

Supports over 7 TB of reliable, high performance, low-cost storage

VTrak M-Class



Product Highlights

- 2U/3U rackmount with a cable-less design for higher reliability and major components are hot-swappable.
- Full HW iSCSI solution with SATA drives
 - Lower CPU utilization and Higher data integrity (data digest)
- Supports up to 256 logical drives and 32 hosts
- Dual 1 Gb iSCSI host ports
- Supports SATA 3Gb/s drives
- Supports NCQ and TCQ for improved performance
- LUN Masking and Mapping enable SANs and large clusters
- Performance
 - Up to 350 MB/s throughput
- 3 Year Warranty
 - Extensively tested products and high quality ISO-approved manufacturing
 - 24 x 7 support and advanced field replacement (English only)

Key Advantages

- **Configurable to over 6TBs of data storage in a 2U environment**
- **Robust Data Protection**
 - PerfectRAID™, Predictive Data Migration™ Battery backup, Media Patrol
- **Industry Standards Compliance**
 - Management: Web-based application, email, SNMP, WBEM/CIM, SSL
 - Host interface: iSCSI
- **Compatibility**
 - Promise's 80%+ market share in ATA RAID provides the foundation of extensive drive and OS compatibility
 - Extensive qualification of third party HBAs, initiators, switches and backup software
- **Modular architecture – The VTrak Mx00i series of RAID storage systems share the same:**
 - Graphical user interface (GUI) – Same look and feel when configuring and managing the system
- **Freedom of Choice: Choose the capacity and brand of hard disk drives in your VTrak product**
 - End Users: Save money with drives that are suitable for your application. Upgradeable as your storage needs increase.
 - System Integrators and Value-Added Resellers: Increase your margins by selecting drives purchased at the lowest cost.
- **Tested by leading HDD vendors for drive compatibility and reliability**

* 24 x 7 support available in the United States for VTrak customers only. Effective 08/01/05

Product Overview

Feature Set

- **RAID Level supported**
 - 0,1,5,10,1E, 50
 - Up to 256 Array and Up to 32 LD per Array
 - RAID level, Stripe size, sector size, cache policy is per LD basis
 - 8k to 1M strip size support
 - Persistent and unique LD WWN and S/N during creation
 - Out of order LD deletion and re-creation
 - Global and dedicated (per array) hot spare with revertible hot spare support
- **Background Activities**
 - Media Patrol
 - Background synchronizing
 - Foreground initialization
 - Rebuild
 - Redundancy Check
 - SMART condition pooling
 - PDM (Predictive Data Migration)
 - OCE (Online Capacity Expansion)
 - RLM (RAID Level Migration)
 - Priority Control, Rate control and watermarking per BGA in Disk and NVRAM
- **iSCSI Features**
 - iSCSI and TCP offload chip (Qlogic iSCSI chip)
 - DHCP, iSNS, SLP support for device discovery
 - Header and Data Digest support
 - CHAP support
 - Microsoft iSCSI MPIO and Clustering support (2 node and 3 node tested)
 - Error Recovery level 0 support
 - Copper Gigabit Ethernet ports for iSCSI

Target Applications

- Any application that requires TB's of data storage with faster access than tape libraries
- 2-4 node application clustering
- Nearline/Archival data (medical/legal/financial records, e-mail, source code, doc control, records, etc)
- Disk based backup
- Document/Medical imaging
- Digital Video Surveillance
- Audio/Video editing, archive, distribution and scratch disk
- Video production and editing
- Entry level SAN's

VTrak Competitive Advantages

- Advanced data protection
 - Predictive Data Migration and PerfectRAID error handling
- Enterprise level shock and vibration dampening
 - Low performance loss up to .25g vibration
- Enhanced management
 - Vital Product Data on all FRUs
 - Embedded web GUI management
 - Standards based: CIM and SNMP
- Interface flexibility- FC or iSCSI
 - The same feature set and price for either one
- Ease of qualification and support
 - The same firmware and controller is shared amongst all chassis models (8,12 & 15 drive)

Product Overview (cont'd)

Management Software

- Embedded Web server and mgmt support – No host agent is needed
- Out of Band (Ethernet, RS-232)
- Extensive CLI (RS-232 or telnet), CLU and feature rich, user friendly GUI support
- SNMP and CIM support for monitoring
- Auto, Express and Advanced configuration support for novice and skilled user
- Email notification
- Extensive user database mgmt
- Import/export function for
 - User data base
 - RAID configuration
 - Event files
- Multiple subsystem support utilize SLP discovery
- Microsoft VDS support



Drive Carrier

- Hot swap drive carriers for 3.5" x 1" drive form factor
- Direct SATA drive connection to the backplane
- Drive status and activity LED
- Positive camming action ensures reliability

Enclosure Hardware

- 2U/3U enclosures
- 8, 12, 15 drive bays
- Hot swappable Field Replaceable Units (FRUs): power supplies, disk drives and carriers (2U and 3U components differ)
- Hot swappable IO Controller
- Completely cable-less design for all components
- Dual N+1 redundant PSUs
- 72 Hour Battery Backup built-in
 - In cooling unit for higher reliability

Controller

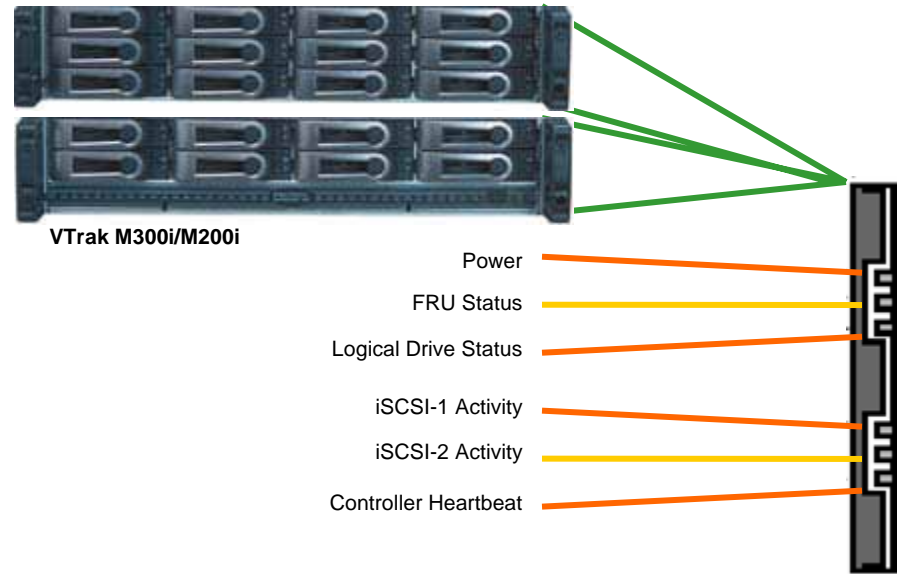
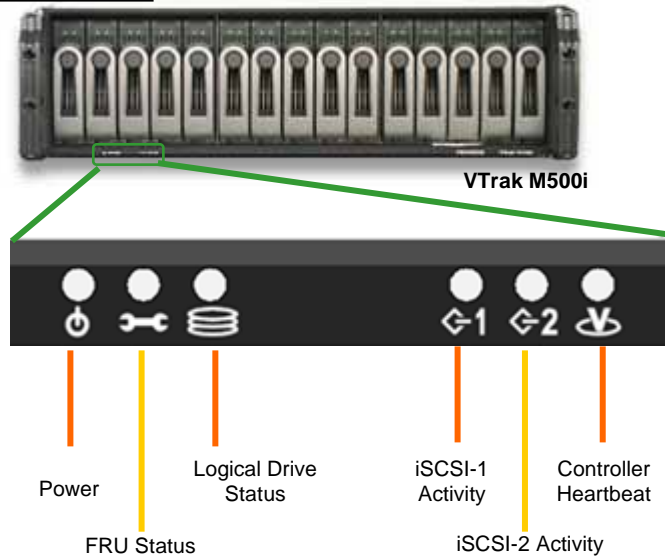
- 733MHz IOP with switch fabric and dual peer to peer PCI-X buses
- Dual iSCSI / FC /U320 Ports
- Full SATA 3Gb ports with NCQ/TCQ support
- Single board design for enhanced reliability
- Same controller fits all three chassis form factors
- RS-232 and Ethernet port for out of band mgmt
- 256 and 512 MB SDRAM SODIMM
- 72 Hour Battery Backup built-in
 - located In the cooling unit for higher reliability

Enclosure Management

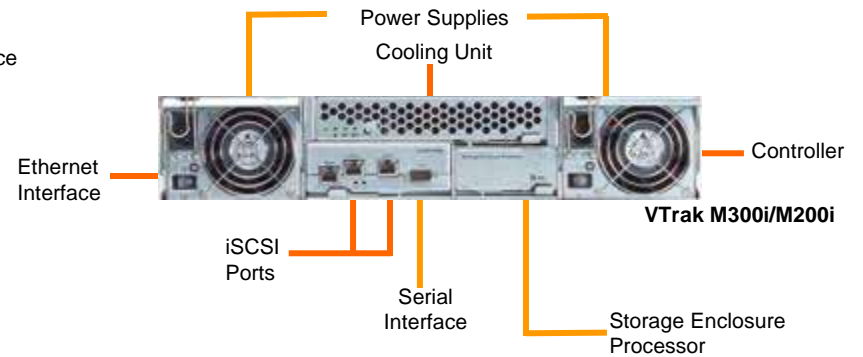
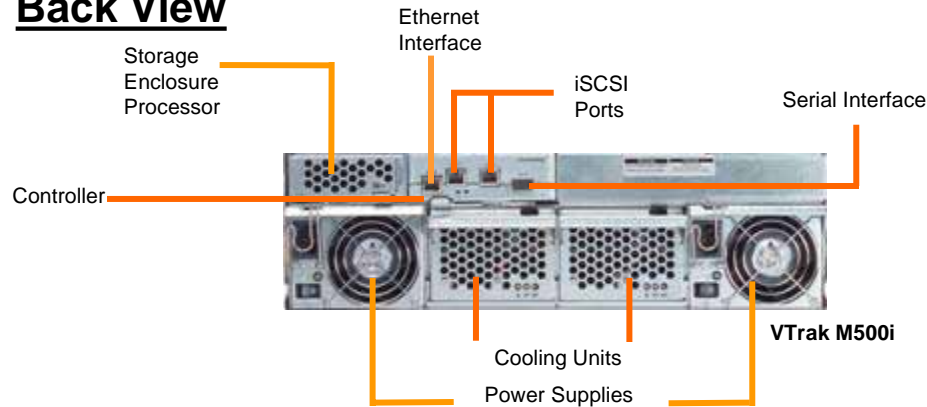
- SAFTE over SEP design
- Locate function for drive, FRU units and subsystems
- All back side FRU's support Vital Product Data (VPD)
 - Provides access to all SN, part #, revision and more
- Fan speed control tuned to thermal/airflow condition for noise reduction

Product Overview (cont'd)

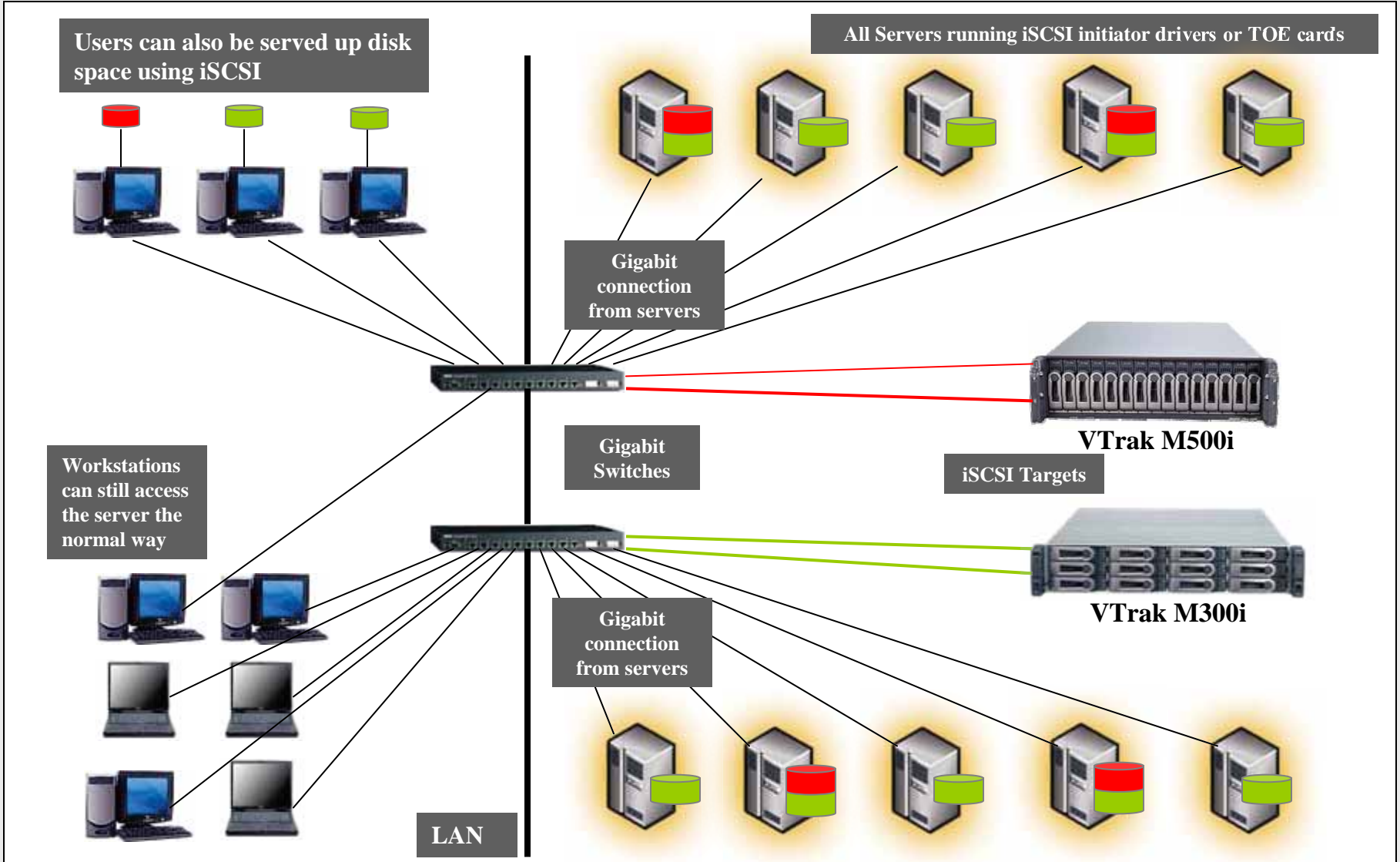
Front View



Back View



iSCSI SAN



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