VTrak

VTrak D5000   Data Sheet

Features

▸ Simplify Your Storage Environment
- Consolidate SAN and/or NAS workload on the same storage solution
- Hybrid interfaces allow Concurrent FC & ISCSI connections for SAN as well as NAS protocols

▸ Eliminate Downtime
- Fully redundant design for enterprise
- Active-Active Dual Controller with ALUA support for access flexibility
- Upgrade & expand without downtime

▸ Realize Superior Value
- Accelerate enterprise applications
- Reduce latency and speed operations with up to 50% higher performance
- As low as $60 per terabyte

▸ Proactive & Predictive Analytics
- Background data integrity scrub with parity
- Predictive Data Migration (PDM) to minimize maintenance rebuild

▸ Consolidate Infrastructure
- Massively scale up to 512 drives
- Flexible 10GbE and optional 8/16G FC, with 6G SAS/SATA[1] and 12G SAS interfaces
- Integrate into existing Open Directory and Active Directory environments

▸ Applications
- Video Compressed Workflow
- General IT Infrastructure
- Virtualized Applications
- High Bandwidth Applications
- Backup and DR target

VTrak D5000 Unified Storage System

VTrak D5000 series unified storage systems deliver uncompromising scalability, flexibility, and affordability for the mid-tier while providing simplicity and efficiency for minimizing total cost of ownership. Customers can respond more quickly to changing storage capacity and performance requirement needs.

Accelerate Business with VTrak D5000

VTrak D5000 enables data driven business with an integrated combination of high-performance hardware, adaptive storage software, flexible protocols and application dependent front and backend connectivity at an affordable price.

Unlock Power of Flash Cache at Affordable Price

Flash Cache accelerated VTrak D5000 storage systems deliver impressive performance, boosting throughput and lowering latency. User has option to add Flash Cache for read and write acceleration. PROMISE intelligent data caching automatically promotes hot data to cache in real time, so you get the full benefit of flash performance.

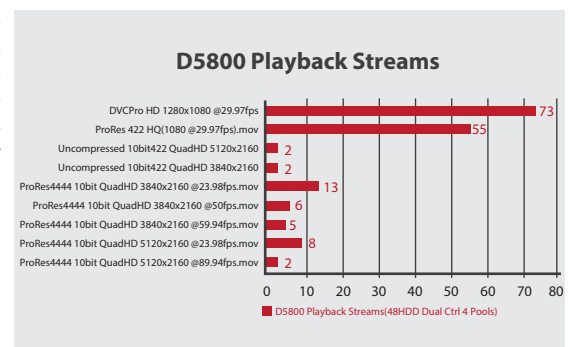## Not just for IT, Optimized for video application environments

The Promise VTrak D5000 is optimized for 10Gb Ethernet via SMB/NFS protocols for large file data ingesting, streaming, or processing between the VTrak D5000 NAS storage appliance and its clients.

Data can also be directly transferred between the VTrak D5000 appliance and clients over the SAN via iSCSI/Fibre Channel network. This means higher bandwidth performance and lower latency data transfers, perfect for Media & Entertainment, HPC applications, and other video-centric environments.

In addition the VTrak D5000 supports Open Directory and Active Directory making it fully integrateable into your existing networking environment.

Edit & play back compressed video faster

A faster processor, 10Gb Ethernet ports, and more memory is just the beginning. Enhanced cached mirroring design, auto-regeneration of data to mitigate frame drops and optimized disk access all add up to blazing performance for broadcast and editing environments. The VTrak D5000 Series optimizes performance to enable media professionals to increase productivity by allowing efficient processing of compressed video, delivering best-in-class performance and reliability.

D5800 Playback Streams

Stream	Value
DVCPro HD 1280x1080 @29.97fps	73
ProRes 422 HQ(1080 @29.97fps).mov	55
Uncompressed 10bit422 QuadHD 5120x2160	2
Uncompressed 10bit422 QuadHD 3840x2160	2
ProRes4444 10bit QuadHD 3840x2160 @23.98fps.mov	13
ProRes4444 10bit QuadHD 3840x2160 @50fps.mov	6
ProRes4444 10bit QuadHD 3840x2160 @59.94fps.mov	5
ProRes4444 10bit QuadHD 5120x2160 @23.98fps.mov	8
ProRes4444 10bit QuadHD 5120x2160 @89.94fps.mov	2

■ D5800 Playback Streams(48HDD Dual Ctrl 4 Pools)

Scalable, reliable and cost-efficient

With VTrak D5000 you can "pay as you grow" from 64 Tera Bytes to Peta Bytes for long-term storage investment protection. Perfect not only for compressed video workflow environments but ideal for low cost backup/archive applications. Additionally, VTrak D5000 series comes with high-availability dual controllers, hot-swappable modular disk array, and a 3 year 24x7 technical support, with next business day on-site parts replacement warranty. Expansion units can start from 2u24 small form factor to large form factor 2u12, 3u16, 4U24 and up to the high density 4u60 JBOD expansion options, scale up to 512 drives.

The VTrak D5000 is the most affordable Enterprise storage solution starting as low as $60 per terabytes plus additional savings from less cooling, less rack space and energy costs.

visit www.promise.com for more information on PROMISE products

Technical Specifications

Models and Controller Feature

Models	VTrak D5300 D5300x / D5300fx	VTrak D5320 D5320x / D5320fx	VTrak D5600 D5600x / D5600fx	VTrak D5800 D5800x / D5800fx
Form Factor	2RU	2RU	3RU	4RU
Drives	12 (LFF)	24 (SFF)	16 (LFF)	24 (LFF)
Host Connectivity	D5000xD: iSCSI and NAS Storage Sub-System, Dual HA Controller w/ 4-port 10GSFP+ D5000xS: iSCSI and NAS Sub-System, Single Controller w/ 2-port 10GSFP+ D5000fxD: FC, iSCSI and NAS Unified Storage Sub-System, Dual HA Controller w/ 4-port 10GSFP+ and 8-port 16Gb FC D5000fxS: FC, iSCSI and NAS Unified Storage Sub-System, Single Controller w/ 2-port 10GSFP+ and 4-port 16Gb FC			
Storage Expansion Ports	2 x 2 12Gb SAS Mini-SAS (SFF-8644) per controller			
Management Ports	2 x RJ-45 1Gb Ethernet and 1 x RJ-11 Serial Port per controller			
Capacity/Expansion	Online Capacity/Volume Expansion up-to 15 JBOD's ; up to 512 drives			

Data Services and Feature

Max Pools/Volumes	256 volumes per pool, Max 32 pools per System; Max 512 Snapshots / 128 Clones per volume
Data Services(Advanced Pool)	• Thin Provision • Thin Clone • Compression • Local Replication • Snapshot • Thick Clone[2] • SSD Cache
Advanced Storage Features	• Asymmetric LUN Unit Access (ALUA) • Advanced Cache Mirroring over PCIe Gen3 • LDAP for central user management • Microsoft AD, LDAP and OD • Linux Permission, POSIX ACL,NT ACL

NAS Feature

Supported Network Protocols	SMB/CIFS (Windows, MAC), NFS (Linux/Unix), FTP, WebDAV
Max. NAS Share	1024 per pool
NAS Share Size	1PB
Concurrent Sessions / Memory	256 for each protocol /32GB, 128 for each protocol /16GB
Max. Account	10K
Supported Domain	Microsoft Active Directory, LDAP, Apple Open Directory
Max. Domain Account	100k
Data Management	Permission Management, Quota Management, Online Expansion

High Availability

RAID Levels/Stripe	0, 1, 5, 6, 10, 50, 60 RAID Stripe Support 64K, 128K, 256K, 512K and 1MB
Hot Spares	Global or Dedicated
Background Scrub	• Media Patrol & Redundancy Check • Partial Rebuild • Background Synchronization • Task Scheduler for Background Activities
Proactive/Predictive Features	• Predictive Data Migration (PDM) • Drive Power Management (MAID) • Intelligent Bad Sector Remapping • SMART Error Handling and Write Hole Table • NVRAM Error Logging

Ecosystem Integration

Supported OSs	Windows Server 2008, 2012, 2016, macOS 10.x, RHEL 6.5 to 7.2, SLES 11, 11 SP4, and 12 SP1
Certifications	VMware ESXi 6.5 & Citrix Server 7.3

Management Interface

Protocol	Web Based management using Web, CLI, SSH, SNMP

Physical/Environmental

Power	Voltage: 100--240Vac Auto--Ranging Max Current: 9A @ 100Vac; 4.5A @ 240Vac	Voltage: 100--240Vac Auto--Ranging Max Current: 12A @ 100Vac; 4.5A @ 240Vac
Power Efficiency	>80% @ 110V (>20% load), >80% @ 240V (>20% load) Temperature Range, 80Plus Certified PSU	
Temperature Range	Operational: 5° to 35°C, Non-Operational: -40° to 60°C	
Humidity	Operational: 20% to 80%, Non--Operational: ~ 95% (Non-Condensing)	
Noise Levels & Shock	< 60dB, 25C, 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)	

	D5300	D5320	D5600	D5800
Dimensions (H x W x D)	88mm x 447mm x 507mm (3.5" x 17.6" x 16.5")	88mm x 447mm x 427mm (3.5" x 17.6" x 19.96")	131mm x 446.7mm x 507mm (5.2" x 17.6" x 19.96")	174mm x 446.7mm x 507mm (6.87" x 17.6" x 19.96")
Weight	18.4Kg w/o drives 26.8Kg w/ drives	16.7Kg w/o drives 21.2Kg w/ drivess	22.0Kg w/o drives 33.2Kg w/ drives	26.8Kg w/o drives 43.8Kg w/ drives

Warranty and Support

Warranty	3-year full system limited warranty , optional extended warranty and PROMISE PSP(US only)
Support	24/7 e-mail and phone support, 24/7 access to PROMISE site-drivers and firmware upgrade

[1] SATA drives require a SAS-SATA adapter, [2] Thick Clones supported in SR1.1 or newer

Contact us