

Intel Launches Xeon 7500 processor series

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Intel Xeon 7500 processor series

Intel Corporation today culminated the transition to the company's award-winning "Nehalem" chip design with the launch of the Intel Xeon 7500 processor series.

In less than 90 days, Intel has introduced all-new 2010 PC, laptop and server processors that increase [energy efficiency](#) and computing speed and include a multitude of new features that make computers more intelligent, flexible and reliable.

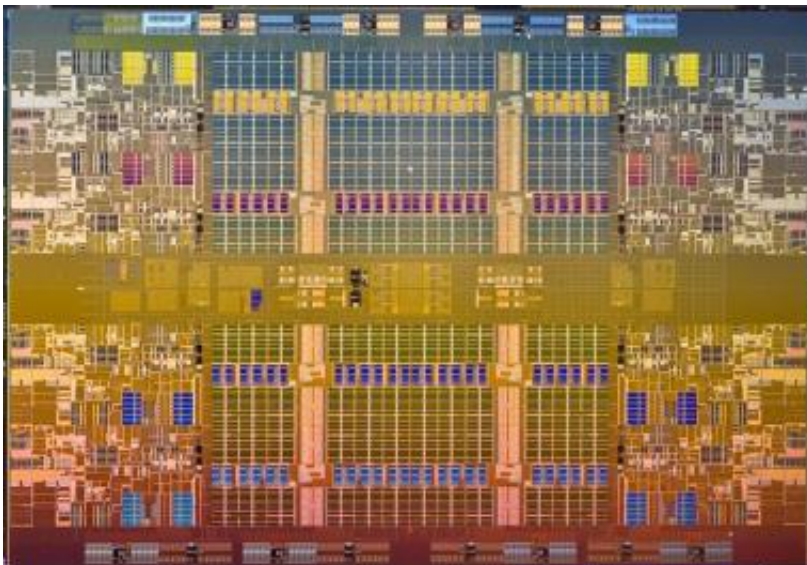
Expandable to include from two to 256 chips per server, the new Intel Xeon processors have an average performance three times that of Intel's existing Xeon 7400 series on common, leading enterprise benchmarks, and come equipped with more than 20 new reliability features.

The combined scalable performance, advanced reliability and total cost of ownership advantages of the Xeon 7500 series will further accelerate the shift from proprietary systems to industry-standard Intel processor-based servers. These new capabilities enable IT managers to consolidate up to 20 older single-core, 4-chip servers onto a single server using Intel Xeon 7500 series processors while maintaining the same level of performance. In doing so, they could also see up to a 92 percent estimated reduction in [energy costs](#) and a return on their investment estimated within 1 year due to reductions in power, cooling and licensing costs.

"The Xeon 7500 brings mission critical capabilities to the mainstream by delivering the most significant leap in performance, scalability and reliability ever seen from Intel," said Kirk Skaugen, vice president of the Intel architecture group and general manager of Intel's data center group. "This combination will help users push to new levels of productivity, and accelerate the industry's migration away from proprietary architectures. We are democratizing high-end computing."

Mission-critical workloads run by customers that simply cannot afford unscheduled downtime such as hospitals or stock exchanges can take advantage of more than 20 new features that deliver a leap forward in reliability, availability and serviceability (RAS). These reliability capabilities are designed to improve the protection of data integrity, increase availability and minimize planned downtime.

For example, this is the first Xeon processor to possess Machine Check Architecture (MCA) Recovery, a feature that allows the silicon to work with the operating system and virtual machine manager to recover from otherwise fatal system errors, a mechanism until now found only in the company's Intel Itanium processor family and RISC processors.



Color photograph of Intel Xeon processor 7500 series die. The die size is 684 mm² with 2.3 billion transistors. Expandable to include from two to 256 chips per server, the new Intel Xeon processors have an average performance three times that of Intel's existing Xeon 7400 series on common, leading enterprise benchmarks, and come equipped with more than 20 new reliability features.

The Intel Xeon processor 7500 series offers unique scalability through modular building blocks enabled by Intel QuickPath Technology (QPI) interconnect. With QPI, cost-effective and highly scalable eight-processor servers that don't require specialized third-party node controller chips to "glue" the system together can be built. Intel is also working with system vendors to deliver "ultra-scale" systems with 16 processors for the enterprise, and up to 256 processors and support for 16 terabytes (one terabyte is equal to 1,000 gigabytes) of memory for high- performance computing "super nodes" running bandwidth-demanding applications such as financial analysis, numerical weather predictions and genome sequencing.

The [Intel](#) Xeon [processor](#) 7500 series represents the largest performance leap in Xeon family history, with the chip being an average three times

faster across a range of benchmarks, setting over 20 new world records including stellar results from Cisco, Dell, Fujitsu, IBM, NEC and SGI.

Source: Intel

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