

TSS2500 – Easy to Manage, High Throughput Appliance



Features

Price / performance: Delivers superior price / performance compared to competitive products in a fully configured, simplified and tuned appliance.

High data throughput: Up to 6.2 GB/sec per Object Store Server pair, linearly scalable.

High performance metadata: Up to 25,000 file creates per second.

High reliability: No single point of failure. Active-standby metadata. Active-active object stores. Redundant storage controllers. Rapid failover.

Capacity options: Supports multiple drive types optimizing system performance and capacity. Scalable to hundreds of terabytes.

Simplicity: Delivered fully configured and ready to go to minimize setup time. Includes complete lights out management, monitoring and real-time storage optimization tools.

Simplicity and performance in a scalable, highly available, parallel file system based appliance

Terascale's scalable storage appliances are the single best choice for organizations who demand the highest levels of file-based storage throughput performance. Our cost-effective appliances leverage Lustre™, the very highest throughput parallel file system, and are easy to deploy, easy to manage, and highly reliable.

All our appliances leverage the Terascale Integrated Storage Information System (TISIS™), including the software, monitoring / management agents, file system, and user interface that maximizes system up-time and provides real-time storage optimization. With its data collection capabilities, TISIS combines different views enabling administrators to track metrics including bandwidth usage, capacity consumption, client node access, and specific job resource usage. With TISIS organizations are able to understand and optimize their storage infrastructure and perform data driven capacity, throughput, and utilization analysis, scheduling optimization and complete system management.

The Terascale TSS2500 storage appliance is designed for organizations that require the performance of a parallel file system solution but need ease of use and the benefits of standard platforms and file systems. Built using a modular approach, the TSS2500 consists of a Redundant Metadata Solution combined with one or multiple Object Store Server solutions. Designed as an integrated whole, the TSS2500 is managed through the TISIS Management Solution.

The Redundant Metadata Solution is an integrated, active-standby architecture with rapid failover technology to ensure highly available metadata. Configured as RAID 10, it uses advanced monitoring and management to enable complete failover with no spurious writes. Delivering up to 25,000 file creates/sec, the Redundant Metadata Solution provides the performance necessary to maximize overall system throughput.

The Object Store Server (OSS) solution combines high performance servers with high throughput, highly reliable shared storage. The servers are configured as a redundant pair delivering up to 6.2 read and 5.6 write GB/sec of throughput in an active-active configuration insuring continuous availability. OSS solutions can be easily added to increase performance and capacity.

Coupled to the OSS servers is a pair of redundant storage controllers with either 24 - 2.5in SAS drives in capacities up to 600GB per drive or 12 - 3.5in nearline SAS drives in capacities up to 3TB. Additional capacity within an OSS solution is easily supported with expansion arrays.

With a linearly scalable OSS solution, multiple drive options, and the complete Terascale TISIS Solution, the TSS2500 can be configured to balance performance, capacity and cost to meet your specific needs.



Terascale TSS2500 Storage Solution Specifications

File System:	Standard Lustre parallel file system
Client Networking Options:	10 Gigabit Ethernet InfiniBand (QDR, DDR, SDR)
Redundant Metadata Server:	
Processing:	Up to 25,000 file creates/sec Two independent processing units with complete failover capabilities
Redundancy	Raid 10, hardware based
Performance Object Store Servers:	
Processing	Active-active pairs of redundant OSS servers
Performance:	6.2 read and 5.6 write GB/sec per OSS pair Linearly scalable
Storage Module:	
Capacity:	12 - 3.5in or 24 - 2.5in drives per base module Supports expansion arrays for additional capacity Scalable petabytes
Controllers:	Redundant storage controllers Controller cache mirroring Parity on read support Battery backup
Terascale Management:	
Key Features	Fully integrated management Extensive storage experience not required Rapid Failover technology Automated system notifications Complete remote control including system on, reset, and shutdown SNMP support for both commands and reporting Comprehensive status/error reporting and alerts
Environmental:	
Minimum Configuration	H: 16U – 28" (71.12 cm), D: 26.8" (68.07cm), W: Standard 19" (48.3 cm)
Redundant Metadata Solution	H: 6U – 10.5" (26.7 cm), D: 26.8" (68.07cm), W: Standard 19" (48.3 cm)
Performance Object Servers	H: 2U – 3.5" (8.89cm), D: 26.8" (68.07cm), W: Standard 19" (48.3 cm)
Storage Module	H: 2U – 3.5" (8.89cm), D: 26.8" (68.07cm), W: Standard 19" (48.3 cm)



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