

# InfoWorld

FEBRUARY 23, 2004 ■ ISSUE 8

GET TECHNOLOGY RIGHT



## STORAGE

# Stretching Backup Muscle

WHEN WAS THE LAST TIME you took a critical look at your backup gear? Storage vendors are proposing new iSCSI (Internet SCSI) backup devices that can make your data protection cycles faster and more flexible — and therefore more responsive to business requirements.

Generally, iSCSI-based backup solutions have a moderate acquisition price, but they work most efficiently with a separate SAN to keep traffic apart from the LAN. This increases the cost of your project, but in exchange, you get priceless peace of mind knowing added traffic won't choke your LAN.

Moreover, you don't need a full migration to a SAN to run backups and restores over iSCSI. You can keep your data in server-attached storage and get invaluable hands-on experience on iSCSI SANs with minimum cost and disruption, while your company thrives on

faster and more flexible data protection. It's an opportunity you shouldn't miss.

The RA2000 d-to-d (disk-to-disk) backup appliance from Overland Storage and the Spectra 2K tape library from Spectra Logic are two remarkable examples of how iSCSI devices can respond to your company's backup and restore challenges.

Both devices can sit anywhere on your iSCSI SAN and can connect to essentially any server, reducing the network congestion



Overland Storage  
REO SERIES RA2000

of LAN-based backups and eliminating the backup server as the single point of failure in your structure.

Besides iSCSI, the two solutions have little else in common, each fulfilling different but somewhat complementary data-protection requirements. The RA2000 appliance offers fast d-to-d backups and restores over an array of eight SATA (serial ATA) drives, which administrators can dedicate to a single server or share across as many machines.

A traditional tape library aimed at entry-level datacenters, the Spectra 2K packs as many as 30 AIT (advanced intelligent tape) cartridges and two tape drives in its midsize tower enclosure.

After using them for a few weeks, I found that the RA2000 has an edge on performance, whereas the Spectra 2K shines on management. Both share high scores for the flexibility they bring to a backup infrastructure.

### REO SERIES RA2000

You may have seen the predecessor of the RA2000 in last year's review of ipXcelerator from startup Okapi Software ([infoworld.com/83](http://infoworld.com/83)). Since then, Overland Storage has acquired Okapi and has relabeled the product line the REO SERIES.

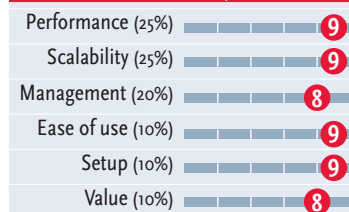
Overland designed the RA2000 to buffer data transfers between backup servers and tape devices. It also created the RX2000, a 2TB

# The RA2000's speed and easy setup is ideal for companies that run frequent backups and restores.

## REO SERIES RA2000

Overland Storage  
[overlandstorage.com](http://overlandstorage.com)

**EXCELLENT** 8.7



**COST:** \$17,500 fully configured

**PLATFORMS:** Certified for IBM and Microsoft iSCSI initiators

**BOTTOM LINE:** The RA2000 appliance can significantly shrink the amount of application server dead time associated with replacing slow tape library operations with faster, disk-based backups and restores. It performs well and is easy to share across different servers.

expansion unit that adds capacity and speed.

The RA2000 appliance benefits from a pragmatic, browser-based management interface, which administrators can access over a separate Ethernet connection while using two dedicated iSCSI ports for data.

To set critical network parameters, such as IP addresses and subnets for the NICs, administrators can use DHCP or modify configuration files for the Linux-based appliance OS, stored on the removable SoftKey, essentially a USB drive.

The browser interface accesses only a few basic controls that include setting the iSCSI connectivity for each of the eight SATA drives, scanning for new or removed drives, and restarting the appliance. This Spartan set of controls is adequate for normal operations. But if something fails inside

the appliance, the GUI doesn't help. The RA2000 does, however, automatically send e-mails to warn of error conditions.

Interestingly, the RA2000 doesn't enforce CHAP (Challenge Handshake Authentication Protocol) security, but administrators do have to specify which initiators may access each drive. This extra step minimizes the risk of possible break-ins but makes for a slightly more complex setup.

Speaking of initiators, the appliance now supports the easily accessible and free Microsoft iSCSI initiator software in addition to the IBM drivers from the previous version. Using the Microsoft initiators, I had no problem sharing the RA2000 across the four Windows servers I set up for this test. That configuration was easier to set up than it was to share the Spectra 2K, and with similar network and

server conditions, backups and restores performed faster on the RA2000.

For example, on Hewlett-Packard ProLiant DL360 servers with built-in GbE and Microsoft initiators, Veritas Backup Exec 9 clocked from 7MBps to 30MBps during backups, depending on the data content. Those results did not change much after adding an Intel PRO/1000 T HBA to my machines, but such an addition might benefit older sub-GHz servers.

The RA2000 presents the same improvements to backup and restore performance as its predecessor, with the additional bonus of improved scalability and a better-defined deployment. Like its predecessor, however, the RA2000 needs to be paired with a tape library to offer persistent data protection.

— Mario Apicella