



# Vess R3000 Data Sheet

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#### Features

- Dynamic storage solution optimized for virtualized environments
- Unified FC & iSCSI connections for SAN and/or NAS in the same storage
- Support for on demand expansion, ideal for today's growing data centers
- Advanced Storage Services included at no extra cost
- Designed to meet the growing challenge of unstructured data

- Enterprise design with cutting edge redundancy, reliability and high capacity
- Flexible 1/10Gbe and optional 8/16G FC, with 12G/6G SAS and 6G SATA backward compatible
- Fully tuned RAID expansion for video surveillance applications
- CacheGuard Data Protection & Predictive Data Migration (PDM) keep you safe
- Scale up to 208 hard disk drives via Vess J3000 series expansion units

## Agility, Reliability and Ultimate in Value

The Vess R3000 Series unified storage appliance consolidates both block and file protocols onto a single hardware platform, providing today's SMB IT operations with cost-effective ways to be flexible, meet performance goals while simplifying storage administration. High availability features design with active-active configuration, the Vess R3000 Series storage solutions can be used in data-intensive environments such as virtualized, cloud data centers or mid-size to large scale surveillance installations utilizing the VESS A Series products where no downtime is required. From Terabytes to Petabytes and beyond with support for on-demand expansion capability plus advanced storage services features bundled, the Vess R3000 Series offerings are the most cost-effective solutions that all SMB's can afford.

#### Efficient, Intelligent and Highly Scalable for Your Business Needs

Future proof your storage investment, the Vess R3000 Series supports up to 208 hard drives with online expansion capability. Over-allocating of storage leveraging Thin-Provisioning feature helps take the worry out of planning and testing when additional capacity is required in the future. The included Read/Write Flash Cache Acceleration feature provides additional performance boost while lowering the latency. PROMISE intelligent data caching automatically promotes hot data to cache in real time, so you get the full benefit of flash performance. An additional layer of data protection with the use of the Snapshot feature aides with Point-in-Time content recovery when your business needs it most.

### Simplifying Management and Support

Simplicity and ease of use are absolutely crucial for SMBs with limited IT resources. The Vess R3000 is designed specially 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. Embedded web storage management with intelligence Wizard technology helps reduce the learning curve for setup and configuring of the storage solution in your environment.

### Going the Extra Mile to Protect Your Data

The Vess R3000's new CacheGuard Data Protection features, Advanced Battery Flash Backup, go that extra mile to ensure your data is safe in case of power loss. Delivering protection of RAID controller write cache content beyond the standard 72-hour window, you can rest assured knowing your data is protected even when disaster strikes. Predictive Data Migration (PDM) proactive and predictive analytics keep your data safe with self healing technology.





# **Technical Specifications**

Models and Controller Feature						
Models *S: Single Controller / D: Dual Controller	Vess R3600iS*/ R3600iD*	Vess R3600xiS*/ R3600xiD*	Vess R3604fiS* / R3604fiD	Vess R3600tiS*/ R3600tiD*		
Drive Support	• Up to 16 3.5" drives     • 6/12 Gb SAS, 6 Gb SATA HDD <sup>2</sup> and SSD     • Supports any mix of SAS and SATA drives simultaneously in the same enclosure					
Memory	8GB x 1 per ctrl (up to 64G					
Host Connectivity per Ctrl	1x Quad port 1GbE	1x Quad port 1GbE 1x Dual port 10GbE SFP+	1x Quad port 1GbE 1 X Quad port 16GB FC	1x Quad port 1GbE 1x Dual port 10GBASE-T		
Capacity/Expansion	Online Capacity/Volume E	xpansion up-to 12 JBOD's, 208				
Operational Features						
RAID Levels	0, 1 , 5, 6, 10, 50, 60					
RAID Stripe Size Support	64K, 128K, 256K, 512K and 1MB					
Hot Spares	Global or dedicated with revertible option					
Max pool per System	Advance pool: 32     Standard pool: 32					
Max Volumes per System	Advance pool: 1024	Advance pool: 1024     Standard pool: 991				
Max Volumes per Pool	Advance pool: 256	<ul> <li>Standard pool: 31</li> </ul>				
Advanced Storage Features	Advanced Cache Mirroring over PCle Gen3     I/O performance & power monitoring tools     Asymmetric LUN Unit Access (ALUA)     OreffectFlash - Non-Disruptive Software Update     USB Service Log					
Data Services <sup>1</sup> (Advanced Pool)	Thin Provision     Snap	• Thin Clone	Thick Clone     SSD Cach	e		
Background Activities	Media Patrol     Foreground Initialization     Redundancy Check     Feature rich task schedule	er for background activities	Background Synchroniza     Rebuild     Disk SMART Polling     UPS Monitoring	tion		
PerfectRAID Features	Predictive Data Migration (PDM)     NVRAM Error Logging     Intelligent Bad Sector Remapping     Disk Slot Power Control     SMART Error Handling					
SAN Protocol	• 8/16G FC ; Max 256 Sessio	ons per port	• 1/10G iSCSI ; Max 1024 S	essions per controller		
Storage Expansion per Ctrl	1 x one 12Gb SAS Mini-SAS	5 (SFF-8644)				
Management per Ctrl	1 x RJ-45 1Gb Ethernet and	1 x RJ-45 1Gb Ethernet and 1x RJ11 Serial Port				
GreenRAID Features	<ul> <li>Four levels of advanced p</li> </ul>	ower management disk drive	(MAID) support • Efficient 8	0Plus Certified Power Supply		
NAS Features <sup>1</sup>						
Supported Network Protocols		, NFS (Linux/Unix), FTP, WebD/	AV			
Max. NAS Share	1024 per pool					
NAS Share Size	1PB					
Max. no. of Concurrent Sessions	4096					
Max. Account		10K				
Supported Domain Max. Domain Account	100k	Microsoft Active Directory, LDAP, Apple Open Directory				
Data Management		Queta Management Online Ev	mansion			
System Management	Permission Management,	Quota Management, Online Ex	parision			
Management Interfaces	Web Based management     Third Party Management	using WebPAM PROe (Etherne Support via SNMP	et) • Comman	d Line Interface (CLI)		
Supported OSs	, 3	2, 2016, OS X 10.x, RHEL 6.5, 6.6	6 6 7 and 7 2 SLES 11 11 SP4	and 12 SP1		
Software Certification		ver 7.4, Windows Server 2012 F				
Mechanical Specifications		.,				
Power Supply	CRPS 550W ; Efficiency 80F	LUS Certified Redundant Powe	er Supply			
Voltage		AC: 100-240VAC; DC: 180-320VDC Auto-Ranging				
Current	<8A@100-240VAC@full load; <8A@180-320VDC@full load					
Power Conversion Efficiency		>80% @ 110V (>20% load), >80% @ 240V (>20% load) Temperature Range				
Temperature Range	Operational: 5° to 35°C, No	Operational: 5° to 35°C, Non-Operational: -40° to 60°C				
1	Operational: 20% to 80% (	Operational: 20% to 80% (Non-Condensing), NonOperational: ~ 95% (Non-Condensing)				
Humidity	< 60dB, 25C					
Humidity Acoustic Noise Levels	< 60dB, 25C					
,		ation, Non-Operational: 30G, 1	1ms duration			
Acoustic Noise Levels	Operational: 5G, 11 ms due Operational: 0.2G, 5 to 500	ation, Non-Operational: 30G, 1 Hz (sine wave) ; 0.41G, 3-10-20 500Hz (sine wave) ; 2.256G, 5-8	0-500Hz (Random) ,			
Acoustic Noise Levels Shock	Operational: 5G, 11 ms due Operational: 0.2G, 5 to 500	Hz (sine wave) ; 0.41G, 3-10-20	0-500Hz (Random) ,			
Acoustic Noise Levels Shock Vibration	Operational: 5G, 11 ms due Operational: 0.2G, 5 to 500 Non-Operational: 1G, 5 to	Hz (sine wave) ; 0.41G, 3-10-20 500Hz (sine wave) ; 2.256G, 5-8	0-500Hz (Random) ,			
Acoustic Noise Levels Shock Vibration Environmental Standards	Operational: 5G, 11 ms due Operational: 0.2G, 5 to 500 Non-Operational: 1G, 5 to RoHS, WEEE	Hz (sine wave) ; 0.41G, 3-10-20 500Hz (sine wave) ; 2.256G, 5-8	0-500Hz (Random) ,			
Acoustic Noise Levels Shock Vibration Environmental Standards Dimensions (H x W x D)	Operational: 5G, 11 ms due Operational: 0.2G, 5 to 500 Non-Operational: 1G, 5 to RoHS, WEEE	Hz (sine wave) ; 0.41G, 3-10-20 500Hz (sine wave) ; 2.256G, 5-8	0-500Hz (Random) ,			
Acoustic Noise Levels Shock Vibration Environmental Standards Dimensions (H x W x D) Warranty and Support	Operational: 5G, 11 ms duu Operational: 0.2G, 5 to 500 Non-Operational: 1G, 5 to RoHS, WEEE 131mm x 446.7mm x 507n 3 years limited warranty	Hz (sine wave) ; 0.41G, 3-10-20 500Hz (sine wave) ; 2.256G, 5-8 nm (5.2" x 17.6" x 19.96")	0-500Hz (Random) , 10-350-500Hz (Random)	poser Adapter,10Gb SFP+ Optical Transceiver		

<sup>1</sup> 32GB DRAM is required for NAS Feature and Data Services.

<sup>2</sup> SATA drives require a SAS-SATA adapter.



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