

iSAN[®] 2520, 4520, 6520 Series



Cybernetics' revolutionary new iSAN[®] SSD Series models provide up to 20 TB of RAW capacity SSD storage in a small, space-saving, and energy-saving architecture. iSAN[®] SSD storage combines fast read/write performance and access time with the exceptional reliability of Solid State Disk. Cybernetics iSAN[®] models are designed to deliver highest performance and endurance.

Cybernetics' iSAN[®] Solid State Disk SAN solutions offer Enterprise Tier 1 storage at a midrange business price. Get the features and high performance you want while drastically reducing the amount of time it takes to manage storage. In addition to providing Tier 1 storage, the Cybernetics' iSAN[®] SSD SAN self-protects your data with multiple built-in data protection strategies. RAID redundancy, snapshots, backups to disk/tape and multi-site replication are built-in features that work together to keep your data safe. Eliminate the typical worries, management time and costs associated with protecting your critical data using expensive, hard-to-use and often problematic third party backup software.

In a competitive, 24X7 marketplace, up-time can make or break an organization. High availability combines the techniques of mirroring and fail-over to approach 100% up time for daily operations. A pair of iSAN[®] units can be configured in high availability mode for hardware level mirroring across a high speed LAN. In the event of a hardware failure, the pair will initiate automatic fail-over to the live replica. Users will never notice an interruption of services. If you're relying on one unit with dual controllers for high availability, there's a single point of failure in the backplane and storage pool. Cybernetics' high availability pair with heartbeat monitoring and automatic failover is the solution you can trust.

Up to 3 GB/s

Up to 20 disk drives, per unit

Scalable, up to 2 expansion units

Dynamic Storage Provisioning

Unlimited Snapshots

High Availability Pair for fault tolerance

CYBERNETICS

Powerful Data Storage Solutions

iSAN[®] 2520, 4520, 6520

Solid State Disk Solutions

Better Engineering. Budget friendly.

Since 1978, Cybernetics has been combining storage, features, performance and pricing. We have helped many tens of thousands of small-to-medium sized businesses implement Enterprise data center solutions for a fraction of the cost associated with overpriced and under-engineered brand name storage.

Performance

Sustainable high speed access is built into every Cybernetics' SAN.

To ensure data is moved to and from the SAN quickly, multiple connectivity

ports and protocols are supported. Choose from 1/10GbE iSCSI, Direct-Attached SAS and 8/16Gb FC. The iSAN[®] Solid State Disk SAN solutions support multiple protocols and connections simultaneously; along with multi-path redundancy, load balancing and Jumbo frames.



Cybernetics also employs an advanced, self-tuning, optimized caching algorithm; 30X faster than SSD. This was originally developed to eliminate latency with slower rotating disk drives while providing the performance needed for high demand applications. Today, the same caching technology is deployed with SSD based storage. It provides faster-than-SSD performance, eliminates "write-cliffs" with SSD and provides sustained performance throughout the entire capacity of the array. It also extends the endurance of the SSD drives.

Features

Built-in data protection keeps your data safe using multiple technologies while reducing the overhead of processing, storage and management. Snapshots provide automated, instant, deduplicated backups that can be mounted and used as restore points. Using a very granular block size, these backups do not waste valuable storage, providing more usable capacity. Automated snapshot tiering makes efficient use of mixed storage, balancing performance, capacity and cost. Cybernetics' native replication technology uses snapshots to reduce the bandwidth necessary to keep sites synchronized and provide site redundancy. USB, eSATA and SAS ports are included which allow removable disk drive and tape drive support, including encryption. These built-in automated protection policies can be configured with just a few mouse clicks.

With our easy-to-use interface, installation and daily administration is extremely simple. Real time monitoring provides hardware status, performance metrics for cache, processors, LUNs, IOPS and more. Cybernetics' Call Home feature ensures a speedy and proactive response.

Separate chassis' can be live mirrored with Cybernetics' High Availability feature, ensuring no single point of failure at the controller, chassis or drive pool layer.

Storage

Cybernetics Solid State Disk models are high performance, flexible storage solutions. Multiple RAID sets can be defined easily through the Graphical User Interface. RAID sets can be dynamically expanded and converted without downtime. Expansion cabinets can be added for more capacity. Tightly integrated with the caching system, expansions, conversions and rebuilds can be accomplished without sacrificing performance.



CYBERNETICS



**Powerful SSD
SAN Storage
Solutions**

iSAN® 2520, 4520, 6520 Series

iSAN® 2520



iSAN® 4520



iSAN® 6520



SSD bays	20 Bays		
Scalable	1 head unit plus 2 expansion units		
Transfer Rate	1 GB/s	2 GB/s	3 GB/s
RAID Levels	0, 1, 5, 6, 10		
Controllers	1 (2 with High Availability Pair)		
Network Interface Ports	<p>Standard</p> <ul style="list-style-type: none"> Two (2) 1 GbE Two (2) 10 GbE SFP+ Two (2) USB One (1) eSATA <p>Optional</p> <ul style="list-style-type: none"> Two (2) 10 GbE 10GBaseT Four (4) 10 GbE SFP+ Two (2) 10 GbE 10GBaseT Two (2) 8G Fibre Channel Two (2) 16G Fibre Channel 	<p>Standard</p> <ul style="list-style-type: none"> Two (2) 1 GbE Four (4) 10 GbE SFP+ Two (2) USB One (1) eSATA <p>Optional</p> <ul style="list-style-type: none"> Two (2) 8G Fibre Channel Two (2) 16G Fibre Channel 	
Offload Ports	Two (2) SAS		
Power Supply	220w @ 100/240VAC		
Electrical	47-63 Hz 16A		
Power Consumption	220 watts max.		
Heat Output	751 BTU/HR average		
Physical Dimensions	8.4" Wx 22" L x 1.7" H (Half Standard 1U)		

- Fast transfer rates – Up to 3 GB/s.
- Exceptional performance
- Scalable – Supports expansion for adding capacity.
- Dynamic Storage Provisioning – Expand virtual disk space anytime.
- High Availability – Hardware level mirroring and automatic failover with no single point of failure.
- Unlimited Snapshots – Mountable points for recovery or rollback.
- WAN Replication – Automated, deduplicated, and encrypted multi-site replication, per volume.
- Advanced Cache Technology is 30x faster than the average flash/SSD.
- Configurable multi-user access with permissions control.

- Flexible Control – Backups and replication can be performed in alignment with snapshots, executed on-demand, or can be on a separate schedule.
- Disk Backup – Create disk volumes on portable disks.
- Tape Backup – Fast image backup to tape without backup software.

High Availability with No Single Point of Failure

Just 1U of rack space will support a pair of fully redundant models with heartbeat monitoring and automatic failover.



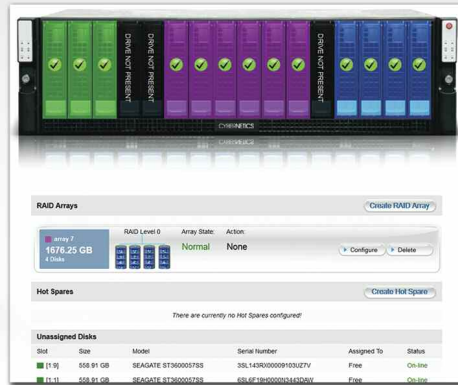
If you're relying on one unit with dual controllers for high availability, there's a single point of failure in the backend. Cybernetics' high availability pair with heartbeat monitoring and automatic failover is the solution you can trust.

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Powerful GUI Simplifies Management

Cybernetics' powerful GUI will simplify your SSD storage management with secure access to settings and features of your SSD storage unit from any IP address you allow. Configure storage settings, add virtual disks and virtual disk users conveniently and quickly through easy to navigate options.



It's easy to add disk capacity, upgrade disk drives, create new and separate RAID sets, convert existing RAID sets to different RAID levels -- all with zero user interruption and downtime.

View the physical status of iSAN models with visual performance metrics, notifications, including temperature, fan speed, disks and connections.

Compatibility

Operating System Compatibility

- AIX 5.3 and higher
- HPUX 11.11 and higher
- Linux
- Netware 6.5 SP6+
- MAC OS (with initiator)
- Solaris 10.X and higher
- Windows 7, 2000, 2003, 2008, XP, or above

Special Applications Compatibility

- VMware ESX Server 3.5, 4.X, 5.X
- vSphere 4, 5
- Xen
- HyperV
- SQL Database
- Oracle Database
- Microsoft Exchange

iSCSI Initiator Compatibility

- Microsoft iSCSI Software Initiator
- Linux Open-iSCSI Initiator
- Novell iSCSI Initiator for Netware
- Apple Macintosh iSCSI Initiator.

Cybernetics makes choosing the right SSD storage system for your growing data demands easy as...

1. Determine The Capacity And Performance To Best Suit Your Data Storage Needs.
2. Get A Higher Quality And Performance Data Storage Solution For Less.
3. Take Advantage Of Powerful Features With No Hidden Fees.

Founded in 1978 and headquartered in Yorktown, Virginia, Cybernetics is a privately held corporation specializing in the design and manufacture of high performance disk, tape, and virtual tape storage solutions. Our product line features cutting edge technologies which have been rigorously tested to deliver seamless compatibility and solid reliability, along with innovative – and exclusive – features that provide greater functionality, data accessibility, and return on investment than any other storage solutions provider.



Call Today! 757-833-9000

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