

# InfiniSAN 4 SERIES



## PRODUCT OVERVIEW

Nexsan's InfiniSAN 4 is a 1Gb/s end to end fibre channel RAID storage ideal for Storage Area Network (SAN) environments. It delivers cost-effective fibre storage to NT, NetWare and UNIX servers. In dual active configurations for non-stop data accessibility, the InfiniSAN 4 provides dual fibre interfaces to loop, fabric, or point-to-point topologies and dual redundant loops for continuous access to large data pools.

Designed specifically for Fibre Channel storage requirements, the InfiniSAN 4 sets new standards in fault-tolerance, flexibility, and ease of use. Sophisticated features include a redundant and hot-swappable pair of enclosure management processor ASIC's which implement the industry standard SCSI Enclosure Services (SES) protocol.

The InfiniSAN 4 helps maximize server uptime by offering critical SAN fault-tolerant features, such as multiple-target ID support, pairing for active-active configuration and transparent failover/failback for high-availability and clustered environments.

Operating in active-active mode, the InfiniSAN 4 controllers share configuration data and each continuously monitors the status of the other controller. If a controller fails, its partner transparently assumes its fibre address and workload. Coherent, mirrored data caches are designed to ensure data integrity; any write data that has not been made permanent on disk at the time of failure is immediately written on disk.

## CORRECT COST ENTERPRISE CLASS RELIABILITY

Scale capacity by adding up to 124 disk drives to one controller. The InfiniSAN 4 supports up to 1 GB of user data cache that is mirrored between RAID controllers, for data protection. With features such as active-active, transparent failover/failback, SANmapping and cache coherency, the InfiniSAN 4 can be configured to move and protect terabytes of data.

## STORAGE VIRTUALIZATION

Utilizing the optional Veriture, Nexsan's innovative virtualization application, the InfiniSAN 4 offers the latest advances in on-line configuration. Nexsan's Veriture application allows storage pools and virtual volumes to be built dynamically from unique physical storage devices.

Advanced features include:

- Snap Shot, Bit level replication and Virtual Tape.
- On-Line Capacity Expansion (OCE), Dynamic Spares Allocation (DSA). Hot spare drives can be added and deleted either as a pool or an array dedicated spare.
- Dynamic Array Expansion (DAE) and Dynamic Partition Expansion (DPE)

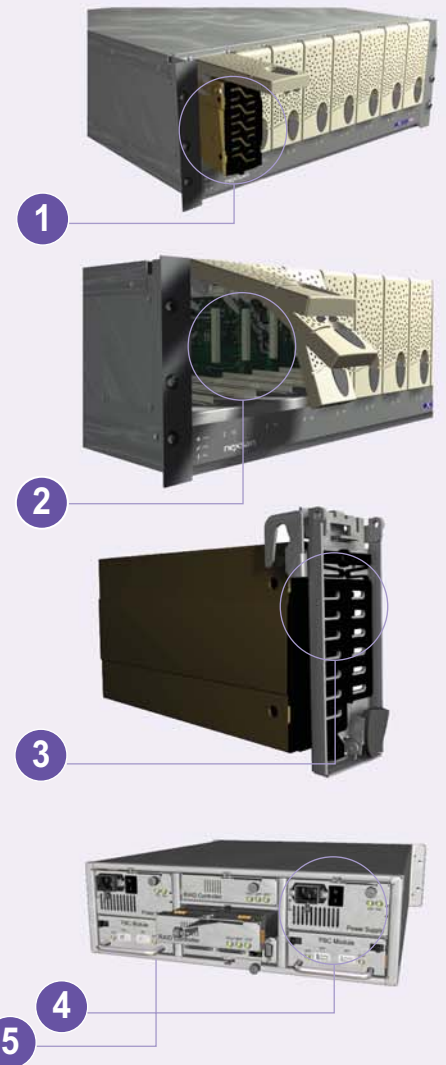
## HIGHLIGHTS

- Full Fabric host and device channels.
- Fibre Channel interfaces feature "Intelligent Hub Logic"
- Active-Active, All components / connections are redundant and hot pluggable with automatic failover and load balancing.
- Expandable SDRAM cache memory.
- Supports SCSI Enclosure Services (SES), and SMART.
- Multi-Box - Ability to view graphical representations of attached storage enclosures within main status frame.
- Supports drives up to 15,000 RPM.
- Upgrade path to 2 Gb Fiber Channel
- One or two Gb/s Fibre host channels
- Point-to-point, loop, fabric
- 2x2 configurations
- Up to 124 drives can be attached per controller
- RAID 5 sustained disk transfer (duplex)  
Reads: up to 350MB/s  
Writes: up to 270MB/s
- Disconnect/Reconnect
- Auto-Negotiate support (Host and Drive Channels can be set to 1Gb/s, 2Gb/s or Auto-Negotiate)



## ADVANCED FEATURES

- 8 Drive FC-AL RAID Tower, Rack, or InfiniStack Chassis.
- Dual loops with 2-port mini-hubs on each loop, providing signal regeneration for maximum reliability.
- Dual-redundant enclosure monitoring and SCSI Enclosure Services (SES) eliminates single point of failure, and does not require a drive in a specific slot to function.
- Passive Midplane - all active components are hot pluggable.
- Dual 300 watt redundant power supplies with optional power factor correction.
- Individual locking AC power cords.
- Supplied with Global Array Manager client/server application.
- Fault notification via traps, fax, e-mail, pager, and applications launch.
- Optional Storage Virtualization provides centrally managed storage pooling and virtual volume allocations.
- Single point of management for all attached InfiniSAN 4 subsystems in the SAN, communicating with controllers over Fibre Channel fabric. Server module compatible with Windows NT/2000, SCO OpenServer, Novell Netware, UnixWare, x86 Solaris; Client compatible with Windows 95/98/NT/2000.
- 1 Fibre Channel host loop and 2 Fibre Channel disk loops per controller.
- Automatic rebuild, controller fail-over, and fail-back.
- 128 MB of cache memory per controller standard. Cache memory protected by battery backup module.
- Clustering supported on Windows NT, Unix, and Linux.



**1** The front door cam mechanism offers soft insertion and ejection of the drives to eliminate gyroscopic damage to the disc drive.

**2** Anti-Rotational Vibration (ARV) drive guides absorb vibration on all three axis for maximum performance and reliability.

**3** Each drive bay has its own auto-venting front door mechanism which maintains the thermal characteristics of the unit even when not fully populated with drives.

The extruded aluminum drive shuttles offer the optimum combination of convective and conductive cooling by channelling the airflow over drive hot spots.

**4** All units are cooled by incorporating two high-pressure centrifugal blowers within the power modules. These have true RPM monitoring and predictive failure reporting. Redundant (N+1) power supplies are designed for RAID.

**5** Multiple RAID, DAS and SAN reconfiguration. All active components dock into a passive midplane, eliminating cables and offering an upgrade path to technology advancements.

### TECHNICAL SPECIFICATIONS

### INFINISAN 4

Host Interface / Connectivity	One or two 1Gb/s Fibre Hosts
Drive Bay Size	8 bay / Rack(4U) Tower or InfiniStack
Cache(Maximum)	128(512)
Battery Back-up	Yes / Integrated NiMH
RAID Levels	0,1,0+1,3,5,10,30,50 and JBOD
Sustained Data Rates	Up to 350 MB/sec
IOPS	Up to 100,000
LUNS Supported	Unlimited
Power	Dual 300 Watt PSU
Cooling	Dual Fans

