Intel Launches First Industry-Standard Quad-Core Products for High-End, Multi-Processor Servers

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Intel Corporation has unveiled the industry's first quad-core processors specifically designed for multi-processor (MP) servers running applications requiring uncompromised performance, reliability and scalability. Such applications are typically run in virtualized environments for server consolidation and database uses, enterprise resource planning and business intelligence.

The six new Quad-Core Xeon 7300 series processors can deliver more than twice the performance and more than three times the performance per watt over the company's previous generation dual-core products. They complete the company's speedy transition to its innovative and energy-efficient Core microarchitecture in less than 15 months. This platform's energy-efficient performance, coupled with enhanced virtualization capabilities, will enable customers to significantly lower their total cost of ownership.

The energy-efficient 7300 series includes frequencies up to 2.93GHz at 130 watts, several 80-watt processors and a 50-watt version optimized for four socket blades and high-density rack form factors with a frequency of 1.86GHz. The Intel 7300 chipset with Data Traffic Optimizations provides a balanced platform design with several new technologies that enhance data movement between the processors, memory and I/O connections. HP delivered a new blade world record for SAP Sales and Distribution (SD) Benchmark with a result of 3,500 SD

users on a HP ProLiant BL680c G5 blade server with four Quad-core Intel Xeon processor model E7340s running at 2.4 GHz.

"Intel Xeon-based multi-processor servers are the backbone of the enterprise," said Tom Kilroy, Intel vice president and co-general manager of the Digital Enterprise Group. "With the Xeon 7300 series, Intel is delivering new levels of performance and performance per watt, and driving the Intel Core microarchitecture into such innovative systems as four-socket, 16-core blades that use less energy than our older models. It's simply amazing."

New Levels of Virtualization and Scalability

By delivering the benefits of the Intel Core Microarchitecture with quad-core performance and Intel Virtualization Technology to these high-end servers, Intel is providing customers with an ideal platform for virtualization and server consolidation.

In addition to twice the cores, the 7300 series and Intel 7300 chipset offer up to four times the memory capacity of Intel's previous MP platforms, enabling very large consolidation ratios that can reduce space, power and operation costs.

With the introduction of the Xeon 7300, users will now be able to pool all of their Intel Core microarchitecture based server resources, whether they are single-, dual- or multi-processor based, into a dynamic virtual server infrastructure that allows live virtual machine migration that can improve usage models like failover, load balancing, disaster recovery, or server maintenance. The previously announced Intel VT FlexMigration will assist the seamless addition of Intel's next generation 45nm Core microarchitecture-based platforms to such resource pools.

A simultaneous release of a 50-watt processor, or 12.5-watt per core,

will drive the production of energy-efficient ultra-dense deployments such as four-socket blade servers and dense rack form factors. Intel is also improving business productivity by offering configurations with large memory footprints and up to 32-way scalability.

The Quad-Core Intel Xeon Processor 7300 Series-based servers demonstrate outstanding virtualization capability by delivering up to 167 percent performance improvement compared to the previous generation of Intel processors. This result was achieved with Virtual Iron 4.0 Software running the vConsolidate benchmark.

Starting today, servers based on the Xeon 7300 series processors are expected to be announced by more than 50 system manufacturers, including Dell, Egenera, Fujitsu, Fujitsu-Siemens, Hitachi, HP, IBM, NEC, Sun, Supermicro, and Unisys. For channel customers looking for complete platforms based on these new processors, Intel offers the Intel S7000FC4UR server platform. The platform delivers strong, scalable performance, expansive capacity and proven enterprise-class reliability for virtualization and consolidation.

Many software vendors are also supporting Xeon 7300 based platforms with innovative solutions enabling virtualization and scalable performance. These include BEA, Microsoft, Oracle, SAP and VMware. In addition, the Solaris Operating System and thousands of applications that operate on it can immediately take advantage of the performance leadership of Intel Xeon 7300-based platforms offering an enterprise-class, mission-critical UNIX OS for Intel Xeon processor-based servers.

Pricing of these new quad-core processors depends on the speeds, features and amount ordered, and ranges from $856 to $2,301 in quantities of 1,000. For more details on the performance characteristics of the Quad-Core Intel Xeon Processor 7300 series, visit www.intel.com/performance/serv … /xeon_mp/summary.htm .