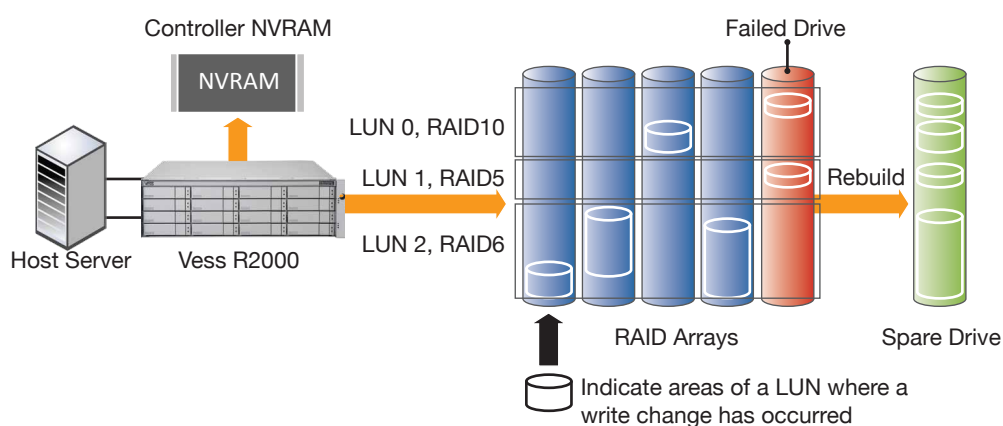
In the event of a power outage, Advanced Battery Flash Backup provides protection beyond the normal 72 hour backup of the RAID cache ensuring valuable data is not lost. It uses power from the Battery Backup Unit module to save write cache data used by the RAID controller (held in DDR3 DIMM) to non-volatile NAND flash memory. Once the write cache data backup is completed, the battery ceases to provide power and conserves whatever battery capacity remains.



Perfect Rebuild

Perfect Rebuild can improve the time to rebuild an array by more than 400%! Perfect Rebuild ignores any portion of the logical drive where no write changes have occurred, focusing only on the parts that have changed. This greatly reduces the time required for an array to transition from degraded to healthy status, and significantly reduces the risk of having a dead logical drive while freeing up CPU resources more quickly to be available for I/O and other demands.

LUN Capacity	LUN Usage	Time required		% Improved
		Full rebuild	Perfect Rebuild	
250GB	25%	67m 56s	16m 20s	416%
500GB	50%	68m 13s	34m 17s	198%
750GB	75%	68m 22s	49m 57s	137%



What's Special?

One Plug Auto Service

The Vess R2000 Series is designed specifically with SMBs in mind as it features One Plug Auto Service (OPAS) to reduce maintenance complexity and streamline an easier tech support workflow. Simply plug in a USB drive and the user can retrieve information about the system for tech support, upgrade firmware, reset passwords and much more.

Systeminfo Retrieval



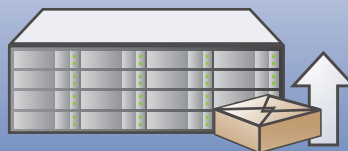
Comprehensive system report that contains detailed information such as NVRAM events and runtime events that have occurred.

Quick Installation



Firmware upgrade is operator-intensive, script for quick installation in initial setup dramatically reduces workload required.

Firmware auto upgrade provides a new user level practice while doing storage system update in the field.



Firmware Auto Upgrade

It's always challenging when you deal with numerous login usernames and passwords. It gives flexibility to resolve similar issues.



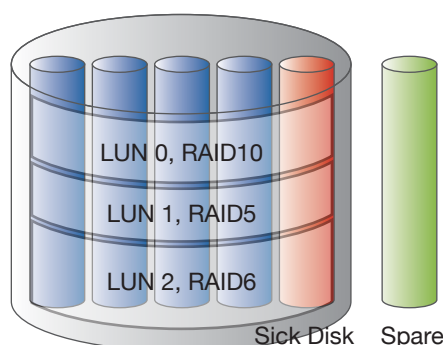
Password Reset

Predictive Data Migration

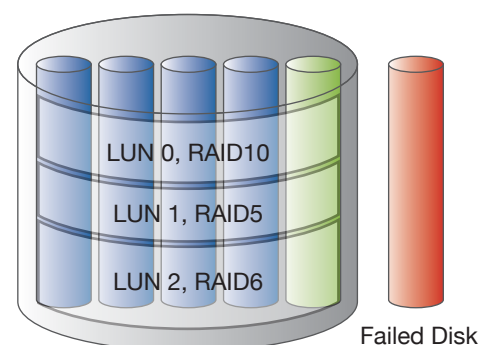
Predictive Data Migration (PDM) proactively detects possible drive failures before they could occur and migrates data to a new healthy drive. PDM dramatically reduces the potential for data loss as well as the likelihood of a logical drive going critical.

If a physical drive reaches a predetermined error threshold indicating it's failure is eminent, the data on the failing drive is copied directly to a hot-spare drive before the drive fails. Once the data is copied to the new drive, the failing drive is removed from the logical drive and the new drive is automatically incorporated into the affected logical drive resulting in zero downtime.

Under PDM process



After PDM is done



System Models	Vess R2600iS/R2600iD	Vess R2600fiS/R2600fiD	Vess R2600tiS/R2600tiD	Vess R2600xiS/R2600xiD
System and Controller Features				
Form Factor	3U	3U	3U	3U
Drive Support	16 Drives (3.5")	16 Drives (3.5")	16 Drives (3.5")	16 Drives (3.5")
	SAS/SATA¹ (6Gb/s or 3Gb/s), NCQ, TCQ			
# Controllers/CPU	Single/Dual (64bit 6-core @ 1.1GHz)			
Host Connectivity per Ctrl.	4x 1Gb iSCSI	2x 8Gb FC 4x 1Gb iSCSI	2x 10Gb iSCSI (BASE-T) 4x 1Gb iSCSI	2x 10Gb iSCSI (SFP+) 4x 1Gb iSCSI
Scalability	Up to 112 drives via cascading Vess J2000 series			
Data Cache	2GB standard per controller (max. 16GB)			
NAS Features²				
Supported Network Protocols	CIFS (MAC, Windows), NFS (Linux/Unix), AppleTalk (MAC) ,FTP, WebDAV			
Data Services	Backup Server, Share Disk Clone, Remote Replication, Online Recovery, File Backup/Restore			
Max. Share Disk	256			
Share Disk Size/Memory	8TB/2GB , 16TB/4GB , 32TB/8G, 64TB/16GB			
Concurrent Sessions/Memory	64/2GB, 256/4GB, 512/8GB, 1024/16GB			
Max. Account/Memory	1k/2GB, 2k/4GB, 5k/8GB, 10k/16GB			
Supported Domain	Microsoft ADS, LDAP			
Max. Domain Account	50k			
Share Disk Supports	Permission Management, Quota Management, Online Expansion			
Operational Features				
RAID Levels	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60			
Supported OS	Windows 2003, 2008/2008R2, 2012/2012R2³ RedHat Linux, SuSE Linux, Ubuntu, CentOS, VMWare ESXi 5.x, Citrix XenServer, Apple OS X⁴			
Data Protection Features	<ul style="list-style-type: none">• Predictive Data Migration (PDM)• Support Online Volume Copy• Zero Penalty Cache Mirroring• PerfectRebuild™ - Reduced Rebuild Time		<ul style="list-style-type: none">• Asymmetric LUN Unit Access (ALUA)• PerfectFlash™ -Non-Disruptive Image Update• Advanced Battery Flash backup	
Green Features	<ul style="list-style-type: none">• Compact and Lightweight System Design• Efficient 80PLUS Certified Power Supplies• Embedded Power Consumption Module		<ul style="list-style-type: none">• Full Levels of Intelligent Power Management MAID 2.0• Energy Savings on Power Scheduling	
System Information				
AC Input	100 ~ 240 VAC, 60 ~ 50Hz			
Current (Maximum)	4A (100V); 2A (240V)			
Power Supply	Three redundant 250W (Up to Four) 90-264V full-ranging w/PFC, Hot swappable N+1 Design			
FAN	Hot swappable redundant design with battery backup module			
Temperature	5° ~ 40°C⁵ (-40° ~ 60°C non operational)			
Relative Humidity	10% to 80% non-condensing			
Dimensions (H x W x D)	131 x 447 x 507 mm 5.1 x 17.6 x 20 in			
Weight	20.1 kg (44.3 lbs) w/o drives 31.3 kg (69 lbs) w/ drives			
EMC/ Safety	CE, FCC Class A, VCCI, BSMI, CB, KCC, C- Tick, UL/cUL			
Warranty and Support				
Warranty	3 years limited warranty⁶			
Supported Hardware Options	Flash Module, 8Gb SFP Optical Transceiver, SAS Cable, 3G SATA AA-Mux Adapter, 6G SAS-to-SATA Interposer Adapter, 10Gb SFP+ Optical Transceiver			

¹Additional AA-Mux adapter is required when use with SATA 3G drive, while SATA 6G drive requires 6G SAS-to-SATA Interposer adapter

²To obtain optimal NAS operations, it is highly recommended to use at least 8GB data cache per controller

³Microsoft® WHQL for Windows Server 2003, 2008/2008R2 and 2012/2012R2

⁴Support file-level AFP protocol and Time Machine Backup

⁵Operational Temperature between 5° ~ 35°C if BBU installed or use 15K-RPM SAS HDDs

⁶BBU is covered by one year limited warranty

PROMISE United States

Milpitas, CA, USA
Tel: +1-408-228-1400
E-mail: sales@promise.com

PROMISE EMEA – The Netherlands

Son, The Netherlands
Tel: +31-40-235-2600
E-mail:sales@eu.promise.com

PROMISE Germany

Dortmund, Germany
Tel: +49-231-56-76-48-0
E-mail:sales-de@eu.promise.com

PROMISE Italy

Rome, Italy
Tel: +39-06-3671-2626
E-mail:sales-it@eu.promise.com

PROMISE UK

Wokingham, United Kingdom
Tel: +44-870-112-59-77
E-mail:sales@eu.promise.com

PROMISE Taiwan

Hsinchu, Taiwan
Tel: +886-3-578-2395
E-mail:sales@tw.promise.com

PROMISE China

Beijing, China
Tel: +8610-8857-8085/8095
E-mail:sales@cn.promise.com

PROMISE Japan

Tokyo, Japan
Tel: +81-03-6801-8063
E-mail:sales@jp.promise.com