Fault-Tolerant Servers Get Quad-core Makeover

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Stratus and NEC are each rolling out new fault-tolerant servers based on Intel's newest quad-core processors.

Fault-tolerant servers are ready for the quad-core era.

On March 26, both Stratus Technologies and NEC are announcing that they each will start shipping new versions of their fault-tolerant servers that will be based on Intel's quad-core processors.

Stratus and NEC will each start using Intel's Xeon X5355 quad-core processor, which offers a clock speed of 2.66GHz, a total of 8MB of L2 cache, a 120-watt thermal envelope and front side bus running at 1333MHz.

Fault-tolerant systems offer twin components that work in lockstep, so if one fails, the other one can continue working with no interruption to the user.

John Blanchard, an analyst with the ARC Advisory Group, said the market for these types of servers will continue to grow as large enterprises continue to confront situations like Hurricane Katrina, where businesses have to continue regardless of whether the IT infrastructure goes down.

The field for fault-tolerant servers will also grow as enterprises faces new regulations - the Sarbanes-Oxley Act, for example - that not only

require records to be saved but also require that these documents be produced within days of a request.

"From my point of view, the protection of the production of a product and its data is just as important as the product itself," said Blanchard. "If there is no record of a sale, then the sale did not happen. If there are no records, then a company is not in compliance."

The move to quad-core-based servers is a way Stratus and NEC can offer higher-performing systems with more memory for less money to meet the needs of enterprises, Blanchard said.

At the Continuous Availability Summit in Orlando, Fla., Stratus will unveil its fourth-generation fault-tolerant server, the ft6200, which will use the quad-core Xeon processor. The system comes as either a pedestal server or a 4U (7-inch) rack.

Compared to previous generations of servers, the two-socket ft6200 offers three times the performance of a two-socket system running with Intel's dual-core processors, said Denny Lane, director of product marketing and management for Stratus.

The Maynard, Mass., company will offer systems with either one or two sockets. The 6200 series server will include a maximum of 24GB of DDR2 (double data rate 2) memory, with support for both hot-pluggable SATA (serial ATA) and SAS drives, and up to 500GB and 146GB of memory, respectively.

The ft6200 server will also offer a storage system that consists of a 3.5-inch, 12-disk shelf that contains a pair of RAID containers that can be expanded to include 36 disks.

Stratus will start testing the beta version of its latest server immediately

and the first systems will start to ship by June. The company has not set a base price as of yet.

On the same day that Stratus introduces its quad-core servers, NEC, which is based in Sunnyvale, Calif., will also unveil its own new system - the Express 5800/320Fc, which the company said will offer 200 percent better performance than current models that use dual-core Intel processors that run at 2.8GHz.

Like its counterpart, the NEC Express 5800/320Fc offers 24GB of DDR2 memory and support for SATA and SAS hard drive that can support 300GB or 500GB of memory, respectively. This dual-socket system, which comes in either a 4U rack or in a tower form factor, has a base price starting in the mid-$40,000 range, the company said.

Mike Mitsch, general manager of alliances and strategy for NEC, said he believes customers will agree to pay a premium for a system that can handle more of a workload and increase the server's ability to host virtual environments.

"What you get is the ability to perform additional workloads and the ability to have more virtualization on a single platform," Mitsch said. "What the quad-core and the fault-tolerant technology provide is an additional piece of security."

Both the new Stratus and NEC systems will support Microsoft Windows Server 2003 operating system, as well as Red Hat Linux. The two companies said the systems will support Windows first and Linux support will follow.