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Can a processor provide a powerful foundation for business computing?

Yes. Versatile Intel® Xeon™ processor-based servers with a 533 MHz system bus deliver outstanding value for Small and Medium Business internet applications, multi-function servers, and high performance workstations.



The Intel® Xeon™ processor delivers performance, scalability, and flexibility for today's most powerful servers and workstations

The Intel® Xeon™ processor with 533 MHz system bus delivers innovative technology such as the Intel® NetBurst™ microarchitecture and Hyper-Threading Technology to meet the requirements of today's high-performance server and workstation computing environments.

SERVERS

The innovations in Intel® Xeon™ processor-based servers with 533 MHz system bus deliver the exceptional value, processing power, and versatility that your customers require for their front-end and small business servers.

Intel® NetBurst™ Microarchitecture

The Intel® NetBurst™ microarchitecture features higher frequency capabilities, a 533 MHz system bus, 512KB of L2 Advanced Transfer Cache, a Rapid Execution Engine, and Execution Trace Cache. These features are incorporated specifically to increase performance and throughput on current applications and build headroom for future server needs as your customers' business and workloads grow.

Hyper-Threading Technology

Groundbreaking Hyper-Threading Technology provides immediate benefits for today's applications by:

- Increasing the number of transactions that can be processed
- Enabling support for more users, thereby improving business productivity
- Enabling faster response times for Web sites and e-Business applications

Intel® E7501 Chipset for Servers

Servers based on the Intel E7501 chipset are designed to deliver enhanced performance, scalability, and end-user productivity via:

- 533 MHz System Bus Capability
- Dual-Channel DDR-266 Memory
- Intel® Hub Architecture 2.0 Connection to the Memory Controller Hub
- 64-bit PCI/PCI-X Controller Hub-2
- Maximum of 16GB of Memory

WORKSTATIONS

For demanding workstation applications, the Intel® Xeon™ processor with 533 MHz system bus and Hyper-Threading Technology is the ideal engine, delivering new capabilities for high-performance computing environments.

Hyper-Threading Technology

Going beyond GHz (processor core frequency), Intel is changing the landscape of workstation processor design and performance. By using on-die resources that would otherwise have been idle, Hyper-Threading Technology provides a performance boost on multithreading and multi-tasking workstation operations. More efficient use of processor resources delivers improved business productivity and performance.

533 MHz System Bus

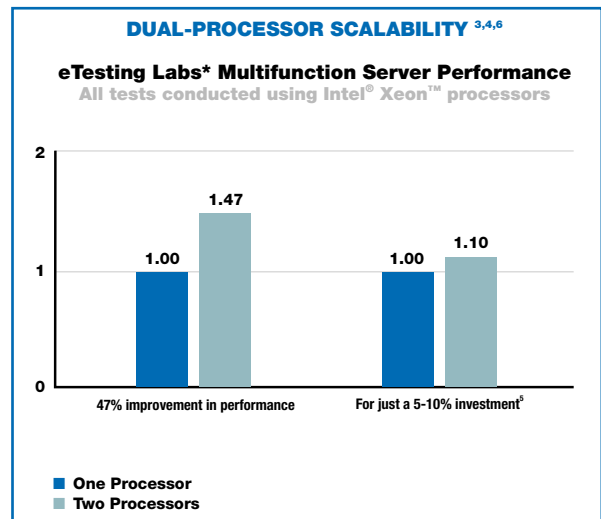
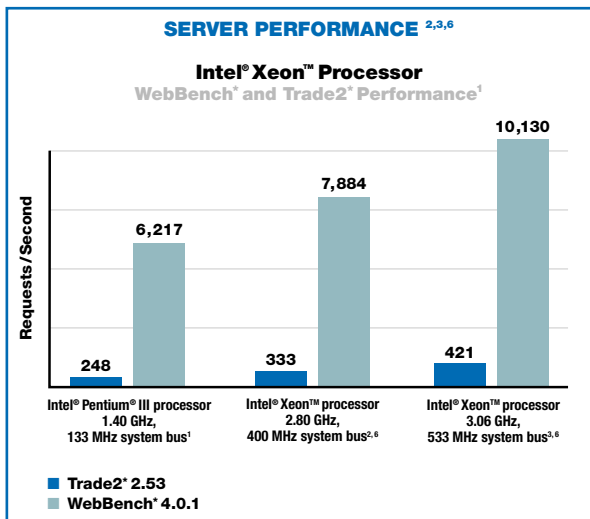
The Intel Xeon processor with 533 MHz system bus supports a high-performance, balanced workstation platform by enabling a 4.3GB/sec system bus bandwidth that provides higher throughput when accessing memory and I/O devices. The result is faster data transfer and improved performance¹ leading to greater system responsiveness and seamless user interaction.

Intel® E7505 Chipset for Workstations

The Intel E7505 chipset delivers multiple new platform innovations for dual processor workstations, including:

- 533 MHz System Bus Capability
- Dual-Channel DDR-266 Memory
- AGP 8X Graphics Interface
- Integrated Hi-Speed USB 2.0
- Un-buffered or Registered DDR Memory

Now is the ideal time to upgrade your customers' 1-2 processor-based servers and workstations to the Intel® Xeon™ processor with 533 MHz system bus



The Intel® Xeon™ processor with 533 MHz system bus offers a winning combination with Intel® NetBurst™ microarchitecture, Hyper-Threading Technology, and 512KB L2 Advanced Transfer Cache, resulting in outstanding dual-processor server and workstation performance. Performance enhancing features include:

- Processor frequency up to 3.06 GHz today
- Dual-processor capability
- Intel® NetBurst™ microarchitecture
- Hyper-Threading Technology
- 533 MHz system bus

A server with two Intel® Xeon™ processors installed delivers meaningful performance with minimal incremental investment. A second Intel Xeon processor delivers an outstanding multi-function server performance benefit of up to 47%^{4,6}, while adding only 5-10%⁵ to your server hardware investment. The resulting dual-processor-based system provides:

- A stable, high-performance environment
- Headroom to absorb spikes in server demand
- The ability to scale with future business growth
- Improved business value for your customer

INTEGRATION FLEXIBILITY



Boxed Processor Includes:

- One Intel® Xeon™ processor
- Intel designed thermal solution
- Certificate of Authenticity
- Intel® Inside logo label
- Installation instructions
- Three-year limited warranty

Server & Workstation Solution:

- Maximum flexibility for widely varied server and workstation installations
- Install fan for vertical or horizontal airflow
- Removable fan for passive airflow installations

1U Rack Mount Server Solution:

- Designed specifically for 1U rack mount form factor
- Foam pad to limit airflow bypass
- Passive heatsink accommodates industry standard 1U chassis

Feature

Benefit

604-pin FCPGA2P Package with dual-processor support	Enables outstanding performance on multi-threaded applications and in multitasking environments
Processor core speeds up to 3.06 GHz	Outstanding throughput and performance for peak server and workstation workloads
Intel® NetBurst™ Microarchitecture, including 533 MHz system bus	High bandwidth between the processor and the rest of the system improves throughput and performance
Hyper-Threading Technology	On-die multi-threading support provides a performance boost on multithreading and multitasking operations
512KB Level 2 Advanced Transfer Cache	Enhances performance by providing fast access to heavily used data and instructions
Hyper-Pipelined technology	Extended pipeline stages significantly increase overall throughput
Streaming SIMD Extensions 2	144 new instructions accelerate operation across a broad range of demanding Internet infrastructure and departmental SMB server applications
Rapid Execution Engine	Arithmetic Logic Units run at twice the core frequency, speeding execution in this performance-critical area
128-bit floating-point port	Floating-point performance boost provides enhanced 3D visualization and scientific calculation
SIMD 128-bit integer	Accelerates video, speech, encryption, and imaging/photo processing
Execution Trace Cache	Greatly improves instruction cache efficiency, maximizing performance in frequently used sections of software code
Advanced Dynamic Execution	Improved branch prediction enhances performance for all 32-bit applications by optimizing instruction sequences

For the most current product information on boxed Intel® Xeon™ processors, visit the Intel® Reseller Center website at: www.intel.com/reseller

Find the latest Boxed Intel® Xeon™ processor ordering information at:
http://program.intel.com/shared/products/processors/xeon_skus.pdf

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1 Workstation Performance testing source: <http://www.intel.com/eBusiness/pdf/prod/workstation/midhigh/ds011401.pdf>

2 System Configurations: 1) 2x Intel® Pentium® III processors 1.40 GHz with 512KB L2 cache, ServerWorks® Enterprise Serverset® III HE-SL chipset based server board, 2GB PC133 SDRAM, Microsoft Windows® Server 2003, Enterprise Edition, Intel® PRO/1000 Gigabit Server adapter, AMI 438 MegaRAID® controller v1.48 16MB EDO RAM - Dell PowerVault® 210S disk array.2) 2x Intel® Xeon™ processors 2.80 GHz with 512KB L2 cache, Intel® Server Board SE7500WV2 with Intel® E7500 chipset, 2GB DDR, Microsoft Windows® Server 2003, Enterprise Edition, Intel® PRO/1000 Gigabit Server adapter, AMI 438 MegaRAID® controller v1.48 16MB EDO RAM - Dell PowerVault® 210S disk array.3) 2x Intel® Xeon™ processors 3.06 GHz with 512KB L2 cache, Intel® Server Board SE7501WV2 with Intel® E7501 chipset, 2GB DDR, Microsoft Windows® Server 2003, Enterprise Edition, Intel® PRO/1000 Gigabit Server adapter, AMI 438 MegaRAID® controller v1.48 16MB EDO RAM - Dell PowerVault® 210S disk array.

3 System Configurations: 1) 2x Intel® Pentium® III processors 1.40 GHz with 512KB L2 cache, ServerWorks® Enterprise Serverset® III HE-SL chipset-based server board, 2GB PC133 SDRAM, Microsoft Windows® 2000 Server SP2, Intel® PRO/1000 Gigabit Server adapter, AMI 471 MegaRAID® controller v3.12 64 MB EDO RAM - Dell PowerVault® 211S disk array 2) 2x Intel® Xeon™ processors 2.80 GHz with 512KB L2 cache, Intel® Server Board SE7500WV2 with Intel® E7500 chipset, 2GB DDR, Microsoft Windows® 2000 Server SP2, Intel® PRO/1000 Gigabit Server adapter, AMI 471 MegaRAID® controller v3.12 64 MB EDO RAM - Dell PowerVault® 211S disk array 3) 2x Intel® Xeon™ processors 3.06 GHz with 512KB L2 cache, Intel® Server Board SE7501WV2 with Intel® E7501 chipset, 2GB DDR, Microsoft Windows® 2000 Server SP2, Intel® PRO/1000 Gigabit Server adapter, AMI 471 MegaRAID® controller v3.12 64 MB EDO RAM - Dell PowerVault® 211S disk array

4 Platform Performance testing source: eTesting Labs Inc under contract with Intel® Corp. System configuration as follows: System 1 includes: Intel® Server Board SHG2, 1x Intel® Xeon™ processor at 2.40 GHz with 512KB L2 cache, 2x 512MB and 4x 256MB PC2100 DDR DIMM Registered ECC, 5x Seagate® Cheetah ST318452LC 18.4 GB 15K RPM Ultra 160, Intel® RAID Controller SRCU32 with 128 MB PC133 SDRAM, Integrated Intel® PRO/1000 XT Network Connection. System 2 includes: Intel® Server Board SHG2, 2x Intel® Xeon™ processors at 2.40 GHz with 512KB L2 cache, 2x 512MB and 4x 256MB PC2100 DDR DIMM Registered ECC, 5x Seagate® Cheetah ST318452LC 18.4 GB 15K RPM Ultra 160, Intel® RAID Controller SRCU32 with 128 MB PC133 SDRAM, Integrated Intel® PRO/1000 XT Network Connection.

5 Price estimates are based on Intel® SE7501HG2 Server Board-based system (Source: <http://colfax-intl.com> as of 02/13/03)

6 Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit <<http://www.intel.com/performance/resources/limits.htm>>.

The Intel, Xeon™ processors and Intel chipsets may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

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