

Adaptec Storage Array iSA1500

PRICE £4,399 exc VAT

INTERNET www.adaptec.co.uk

BASIC WARRANTY 3yrs RTB

SUPPLIER Adaptec 01276 854500

VERDICT An iSCSI target device with a very good turn of speed and a wide range of backup capabilities. Initial installation is lengthier than some, but the initiator assignment automation and snapshot features are useful.

Adaptec has been increasing its storage portfolio: in a spending spree that started at the beginning of this year, it grabbed Elipsa, became IBM's sole supplier of RAID products and swallowed up NAS guru Snap Appliance. Adaptec hasn't stopped there, as it now sets its sights on the iSCSI market with the introduction of its first storage server products.

The iSA1500 comprises a good quality, if overly noisy, partnership of Supermicro motherboard and chassis. Using Serial ATA drives, the storage capacity is reasonable, offering a total of 1TB. The motherboard doesn't have any SATA ports, so this is handled by an Adaptec four-port controller card that also provides the RAID capabilities. The Linux kernel is installed on an IDE flash memory card, with Adaptec's iSCSI target stack running on top of this kernel. Aimed at applications such as D2D (disk-to-disk) backup, remote office storage and disaster recovery, the iSA1500 offers a number of features we've not yet seen in other products.

Installation starts with a local connection to the Linux kernel's command line, which fires up a quick-start wizard for the management port. All further contact is via Adaptec's browser-based Storage Manager, which can run only on one system within the storage network.

However, all servers using the appliance must first have the Microsoft iSCSI initiator installed, followed by Adaptec's agent. Furthermore, 2000 Server systems must have Microsoft's DiskPart utility loaded. The reason for all this becomes clear when you set up your targets. Initiator portal configuration, target logon and drive assignments are all automated by the Storage Manager. Your first job is to locate all iSCSI subsystems and agents. Their IP addresses need to be added manually as the auto-discover routine has been removed to avoid potential problems on larger networks. Storage pools need to be created, and here you can opt for multiple pools and choose from a variety of RAID arrays.

The clever bit comes next as you pick the Automation option for each agent, decide on a disk volume size, select a drive letter, add formatting options and leave the appliance to create it and assign it to the relevant initiator, where the new drive appears ready for use in



Adaptec takes its first step into the iSCSI storage server appliance market.

Explorer. Backup options are good, as the price includes support for up to 64 volume snapshots. These appear as a duplicate iSCSI target of the original, and it also has the ability to assign the snapshot of a server volume to a separate server, which is equipped with a tape drive.

Raw performance was impressive. Iometer reported 91MB/sec over gigabit Ethernet for a single target using two disk workers on a dual 1.7GHz server. However, processor utilisation was above 50 per cent. Clearly a TOE (TCP Offload Engine) would be beneficial, and the agent supports Adaptec's 7211C controller card, although you must still have Microsoft's iSCSI service installed. With the card fitted in the same server, Iometer reported 90MB/sec but, more importantly, processor utilisation dropped to less than 8 per cent.

With the iSA1500, Adaptec is offering an iSCSI storage package at a competitive price. Performance is above par and the snapshot feature will prove a valuable backup tool.

DAVE MITCHELL

PC PRO RATINGS

PERFORMANCE	★★★★★
FEATURES & DESIGN	★★★★★
VALUE FOR MONEY	★★★★★
OVERALL	★★★★★

SPECIFICATIONS Supermicro SC813-T 1U chassis; Supermicro X5DPR-IG2+ motherboard; 1.6GHz Intel Xeon; 1GB PC2100 ECC SDRAM; Adaptec 2410SA 4-port SATA RAID controller; 64MB cache memory; supports RAID0, 1, 5 and 10; 4 x 250GB Maxtor DiamondMax Plus 9 SATA/150 hard disks in hot-swap carriers; IDE flash memory card running Linux kernel; embedded dual Intel gigabit Ethernet; Intel PRO/100S PCI Ethernet management card; Adaptec Storage Manager and agent software bundled; price includes support for 64 snapshots.