

DUAL 3.6GHz XEON RACK SERVER

transtec 1001 SCSI

PRICE £3,646 exc VAT

INTERNET www.transtec.co.uk

BASIC WARRANTY 2yrs, first year on-site NBD

SUPPLIER transtec Computers 01295 756100

VERDICT A well-built low-profile rack server with good remote management, power fault tolerance and bags of memory, but RAID features could be improved.

It may not have a talent for provocative model names, but transtec does offer an impressive range of Intel- and Supermicro-based rack-mount and pedestal servers. We looked at a number of Intel-flavoured transtec systems during 2004, and to kick off 2005 the 1001 SCSI server brings together a solid partnership of Supermicro chassis and motherboard.

The 1001 delivers support for the latest Intel EM64T processor technology, but a key feature is also its power fault tolerance – an area Supermicro has traditionally failed to address in its 1U rack servers. Until now, they've all sported single cold-swap supplies, but the 1001 brings together a pair of 560W units delivering full hot-swap capabilities. As we found with Dell's PowerEdge 2850 (see issue 124, p186), the larger power supply casing does eat up internal space. Although there's a small price to pay, Supermicro has neatly stepped round this with another well-designed motherboard. The X6DHP-8G may be much narrower than standard mainboards, but it still manages to pack in a good range of features. Note that it's a proprietary format and is designed to fit only this chassis.

Internal cooling efficiency is always a major concern for low-profile rack servers, and we can report that airflow over the processors, chipset and memory is largely uninterrupted. This is dealt with efficiently by a bank of five dual-rotor radial



Supermicro's SuperO Doctor III utility has a detailed and easy-to-use interface for analysing system health.



Hot-swap power supplies make their first appearance in a Supermicro-based rack server.

fans mounted in rubber blocks. We found operational noise levels were reasonably low once the fans had settled down after power-on.

The pair of Xeon Nocona processors are mounted directly behind the fan modules and fitted with good-quality passive heatsinks. Further back is a bank of six DIMM sockets, and transtec generously supplied a tasty 4GB made up of 1GB modules. The motherboard sports an E7520 Lindenhurst chipset, but note that a version of this board supporting DDR2 memory isn't currently available.

Standard storage is managed by a dual-channel Adaptec Ultra320 chipset and one channel is sensibly routed to the rear panel for connecting external devices. However, the chipset is left idle, as transtec opted to provide a basic ICP/Vortex PCI RAID card and connect this to the hard disk backplane. In this configuration, the Vortex card works fine, but although you have a couple of spare drive bays at the front it doesn't support RAID10 or 5 arrays. It would have made more sense to fit the GDT8514RZ variety, as this offers the full range of RAID arrays. One PCI-X slot also supports Adaptec's 2010S ZCR (zero channel RAID) cards, and fitting one of these would have removed the need to run a chunky SCSI cable across the full width of the motherboard. Expansion options are also limited. Although the butterfly riser card provides a pair of horizontal PCI-X slots, the spare one can't be used, because the second power supply is in the way. At least PCI Express support is available, as Supermicro offers a riser card with two 8x slots instead of PCI-X.

Supermicro's remote server management offerings will never threaten those of Dell or HP, but the SuperO Doctor III utility shows that the company is now taking this area a lot more seriously. SuperO Doctor III offers a slick browser interface, which shows a complete rundown of

installed hardware and allows you to keep a close eye on critical components and manage power-cycling. The system health page provides a row of gauges for voltages, plus processor and chassis temperatures along with speed dials for all ten cooling fans. A local agent is required to control power, but with this installed the server can be remotely reset, powered off or gracefully restarted. Remote-control facilities are provided by the neatly integrated VNC software, and alerting facilities extend to sending warnings

by pager, SNMP trap or emailing multiple recipients.

The 1001 also comes equipped with an IPMI 2-compliant BMC (baseboard management controller) slotted into a SODIMM socket underneath the RAID card. Designed to do away with the need for expensive remote management cards, the BMC provides remote access to the server via a LAN or a serial connection regardless of its condition.

Supermicro scores over Dell with its IPMI Viewer utility. Rather than use a crude and limited command-line interface, it provides a tidy display with a dashboard of gauges showing temperatures, fan speeds and voltages along with controls for remotely recycling power and performing graceful shutdowns. Installing an optional modem on the card activates a paging feature for sending warnings to different users based on the event severity. Arrays are managed using the bundled ICP RAID Navigator utility, which offers views of the physical and logical drives, plus a useful performance graph. A separate RAIDMail utility is used to link failures to alerts and can send a broadcast to another system and a message to one mail address.

With power fault tolerance now in the picture, the 1001 SCSI server is a good choice for running mission-critical applications. It's a well-built system with a good specification, although if you don't mind the extra height check out Dell's PowerEdge 2850 first, as this does offer better value.

DAVE MITCHELL

PC PRO RATINGS

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

SPECIFICATIONS Supermicro SC-814 chassis; Supermicro X6DHP-8G motherboard; dual 3.6GHz Intel Xeon with 1MB L2 cache; Intel E7520 chipset; 4GB PC2700 ECC SDRAM expandable to 12GB; Adaptec 7902 dual-channel Ultra320 SCSI; dual SATA/150 and ATA/100; ICP Vortex GDT8114RZ Ultra320 RAID controller with 128MB cache memory, supports RAID0, 1, JBODs and hot-swap; 2 x 73GB Seagate Cheetah 15K Ultra320 hard disks in hot-swap carriers; dual Intel gigabit LAN, 1 x 64-bit/133MHz PCI-X, 1 x 64-bit 100MHz PCI-X slot; IPMI 2 BMC; 8MB ATI Rage XL graphics; NEC ND6500 DVD/RW, SuperO Doctor III, IPMI Viewer and ICP RAID utility software supplied.