Can a server platform cost-effectively power your enterprise?

Yes. Intel® Xeon™ processor family-based servers running Microsoft Windows® Server 2003 provide the performance, scalability, and dependability your business demands.

- Technologies from Intel and Microsoft power applications and infrastructure across the enterprise, from Web servers to enterprise applications. Intel® Xeon™ processor family-based systems deliver price/performance leadership for a broad range of Windows® Server 2003-based applications.

- Performance breakthroughs with Hyper-Threading Technology and Intel® NetBurst™ microarchitecture in the Intel Xeon processor family, and the optimization for these technologies in Microsoft Windows Server 2003, make now the ideal time to upgrade your solution infrastructure.

- Intel-based servers running Windows Server 2003 support a broad choice of interoperable hardware and software solutions to optimize your enterprise. Over 9000 companies around the world are now selling components or systems based on the Intel Xeon processor family.
Why Choose Intel® Xeon™ Processor Family-Based Servers Running with Microsoft Windows® Server 2003?

Volume economics and choice of solutions are now expanded to a broad range of applications and solutions for the enterprise, with Windows® Server 2003 running on Intel® Xeon™ processor-based platforms. Intel Xeon processor family-based systems, combined with Windows Server 2003, deliver maximum business value with fast response times, support for more users, increased transactions, improved scalability and enhanced manageability.

Comparison of 4-way and 8-way Intel® processor-based performance

Intel Processor and Microsoft-based Platforms Deliver Business Value to Your Solution Infrastructure

Greater Productivity — Server Consolidation, Scalability, Performance

Intel Xeon processor family-based servers running Microsoft Windows® Server 2003 deliver superior performance and capacity on platforms that are easier to deploy, manage and use than some other proprietary architectures.

Reduce the number of servers and improve utilization of resources while achieving both flexibility and scalability through server consolidation on Intel® Xeon™ processor MP-based servers. Industry-standard building blocks from Intel and Microsoft provide an open, layered, modular, loosely coupled infrastructure. Intel Xeon processor MP-based platforms provide scale-up technologies, which make consolidation easier. Large, integrated 2MB iL3 caches handle data-intensive workloads, while increased headroom supports more users and applications. Additionally, Windows Server 2003 Enterprise Edition supports 32GB of memory.

Windows Server 2003 is optimized for Hyper-Threading Technology and Intel® NetBurst™ microarchitecture, delivering significant performance improvements and improved response times across a wide range of applications — up to 30%1. Windows Server 2003 counts Intel Xeon processors with Hyper-Threading Technology by physical processor, not logical processor.

1. For more information on the benefits of Hyper-Threading Technology and performance, refer to the Intel whitepaper “Hyper-Threading Technology for Servers,” part number 298505-002, or go to Intel’s website at: http://www.intel.com/technology/hyperthread/
**Dependable — Manageability, Reliability/Availability, Security**


New reliability features in Windows Server 2003, coupled with Intel Xeon processor family-based platforms, can handle rigorous application requirements. Thermal sensors allow the system to actively manage thermal conditions and reduce the chance of system failure while Error Correction Code (ECC) on the Integrated Three-Level cache architecture of the Intel Xeon processor MP enables maintenance of mission-critical data integrity. Security enhancements on Windows Server 2003, combined with the field-demonstrated reliability of Intel-based servers, enable reliable platforms with less downtime across the enterprise.

**Connected — Web Infrastructure, Occasionally Connected Computing**

*Intel Xeon processor family-based servers and Windows Server 2003 enable flexible, open and complete platforms for connected and mobile solutions across the total enterprise.*

Intel processor based servers on Windows Server 2003 make it easier to extend your enterprise to suppliers, channels and customers. Together, Intel and Microsoft enable a complete server platform for connected and mobile solutions tailored to your enterprise needs, enabling fully distributed, dynamic computing from mobile clients to back-end servers.

**Business Value — Solution Choice, Investment Protection, Migration**

*Joint investment by Intel and Microsoft help to enable an ecosystem of solutions that can deliver IT competitive advantage, high return on investment, reduced total cost of ownership, agility and superior price/performance.*

Maximize business value and flexibility by selecting from a large and growing solution community of hardware and software vendors. Intel-based servers running Microsoft Windows Server 2003 support a broad choice of interoperable hardware and software solutions to optimize your enterprise. With Intel and Microsoft you can have confidence in your investment knowing that you have access to market-tested best practices and a long-term roadmap of server products and solutions.

Intel® Solution Services can recommend cost saving solutions based on analysis of your current environment vs. business needs. Intel Solution Services consultants have a depth and range of expertise in, migration of RISC-based to Intel architecture-based systems, migration of databases, operating systems and legacy systems, software porting and much more.

**Summary**

Significant industry investment and support for the Microsoft Windows* Server 2003, combined with the power and volume economics of Intel® Xeon™ processor family-based solutions, make now the ideal time to update your infrastructure solution.

The Intel Xeon processor family brings a broad range of innovations that make it the new performance standard, from Web servers to enterprise applications. The winning combination of Intel® NetBurst™ microarchitecture, Hyper-Threading Technology, and for Intel Xeon processor MP, Integrated Three-Level cache architecture together results in increased performance, throughput and scalability for multithreaded applications in multi-processor server environments. With a wide array of cost-effective solutions, streamlining while strengthening corporate computing is more efficient than ever.
**Recommended Intel® Processor-based Platforms**

<table>
<thead>
<tr>
<th>Processor Type</th>
<th>Windows® Server 2003 Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel® Xeon™ processor</td>
<td>Windows Server 2003, Web Edition</td>
<td>1-2 processor platforms with up to 2GB memory for Web serving/hosting and e-mail</td>
</tr>
<tr>
<td>Intel Xeon processor</td>
<td>Windows Server 2003, Standard Edition</td>
<td>1-4 processor platforms with up to 4GB memory</td>
</tr>
<tr>
<td>Intel® Itanium® 2 processor</td>
<td>Windows Server 2003, Enterprise Edition</td>
<td>4- or 8-way processor platforms, or platforms needing greater than 4GB of memory</td>
</tr>
<tr>
<td>Intel Xeon processor MP</td>
<td>Windows Server 2003, Standard Edition</td>
<td>Up to 32GB memory for Intel® Xeon processor MP-based platforms; up to 64GB memory for Itanium® 2-based platforms</td>
</tr>
<tr>
<td>Intel® Itanium® 2 processor</td>
<td>Windows Server 2003, Datacenter Edition</td>
<td>8- to 64-way processor platforms that require up to 64GB (Intel Xeon processor MP) or up to 12GB (Intel Itanium 2 processor) memory support</td>
</tr>
</tbody>
</table>

**Comparison and configuration details:**

**4-way comparison**

1. **Source:** www.tpc.org (September 2001)

2. **Source:** www.tpc.org (November 2002)

**MP 8-way comparison**

1. **Source:** www.tpc.org (August 2000)

2. **Source:** www.tpc.org (December 2002)

**For more details on the Intel® Xeon™ processor please refer to:**

www.intel.com/eBusiness/products/server/processor/xeon_mp

The Intel® Itanium® 2 processor and Intel® Xeon™ processor may contain design defects known as errata, which may cause the product to deviate from published specifications. Such errata are not covered by Intel's warranty. Current characterized errata are available on request.

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.

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