Unified Storage to Guard Your Business

Vess R3000
Storage Solution for SMBs

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*	R3604fiS* / R3604FiD*	Vess R3600tiS*/ R3600tiD*
Drive Support	• Up to 16 3.5" drives • 6/12 Gb SAS, 6 Gb SATA HDD and SSD • Supports any mix of SAS and SATA drives simultaneously in the same enclosure			
Memory	8GB x 1 per ctrl (up to 64GB)			
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 Expansion up-to 12 JBOD's, 208 Drivers			

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 Volumes per System	• Advance pool: 1024 • Standard pool: 991
Max Volumes per Pool	• Advance pool: 256 • Standard pool: 31
Advanced Storage Features	• Advanced Cache Mirroring over PCIe Gen3 • I/O performance & power monitoring tools • LUN Masking and Mapping • USB Service Log • Asymmetric LUN Unit Access (ALUA) • Data Services¹: Thin-provision, Snapshot and Clone • PerfectFlash - Non-Disruptive Software Update
Background Activities	• Media Patrol • Background Synchronization • Foreground Initialization • Rebuild • Redundancy Check • Disk SMART Polling • Feature rich task scheduler for background activities • UPS Monitoring
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 Sessions per port • 1/10G iSCSI ; Max 1024 Sessions per controller
Storage Expansion per Ctrl	1 x one 12Gb SAS Mini-SAS (SFF-8644)
Management per Ctrl	1 x RJ-45 1Gb Ethernet and 1x RJ11 Serial Port
GreenRAID Features	• Four levels of advanced power management disk drive (MAID) support • Efficient 80Plus Certified Power Supply

NAS Features¹

Supported Network Protocols	SMB/CIFS (Windows, MAC), NFS (Linux/Unix), FTP, WebDAV
Max. Share Disk	1024 per pool
Share Disk Size	1PB
Concurrent Sessions	4096
Max. Account	10K
Supported Domain	Microsoft Active Directory, LDAP, Apple Open Directory
Max. Domain Account	100k
Data Management	Permission Management, Quota Management, Online Expansion

System Management

Management Interfaces	• Web Based management using WebPAM PROe (Ethernet) • Command Line Interface (CLI) • Third Party Management Support via SNMP
Supported OSs	Windows Server 2008, 2012, 2016, OS X 10.x, RHEL 6.5, 6.6, 6.7, and 7.2, SLES 11, 11 SP4, and 12 SP1
Software Certification	VMware ESXi 6.7, Citrix Server 7.4, Windows

Mechanical Specifications

Power Supply	CRPS 550W ; Efficiency 80PLUS Certified Redundant Power 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, Non-Operational: -40° to 60°C
Humidity	Operational: 20% to 80% (Non-Condensing), Non--Operational: ~ 95% (Non-Condensing)
Acoustic Noise Levels	< 60dB, 25C
Shock	Operational: 5G, 11 ms duration, Non-Operational: 30G, 11ms duration
Vibration	Operational: 0.2G, 5 to 500Hz (sine wave) ; 0.41G, 3-10-200-500Hz (Random) , Non-Operational: 1G, 5 to 500Hz (sine wave) ; 2.256G, 5-80-350-500Hz (Random)
Safety and Emission Certification	EMC Class A: CE, FCC, VCCI, BSMI, RCM Safety: IEEE CB, NTRL
Environmental Standards	RoHS, WEEE
Dimensions (H x W x D)	131mm x 446.7mm x 507mm (5.2" x 17.6" x 19.96")

Warranty and Support

Warranty	3 years limited warranty
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

Note:
¹ 32GB DRAM is required for NAS Feature and Data Services.

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