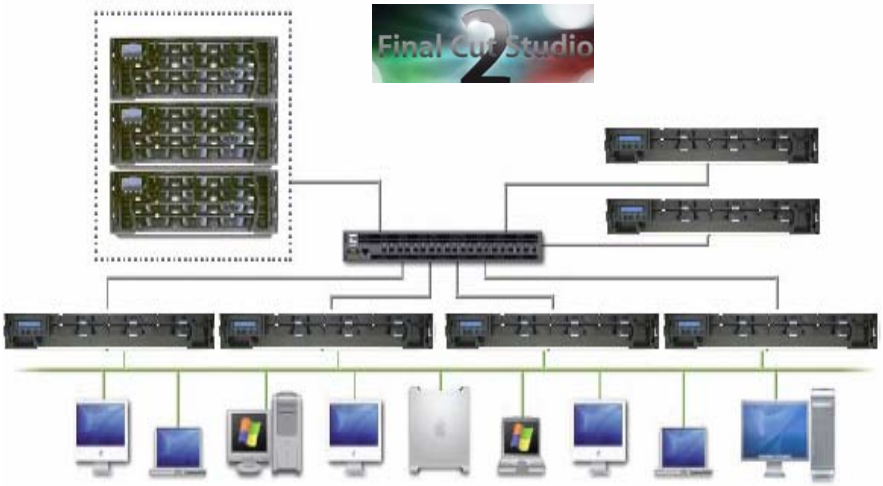
OmniSan/B

SAN-based Shared File Storage Solution

SAN-based Work Group Collaboration

OmniSAN enables multiple users to share access to common data files in workgroups requiring heavy bandwidth. With ***OmniSAN***, film and video editors, digital artists, and corporate users can simultaneously access a common pool of data files such as video clips, databases, satellite imagery, medical archives, or CAD files - as easily and transparently as if the content was stored on their local hard drive.



Supporting and available for Windows, Linux, and Mac OS/X clients, ***OmniSAN*** provides true file sharing, native OS file system and access rights management, and storage virtualization for Avid®, File Sequence Optimizer™ and Apple Final Cut Studio while providing a dynamic metadata master arbitration model and seamless integration with existing LAN networks. ***OmniSan*** provides transparent and reliable networked shared storage that can fuel the most creative environments while greatly reducing the cost of managing mission-critical resources.

OmniSAN is the perfect complement to an Avid or Mac video-editing workstation, providing the fast, consistent performance required for video post-production. ***OmniSAN*** delivers enough bandwidth for working in high-definition (HD) video or supporting multiple streams of uncompressed standard-definition (SD) video with real-time effects. For example, a 10.5TB ***OmniSAN*** configuration can hold nearly 25 hours of protected RAID 5 footage, even when used for editing in uncompressed HD 1080i.

OmniSAN's user-friendly file-level sharing capability offers far more flexibility than the more common volume-level based sharing that imposes serious workflow restrictions. With ***OmniSAN***, you manage accesses to your shared storage the same way you normally would for any other local drive, without the need to create or manage special user accounts. Network administrators simply use standard OS account management tools to grant or deny access to the individual ***OmniSAN*** storage users.

For those in mission-critical environments, ***OmniSAN***'s dynamic metadata master arbitration model provides the failover mechanisms that ensures 24x7 operations by eliminating the risks of downtime associated with conventional metadata controller-based architecture.

OmniSan/B includes cutting-edge SATA-II RAID storage, packaged in a variety of convenient rack-mount configurations. ***OmniSAN/B*** RAID is designed for nonstop operation for uninterrupted access to your critical data. Redundant hot-swappable power supplies and cooling fans enable the subsystem to keep running even if one module were to fail. All active components are modular and designed to be switched in and out of place in seconds, without tools and without interruption of service. ***OmniSan/B*** RAID hardware and remote management software work together to provide industry-leading remote monitoring and alerting capabilities. The ***OmniSAN/B*** RAID controller automatically reads Self-Monitoring, Analysis, Reporting Technology (SMART) data from each hard drive, enabling you take preemptive measures in the event of an alerted drive health problem, before a failure occurs.

Dedicated SATA drive channels eliminate interdrive dependencies and enhances overall availability. Since each ***OmniSAN/B*** RAID hard drive is isolated on its own bus, a drive failure will not degrade the accessibility or performance of the surviving drives, reducing the complexity and cost of high-availability shared storage. Any ***OmniSAN/B*** RAID drives not assigned to an array are automatically used as global hot ~

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spares, providing automatic background rebuilding of failed drive data on the spare drive without requiring intervention by an administrator.

Each ***OmniSAN/B*** subsystem includes an expandable, stackable, rack-mountable 4Gbit fibre-channel switch. A web-based GUI enables basic switch setup to advanced zoning and extended distance configuration, making ***OmniSAN*** deployment a snap. Installation is a three-step, point-and-click process, with self-configuring switch ports that automatically adjust to 4Gb or 2Gb device speeds.

Features

Turnkey SAN Storage Subsystem: Includes host bus adapter, SATA RAID, Switch, OmniLAN software, cables and SFP's. Optional Single/Dual port HBA, 2U/3U/4U RAID and 8/12/16 port switch configurations available.

Heterogeneous operating system support: Windows, Mac OS X Tiger, and Linux users can share content and collaborate efficiently.

Simultaneous high-speed file sharing: No volume-locking restrictions! All users can read AND write to the same volume.

Native OS file system support: Preserves the integrity of NTFS and HFS+ file systems and simplifies SAN maintenance. Manage volumes up to 18 exabytes in size!

Native OS access rights management: No need to manage additional accounts and passwords for true file sharing.

Per-node bandwidth usage control: Bandwidth reservation and bandwidth quota for each SAN member allows for a fair and optimal distribution of the available network bandwidth.

Virtualization for Avid® Enables sharing of media files among multiple users of Avid® software on Windows platforms for efficient workgroup collaboration.

Soft zoning: Enables the shared storage to be partitioned in a number of zones that permit the compartmentalization of data for increased security.

Centralized management of SAN definitions: Simplifies SAN management by allowing global, as well as local SAN settings to be controlled from a single workstation.

24/7 mission-critical ready: Access to SAN is fully redundant with true real-time failover capability.

Fibre Channel to Ethernet Failover: Users can still save their work and exit gracefully in case of a Fibre Channel malfunction.

Multi-point gateway for LAN: ***OmniLAN*** gives your LAN clients block-level access to your high-speed SAN through one of the available data server gateways!

File Sequence Optimizer: Dramatically increases streaming and editing performances of large image file sequences (DPX, TGA, JPG, etc.) by eliminating problems associated with disk fragmentation on Windows and Linux platforms.

System Requirements

Mac OS machines:

Power Mac G4 or G5 (700 MHz or faster processor), or Intel-Mac; Mac OS X Tiger / Tiger Server version 10.4.2 up to 10.4.9; 128 MB of physical RAM, 25 MB of available hard-disk space for installation; PCI–X slot; Network LAN connection; TCP ports - 8100, 8300, 8400 - should not be blocked by a firewall if any.

Windows machines:

PC with a PII with a 300 MHz (megahertz) processor clock speed Microsoft Windows© 2000 (Service Pack 2 or higher) , Microsoft Windows© XP/Server© 2003, or Microsoft Windows© XP 64-bit; 64 MB of RAM; 2MB of available hard-disk space; PCI-X slot; Network LAN connection(; TCP ports - 8100, 8300, 8400 - should not be blocked by a firewall if any.

Linux machines: *(OmniSAN 2.1.2)*

PC with an Intel processor; Red Hat Enterprise Linux Workstation 3.0: kernel2.4.21-15; 2.4.21-15.0.4; 2.4.21-20; 2.4.21-20.0.1; 2.4.21-27.0.2; 2.4.21-27.0.4; 2.4.21-32.EL kernel 2.4.21-32.0.1; 2.4.21-37; Enterprise Linux Workstation 4.0: kernel 2.6.9-11; 2.6.9-22; 2.6.9-22.0.1; 2.6.9-34; PCI-X slot; Network LAN connection' TCP ports - 8100, 8300, 8400 - should not be blocked by a firewall if any.

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Subsystem Specifications

RAID controller and cache memory

- Dual or Single controller configurations; Dual independent channels, with environment management coprocessor for out-of-band remote management and monitoring
- 512MB of cache per controller (2GB total)
- Cache Backup Battery Modules (sold separately) for over 72 hours of memory protection

RAID Operation

- Support for RAID levels: 0, 1, 0+1,3, 5, 6, 10, 30, 50, 60, NRAID; 512MB of cache per controller (2GB total)
- Support for multiple RAID sets
- Background RAID set creation; automatic variable background Rebuild; online expansion; LUN slicing; global drive sparing (per RAID channel)

Fibre-Channel Storage To Host Connection

- Dual 2Gb Fibre-Channel ports (SFP), 200MB/s throughput per channel with guaranteed delivery (400MB/s full duplex)
- Host connectivity using 2Gb and 4Gb Fibre-Channel PCI Express and Fibre-Channel PCI-X card or compatible third-party PCI card
- Support for point-to-point, loop and fabric (switched) topologies
- Dual 10/100BASE-T Ethernet for remote management

Fibre-Channel PCI-Express Adapter Card

- Dual- or Quad-channel 2Gb or 4Gb Fibre Channel PCI Express Bus Adapter, Support for multiple RAID sets
- Runs at full bandwidth in a four-lane or eight-lane PCI Express slot; not compatible with PCI or PCI-X
- Two or four 3-meter 2Gb or 4Gb Fibre-Channel copper cables with embedded SFP transceivers; compatible with SFP fiber-optic cables and transceivers

Fibre-Channel PCI-X Adapter Card

- 64-bit, 133MHz card with two SFP 2Gb Fibre-Channel ports; compatible with 32-bit, 66MHz PCI slots and 64-bit, 100 MHz or 133 MHz PCI-X slot, at full bandwidth in a four-lane or eight-lane PCI Express slot; not compatible with PCI or PCI-X
- Two 3-meter Fibre-Channel copper cables with embedded SFP transceivers; compatible with SFP fiber-optic cables and transceivers

Cooling

- Redundant hot-swap cooling modules with self-regulating speeds and front-to-back cooling (90CFM –high, 70CFM-low)
- Environmental monitoring system for automatically maintaining optimal ambient temperature

Environmental Requirements

- Operating temperature: 32° to 95° F (0° to 35° C)
- Storage temperature: -40° to 150° F (-40° to 60° C)
- Relative humidity: 5% to 95% non-condensing
- Maximum altitude: 12,000 feet
- FCC Class A approved

Electrical Requirements

- Redundant load-sharing hot-swap power supplies (450W); universal input (100V to 240V AC), power factor corrected
- Maximum input current: 9A (100V to 127V) or 4.5A (200V to 240V)
- Power usage: 300W typical continuous, 400W maximum continuous power
- Dual DB-9 serial ports for UPS systems
- Frequency: 50Hz to 60Hz, single phase

Size and Weights

- 2U ~ 19”W x 3.46H”W x 19.9”D, 60lbs. (w/o drives)

- 3U ~ 19”W x 5.2H”H x 19.9”D, 75lbs. (w/o drives)

- 4U ~ 19”W x 6.8H”H x 20.2”D, 95lbs. (w/o drives)

- Fibre Switch ~ 17”W x 1.7”H x 12”D, 9lbs. (single power supply)
  17”W x 1.7”H x 20”D, 15lbs. (dual power supply)

- Single Port Fibre-Channel Adapter ~ 6.6”L x 2.7”H PCI-Express Low-Profile

- Dual Port Fibre-Channel Adapter ~ 6.6”L x 2.7”H PCI-Express Low-Profile

- Quad Port Fibre-Channel Adapter ~ 8”L x 4.3”H PCI-Express

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