VessRAID™ 1000f Series

RAID Vess

Fiber/iSCSI-to-SAS/SATA RAID 6 Storage System
Unified Storage System with Multiprotocol Support
Achieving High Performance Throughput over 1300MB/s

Unified Solution

For businesses that are always committed to use Fiber Channel storage network, VessRAID allows them to upgrade their existing data storage from 4G to 8G infrastructures at lower costs. Best of all, the product is a unified networked storage designed to support file and block level data transfer via IP and Fiber Channel ports. The multiprotocol-support VessRAID is a unified platform[1] making network-attached storage (NAS) and storage-area network (FC and iSCSI) data transport possible in one system.

Energy Saving

Being green is important for business now. VessRAID features advanced hardware design using 80PLUS-certified power supplies, and supports complete levels of MAID2.0 that both can greatly improve system's power effectiveness in management and reduce heat generation. In addition, the power scheduling function allows users to power off the system and performs a disk-to-disk backup or restore on a scheduled basis. As the task completes, system returns to standby until the next one starts, resulting in a considerable 70% cost savings annually.

Smart Management

OPAS is designed to reduce maintenance complexity and streamline an easier tech support workflow as much as possible. It provides a new level of user convenience unique to Promise. With a simple USB stick plugging in, it can perform system information retrieval, firmware auto upgrading, script for quick installation and password resetting.

Competitive Pricing

Economic slowdown worldwide have caused a number of businesses to either cut their IT budgets or delay their purchasing decisions for new storage equipments, yet there is still need for inexpensive and feature-rich storage solutions as data grows on a day to day basis. The VessRAID family of products provides a reliable data protection you expect from Promise to keep data online longer through a cost-effective way for businesses to easily meet storage demands.

System Highlights and Benefits

- :: 16 hot-swappable SAS/SATA 6Gb/s[2] or 3Gb/s drive support in a robust 3U chassis
- :: Dual-port FC 8Gb and dual-port iSCSI 1Gb links
- :: Link aggregation and jumbo frames support
- :: SMB/CIFS, NFS, FTP support
- :: Microsoft Active Directory Support
- :: Client-to-Host Volume Clone, Box-to-Box Replication, and NAS Fusion
- :: Scale up to 112 Hard Disk Drive via VessJBOD Expansion units
- :: Over 1300MB/s disk sequential throughput
- :: Dual hot-swap redundant power supply unit with 80PLUS Certified
- :: OPAS and UPS Monitor via USB service
- :: Embedded web-based management via Ethernet – WebPAM PROe
- :: Power Scheduler Operation
- :: MAID 2.0 support
- :: Wake-on-LAN support (VessRAID)
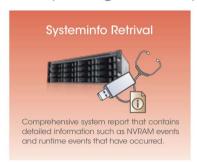- :: Wake-on-SAS support (VessJBOD)

Serial Attached SCSI

SERIAL ATA 6Gb/s **SERIAL ATA 3Gb/s**

vmware® READY

RoHS 2002/95/EC

[1] VessRAID 1000f series supports FC+iSCSI+NAS protocols, please use firmware SR4 or later versions.
[2] Initiator still operates at 3Gb/s mode

OPAS (One Plug Auto Service)

Systeminfo Retrival

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

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

Firmware Auto Upgrade

Quick Installation

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

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

Password Reset

System data and configuration can be transferred to a USB 2.0 memory stick connected to the integrated USB 2.0 port. The information can be forwarded to engineer for technical service or support.

VessRAID™ 1000f Series Specifications

VessRAID System	VessRAID 1840f
System and Controller Features	
Form Factor	3U
Drive Support	16 Drives (3.5") SAS/SATA (6Gb/s or 3Gb/s), NCQ, TCQ
Controller	Single (Intel® IOP348 1.2GHz)
Host Channel	Dual Ports full-duplex 8Gb FC and Dual Ports full-duplex 1Gb iSCSI
Promise Expansion Enclosure	One Port SAS-wide (x4) for VessJBOD series
Max. Drives Supported	112
Data Cache	1GB~2GB ECC cache memory with Optional BBU (Battery Backup Unit)
Fiber Features	8/4/2Gbs manual or auto-negotiation Support N_Port, NL_Port, and auto-detect topology negotiation Point-to-Point, Arbitrated loop (FC-AL, FC-AL2) and Switched Fabric topologies Fibre Channel Class of Service 3 Fibre Channel SCSI protocol (FCP)
iSCSI Features	Error Recovery Level 0 Link Aggregation and Jumbo Frames w/ up to 64 Concurrent Sessions CHAP, iSNS and DHCP Microsoft iSCSI MPIO Support
Command Queue Depth	1024
NAS Features	
Supported Network Protocols	SMB/CIFS (Apple, Microsoft), NFS (Linux/Unix), FTP
Data Services	Client-to-Host Volume Clone, Box-to-Box Replication, NAS Fusion
Max. Size per Volume/No. per Volume	16TB/32
Concurrent Sessions/Memory	64/1GB, 128/2GB
User Management	Microsoft ADS
SmartNAVI Features	Backup/Restore Data, Scheduled Operation, User Management, Share Folder Administration, Auto-detect VessRAID and IP Assignment
Operational Features	
RAID Levels	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60
Hot spares	Global or Dedicated w/ revertible option
Max. LUNs per subsystem/array	256/32
Variable Block and Sector Size	64KB ~ 1MB stripe block sizes 512B, 1KB, 2KB, 4KB sector size
Disk Data Formats	Supports Disk Data Format (DDF) for drive roaming between VTrak and VessRAID
System Management	
Supported OS	Windows 2000, XP, 2003, Vista, 2008[1] RedHat Linux, SuSE Linux, FreeBSD 7.0 VMWare ESX 4.0, ESX 4.0 U1
Management Tools	WebPAM PROe/SNMP via Ethernet CLI/CLU via RJ-11 or Ethernet LCD Control Panel (Optional) OPAS/UPS Monitor via USB service Power Scheduler Control
Management Interfaces/Protocols	Ethernet, RJ-11 Serial Port, USB SNMP, SSL, Telnet, SLP
Event Notification	Email , SNMP, NETSEND, Buzzer, LEDs, LCD Control Panel
System Information	
AC Input	90 ~ 264 VAC, 47 ~ 63Hz
Current (Maximum)	8A (100V); 4A (240V)
Power Supply	Dual 450W 90-264V full-ranging w/PFC 80PLUS Efficiency Hot swappable and redundant
Power Consumption	241.8 Watts (w/ SAS drives); 51.3Watts (w/o drives)
FAN	N+1 Design
Temperature	5° ~ 40°C[2] (-40° ~ 60°C non operational)
Relative Humidity	10% to 80% non-condensing
Dimensions (H x W x D)	130.1 x 446.2 x 461 mm; 5.1 x 17.6 x 18.1 in
Weight	15 kg (33.07 lbs) w/o drives; 25.4 kg (56 lbs) w/ drives
Safety/EMI	CE, FCC Class B, VCCI, BSMI, CB, KCC, C-Tick, UL/cUL, TUV
Base Configuration	VessRAID 3U Unit w/ Drive Carrier RJ11-to-DB9 Serial Data Cable, Power Cord (Dual PSU: 2) Quick Start Guide, Set of Screws, CD (Product Manual, SNMP files, QSG)
Warranty and Support	
Warranty	3 years limited warranty[3]
Supported Hardware Options	LCD Panel, Front Bezel, Sliding Rail, Battery Backup Unit, SAS Cable, Fiber Cable, 8Gb SFP Optical Transceiver

[1]Microsoft® WHQL for Windows Server 2003 and 2008
[2]Operational Temperature between 5° ~ 35°C if BBU installed
[3]BBU is covered by one year limited warranty
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