

NEC'S NEW FAULT TOLERANT SERVERS OFFER UPGRADED PERFORMANCE, CONTINUOUS AVAILABILITY

NEC's fault tolerant servers based on Intel 'Nehalem' Xeon processors are the perfect low-cost solution to keep systems running in emergency response, physical security, manufacturing automation environments

Santa Clara, Calif., August 25, 2009 — NEC Corporation of America, a premier provider of IT, network and identity management solutions, today announced fault-tolerant (FT) servers based on the new Intel® Xeon® processor 5500 Series (formerly code-name "Nehalem"). These new FT servers run with one or two CPUs benefiting from the performance boost of the new Intel Xeon processor to offer the ideal low-cost continuous availability solution for robust mission-critical, non-stop computing environments such as emergency response, physical security, and manufacturing automation.

"Hardware failure is the most common reason for unplanned downtime," said Matt Eastwood, group vice president, Enterprise Platforms, IDC. "Unplanned downtime can cost millions per hour in the U.S., and can result in lost lives, loss of business, and SLA fines. Fault tolerant servers offer improved continuous protection against hardware failures and provide enterprises with a critical solution to these challenges."

NEC's fault-tolerant servers deliver exceptional up-time through dual modular hardware redundancy. Main hardware components, including CPU and memory, are replicated to run in lockstep (two redundant modules process the same instructions at the same time). If any hardware component fails in one module, the faulty component is isolated automatically, and processing continues uninterrupted in the other module without downtime and loss of data. The failed module can be replaced while the other module continues to operate.

"In our business, unplanned downtime can be life-threatening," said Charlie Stortz, vice president of Logistic Systems, Inc., developer of automated emergency response call centers. "We rely on NEC's fault tolerant servers to guarantee our customers the availability they need. The NEC servers are so reliable and easy to maintain that they actually save costs over the life of the system."

A key capability of the fault tolerant server is that it is extremely easy to maintain at a very low cost. Alternative software solutions may protect against hardware faults with adequate system restart capabilities, but once a failover occurs, resetting the system and software configuration back into a re-start operation can be expensive. NEC's fault tolerant server eliminates such maintenance cost, time, and technical risk. If a failover occurs due to a hardware fault, NEC replaces the entire server module under its warranty program no matter what part fails. Furthermore, the replaced module is 'hot-swappable' and can be easily replaced by anyone at the server's facility. Only basic knowledge is needed to physically remove the old module and insert the new one all while the redundant module continues to run. The FT server will automatically synchronize

memory and storage with the running module, effectively putting the server back in fault tolerant mode within minutes and without any downtime.

"Intel and NEC have had a productive multi-generational relationship on fault tolerant servers based on the Intel Xeon processor," said Kirk Skaugen, vice president and general manager of Intel's Server Platforms Group. "Incorporating the new intelligent performance and energy efficiency capabilities of the Intel Xeon processor 5500 series into NEC's new fault tolerant server platforms will give our mutual customers a more robust, lower-cost solution for continuous availability."

NEC's new fault tolerant servers, the Express5800/R320a-M4 and Express5800/R320a-E4 feature Quad-Core Intel® Xeon® 5500 series processors. Additional enhancements include support for up to 96 GB memory and 2.4TB storage as well as the ability to handle more PCIe expansion cards. The new FT servers also sport improved air flow to ensure they can run in environments outside the traditional data center.

New NEC Fault Tolerant Server Capabilities

Summary of new features in the NEC Express5800/R320a include:

- Quad-Core Intel® Xeon® E5504 and X5570 processors;
- High-speed DDR3 memory modules for additional memory access performance;
- Support up to 8 GB DIMM to increase memory up to 96 GB;
- Support up to eight 2.5-inch SAS hard disk drives, for faster performance and energy efficiency; and
- Expanded remote management capabilities.

The key component that generates the fault tolerant capability is the GeminiEngine™, a chipset designed by NEC. It is the heart of lockstep processing in the ft series servers specially engineered to synchronize the two redundant modules, while also preventing CPU performance degradation. Hardware redundancy extends even to the connection between NEC's FT server and storage. This redundancy further improves data availability, simplifying consolidation of physically distributed file servers and web servers to a single FT server. Equipped with fully-redundant and hot-swappable components, including redundant memory processors and I/O subsystems, NEC's Fault Tolerant servers achieve up to 99.999% system uptime or approximately five minutes of annual downtime.

The NEC Express5800/R320a-M4 and NEC Express5800/R320a-E4 will be generally available in North America within weeks, supporting 64-bit Microsoft® Windows Server 2008 and 32-bit Windows Server 2003 R2. Systems for Red Hat® Enterprise Linux® will be available later this year.

"Providing business continuity for an organization requires a dynamic infrastructure with a wide variety of high availability options," said Marc Hafner, vice president of Servers and System Software Division, IT Platform Group, NEC Corporation of America. "NEC's fault tolerant servers provide customers the ultimate in continuous hardware availability."

Combined with NEC's ExpressCluster software for application and data protection, customers can have additional protection against unplanned downtime caused by software errors or facility disasters."

NEC's fault tolerant servers are part of the NEC Dynamic IT Infrastructure-a solution that includes servers, storage, virtual desktop solutions, and system software that are smart, flexible, adaptive to change, scalable, resilient, and continuously evolving. Along with NEC's broad range of services-the NEC Dynamic IT Infrastructure provides an ideal platform for virtualization, consolidation and business continuity and is ideal for driving greater value and efficiencies in solutions for physical security, law enforcement, emergency response, travel and entertainment, education, high performance computing, and business. This type of infrastructure allows IT organizations to move forward confidently and meet changing and growing business needs in an efficient manner. For more information about NEC's Dynamic IT Infrastructure, please visit www.necam.com/DynamicIT.

About NEC Corporation of America

NEC Corporation of America is a leading technology provider of network, IT and identity management solutions. Headquartered in Irving, Texas, NEC Corporation of America is the North America subsidiary of NEC Corporation. NEC Corporation of America delivers technology and professional services ranging from server and storage solutions, IP voice and data solutions, optical network and microwave radio communications to biometric security, virtualization and digital cinema solutions. NEC Corporation of America serves carrier, SMB and large enterprise clients across multiple vertical industries. For more information, please visit <http://www.necam.com>.

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