S*torTrends*® *2401i*

2U SAN and NAS Storage Appliance

Highlights

• 2U SAN & NAS storage appliance with StorTrends iTX Data Storage Software
• 12 Hot-swappable drives for a variety of configurations:
• 6, 12, 24, 36 or 48 TB of raw storage capacity with SATA drives
• 3.6, 5.4 or 7.2 TB of raw storage capacity with 15k SAS drives
• Advanced Snapshots
• Redirect on Write (ROW) technology
• Up to 1022 snapshots (R/O and R/W) per volume
• Up to 2048 snapshots per unit
• Snapshot scheduling for SAN & NAS
• Rollback from any snapshot
• Random snapshot deletion
• Volume Replication
• Synchronous
• Asynchronous
• Snapshot-assisted
• WAN-Optimization Data Services
• (WDS) featuring Deduplication, Compression, Encryption, and Link Acceleration
• Hardware RAID support: RAID levels 1,5, 6, 10, 50, 60
• High Availability (HA) Grouping
• Network Teaming
• Storage Resource Management (SRM) with detailed reporting on usage and performance
• Enhanced Reliability with 800W Redundant Power Supply and Smart UPS Support

The StorTrends 2401i is a 2U SANand NAS Storage Solution featuring SAS or SATA Drives for up to 48 TB of physical storage capacity and includes the full featuredversion of iTX 2.7 Data Storage Software. This appliance manages both block and file data with the capacity to support departments, branch offices, and small to medium sized business (SMB) users. Ideal for either primary or secondary storage, it offers superior manageability at an attractive price. The 2401i is designed with performance in mind, and includes advanced storage management features such as OS-agnostic High Availability, Automated Data Tiering, Advanced Snapshots, Synchronous and Asynchronous Replication. The Volume Replication features of the 2401i allow data to be stored on multiple StorTrends appliances at multiple sites, and takes advantage of the Wide Area Data Services (WDS) module to dramatically reduce data transfer times and bandwidth use to remote sites. For additional storage capacity, up to four StorTrends 3202j JBOD expansion chassis can be cascaded from the StorTrends 2401i head.

StorTrends® products provide true enterprise-level features to departmental and SMB users. The StorTrends 2401i offers twelve hot-swappable drive bays with advanced SATA support, as well as highly distinguishing software features. Dual-dialect StorTrends® iTX software enables transfer of both block and file data over the existing Ethernet network, along with a host of advanced features that until now only existed in systems costing many times more than the StorTrends 2401i.

The Volume replication feature of the StorTrends 2401i allows data to be stored on multiple StorTrends appliances at multiple sites, for high availability and disaster recovery in the event of a catastrophe. StorTrends' Advanced Snapshot capability features Redirect-on-Write(ROW) technology with near-zero performance degradation when writing or rolling back snapshots. Administrators can schedule up to 1,022 read-write and 1,022 read-only snapshots per volume, and up to 2,048 snapshots per box. A maximum of 64 volumes per appliance is supported.

Asynchronous replication bundles I/Os

within snapshots and sends them to the remote server, boosting network utilization efficiency and reducing bandwidth cost. When combined with the revolutionary WAN Data Services (WDS) feature included in the Asynchronous Replication module, the system employs data deduplication, compression and link optimization to reduce data transmission and bandwidth usage by several factors over conventional replication speeds.

For improved reliability and disaster prevention, the StorTrends 2401i features a redundant power supply, as well as Smart UPS support, which allows the appliance to seamlessly switch over to UPS power in the event of a power failure and initiate a graceful shutdown.

StorTrends appliances can be managed by the integrated ManageTrends™ web-based GUI, which provides discovery and management of multiple StorTrends appliances deployed across the network.

SAN 2U Storage Appliance with StorTrends® iTX Data Storage Software

System Features & Highlights:
Transfer block and file data over existing Ethernet network
2U rack mountable chassis
Redundant Power Supply Modules
Supports major file transfer protocols
WAN-optimization Data Service (WDS)
Network Teaming
Advanced Snapshot Capability
Volume Replication
Online Capacity Expansion (OCE)
RAID Level Migration (RLM)
High Availability (HA) Grouping
Storage Alerts
Support for 64 volumes per appliance
Hot Swappable Drives
UPS Support
ADS/NIS Support

Hardware Specifications:
Form Factor
2U Chassis with 800W Redundant Power Supply
On-Board CPU
Intel® Core 2 Duo Processor E6400 (2.13GHz)
Memory
4 GB of DDR3
Drive Interface
Drive & Storage Capacity
Twelve 3.5" Hot-swappable SATA and SAS Drives
500 GB, 1 TB, 2 TB 3 and 4TB TB SATA drives for 6 TB, 12 TB, 24 TB, 36 TB 48 TB total capacity
300 GB, 450 GB, 600 GB 15k SAS drives for 3.6 TB, 5.4 TB and 7.2 TB total capacity per appliance
Status LEDs
6 LED Indicators (Power, Power Failure, Overheat/Fan Failure, Network Activity (x2), HDD Activity)
Hard Drive LED Indicators: Green (for drive activity), Red (for drive failure)
Expansion Slots
Two PCI-Express Expansion Slots
Data Management Ports
4x Gigabit NIC Ports
Optional Dual Port 10Gb Ethernet Ports
Other Connectors
Two USB Ports (2.0, 1.1)
Power Specifications
800W (1+1) Redundant, AC Power Supply with PFC
AC Voltage (100 - 240V, 60-50Hz, 6.3 - 3.2 Amp)
Cooling Specifications
Three Cooling Fans with status & tachometer monitoring
Cooling Air Shroud included
Operating Environment
Operating Temperature: 50 to 95˚F (10˚ to 35˚ C)
Operating Relative Humidity: 8% to 90% (non-cond.)
Physical Characteristics
Dimensions: 3.5" (89 mm) H x 17.2" (437 mm) W x 25.5"
(648 mm) D
Weight: 52 lbs. (23.6 kg)

StorTrends® iTX Software Specifications:
Volume Replication
Synchronous
Asynchronous
Snapshot-assisted
WAN Data Services (WDS) featuring
Deduplication, Compression, Encryption, and
WAN Optimization
 Many-to-One Replication
Bi-directional Replication
Advanced Snapshots

Up to 1,022 read-only and 1, 022 writeable snapshots per volume with near-zero performance degradation
Redirect on Write (ROW) Snapshot Technology
Random Snapshot Deletion.
Rollback to any snapshot
Snapshot mounting for file recovery
Backup
VSS-based backup support for Windows® Servers
Backup agents for popular application servers like Microsoft Exchange Server and Oracle
iSCSI tape backup support
SQL single line recovery
Exchange single mailbox recovery
Networking
Windows® (CIFS), Linux (NFS), Apple® file file protocols, iSCSI
TCP/IP, AppleTalk®, FTP, HTTP/HTTPS, SNMP, DHCP, NDMP, UPnP
NIC teaming – Round Robin, Transmit Load Balancing, Adaptive Load Balancing and 802.3AD link aggregation
iSNS Configuration
Up to 16 iSNS servers are supported
Compatible with MS iSNS Server v3.0 and later
iSNS client supporting Draft 22 of iSNS specification
Security
ACL security implementation supports: Local users, Windows® Domain users, Windows® Active Directory users, NIS Domain users
iSCSI Target Configurations
iSCSI Qualified Name (iqn) format
Enable/Disable individual network ports for iSCSI traffic
iSCSI target supporting iSCSI RFC 3720
Tight iSCSI and iSNS integration
Multiple levels of authentication: Mutual CHAP, user name/password CHAP authentication & iSCSI initiator
iSCSI Portal Tag configuration from UI
View iSCSI data and error statistics
Management
Command line interface through RS232 & SSH
Integrated web-based management
Tool for easy customization and themes
Event Management
Detailed Event Log
SNMP, SNMP Traps (up to 4 destinations), Email Alerts
Storage Data Management
Live Capacity Expansion
Storage Resource Management / Storage Reports
LUN (Logical Unit Number) creation & management
LUN dynamic volume expansion
Dynamic NAS volume expansion
Unified RAID Management
Hardware RAID levels 1, 5, 6, 10, 50, 60
RAID Level Migration (RLM)
Auto RAID rebuild
Remote Management
CLI (SSH)
UPS Support
Universal UPS Support; Supports Windows® OS/iTX/ Linux as UPS slaves and many UPS makes & models
Applications Supported
Oracle®, SQL, Microsoft® Exchange, VMware®, etc.

Advanced Features

Advanced Snapshot Technology
AMI's Advanced Snapshot technology enables up to 2,048 snapshots (R/O and R/W) at the block level. It also allows for rapid creation and deletion of a snapshot, permitting faster, more secure back-ups than.Advanced Snapshot technology is focused on performance, enabling customers to mount, review and instantaneously roll back to a snapshot with near-zero performance degradation

Snapshot-assisted Replication
This technology allows chronological replication of snapshots to a remote StorTrends machine, with the ability to organize by application-based consistency groups.
In fail-over to a secondary appliance, StorTrends iTX will automatically rollback to the latest consistent snapshot.

WAN Optimization Data Services (WDS)
StorTrends utilizes several sophisticated techniques to optimize the speed of long distance WAN connections. It uses an intelligent mix of standards-based transport protocols to overcome the inefficiencies and high latencies of TCP protocols in WANs and provide excellent bandwidth utilization. Additional performance gains are made through data reduction technologies such as compression, data deduplication and bandwidth throttling.