

## TEST CENTER

### STORAGE

# Cheap Disks, Fast Connections

Nexsan's ATAboy2 squeezes high performance from low-priced ATA array

STORAGE CAN NEVER be fast enough, plentiful enough, or cheap enough. Nexsan, which started with disk-to-disk backup systems, now offers an FC (Fibre Channel) or SCSI-attached storage subsystem, the InfiniSAN ATAboy2, that uses ATA drives to provide lots of storage at very economical prices, all without any real performance penalty over a completely SCSI solution.

Top-notch performance is achieved by putting each ATA drive on a separate channel and aggregating throughput of all the drives over either a SCSI or FC interface. With 14 drives, the RAID controller is a much greater factor in overall performance than the drives themselves. The fact that a single SCSI drive can outperform a single ATA drive becomes irrelevant.

account if errors occur, environmental thresholds are passed, or imminent failure is detected. The Ethernet controller also allows administrators to configure and monitor the unit via a Web browser interface.

### SCSI or FC?

The ATAboy2 comes with four Ultra160 SCSI ports or two 2Gbps FC connections; I tested a unit with SCSI ports. Redundant host connections or multiple hosts are both supported, along with up to 16 LUNs (logical unit numbers) per SCSI controller or 32 LUNs per FC controller.

Setting up the ATAboy2 was very easy. I connected the unit to a test server via SCSI, then started the subsystem and connected it to the network. The default IP address is 10.11.12.13,

users will want it. This does mean that administrators who need any other configuration will have to delete the existing RAID set, but that is a quick and easy operation. RAID options include RAID 0, 4, and 5, with or without hot spares. Multiple RAID sets are supported, as are multiple hosts, though multiple hosts accessing the same LUN will cause problems unless additional software is used to prevent both hosts from accessing the same volume at the same time.

Other configuration options include setting an e-mail address that will receive alerts, and configuring security on the GUI interface. By default, the GUI is not password protected, so this is one of the first things the administrator should do.

### Successful Failure

After checking the unit's configuration, I started my server and mounted the array. Testing confirmed that this is not simply an out-of-band or secondary storage unit — performance figures were very close to the best I've seen from a SCSI storage subsystem. Using Iometer, I found that the throughput on the SCSI controller matched Nexsan's claims of 160Mbps burst transfer rate, 100Mbps sustained transfer rate, and 16,000 I/O operations per second.

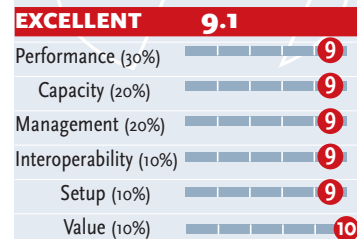
The ATAboy2 also has good redundancy features. All the components can be easily swapped by the user, including the RAID controllers, power supplies, and drives, although the RAID controllers are not hot-swap. Removing one of the power supplies

which required adding a route to the network interface of the server, but that was easy enough. The IP address can be reset to any other IP address or to use DHCP. The unit can also be configured via null-modem cable and a serial connection.

The ATAboy2 comes preconfigured with all drives in a single RAID 5 array, and a single partition, which is probably how most

## InfiniSAN ATAboy2

Nexsan Technologies [nexsan.com](http://nexsan.com)



**COST:** 3.5TB, \$22,225; 2.5TB, \$18,679

**PLATFORM:** Ultra160 SCSI or Fibre Channel (1Gbps or 2Gbps)

**BOTTOM LINE:** Nexsan's InfiniSAN ATAboy2 RAID array combines ATA disk drives with SCSI or Fibre Channel connections, providing high capacity, high performance, and good redundancy at an outstanding price. This subsystem is a good fit for almost any storage application.



The InfiniSAN ATAboy2 is available in a desk-side tower, rack-mount, or stacking configuration. It includes 14 180GB or 250GB disks, in addition to dual power supplies, one or two SCSI or FC controllers, and a 10/100 Ethernet link.

The Ethernet controller provides one of the unique features of the ATAboy2, which is the ability to send e-mail to a designated

generated an alert e-mail, as did replacing it.

I also checked RAID functionality by removing and replacing a drive. The alarm sounded, an e-mail was generated, and the volume remained available. Performance was minimally degraded during the RAID-set rebuild. I was also able to create a RAID set with a hot-spare drive. When I then removed a drive from the array, the hot spare was automatically added to the set and a rebuild commenced.

The ATAboy2 delivers superb performance, as well as high capacity and good redundancy, at a bargain-basement price. Nexsan also offers an excellent three-year warranty and an optional fail-over system. This unit should be on the short list of any storage admin who doesn't need the absolute highest performance.

— Logan G. Harbaugh