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# THE NEW CORPORATE DESKTOP STANDARD.

THE INTEL® PENTIUM® 4 PROCESSOR SUPPORTING HYPER-THREADING TECHNOLOGY<sup>1</sup>,  
THE INTEL® 865G CHIPSET, AND INTEL® PRO/1000 NETWORK CONNECTIONS

Enhance your competitive edge with world-class technology designed for today's business environments. Efficiently deploy the new desktop standard with the Intel® Stable Image Platform Program.

The pace of business today continues to accelerate, competitive pressures escalate, and every corporation carefully pays attention to the bottom line. Smart companies realize that technology can empower the business to respond to customer needs more efficiently and ultimately gain competitive advantage.

But the reality is that technology cannot be deployed with the hopes that someday it may deliver returns that can be expressed in *business* terms. The technology must deliver immediate measurable benefits for the realities of today's business, while also providing future benefits as the business climate evolves. ►

intel®

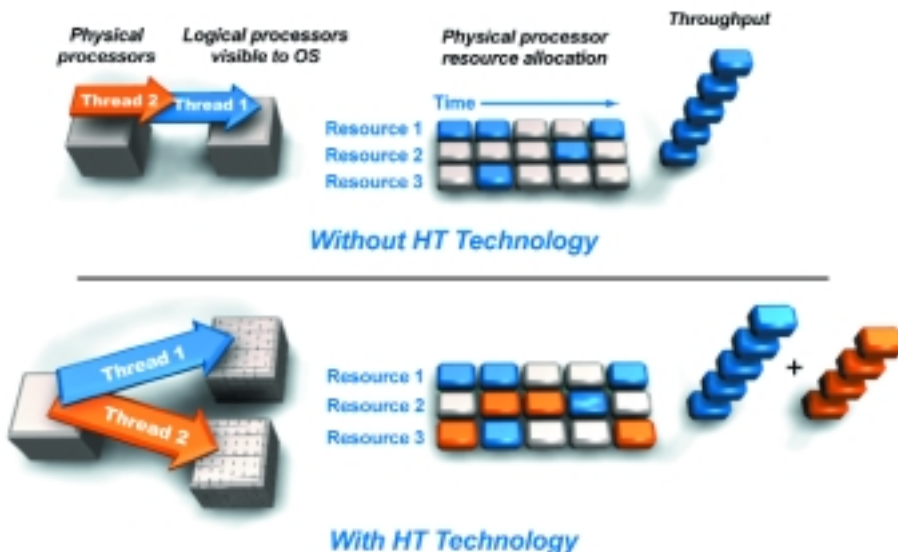
Today's business climate presents distinct challenges for IT departments and employees alike:

- **IT must maintain a secure, robust computing environment.** Even the best efforts of your IT staff to securely deliver applications and services can easily be thwarted. Whether it's an employee who doesn't wait for a background virus scan to execute, or an older PC that doesn't have the bandwidth to keep up with newer applications, maintaining a robust and secure infrastructure can be challenging.
- **Employees are pressured to increase productivity,** regardless of the fact that they're bombarded by more information than ever before, and that they must interact with many individuals along the company's value chain. Collaboration is crucial to decision-making processes, but may not always be feasible. To stay on top of these demands, your employees must run a wide variety of feature-rich applications, and multitask among them.

## PERFORMANCE FOR THE WAY BUSINESS WORKS

New Intel® Pentium® 4 Processor with HT Technology<sup>1</sup> PCs, featuring the Intel®

## How Hyper-Threading Technology Works



865G chipset and the new 800-MHz system bus, have been specifically designed to meet the needs of corporations grappling with these issues today.

HT Technology is an enhancement to the Intel® NetBurst™ microarchitecture that allows two threads or instruction streams to run independently and in parallel on a *single* Pentium 4 processor.

The processor allocates its execution resources—including cache memories, execution units and busses—between the two logical processors. By using resources that otherwise would sit idle, the Pentium 4 processor supporting Hyper-Threading Technology boosts total system responsiveness and performance.

## PROPER SECURITY DEMANDS PERFORMANCE

With the continued rise in reported hacker attacks, security remains a top concern for many IT organiza-



tions. According to a July 2002 survey conducted by research firm International Data Corp., 40% of IT managers rated security as their highest priority. As malicious threats become more sophisticated and spread within hours, it has become critical for IT security professionals to better secure network "end points" such as desktops and wireless devices. These threats can significantly impact organizations—for instance, the Slammer virus is estimated to have cost organizations between US \$950 million and \$1.15 billion (Institute of Internal

Auditors, February 15, 2003).

With limited resources to react to each new threat, IT managers must

develop a layered protection strategy that does not impact user productivity. One key component of this layered protection strategy is the McAfee® Security VirusScan® Enterprise 7.0, which acts as a "worm killer" to find and remove threats that use memory to spread, such as the Slammer virus. When employees simultaneously run this security software in the background while working on their business applications, Intel® Pentium® 4 Processor with HT Technology<sup>1</sup> PCs provide measurable benefits. For instance, an office worker who

sends a Web page via e-mail while simultaneously running McAfee VirusScan Enterprise is able to complete the task 26% faster<sup>2</sup> when compared to similarly configured PCs without HT Technology or the 800-MHz system bus.

McAfee VirusScan Enterprise also benefits from the increased speeds Intel PRO/1000 Network Connections deliver by allowing for easy and rapid updating of the latest virus definitions, engines and service packs. These updates are completely and automatically managed from a central management console—without user intervention or desktop-to-desktop updates—further improving end-user and IT staff productivity and lowering management costs.

<sup>1</sup> Look for systems with the Intel® Pentium® 4 Processor with HT Technology logo which your system vendor has verified utilize Hyper-Threading Technology. Hyper-Threading Technology requires a computer system with an Intel® Pentium® 4 processor supporting HT Technology and an HT Technology-enabled chipset, BIOS, and operating system. Performance will vary depending on the specific hardware and software you use. See [www.intel.com/info/hyperthreading](http://www.intel.com/info/hyperthreading) for more information, including details on which processors support HT Technology.

<sup>2</sup> Source: Intel® Configuration: Intel® Pentium® 4 Processor 2.80 GHz/533MHz—Intel® 865G Desktop Board, 512MB DDR333 CL2.5-3-3; Intel® Pentium® 4 Processor with HT Technology 2.80C GHz/800MHz—Intel® 865G Desktop Board, 512MB DDR333 CL2.5-3-3; All Platforms: Integrated graphics with Intel® Extreme Graphics 2, Graphics Driver Beta Candidate 6.13.01.3314, Microsoft® Default UDMA-5, Intel® Chipset Software Installation Utility 5.00.1003 beta, IBM® 80GB 120GXP IC35L080AWA07-0 ATA-100 Hard Drive; Intel® C & Fortran compilers 6.0 for SPEC, DirectX® 8.1, Windows® XP Build 2600 SP1, 100 Mbps Intel® PRO/100+ Management PCI LAN Card. For Gigabit Ethernet example: Platform config same as above but with Intel® PRO/1000+ Management PCI LAN Card. Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance

Intel Pentium 4 Processor with HT Technology PCs deliver many advantages to users who multitask, whether they are running multiple applications concurrently, or working with IT services running in the background. In addition, since HT Technology increases system responsiveness and performance, IT managers have the ability to deploy additional background services while minimizing their effect on worker productivity. Overall, HT Technology benefits include:

■ **Faster performance and increased system responsiveness.** Users enjoy performance gains of up to 25%<sup>3</sup>, giving business users the power to do more at once and enabling companies to enhance business productivity and gain a competitive edge.

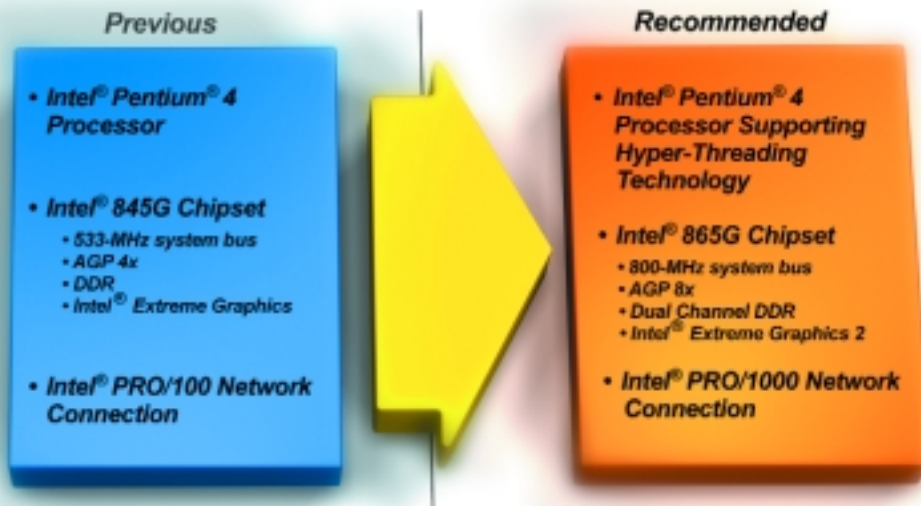
■ **IT can run crucial background services while minimizing the impact on employee productivity.** To protect the corporate infrastructure, IT must run critical processes like virus scanning on every employee's PC. A new Intel Pentium 4 Processor with HT Technology PC enables these processes to run seamlessly in the background while minimizing the impact on employee productivity. Take a typical task such as opening a PowerPoint\* presentation while virus scanning is running in the background. On



a new Intel Pentium 4 Processor with HT Technology PC that includes the Intel 865G chipset's 800-MHz system bus, the task finished 81% faster<sup>2</sup> than on a similarly configured Pentium 4 processor-based PC with a 533-MHz system bus, and without HT Technology support. So, with the proper tools in place, employees can work smarter, and in turn respond to customers quicker, without turning off IT processes that are needed to ensure enterprise security.

■ **When combined with Intel® PRO/1000 Network Connections, HT Technology improves the performance of network-based background services and applications.** With HT Technology, employees can work more efficiently on their desktop systems, while running applications and conducting network-based services. Consider the following example: A worker conducts an Access\* database query while simultaneously backing up

## Intel® Corporate Desktop Transition Guidance



important files to the network. With an Intel Pentium 4 Processor with HT Technology PC, featuring the new 800-MHz system bus and an Intel PRO/1000 Network Connection, the query and backup completed 28% faster<sup>2</sup> than a similar system with a Gigabit Ethernet connection but without HT Technology or the improved system bus.

The upshot is that HT Technology-enabled systems can enable both employees and IT managers to save precious time, because computing tasks and information can be processed faster.

### GIGABIT GOES MAINSTREAM

Some may think that Gigabit Ethernet is only necessary for high-performance video, graphics, and CAD/CAM applications. But when deployed in PCs with HT Technology and the Intel® 865G chipset, Intel PRO/1000 Network Connections boost the performance of bandwidth-sapping background services such as software updates, backups, and Web services, as well as newer applications like business intelligence, e-learning, and converged voice and data collaboration.

All of these applications will be business mainstays in the next three years, which is why Gigabit Ethernet is quickly displacing Fast Ethernet as the mainstream network connection of choice. Tony Pierce, chairman of the PCI Special Interest Group, says, "There are many efforts to get Gigabit Ethernet into the client area,

and it will probably soon be a checkbox item for enterprise IT staffs" (*Network World*, April 7, 2003).

Kathy Hill, vice president and general manager of Cisco Systems' desktop switching business unit, concurs. "This year we'll start to see every desktop have a Gigabit Ethernet connection. If you upgrade your PCs, they're going to have it," she stated in an interview with *Computer Reseller News* (April 15, 2003). Due in part to its belief in the standardization of Gigabit desktop connections on corporate PCs, Cisco recently introduced a new line of desktop Gigabit switches.

Intel PRO/1000 Network Connections also bring many benefits to the IT manager. For those concerned with the bottom line, there's no need to upgrade all of your company's desktop network connections to Gigabit immediately. The Intel PRO/1000 Gigabit connection automatically runs at 10, 100, or 1000 Mbps—delivering the Fast Ethernet connections to your switching infrastructure that you may need today, while protecting your PC investment by guaranteeing a painless upgrade to Gigabit Ethernet tomorrow.

When it's time to upgrade, IT staff can conserve precious time and resources by taking advantage of Intel® SingleDriver™ technology. By utilizing this technology, the same driver can be used on all client PCs incorporating an Intel PRO/1000 Network Connection—no matter when it's deployed or the brand of client PC—making standardization quick and painless.

“Siemens Business Services advocates that an enterprise limit the complexity of its client environment. This can improve the manageability of its infrastructure, thus reducing overall support costs. We recommend an enterprise follow the guidance of the Intel® Stable Image Platform Program to help achieve this objective. By applying this best practice as part of Siemens Business Services’ proprietary SieSequence™ integrated IT infrastructure management solution ([www.siequence.com](http://www.siequence.com)), clients may benefit from a 5 percent to 25 percent decrease in per-seat total cost of ownership.” **SIEMENS**

## PLANNING FOR DEPLOYMENT

The new corporate desktop standard, comprising an Intel Pentium 4 processor supporting Hyper-Threading Technology, an Intel 865G chipset, and an Intel PRO/1000 Network Connection, not only provides performance for the pace of today’s business climate, it is also supported by the new Intel® Stable Image Platform Program (Intel® SIPP). This program helps IT managers minimize efforts with PC qualification, deployment and management, and maximize PC fleet standardization.

According to Forrester Research Inc., in a Giga report, as a result of reduced IT operational costs, an average organization that standardizes its client systems will generate a \$1,586 increase in the value generated per PC. Giga notes, “Organizations that do not implement hardware, applications, and OS standardizations for their client PC systems will be at an operational disadvantage and quite possibly a competitive disadvantage,

compared to organizations that do.”<sup>4</sup> However, IT managers are often challenged to maintain standardization in their client infrastructure because unexpected hardware changes to previously qualified systems may require costly software image re-engineering and platform requalification, potentially halting planned PC deployment.

With the Intel SIPP, Intel is enabling OEMs to increase platform stability, facilitating greater software image longevity, and thereby enabling IT to control client-management costs and deliver the full business value of client purchases. The Intel SIPP helps address hardware consistency by managing specified Intel components and drivers to support a business’ need to install software images on PCs without modification. Intel SIPP components (see table below for desktop platform components) are intended to support undisrupted deployment of software images on new PCs for at

least 12 months after chipset launch. Combined with guidance on both mobile and desktop corporate chipset launch cycles, IT can now identify client stable platforms taking advantage of Intel SIPP components, and plan the best time to transition to these stable platforms.

platform that does not break a software image for at least one year is a benefit to today’s budget-conscious IT departments. By easing the burden of desktop management, IT staff can be freed to tackle more important challenges and long-term planning efforts.

For the latest information on the Intel SIPP including platform transition timing, please check [www.intel.com/info/stableplatform](http://www.intel.com/info/stableplatform). Today’s business reality is that technology needs to work as hard as your business. Intel’s new corporate desktop standard keeps business PCs manageable, responsive and working at peak efficiency, enabling your company and its employees to tackle new business challenges while keeping an eye on the bottom line. ■

**Intel® PRO**  
Network Connections

## 2003 Intel® Stable Image Platform Program Desktop Components

Type	Product
Chipset	Intel® 865G chipset supported by Intel® Stable Image Technology
Chipset Driver	All related chipset software including integrated graphics driver
LAN	<ul style="list-style-type: none"> <li>• Intel® PRO/100 VM Network Connection</li> <li>• Intel® PRO/1000 MT Network Connection</li> <li>• Intel® PRO/1000 CT Network Connection</li> </ul>

Components that are part of the Intel® SIPP program will help enable IT to hold a standardized software image for at least 12 months from chipset product launch.

least 12 months after chipset launch. Combined with guidance on both mobile and desktop corporate chipset launch cycles, IT can now identify client stable platforms taking advantage of Intel SIPP components, and plan the best time to transition to these stable platforms.

Considering that image management contributes to the total cost of ownership, the ability to roll out a stable

## FOR MORE INFORMATION

To learn how your company can deploy the new desktop standard for more secure computing, cost management, and user productivity, join us for two eSeminars on June 26 and July 17. The June 26 eSeminar will address how to benefit today from Intel Hyper-Threading Technology and Intel PRO/1000 Network Connections. July 17 eSeminar topics include client PC infrastructure management and the Intel Stable Image Platform Program.

To register for our June 26<sup>th</sup> and July 17<sup>th</sup> eSeminars, visit [www.webseminarslive.com](http://www.webseminarslive.com)

<sup>3</sup> 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. See <http://www.intel.com/info/hyperthreading> for information.

<sup>4</sup> Giga Information Group, “Planning Assumption: The Economics of Client-Systems Standardization,” 2001.

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