

# Powerful New Intel Server Platforms Feature Array Of Enterprise-Class Innovations

[Intel Corporation](#) today unveiled a **new generation of Intel® Xeon™ processor-based server platforms**. The platforms are based on an array of new performance-enhancing technologies and capabilities that collectively help to better address the evolving needs of enterprise computing.

Intel's new dual-processor capable platforms, which are based on the Intel Xeon processor at 3.60 GHz introduced in June, utilize the new Intel® E7520 and E7320 chipsets (formerly codenamed "Lindenhurst") that vary in features and prices. The platforms also include the new Intel® IOP332 Storage I/O Processor (formerly codenamed "Dobson") that delivers improved RAID storage performance over previous generations. The platforms also incorporate a host of other new and enhanced memory, I/O and bus technologies that increase performance in key server benchmarks over prior generations.

"We've innovated and integrated the processor, chipset, storage and networking components with these technologies into platforms that help deliver a new standard in performance, reliability and cost," said Abhi Talwalkar, Intel vice president and general manager, Enterprise Platforms Group. "Utilizing these technologies will enable the systems built on these platforms to perform many of the most demanding jobs business, science or government can throw at them."

Other new technologies include faster DDR2 400 memory, a higher-throughput 800 MHz system bus and higher-bandwidth PCI Express\* interconnect technology than previous generations. Each works in concert with the performance, power optimization, and flexible 32- and 64-bit memory addressability of the Intel Xeon processor for balanced overall operation.

## **New Performance Benchmarks**

This combination of new features enables improved performance for a wide variety of applications. In benchmark tests conducted by VeriTest, the platform demonstrated 54 percent greater performance on WebBench (used to measure the ability to handle Web hosting services), 22 percent improved performance on Windows\* Media Load Simulator (used to measure capacity for streaming media applications) and 18 percent better performance on SPECjbb2000 (used to measure ability to process transactions in e-commerce applications).\*\* All comparisons are against the previous generation of Intel-based servers.

The Intel E7520 chipset is aimed at high-performance dual-processor enterprise solutions for systems that have complex I/O requirements for storage, networking and other applications. The Intel E7320 chipset includes all of the performance enhancements of the E7520, and currently offers a lower price for purchases direct from Intel for applications requiring fewer I/O ports.

The new Intel IOP332 Storage I/O Processor is aimed at cost-effectively enhancing RAID storage performance to help improve data reliability and reduce downtime. The IOP332 processor takes advantage of DDR2 400 memory and the fastest Intel® XScale® core at 800 MHz to increase the speed of RAID5 data storage and recovery. The use of PCI Express technology eliminates the latency previously incurred by PCI-X bridges.

## **Balanced Platform Technologies**

New DDR2 400 memory technology provides a 20 percent increase in memory bandwidth and up to 40 percent reduction in power over DDR 333. The combination of greater memory density and reduced power is particularly important to rack and blade servers, where the goal is to garner the most computing power into a constrained space while keeping heat under control. The 800 MHz system bus provides 50 percent greater bandwidth between chipset and the Intel Xeon processor, helping to enable unencumbered data flow

for evermore demanding applications.

PCI Express, the successor to the PCI and PCI-X bus technologies, increases I/O bandwidth three-fold over PCI-X. Initially, the E7520 and E7320 chipsets will support integration of PCI Express devices, including the IOP332 processor, onto motherboards, and by early in the fourth quarter currently plans to offer broad support for PCI Express adapters.

Intel introduced six new server boards and several new server chassis that incorporate the Intel Xeon processor, chipsets and storage processor along with new RAID controllers and server-management software. These new products are aimed at OEMs and resellers for applications ranging from high-performance dual-CPU pedestal servers to high-density, cost-effective rack-mount systems.

The improved performance of the server platforms translates directly to meeting the enterprise computing demands of such companies as NASDAQ and JPMorgan Chase.

"For the NASDAQ, the key performance measure is the peak number of transactions our servers can handle per second," said Steve Randich, CIO and executive vice president, the NASDAQ Stock Market. "Therefore, enhancing throughput and latency in our servers is key to improving the efficiency and effectiveness of stock trading process for traders and investors. With its host of new memory and I/O technologies, Intel's latest server platform, which is incorporated in our Dell PowerEdge\* servers, has the potential to help us continue to meet rapidly growing trading demands."

"At JPMorgan Chase, increased computing power means increasing our ability to quantify, assess and manage the risks that our clients face in the marketplace," said Michael Ashworth, CIO of the Investment Bank. "Our ability to share compute power and data effectively and efficiently over a large number of low-cost nodes not only improves our operational performance, but delivers computing power where and when it's needed most. Intel® Solution Services has been a great partner in supporting the growth of our Compute Backbone - our grid computing, risk management system - and has provided us with early access to the latest Intel Xeon processor-based server platform, which can provide the bandwidth capabilities needed for these data-intensive applications. JPMC is potentially looking to deploy this technology as early as the third quarter of this year."

The Intel Xeon processor, which was introduced in June, is the first Intel Xeon processor to offer Intel® Extended Memory 64 Technology (Intel® EM64T). EM64T helps overcome the 4-Gigabyte memory addressability hurdle, providing software developers flexibility for writing programs to meet the evolving demands of data-center computing. The processor also features Demand Based Switching with Enhanced Intel SpeedStep® Technology to dynamically adjust the processor's power usage up to 31 percent to reduce operating costs and heat issues.

"Availability of Intel's new server platforms with Extended Memory 64 Technology marks an exciting milestone that will accelerate customer adoption of 64-bit computing," said Bob Muglia, senior vice president, Microsoft's Windows Server Group. "The performance and scalability benefits of 64-bit Windows Server 2003 and SQL Server 2005 on Intel Xeon processor-based systems enable Microsoft and Intel to deliver the benefits of 64-bit technology while providing customers investment protection and an easy migration path from today's 32-bit applications."

A broad range of system and board manufacturers have stated that they currently plan to introduce products based on the new server platforms, including Acer, Appro, Aquarius, Arima, Asus, CA Digital, Ciara Technologies, Colfax, Compusys, Datanet, Dell, Digital Henge, Egenera, Equus, Foxconn, Fujitsu, Fujitsu Siemens Computers, Gateway, Gigabyte, HCL, Hitachi, HP, IBM, Inventec Enterprise System Corporation, Ion Computer Systems, Iron Systems, Iwill, Kingstar, Kraftway, LangChao, Lenovo, LinuxNetworkx,

Maxdata, Microway, MPC, Mitac, MSI, Nanobay, NEC, NECCI, Optimus, Powerleader, Quanta, Samsung, Rackable Systems, SuperMicro, Toshiba, Tyan, Verari and Wistron. Worldwide, there are more than 10,000 sellers of Intel-based server products, platforms and systems.

### **Pricing and Availability**

Both the Intel E7520 and 7320 Chipsets, and the Intel IOP332 Storage I/O Processor are available now. The Intel 7520 and 7320 are currently priced at \$84 and \$70, respectively. The IOP332 Storage I/O Processor is currently priced at \$82. All prices stated are in quantities of 1,000 and are for purchases made directly from Intel.

Intel, the world's largest chip maker, is also a leading manufacturer of computer, networking and communications products. Additional information about Intel is available at [www.intel.com/pressroom](http://www.intel.com/pressroom).

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\*\*\* Intel® Extended Memory 64 Technology (Intel® EM64T) requires a computer system with a processor, chipset, BIOS, OS, device drivers and applications enabled for Intel EM64T. Processor will not operate (including 32-bit operation) without an Intel EM64T-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel EM64T-enabled OS, BIOS, device drivers and applications may not be available. Check with your vendor for more information.

Current product availability plans and prices provided are subject to change without notice.

The original press release can be found [here](#).

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