Intel Unveils New High-End Server Processors

Intel Corporation today unveiled eight new Dual-Core Intel Xeon 7100 series processors designed for multi-processor servers. Previously codenamed "Tulsa," the Dual-Core Intel Xeon processor 7100 series delivers on key requirements to support the demands of enterprise applications: top performance and reliability. The processor family also includes lower-power, 95 watt options that reduce associated energy costs.

The Dual-Core Intel Xeon 7100 processor series offers up to twice the performance and nearly three times better performance per watt over previous Intel Xeon MP processors, boasts greater performance headroom than competitive offerings and delivers the reliability and scalability Intel-based servers are known for throughout the industry. These processors are also socket compatible with the currently shipping platform, speeding deployment and reducing qualification costs and validation times.

Using the SPECjbb2005 benchmark, the Fujitsu-Siemens PRIMERGY RX630 S3 server based on the Dual-Core Intel Xeon 7140M processor broke the previous record with a score of 178,201 business operations per second.

A Dell PowerEdge 6800 server based on the Dual-Core Intel Xeon processor 71400M smashed another world record by scoring 16,320 QphH using the TPC-H benchmark, which measures database performance.

Servers based on these platforms are an excellent choice for server consolidation -- particularly in virtualised environments -- and for running demanding enterprise workloads such as database, enterprise resource planning (ERP), customer relationship management (CRM) and e-commerce applications. Servers based on the Dual-Core Xeon 7100 series processors are expected to be available from more than 40 system manufacturers worldwide starting today.

"Today's introduction continues an historic 'summer of servers' for Intel where we have now delivered a record 23 new processors in three market segments in less than 100 days," said Tom Kilroy, vice president and general manager of Intel's Digital Enterprise Group. "The Dual-Core Intel Xeon Processor 7100 series is the best choice for demanding enterprise workloads based on new world record benchmarks, significantly outperforming the industry in key areas while not compromising on the reliability and investment protection that is so critical."

Built on Intel's industry leading 65nm manufacturing process, the Dual-Core Intel Xeon 7100 series processors boast more than 1.3 billion transistors and 16MB of shared cache in an innovative architecture that features Intel Cache Safe Technology for optimal reliability. Systems scaling to 32 processors will be available.

The Dual-Core Intel Xeon Processor 7100 series feature numerous Intel-led innovations that enhance datacenter effectiveness including Intel Virtualization Technology (originally introduced last year) that can help lower the total cost of ownership by assisting with consolidation of different software applications.

"Dell is focused on extending its leadership in server price-performance and performance per watt, while delivering enterprise solutions that reduce complexity. This combination is helping our customers turn their IT operations from a cost center to a competitive advantage," said Neil Hand, vice president of worldwide enterprise marketing, Dell Product Group. "The improvements in performance and power consumption in our PowerEdge 6800 and 6850 with Dual-Core Intel Xeon Processor 7100 series give our customers an

advantage in running their business-critical database and enterprise applications and continue Dell's drive to deliver the most robust enterprise products in the industry."

"With the Dual-Core Intel Xeon Processor 7100 Series on HP servers, customers can benefit from industry-leading performance delivered through a balanced system architecture and leading infrastructure management tools," said Paul Miller, vice president, marketing, Industry Standard Servers and HP BladeSystem. "With a nearly 62 percent performance gain over previous models, the new platforms are ideal for virtualization and maximizing the performance of business-critical applications."

"In collaboration with Intel, IBM has set the standard for commercial processing performance with its System x servers based on IBM X3 Architecture," said Susan Whitney, general manager, IBM System x. "IBM continues to drive x86 performance leadership with its X3 Architecture and enables a uniquely scalable x86 platform as demonstrated by our top benchmark result for System x3950 in an SAP landscape. We look forward to expanding our System x portfolio with the Intel Xeon Processor 7100 series to offer clients unparalleled performance for their most demanding enterprise resource planning, database processing and server consolidation needs."

IBM has posted its 100th number-one benchmark result with an IBM System x3950 8-processor score of 3,350 SAP SD Benchmark users on the two-tier SAP Sales and Distribution Standard Application Benchmark.

The Dual-Core Intel Xeon Processor 7100 series is compatible with the existing Intel E8501 chipset that was introduced last year and designed for dual-core processors. The 95 watt dual core option offers up to 40 percent less power consumption than the previous generation processor, providing increased power efficiency and lower energy costs.

Intel's 65nm ramp is proceeding extremely well with production already exceeding the company's total 90nm volume. This manufacturing ramp is enabling Intel to drive a fast Dual-Core Xeon Processor 7100 series ramp. Intel's manufacturing strength has allowed it to substantially revise prices for higher end Intel Xeon Processors delivering new levels of price/performance. For more details on the performance characteristics of the Dual-Core Intel Xeon Processor 7100 series please visit http://www.intel.com/performance/server/xeon_mp/index.htm

Source: Intel