StorTrends® 3100i

3U IP-SAN and NAS Storage Appliance

American Megatrends

StorTrends® 3100i is an affordable 3U, rack-mount storage appliance that offers support for both block and file data. It merges Ethernet-based Storage Area Networks (IP-SAN) and Network Attached Storage (NAS) on a single storage platform. StorTrends 3100i supports iSCSI, which allows block applications like MS Exchange and Oracle® data to be deployed or stored on the same server as traditional file services and storage. This appliance is designed with performance in mind and includes features for enterprise-level disaster such as hardware RAID, advanced snapshot, thin provisioning, volume replication, and failover.

Data Sheet

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HIGHLIGHTS

- 3.75 or 7.5 TB IP-SAN & NAS storage appliance
- Cost-effective and scalable
- Extreme performance levels
- Network Teaming
- Volume Replication
  - Synchronous
  - Asynchronous
  - Snapshot-assisted
- Failover / Failback
- Advanced Snapshot
  - Redirect on Write (ROW)
  - Up to 254 Snaps per volume
  - Up to 992 Snaps per box
  - Snapshot scheduling for SAN & NAS
  - Rollback from any snapshot
  - Random snapshot deletion
- Uses existing Ethernet infrastructure
- Hardware RAID support: levels 0, 1, 1+N, 10, 10+N, 5, 50 support
- Online capacity expansion, RAID level migration
- High Availability (HA) Grouping

StorTrends®

www.ami.com

StorTrends products provide true enterprise-level features to departmental and SMB markets. They merge IP-SAN and NAS in one cost-effective, scalable and easy to setup storage appliance.

StorTrends 3100i offers 15 hot swappable drive bays with advanced SATA support as well as highly distinguishing software features.

The dual-dialect StorTrends® iTX 2.6 software enables transfer of both block and file data over the existing Ethernet network. It provides advanced disaster recovery features such as syncronous or asynchronous replication, snap-assisted replication, fail-over and fail-back. AMI's IP-SAN software also features high-availability grouping, network teaming support, UPS support, advanced snapshot, snapshot scheduling for SAN and NAS, backup support and advanced caching.

Volume replication allows data to be stored on multiple StorTrends appliances at multiple sites, which enables high availability and disaster recovery.

AMI's Advanced Snapshot features Redirect-on-Write (ROW) with almost zero degradation when writing or rolling back snapshots. Administrators can schedule up to 254 read-write and 254 read-only snapshots per volume, with up to 992 snapshots per box. A maximum of 32 target volumes is supported.

SAN snapshots are supported using Microsoft VSS snapshot technology or through agents specific for application servers like Exchange Server and Oracle. SQL Server is supported through VSS. Microsoft VSS-based snapshots support agent-less LAN-free backup.

Advanced caching improves read and write-back performance and allows for efficient IO scheduling. IO aggregation significantly improves snapshot performance.

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

StorTrends® 3100i

3U IP-SAN and NAS Storage Appliance

Features

3.75 or 7.5 TB IP-SAN & NAS storage appliance
Dual Dialect Software Stack StorTrends iTX 2.6

- High performance
- Cost-effective and scalable
- Transfers block and file data over existing Ethernet network
- Sturdy 3U rack mountable chassis
- Redundant Power Supplies
- Low Total Cost of Ownership (TCO)
- Supports major file transfer protocols
- Network Teaming
- Thin Provisioning
- Advanced Snapshot Capability
- High Availability (HA) Grouping
- Storage Alerts
- Volume Expansion
- Support for volumes up to 8TB
- Support for 32 volumes
- SATA support with hot swap
- Hardware RAID Controllers
- UPS support
- ADS/NIS support

Hardware Specifications:

On-board CPU
Intel® Dual Xeon® 2.8 GHz Hyper-threaded
Host Interface
Dual Gigabit Ethernet
Drive Interface
15 x 1" hot-swap SATA bays
Drive & Storage Capacity

- 250 GB per drive or 500 GB per drive
- 3.75 TB or 7.5 TB per Appliance

Hardware RAID support
RAID levels 0, 1, 1+N, 10, 10+N, 5, 50
Online capacity expansion
Online RAID level migration
Multiple array types per drive
Distributed sparing
Read with Write-back caching
Global dedicated and distributed hot-spare
Status LEDs
Yes
Expansion Slots
Two (x8) PCI-Express slots
One (x4) PCI-Express slots
One 64-bit 133 /100 MHz PCI-X
Data Management Ports
Two 1 Gigabit Ethernet Data Ports
Other Connectors
Two Fast UART 1650 serial ports
Two USB 2.0/1.1 ports
Power Specifications
760W AC power supply module w/PFC
AC Voltage (100-240V, 50-60Hz, 14/7Amp)
Triple-Redundant
Cooling Specifications
Four 4 x 9cm hot-swappable 5,000RPM fans
Two 2 x 8cm rear exhaust, hot-swappable fans
Fan tachometer monitoring
Operating Environment
Operating Temperature

- 10° to 35°C (50° to 95°F)

Non-operating Temperature

- -40° to 70°C (-40° to 158°F)

Operating Relative Humidity

- 8% to 90% (non-condensing)

Non-operating Relative Humidity

- 5% to 95% (non-condensing)

Physical Characteristics
Dimensions: 5.2" H x 17.7" W x 25.5" D
Weight: 72 lbs.
Volume Replication

- Synchronous
- Asynchronous
- Snap-assisted

Replication Wizard
Failover / Failback
Advanced Snapshots
Up to 254 read-only, 254 writeable, 992 snapshots per box
Snapshot scheduling for SAN & NAS
Redirect (allocate) on Write (ROW)
Random snapshot deletion
Rollback to any snapshot
Mounting snapshots as Read-Only or Read-Write
Caching-assisted snapshots
Backup
VSS-based backup support for Windows® 2003 Servers
Backup agents for popular application servers
iSCSI tape support
Networking
TCP/IP, FTP, HTTP/HTTPS, SNMP, Windows® (CIFS), UNIX (NFS), Apple®
iSNS Configuration
Up to 16 iSNS servers are supported
Compatible with MS iSNS Server v3.0 and later versions
iSNS client supporting Draft 22 of iSNS specification
Security
ACL security implementation supports: Local users, Windows® NT/2000 Domain users, Windows® 2003 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
iSCSI error recovery level 0, 1 and 2
Maximum of 4 connections per session
Maximum of 32 target volumes
Multiple levels of authentication:Mutual Chap, user name/password Chap authentication & iSCSI initiator WWN name
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, branding and theme updating
Event Management
Detailed Event Log
SNMP Traps (up to 4 destinations)
Storage Data Management
Storage pool
LUN (Logical Unit Number) creation & management
LUN dynamic volume expansion
Dynamic NAS volume expansion
Unified RAID Management
RAID levels 0, 1, 1+N, 10, 10+N, 5, 50
Hardware RAID controllers
Auto RAID rebuild
Remote Management
SNMP, SMIS 1.1, VDS
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®, MMS (and many more)

Advanced Features

Advanced Snapshot Technology

AMI Advanced Snapshot enables up to 254 snapshots (R/O and R/W) from the block or file level. The module allows for rapid creation and deletion of a snapshot with almost ZERO degradation, permitting faster back-ups than ever before - with the assurance of a complete and secure back-up. Performance is the emphasis of AMI's Advanced Snapshot, which enables customers to mount a snapshot as a volume, read from a snapshot simultaneously, instantaneously roll back to a snapshot and delete it.

Replication

Synchronous Replication allows data to be stored on multiple StorTrends appliances at multiple sites, for highest availability and disaster recovery. Volumes are protected across site failure at the granularity of an I/O: primary and secondary sites are always in-sync with each other. Asynchronous replication minimizes bandwidth requirements for customers willing to tolerate a few seconds of data loss, dramatically reducing costs.

Snap-assisted Replication

This technology allows replication of snapshots in chronological order on a remote machine. Snaps can be organized by application-based consistency groups. On a fail-over to secondary, StorTrends iTX will automatically rollback to the latest consistent Snapshot.

Advanced Caching Technology

Advanced Caching, a new technology created by AMI, utilizes sector granularity technology based on an AMI proprietary mechanism, resulting in outstanding performance gains. Advanced Caching technology assists in snapshot read-modify-writes and in replication.

American Megatrends

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