Intel Itanium 9300 Processor Raises Bar for Scalable, Resilient Mission-Critical Computing

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Intel Corporation today introduced the Itanium processor 9300 series, previously codenamed "Tukwila," which delivers more than double the performance of its predecessor, boosts scalability and adds reliability features to the Itanium platform that is already running mission-critical applications for 80 percent of the Global 100 corporations.

With the Gartner Group predicting a 650 percent growth in IT data over the next 5 years, businesses need increasingly powerful and scalable enterprise servers. The two-billion transistor Itanium processor 9300 series meets this need head on with twice as many cores as its predecessor (four versus two), eight threads per processor (through enhanced Intel Hyper-Threading Technology), more cache, up to 800 percent the interconnect bandwidth, up to 500 percent the memory bandwidth, and up to 700 percent the memory capacity using-industry standard DDR3 components.

Critical corporate workloads also demand high-availability features across all platform components. The Itanium processor 9300 series adds to the architecture's world-class resiliency with new reliability, availability, and serviceability (RAS) features that extend across the processor, its Intel QuickPath Interconnect technology, and the memory subsystem.

The processor's advanced machine-check architecture coordinates error

handling across the hardware, firmware and operating system, and improves system availability by enabling recovery from otherwise fatal errors.

The Itanium 9300 processor employs the second generation of Intel Virtualization Technology to improve performance and robustness. Its Intel 7500 chipset can directly assign I/O devices to virtual machines, further boosting efficiency.

OEM systems based on the Intel Itanium processor 9300 series will be binary-compatible with existing software and can provide major performance improvements without the need for additional software optimization.

"Poulson," codename for the next Itanium processor, will add an advanced multi-core architecture, instruction-level and hyper-threading enhancements, new reliability features and more.

Future Intel Itanium processors in development today are being designed for socket and binary compatibility with Intel Itanium 9300 processor-based systems and software. They are designed to scale in performance and capacity through component upgrades, without software recompilation, so customers can continue to expand and adapt their mission-critical computing systems.

The Itanium 9300 processor series and the future Intel Xeon processor, codenamed "Nehalem EX," share several platform ingredients, including the Intel QuickPath Interconnect, the Intel Scalable Memory Interconnect, the Intel 7500 Scalable Memory Buffer (to take advantage of industry standard DDR3 memory), and I/O hub (Intel 7500 chipset). The common elements foster shared innovation, design synergy, and manufacturing efficiency across Intel Xeon and Itanium processor families, and flexibility for customers.

An enhanced form of Demand-Based Switching (DBS) lowers power consumption when utilization is low. Intel Turbo Boost Technology automatically senses and adapts to provide the right performance boost when needed, and to conserve power when it is not.

The Intel Itanium processor 9300 series ranges in price from $946 to $3,838 in quantities of 1,000. OEM systems are expected to ship within 90 days.

Source: Intel

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