Intel Launches Next Wave Of Multi-Core Server Platforms

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Originally planned for early 2006, Intel Corporation's first dual-core, hyper-threaded processors for servers with four or more processors started shipping today. The processors deliver record levels of performance and are optimal for multi-threaded applications such as database, supply chain management and financial services software.

"With a current installed base of over 30 million, Intel Xeon processor-based servers are the proven platform of choice," said Kirk Skaugen, general manager of Intel's Server Platforms Group. "Intel's multi-core-based servers currently deliver record-breaking performance including surpassing the $1 TPM-C barrier for database application price performance on a dual processor server for the first time."

The new processors are at the core of a record-setting four-processor server performance result recently published on the TPC-C benchmark. TPC-C simulates a complete computing environment where a population of users executes transactions against a database and measures the number of complete business operations that can be performed by the server. More information can be found at www.tpc.org.

The Dual-Core Intel Xeon processor 7000 sequence, formerly codenamed "Paxville MP," is shipping today with speeds up to 3.0 GHz and a 667 MHz dual, independent system bus. The new processors will fit into existing platforms using the Intel E8500 chipset that was architected for dual-core and shipped earlier this year. In early 2006, Intel plans to ship new versions of the chipset and processorthat will

support an 800 MHz dual, independent system bus.

The platform shipping today includes DDR2 Memory, PCI Express, advanced reliability features, and hardware-enabled support for Intel Virtualization Technology. This new technology is designed to provide hardware support within the processor for virtualized server applications, helping to make them more reliable, robust and efficient. Intel is working with the industry to turn on this capability via a BIOS switch in early 2006.

"Intel-based servers with dual-core technology will further increase the IT efficiency and system utilization for VMWare customers," said Brian Byun, vice president of Technical Alliances, VMware. "Virtualization is the killer application to harness the increased power of multi-core processors across a broad range of enterprise workloads. VMware will be able to deliver enhanced product capabilities through the hardware virtualization support enabled in the latest dual-core Intel Xeon processor platforms."

Servers based on the Dual-Core Intel Xeon processor 7000 sequence are expected to be available from system manufacturers worldwide beginning today and into next year including Dell, Egenera, Fujitsu Siemens, Gateway, HP, HCL Infosystems Ltd, IBM, Kraftway, Lang chao, Lenovo, Maxdata, NEC, Samsung, Supermicro, Unisys and Wipro Infotech.

Looking ahead, Intel disclosed additional details on future Intel Xeon processor MP-based platforms. In the second half of 2006, Intel plans to deliver "Tulsa," a 65nm dual-core Intel Xeon processor MP with a larger 16 MB shared L3 cache for servers with four or more processors. Tulsa will fit into the same systems as the dual-core Intel Xeon processor 7000 sequence introduced today and begin shipping to customers for evaluation by the end of 2005.

In October, Intel updated its Intel Xeon processor MP roadmap with the addition of a new platform in 2007, codenamed "Caneland," that is planned to include a quad-core processor, codenamed "Tigerton," based on Intel's next generation micro-architecture. The Caneland platform is designed to deliver higher performance through a high-speed interconnect, an interface connecting each processor directly to the chipset. In addition, the Caneland platform is expected to implement an upcoming memory technology, called Fully-Buffered Dual In-Line Memory Module (FB-DIMM) and will include four memory interconnects that take advantage of the increased capabilities of the technology.

Source: Intel