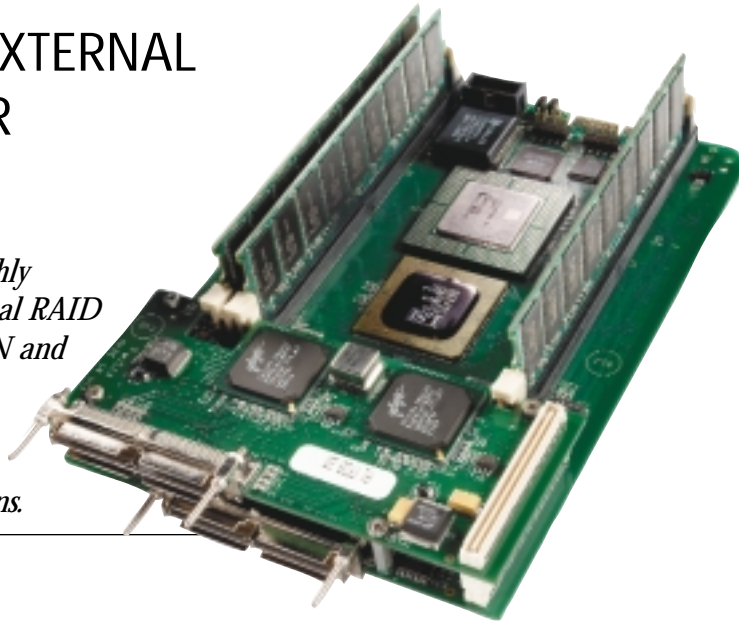


SANArray™ Pro FF2

FIBRE-TO-FIBRE EXTERNAL RAID CONTROLLER

The SANArray Pro FF2 is a highly flexible, high performance external RAID controller for enterprise level SAN and Cluster server storage solutions capable of sustaining over 380MB/s sequential RAID5 reads in dual active configurations.



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The SANArray Pro FF2 is a server-independent controller with a fibre front-end (to host) and a fibre back-end (to drives). The SANArray Pro FF2 provides exceptionally high performance with two Fibre Channel interface connections to the host system(s) and four Fibre Channel interface connections permitting the formation of extremely large system solutions with up to 500 fibre drives for capacities of greater than 25 Terabytes per controller. The SANArray Pro FF2 is the perfect solution for all large-scale NT servers and SAN solutions.

Dual Active

SANArray controllers operating in active-active mode share configuration; and each controller continuously monitors the status of the other. If a controller fails, its partner transparently assumes its fibre address and workload — servers continue processing I/O requests. SANArray Pro data caches are mirrored so any write data that has not been made permanent on disk at the time of a failure is immediately written to disk after the partner assumes the workload.

SANmapping

SANArray Pro controllers are designed for both homogeneous and heterogeneous SAN environments. The SANArray Pro FF2 provides an access control mechanism that allows system managers to designate which servers are allowed to access which set of data. SANmapping creates an affinity between logical disks and servers, preventing one server from stepping on another server's data.

Cache Coherency

SANArray Pro is the only entry level controller that ensures consistent cache data between controllers. SANArray Pro locking tables guarantee that if a server uses an alternate path to access data, the SANArray Pro controller that services the I/O will deliver the current state of the data.

Ping Across the Back-end

All controller-to-controller messages in a SANArray subsystem are communicated across the back-end loops. This provides integration facility and allows the controllers to be installed in different storage subsystems — one may be behind a firewall with mirrored copy of data.

Modularity and Scalability

With SANArray Pro, you can scale performance by adding controllers, scale capacity by adding up to 250 disks behind a single SANArray Pro FF2 or scale both simultaneously by adding shelves of disks with single or dual active SANArray Pro FF2 controllers.

Global Array Manager

The SANArray's comprehensive storage management capabilities come from Mylex's industry leading Global Array Manager (GAM). These RAID management utilities allow users to remotely configure and monitor RAID subsystems using industry standard protocols. GAM is rich in management features, allowing users to easily manage their online storage.

CONTROLLER SPECIFICATIONS

RISC Processor	Intel i960RN
Cache	Up to 512MB (architecture supports 1GB)
Flash	2MB
Logical Arrays	Up to 496 drives
Hardware XOR	Yes
ECC Protected Memory	Yes

PHYSICAL SPECIFICATIONS

Form Factor	5 1/4"
Power Requirements	+5.0v (+/-5%) 10.5 A (max)
Temperature	0 to 50° C
MTBF	200,000 Hr.
Warranty	Three years
Certification	FCC Class B, CE, UL

FIBRE CHANNEL SPECIFICATIONS

- Host channels: two copper FC-AL
- Burst cache transfers: over 190 MB/s
- Burst transfers: Up to 100 MB/s per channel
- Drive channels: four Fibre at 100 MB/s per channel
- Sustained disk transfers:
 - RAID 5 reads: 189MB/s (simplex); 380MB/sec (duplex)
 - RAID 5 writes: 142MB/s (simplex); 280MB/sec (duplex)
- Up to 124 devices per Fibre channel
- Disconnect/Reconnect
- Support for SMART capable drives

RAID FAULT TOLERANT AND FLEXIBILITY FEATURES

- RAID levels 0, 1, 0+1, 3, 5, 10, 30, 50, and JBOD
- Transparent disk drive rebuild
- Online RAID expansion (M.O.R.E.)
- Up to 32MB I/O request sizes
- Variable stripe size per controller
- Variable cache line size per controller
- Mirrored cache
- Drive roaming during power off
- SAF-TE and SES enclosure management
- Cache coherency
- Active-Active operation
- Transparent failover
- Automatic error recovery
- Write through, write back or read-ahead support per logical device
- Automatic detection of failed drives
- Automatic rebuild of hot spare drive
- Hot-drive swapping support
- Clustering support—Windows NT and UNIX
- SANmapping-server to LUN mapping
- Backend-Ping

RAID MANAGEMENT

- Global Array Manager (GAM)
 - Client server GUI interface
 - Create, manage, expand and monitor programs
 - Error statistics and performance information

SYSTEM DRIVER SUPPORT

- Operating system independent

SANArray Pro FF2

Host independent external RAID controller with 2 Fibre Channels to host and 4 Fibre Channels to drives

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Mylex produces high-performance disk array (RAID) controllers and complementary computer products for network servers, mass storage systems, workstations, and system motherboards. Mylex controllers come with a three year limited warranty.

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