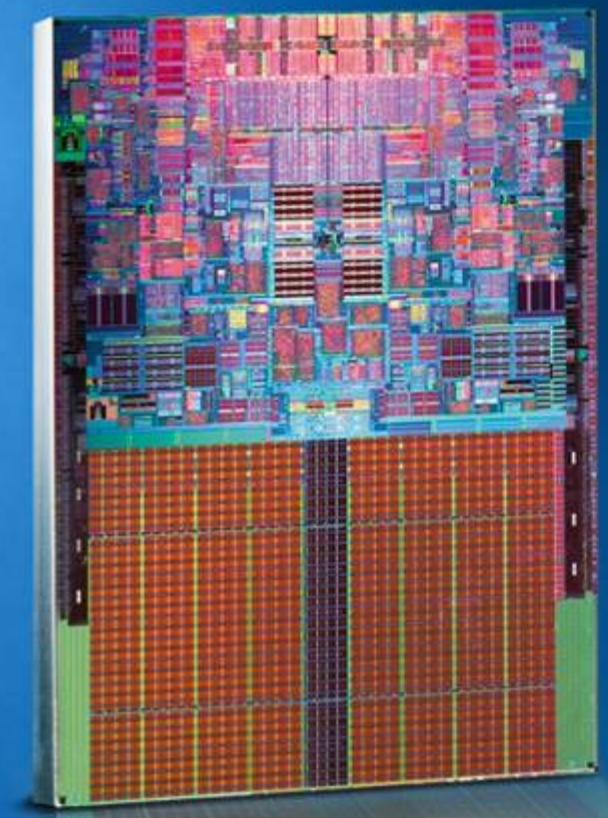

intel
Leap ahead™
Intel Developer
FORUM



intel Leap ahead™

Pat Gelsinger

Senior Vice President
General Manager
Digital Enterprise Group

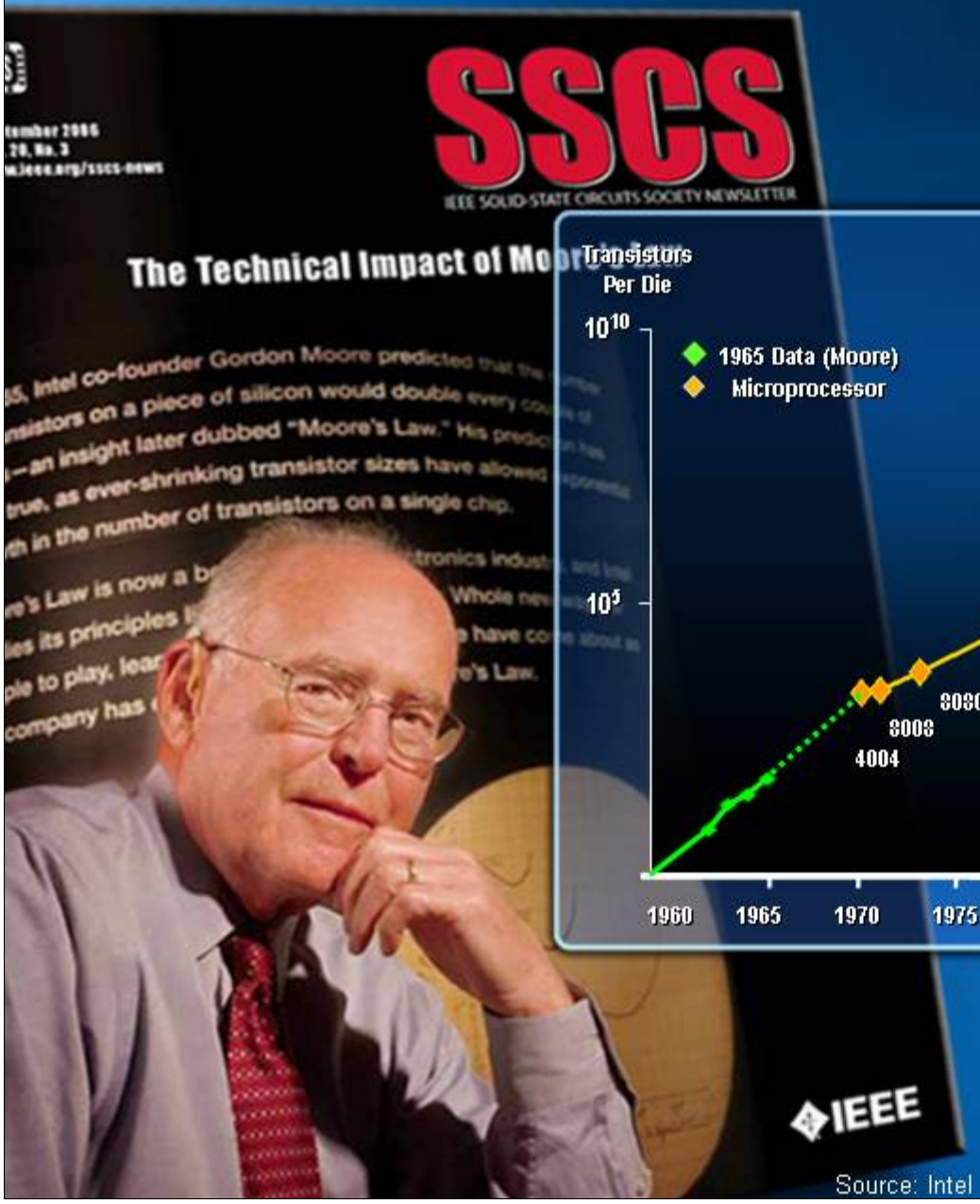
Intel Developer FORUM

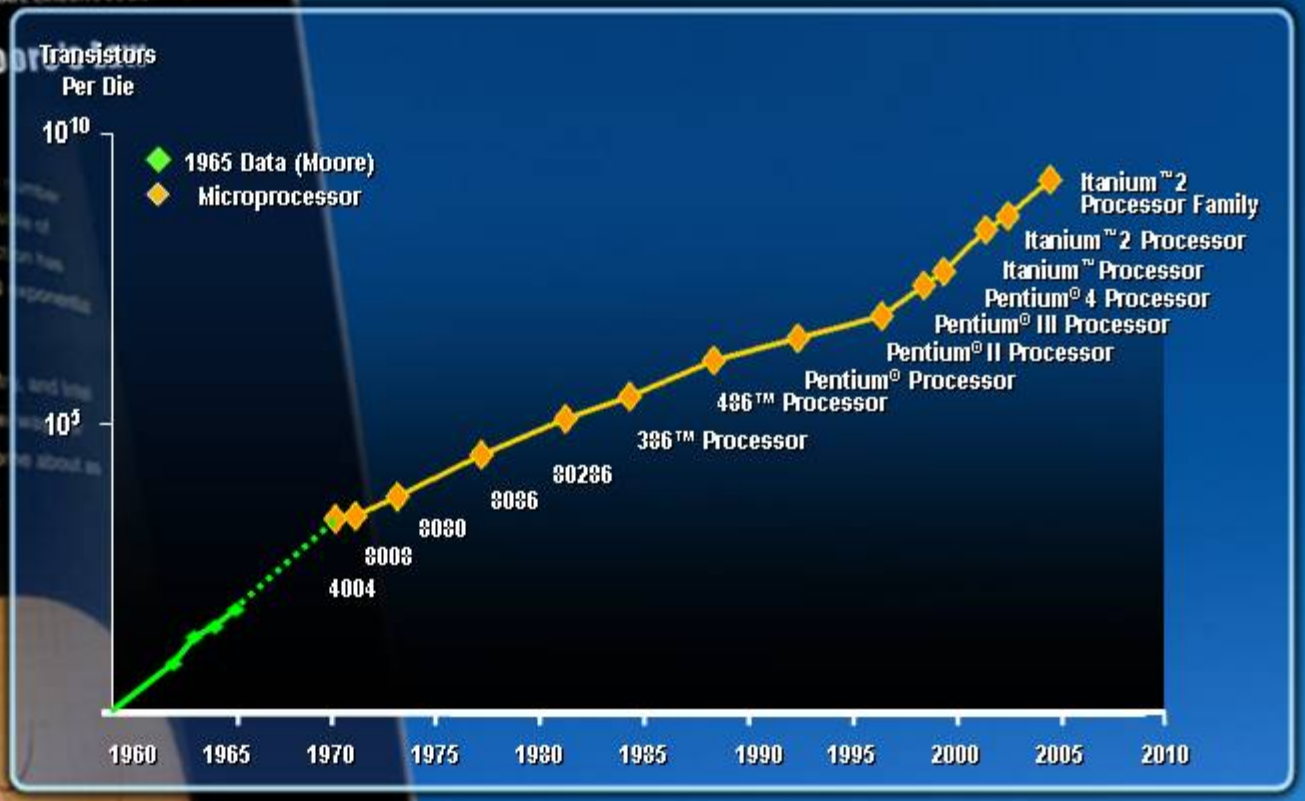
Risk Factors

Today's presentations contain forward-looking statements. All statements made that are not historical facts are subject to a number of risks and uncertainties, and actual results may differ materially. Please refer to our most recent Earnings Release and our most recent Form 10-Q or 10-K filing available on our website for more information on the risk factors that could cause actual results to differ.

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 Intel Performance Benchmark Limitations (http://www.intel.com/performance/resources/limits.htm).

The Relentless Pursuit of Moore's Law





Source: Intel

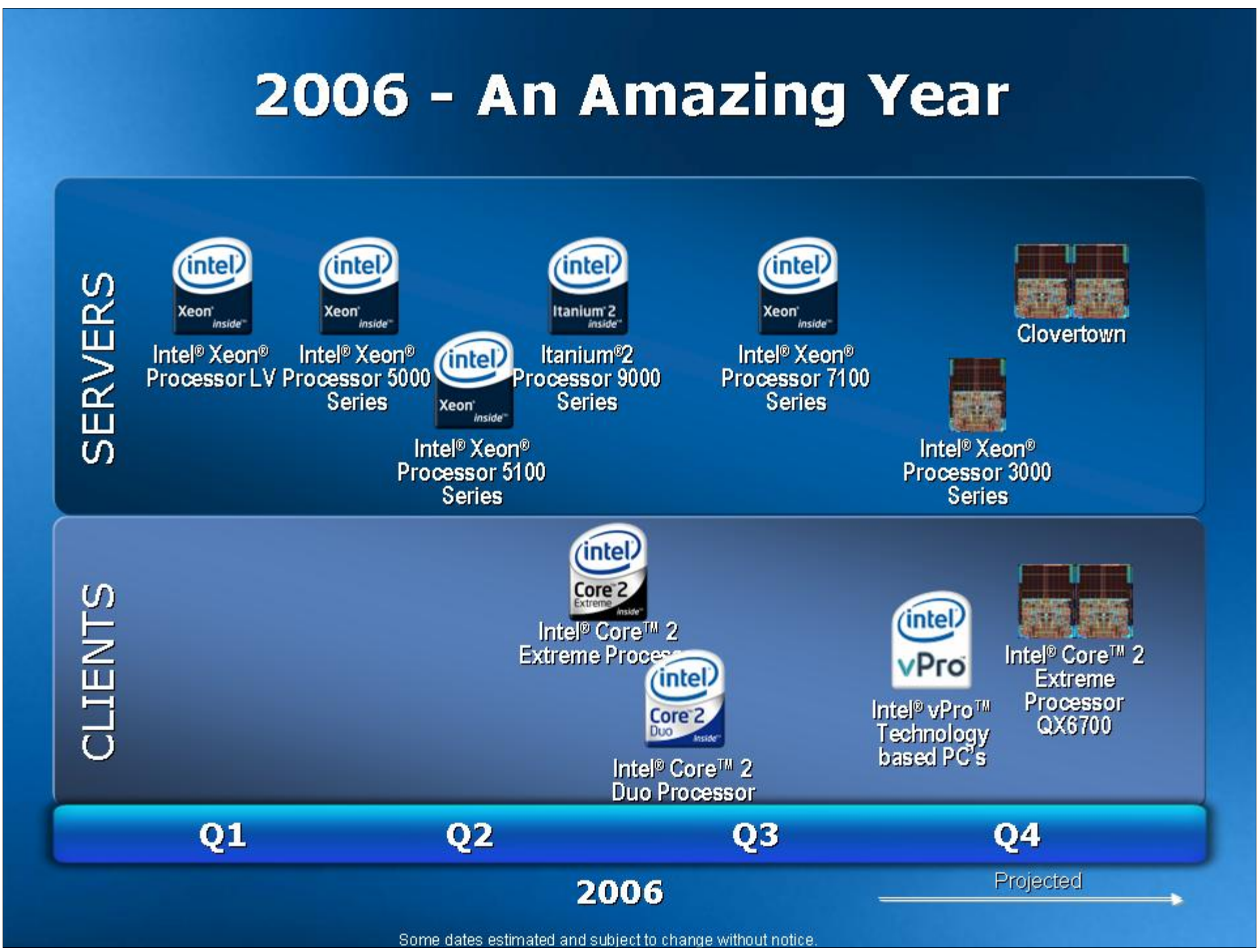
Amazing products

… done efficiently

… with the industry

… for the customer.

2006 - An Amazing Year



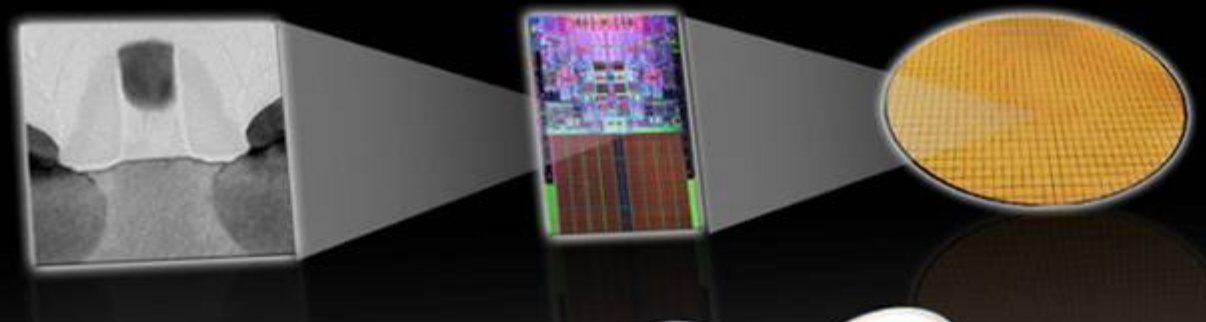
Intel® Core™ 2 Duo Launch
July 27, 2006

The Core 2 Contribution

World's Best
Process Technology

World's Best
Microprocessor Design

World's Biggest
Factory Network



intel Core 2 Duo inside

intel Core 2 Extreme inside

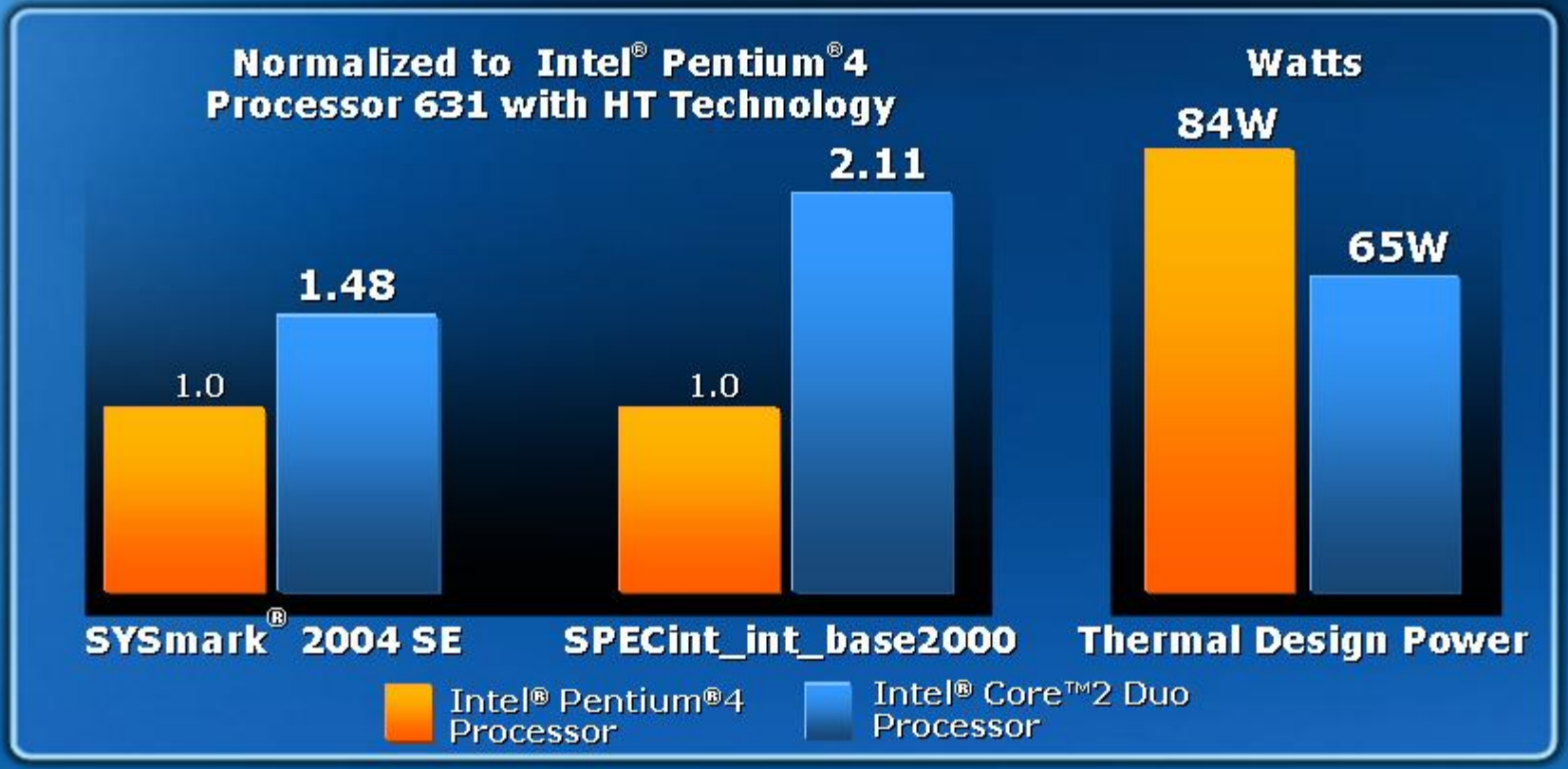
intel Xeon inside

World's Best Processors

intel

intel

Intel® Core™ 2 Duo Technology

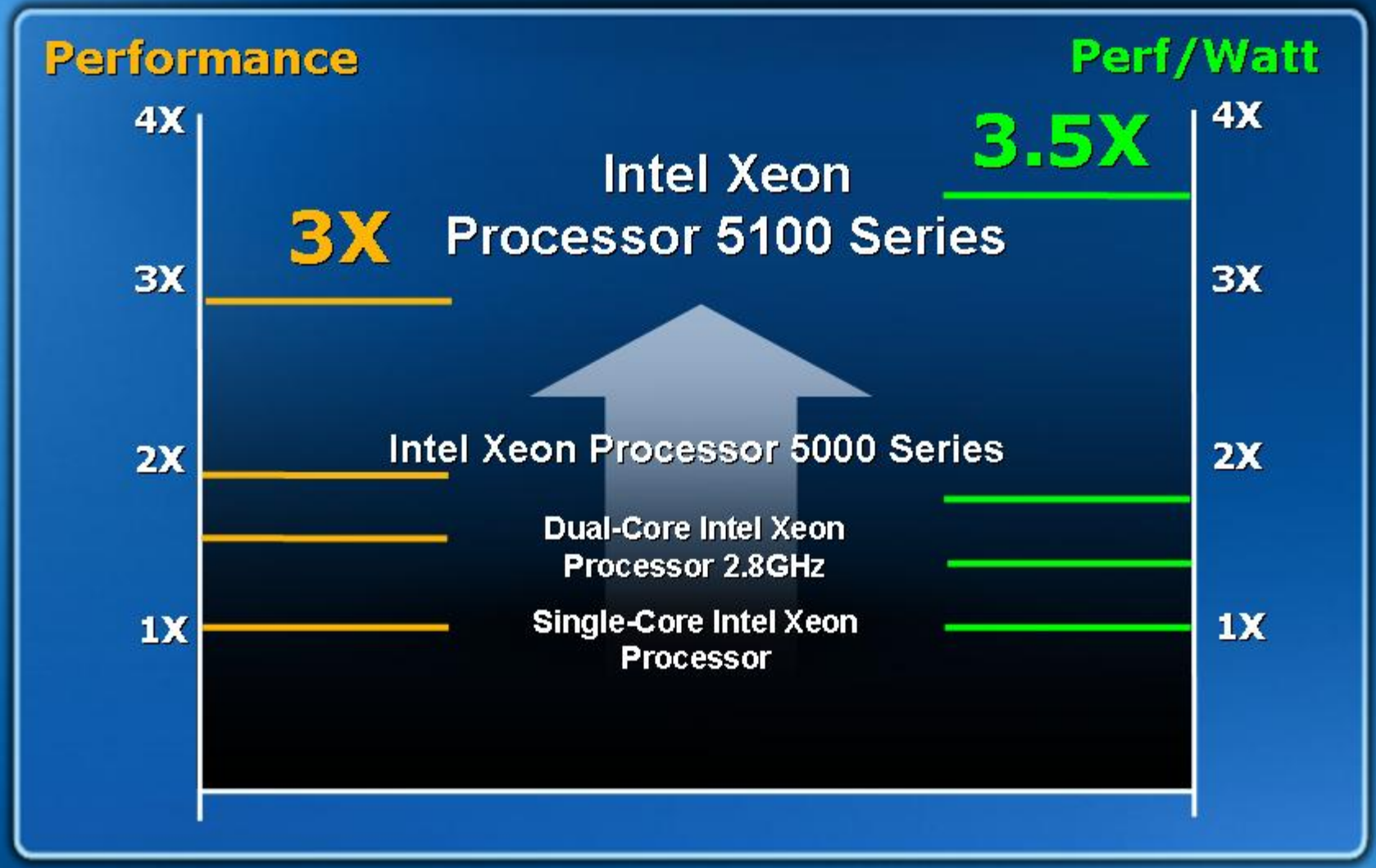


ANANDTECH your source for hardware analysis and news

"... didn't lose a single benchmark in our comparison, NOT A SINGLE ONE"

Intel® Core™2 Duo Processor E6300 (2MB,1.86GHz,1066 MHz FSB). Intel® Pentium®4 Processor 631w/HT Technology(2MB, 3GHz, 800 MHz FSB);
Other names and brands may be claimed as property of others.

Intel® Xeon® Processor 5000 & 5100 Series



Based on published/measured SPECint_rate_base2000. Intel Xeon Processor 3.60 GHz 4GB; Dual-Core Intel Xeon Processor 5160 3.00GHz 8GB; Clovertown 2.67 GHz 8GB. Perf/Watt based on SPECint_rate_base2000 benchmark w/system power measurements. Intel internal data. Published AMD Opteron 2220 SE (2.8GHz, socket F).spec.org. Other names and brands may be claimed as the property of others


IBM
Susan M. Whitney
IBM Systems Technology Group
General Manager, System x
intel
Other names and brands may be claimed as the property of others

IBM Systems Agenda/ Intel Relationship

Collaborative Innovation

- BladeCenter* design
- Performance, scalability
- Power & cooling

Openness

- IBM BladeCenter open spec.
- Blade.org
- PCI & PCI Express

Virtualization

- Intel® Xeon® Processor 5100 3X performance
- Intel® Xeon® Processor 7100 enterprise scalability
- Peak performance factor

IBM

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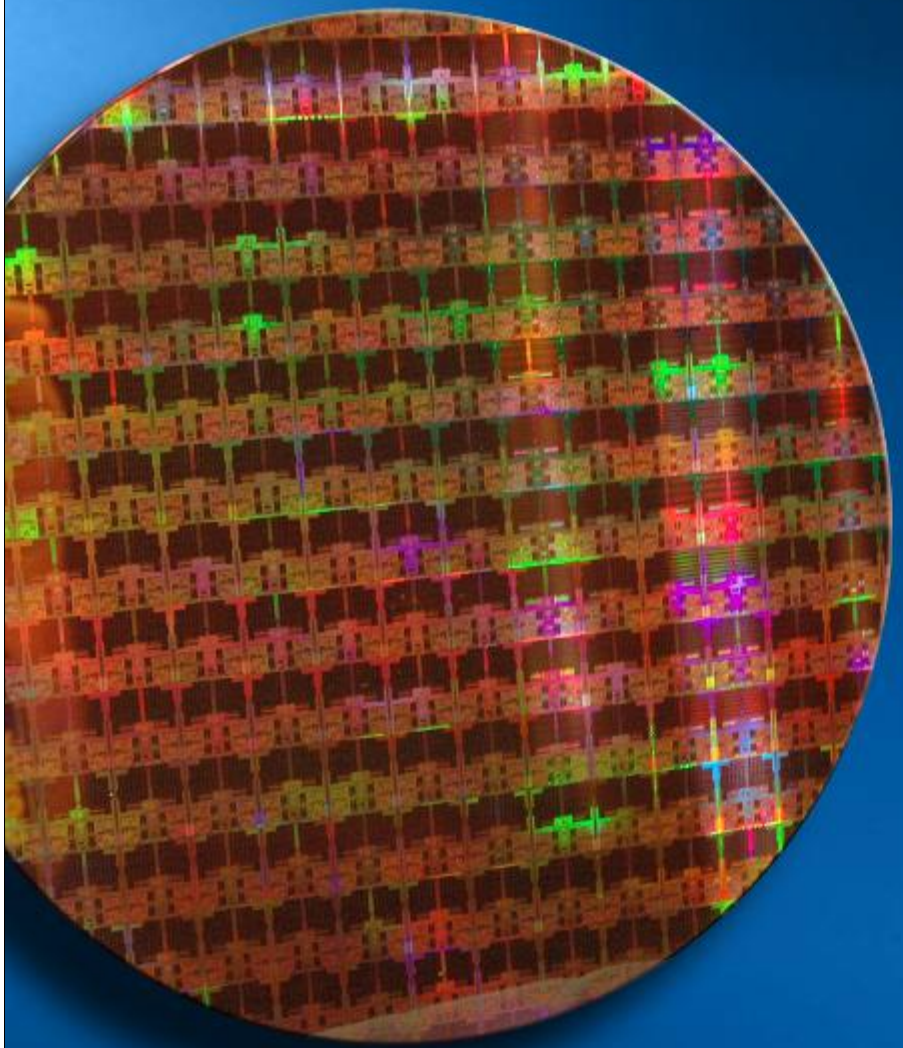
Intel® Xeon® Processor 7100 Series



Up to 2X Performance Improvement[1]

Leading TPC-H & SAP SD 2-tier Results[2]

Dual Core w/16MB Cache

Up to 3X Performance per Watt Improvement[3]

Platform Compatible

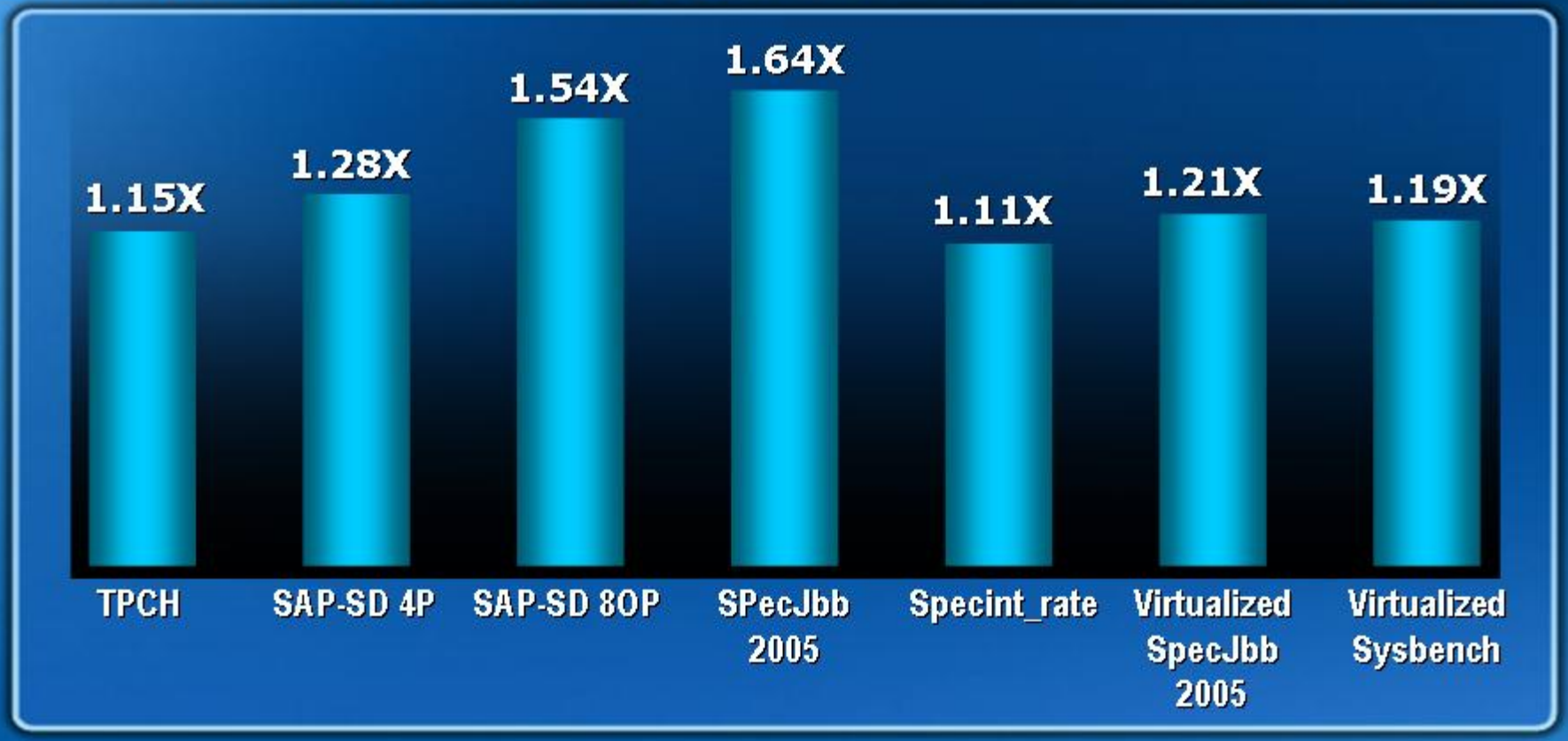
Advanced RAS Features

Intel® Cache Safe Technology

1: As measured by SPECjbb*2005 score of Xeon 7140M vs. Xeon 7041 * as of 08/06. 2: Based on published/submitted results at tpc.org and sap.com 08/06. Comparing Xeon 7140M to Xeon 7041, based on internal Intel measurements running SPCjbb*2005 as of 7/06. For further information see: http://www.intel.com/performance/server/xeon_mp/index.htm. Other names and brands may be claimed as property of others.

Breakthrough 4-Way Performance

Performance: Intel® Xeon® Processor 7140M vs. Best Published 4P AMD Opteron Result



Best-published 4P AMD Opteron results on 8/29/06. Dual-Core Intel Xeon 7140M 3.40 GHz v. AMD Opteron 8220SE; SAP-SD4P: AMD Opteron 885 2.6GHz; TPCH: AMD Opteron 875 2.20GHz; SAP-SD8P: AMD Opteron 880 2.40 GHz. Other names and brands may be claimed as property of others. Virtualized data: Principled Technologies, comparison across 1/2/4/8 VMs. Relative comparison based on the peak performance of each system. principledtechnologies.com. TPCC: IBM System x3950 with 4 x Intel Xeon processor 7140N 3.33GHz 128 GB. HP DL585 w/4 x Opteron Dual-core 2.4GHz, 128GB memory. Opteron DC x64 2.4GHz 2M published on 12/5/05. IBM results published to tpc.org on 9/19/06.

IBM Investment In Innovation

- Intel® Xeon® 7100-based systems:
  - 20% better TPC-C performance than any other 4-socket x86 server
- X-Architecture – 101st #1 leadership score
- Commitment to 4th gen. technology – supporting quad-core Xeon® MP

IBM

intel

CoolBlue* Energy Management Framework

Power Configurator

PowerExecutive™

Rear Door Heat Exchanger PowerExecutive™

Save

Built Upon Intel Demand Based Switching Technology

IBM

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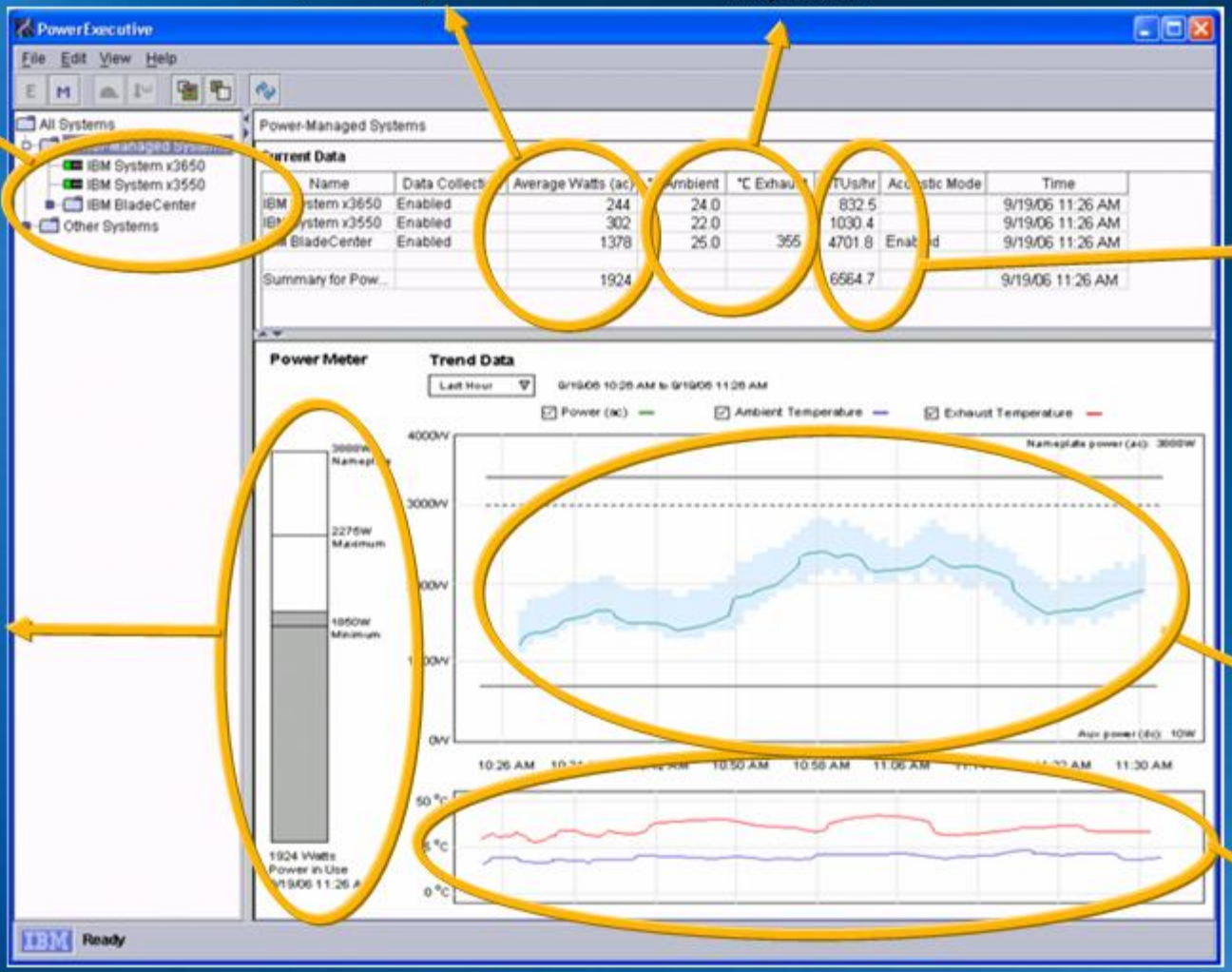
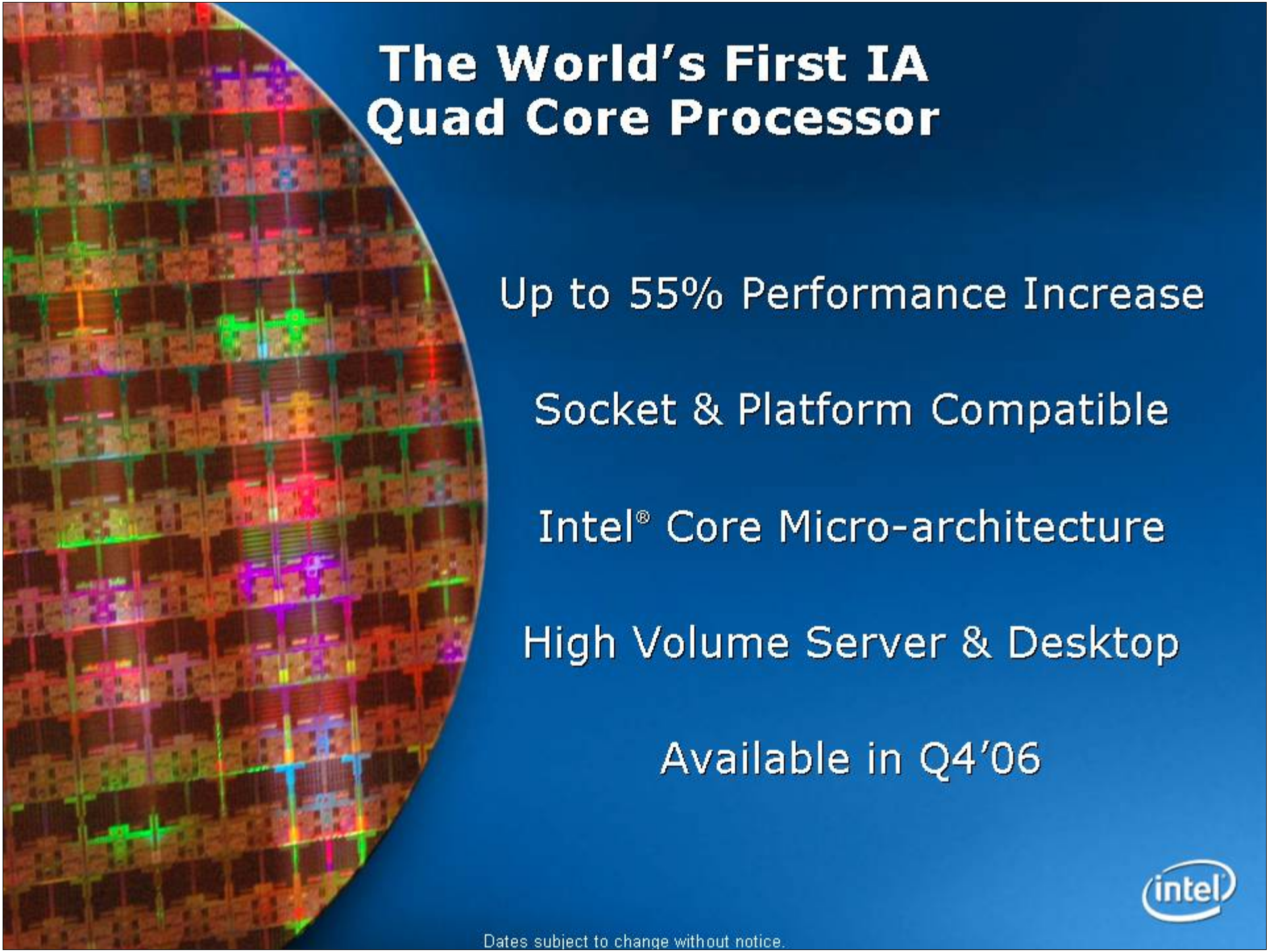
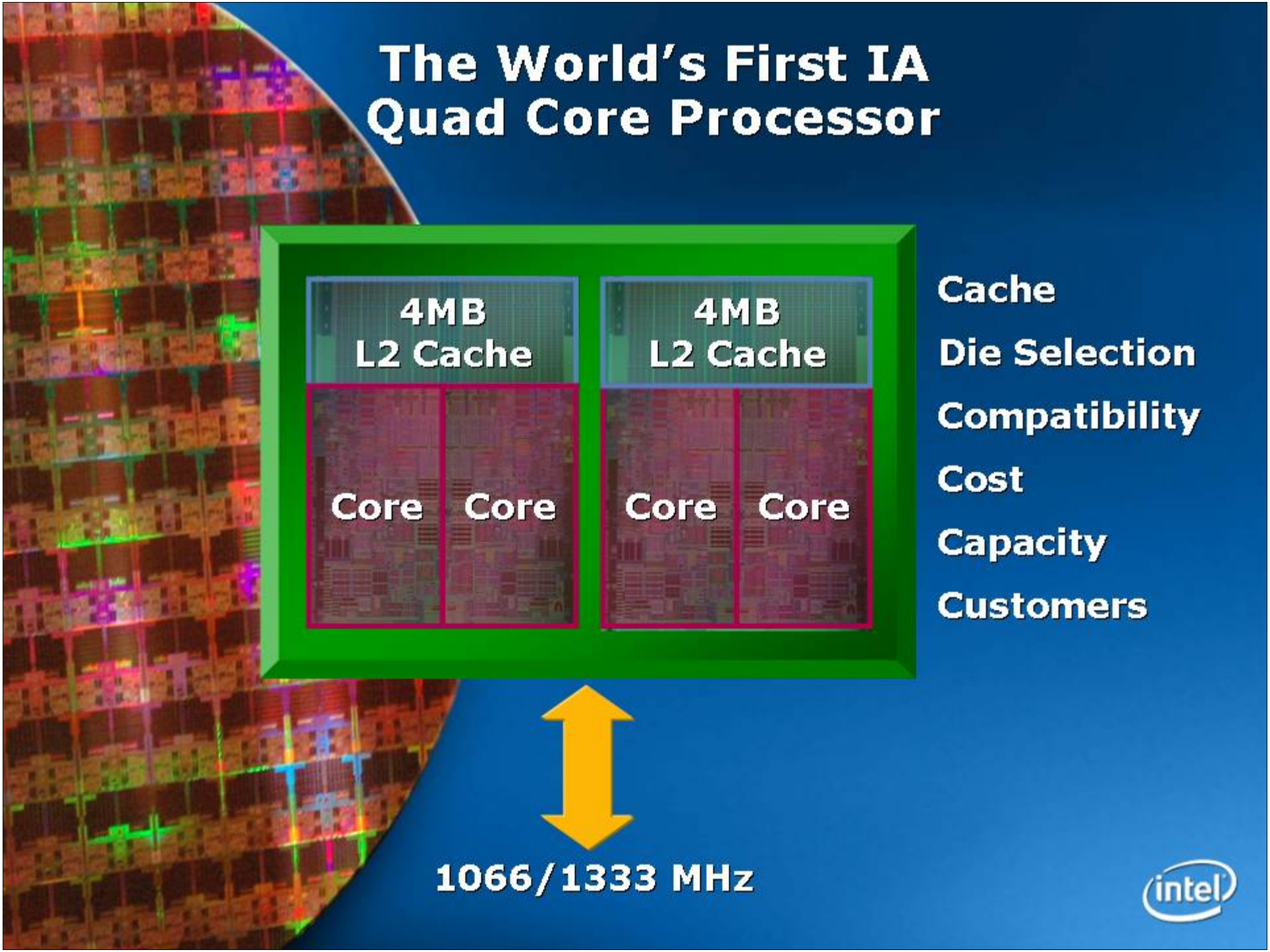
PowerExecutive* in Action!



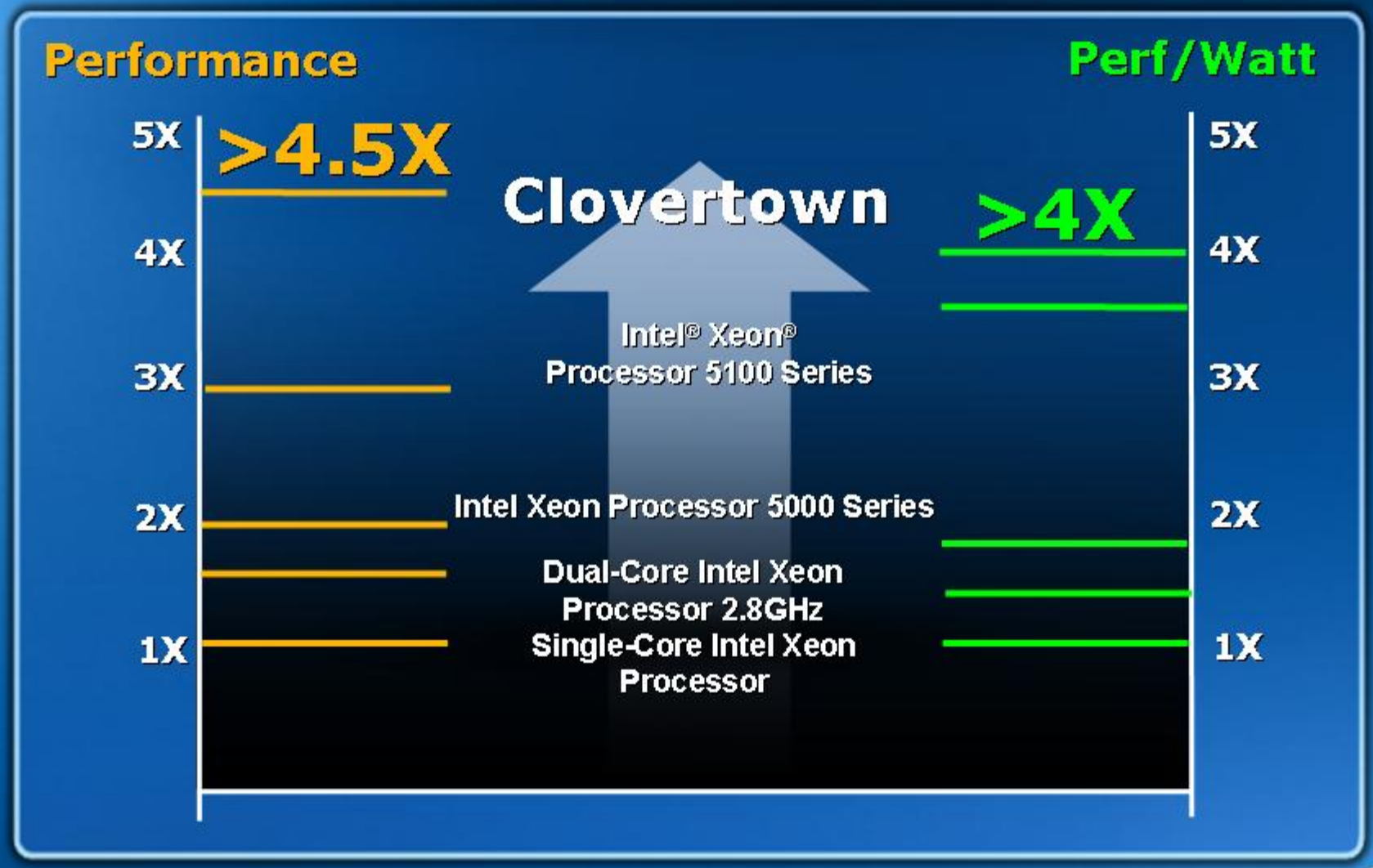

The World's First IA
Quad Core Processor
Up to 55% Performance Increase
Socket & Platform Compatible
Intel® Core Micro-architecture
High Volume Server & Desktop
Available in Q4'06
intel
Dates subject to change without notice.

The World's First IA Quad Core Processor



- Cache
- Die Selection
- Compatibility
- Cost
- Capacity
- Customers

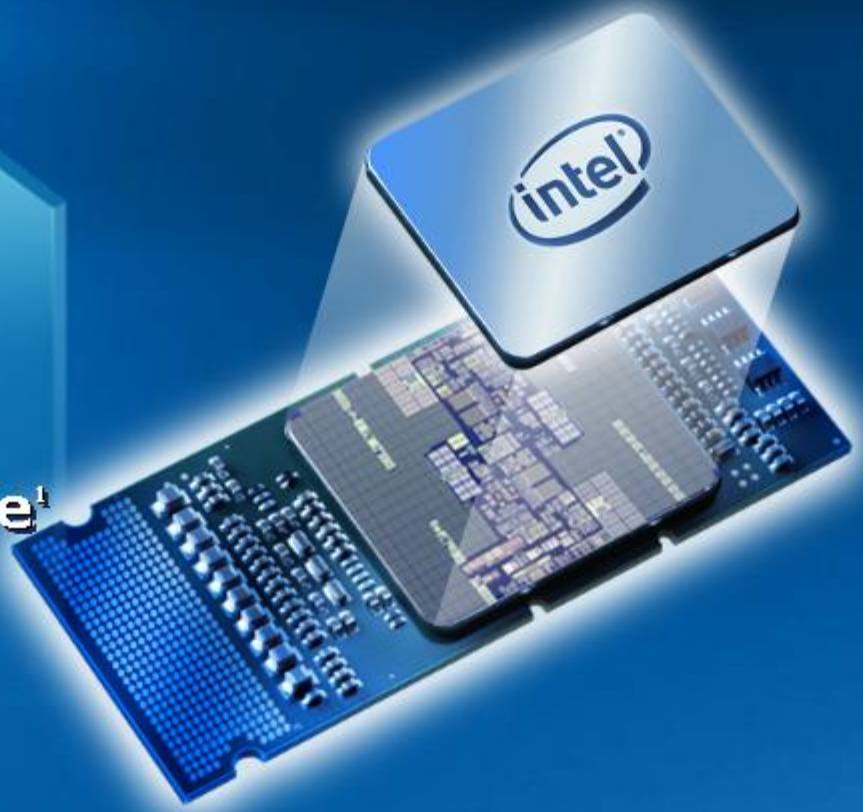
Exceptional Performance And Energy Efficiency



Based on published/measured SPECint_rate_base2000. Intel Xeon Processor 3.60 GHz 4GB; Dual-Core Intel Xeon Processor 5160 3.00GHz 8GB; Clovertown 2.67 GHz 8GB. Perf/Watt based on SPECint_rate_base2000 benchmark w/system power measurements. Intel internal data. Published AMD Opteron 2220 SE (2.8GHz, socket F).spec.org. Other names and brands may be claimed as the property of others

Itanium® 2 Processor 9000 Series

Up to
2X
Better
Performance[1]



Up to
20%
Lower Power[1]

Up to 2.5x Better Performance per Watt[1]

intel

Hitachi* Cold Fusion-3e/4S-4U Server (Itanium® 2 Processor 9050, 16GB) and Intel® SR870BN4 Server System (with Itanium® 2 Processor w/9M L3 Cache, 16GB). Measured power. StarCD, Workload Version: V3.22 (64bit). Other names and brands may be claimed as the property of others

Itanium® Solutions Alliance
1 Year Anniversary

$10,000,000,000
ISA Investment

2x Itanium
Performance

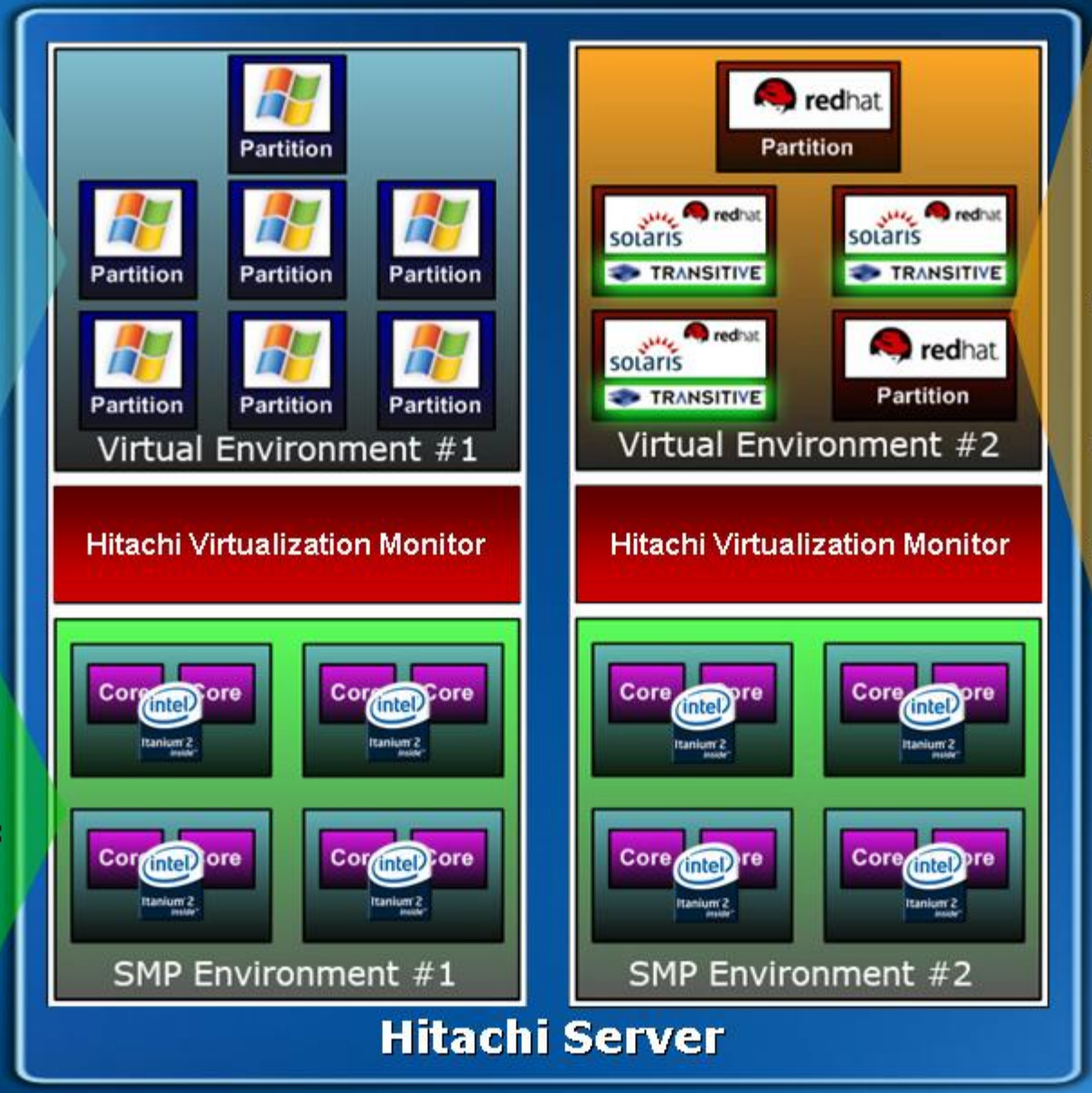
> 100,000
End-User
Deployments

>10,000 Apps
2x YoY

100th ISA
ISV Member

2.5x Itanium
Perf/Watt

Itanium® 2 Flexibility & TCO Advantage



Seven SQL Server DB's

Sharing Processor & I/O Resources

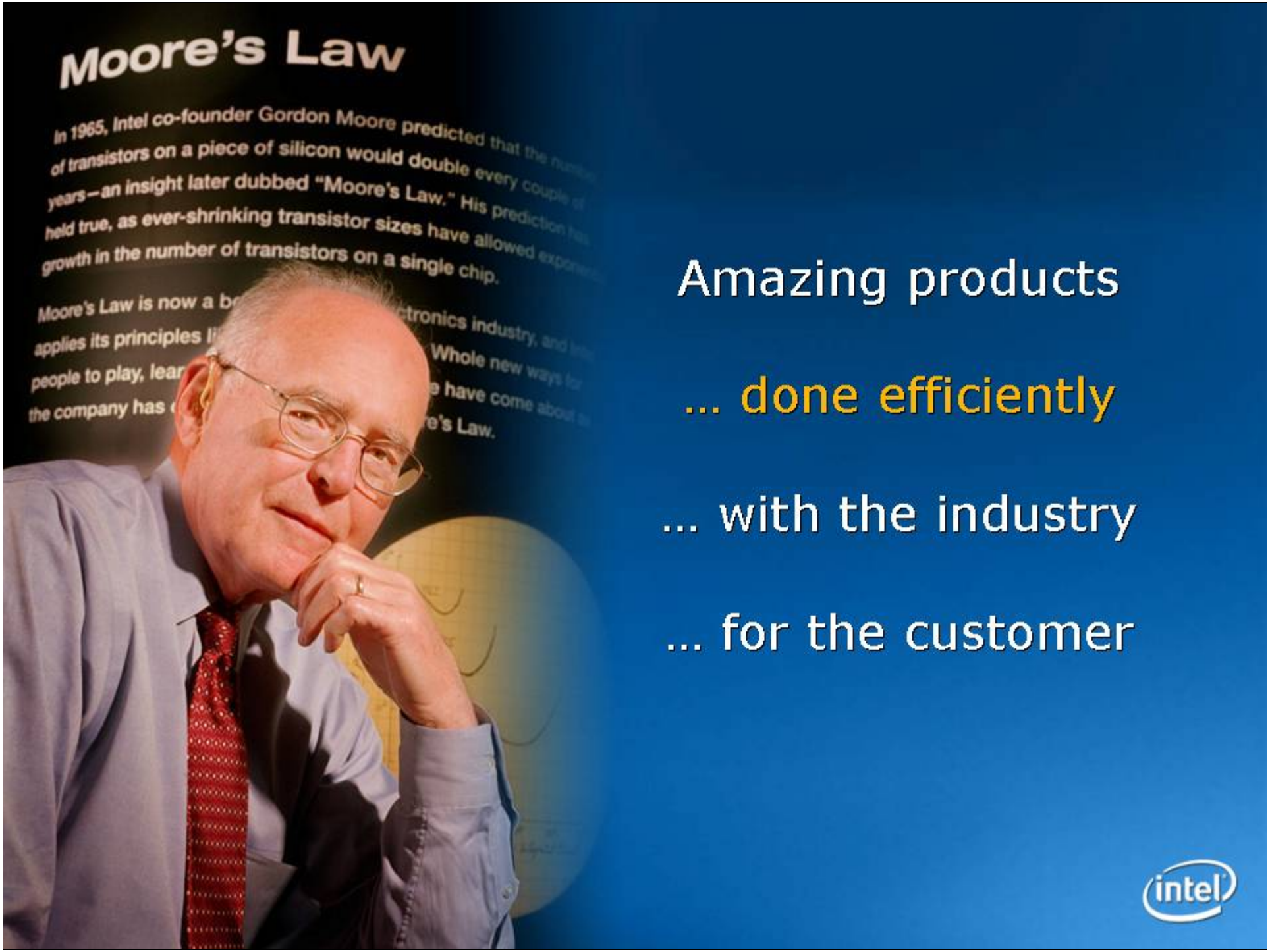
#1 Oracle
IA64 Native

#2 Oracle Clients
SPARC

#3 IBM DB2/MQ
SPARC

#4 DB2 Clients
SPARC

#5 Apache
IA64 Native



Amazing products

… done efficiently

… with the industry

… for the customer

Benchmarking:
Performance & Energy Efficiency

**MobileMark*
2002 - 2005**

*Other names and brands may be claimed as the property of others

Benchmarking:
Performance & Energy Efficiency

MobileMark* 2002 - 2005

EECoMark*

BAPCO Real World, Real Benchmarks

BAPCo® Announces EECoMark™ - A Joint venture with Ecma International to Create a Performance-Qualified Energy Benchmark for Industry Standard Personal Computers - Invites Industry to Join the Development Process.

September 25, 2006

*Other names and brands may be claimed as the property of others

Benchmarking: Performance & Energy Efficiency

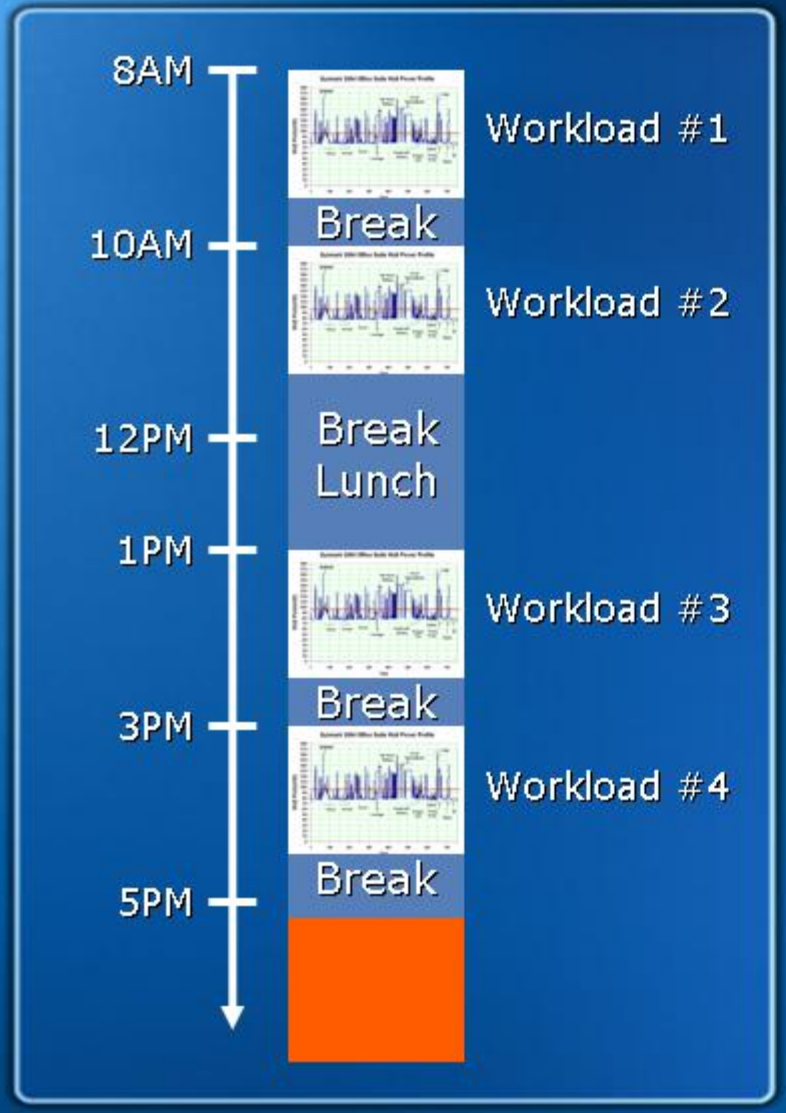
MobileMark* 2002 - 2005

EECoMark*

Spec* "Power" (1H'2007)

*Other names and brands may be claimed as the property of others

Benchmarking:
Performance & Energy Efficiency



"EDS is aligned with Intel in the need for a methodology to measure meaningful energy efficiency and performance based on the way people actually use PCs."

Matt Trevorrow
Vice President
of Workplace Services

EDS

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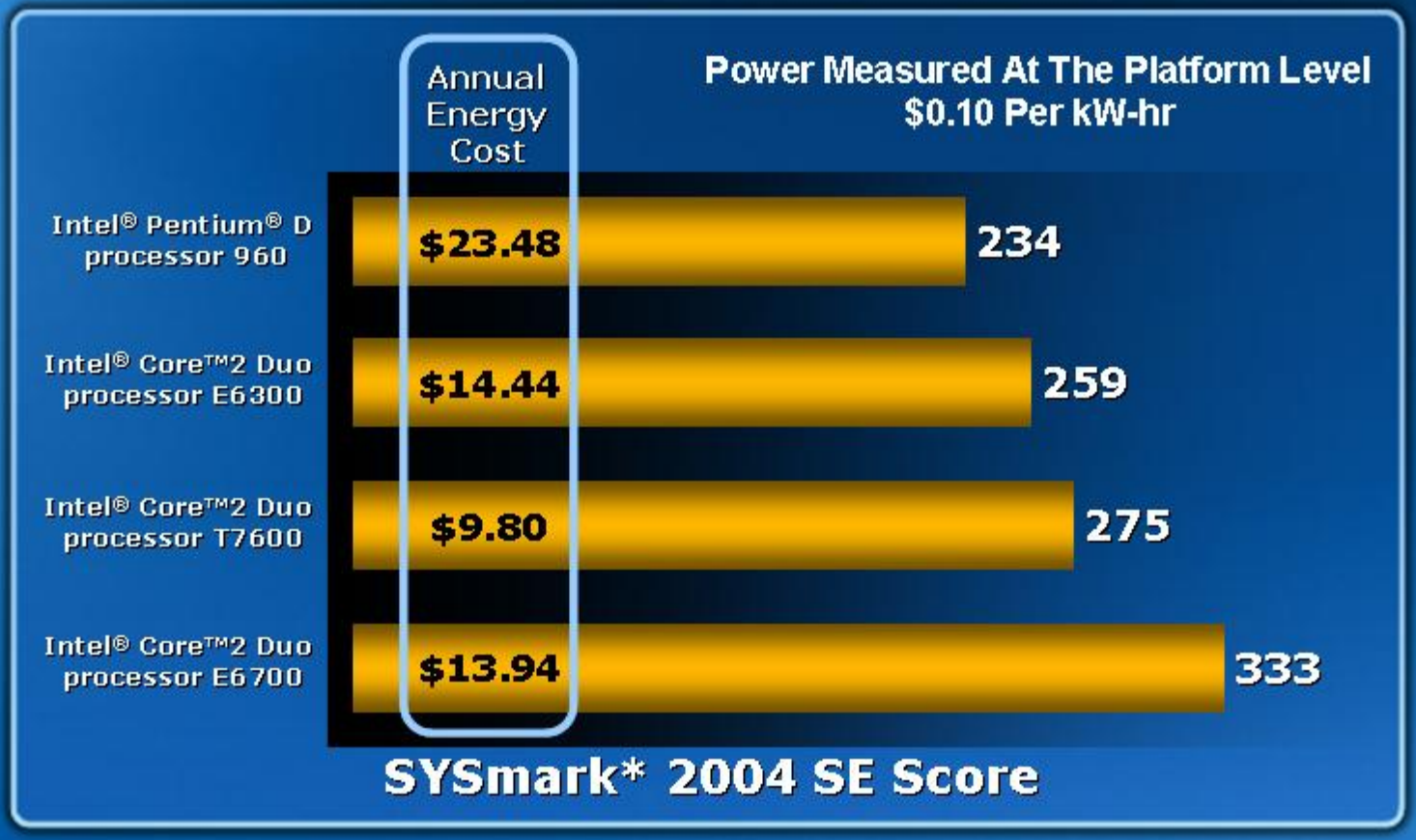
Performance and Energy Cost



Intel Pentium D processor 960, Intel Core2 Duo processor E6700, Intel Core2 Duo processor E6300, Intel DG965SS motherboard with Intel G965 Express chipset. Intel Core 2 Duo processor T7600, Intel 945GM Express Chipset. ***All platforms****: 2x512MB Micron DDR2-667 5-5-5-15, Maxtor 300GB, 16MB cache, 7200rpm, Windows* XP Build 2600 SP2 NTFS, DirectX 9.0c. Other names and brands may be claimed as the property of others*

"PG&E is looking forward to working with Intel and its server providers to deliver programs that educate customers about energy efficiency, and to financially support their purchasing decisions."

Mark Bramfitt
High Tech Segment Supervisor

PG&E Pacific Gas and Electric Company®

IBM* HS21

Dell* PowerEdge 2950

HP* ProLiant* BL460c

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… with the industry

… for the customer

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MICROPROCESSOR REPORT

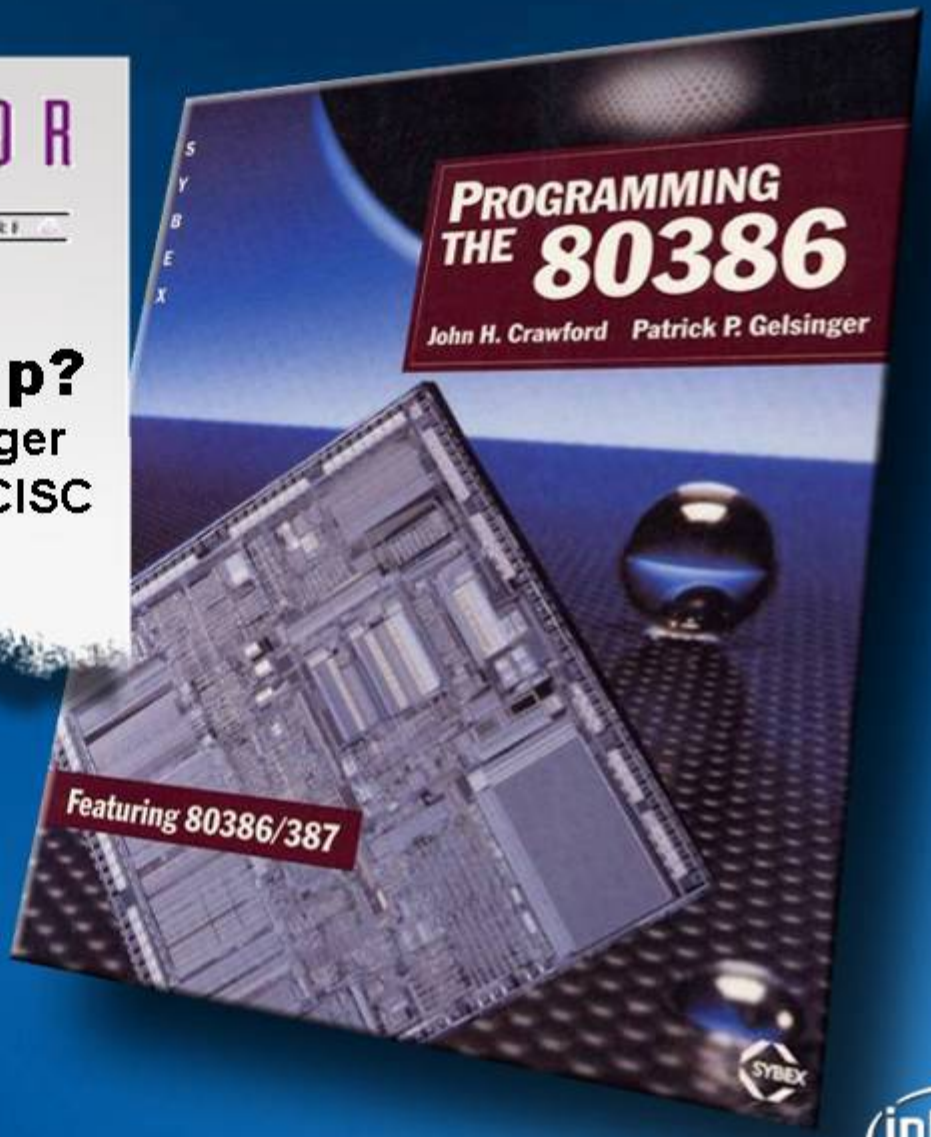
www.MPRonline.com

THE INSIDER'S GUIDE TO MICROPROCESSOR HARDWARE

Can the 386 Architecture Keep Up?

John Hennessy and Pat Gelsinger Debate the Future of RISC vs. CISC

December 4, 1991



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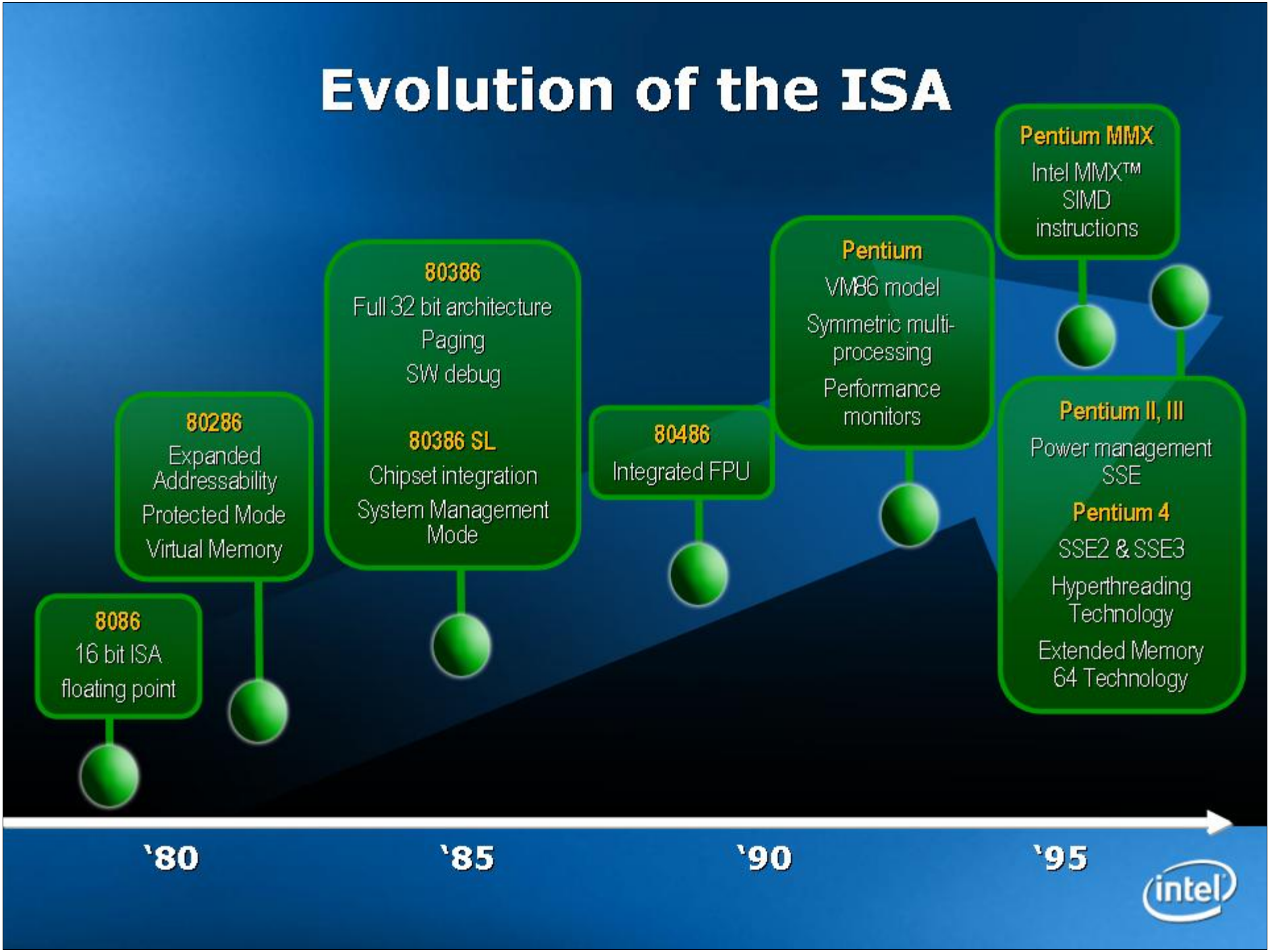
Evolution of the ISA
8086
16 bit ISA
floating point
80286
Expanded Addressability
Protected Mode
Virtual Memory
80386
Full 32 bit architecture
Paging
SW debug
80386 SL
Chipset integration
System Management Mode
80486
Integrated FPU
Pentium
VM86 model
Symmetric multi-processing
Performance monitors
Pentium MMX
Intel MMX™ SIMD instructions
Pentium II, III
Power management
SSE
Pentium 4
SSE2 & SSE3
Hyperthreading Technology
Extended Memory 64 Technology
'80
'85
'90
'95
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Emerging Workloads

High Performance Computing

Media Processing

Search & Compare
String Processing

Data Security

Pattern Recognition for Large Data Sets

Announcing the Next Generation

intel

New Instructions

Vectorizing Compiler

Media

String and Text Processing

Application Targeted Accelerators

"Intel's instruction innovation offers Adobe the opportunity to reap significant performance improvements to our products. Adobe plans to utilize new instruction capabilities in our future products."

Bill Hensler
Vice President
Adobe Systems Incorporated

"Intel and Microsoft have a long history of working together on Instruction Set optimizations. We look forward to continuing our work to harness the benefits of these new instructions in future releases of Windows OS, tools and applications."

Amir Majidimehr
Corporate Vice President
Consumer Media Technologies
Microsoft Corporation

Microsoft®

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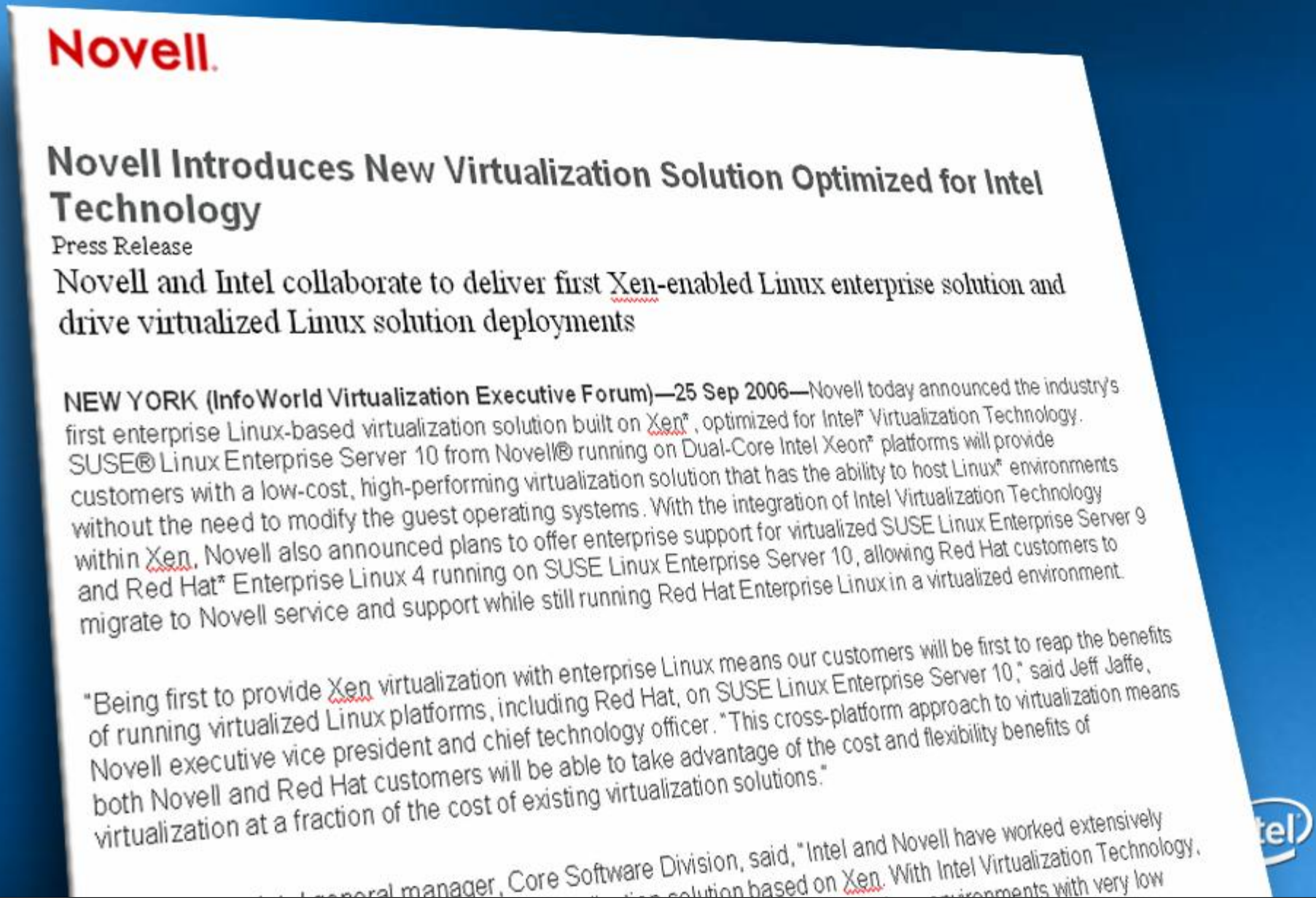
Virtualization Programs



Novell

Novell Introduces New Virtualization Solution Optimized for Intel Technology

Press Release

Novell and Intel collaborate to deliver first Xen-enabled Linux enterprise solution and drive virtualized Linux solution deployments

NEW YORK (InfoWorld Virtualization Executive Forum)—25 Sep 2006—Novell today announced the industry's first enterprise Linux-based virtualization solution built on Xen*, optimized for Intel* Virtualization Technology. SUSE® Linux Enterprise Server 10 from Novell® running on Dual-Core Intel Xeon* platforms will provide customers with a low-cost, high-performing virtualization solution that has the ability to host Linux* environments without the need to modify the guest operating systems. With the integration of Intel Virtualization Technology within Xen, Novell also announced plans to offer enterprise support for virtualized SUSE Linux Enterprise Server 9 and Red Hat* Enterprise Linux 4 running on SUSE Linux Enterprise Server 10, allowing Red Hat customers to migrate to Novell service and support while still running Red Hat Enterprise Linux in a virtualized environment.

"Being first to provide Xen virtualization with enterprise Linux means our customers will be first to reap the benefits of running virtualized Linux platforms, including Red Hat, on SUSE Linux Enterprise Server 10," said Jeff Jaffe, Novell executive vice president and chief technology officer. "This cross-platform approach to virtualization means both Novell and Red Hat customers will be able to take advantage of the cost and flexibility benefits of virtualization at a fraction of the cost of existing virtualization solutions."

general manager, Core Software Division, said, "Intel and Novell have worked extensively solution based on Xen. With Intel Virtualization Technology, environments with very low

Virtualize ASAP Program

Tech Resources for ISV Best Practices

Virtualization Deployment Guidance

Platform Consolidation Performance

Virtual Appliance Configurations

intel

Virtualize ASAP Software Vendors

http://www.VirtualizeASAP.com

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SAP
Ranjan Das
Senior Vice President
Emerging Solutions
SAP Americas
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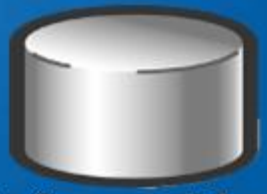
Other names and brands may be claimed as the property of others

Information Appliances

Information Applications



Information Sources

SAP Analytical Engine

Open Source Linux

Industry Standard Storage

Intel High Volume Blade Servers

Information Appliance

Looking Ahead

Multi-Core and Many-Core

Virtualization

Manageability

Security

intel + SAP = Innovation

Enabling Innovation – FSB Licensing

"Altera believes that FSB support, as demonstrated by Intel on Altera's Stratix FPGA, can enable exciting acceleration for applications such as medical imaging, financial services, and data analytics."

ALTERA®

"Our continued alliance with Intel in support of next-generation interfaces, such as the Front Side Bus, will lead to new opportunities for Xilinx FPGA products and solutions to address and accelerate critical computing applications."

XILINX®

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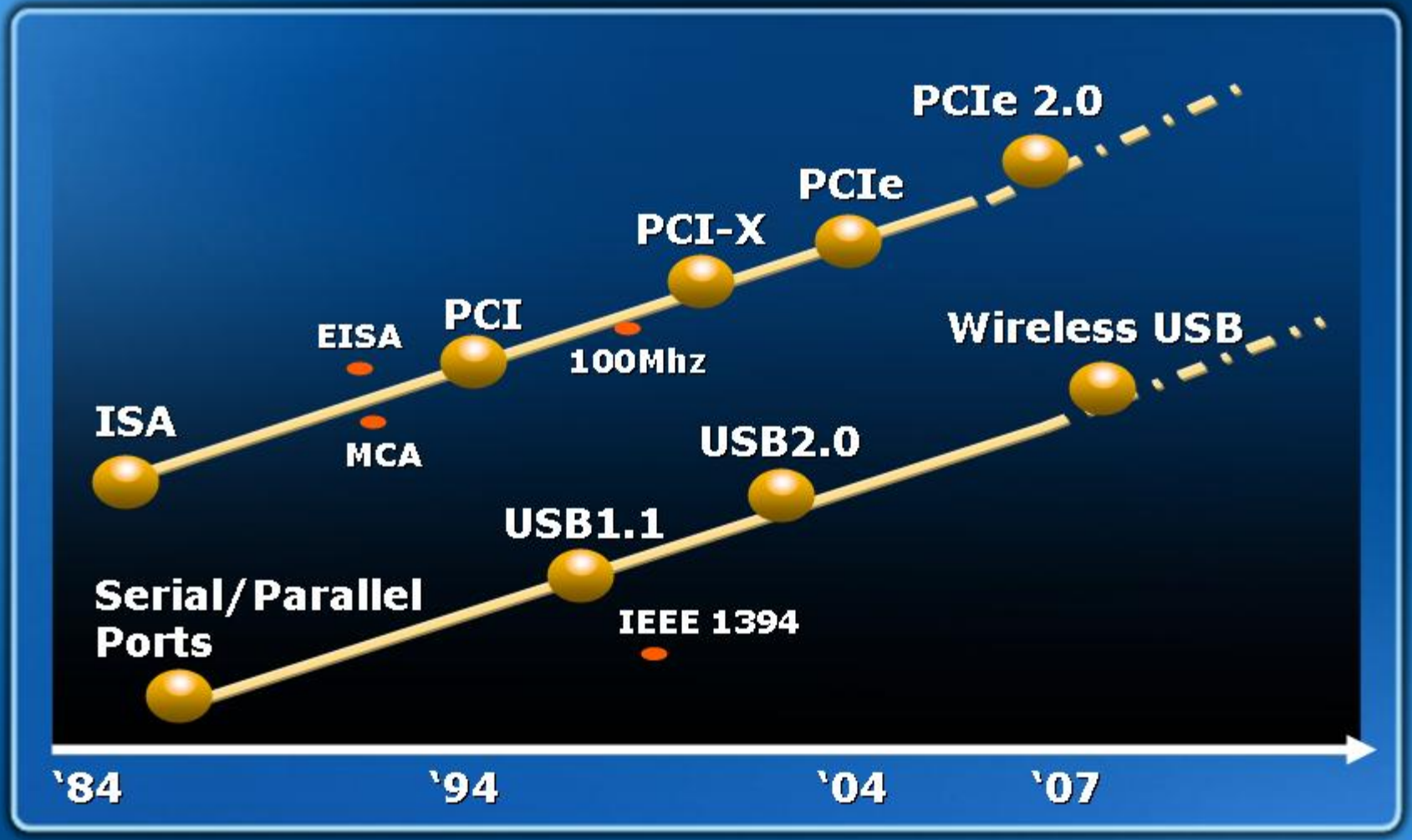
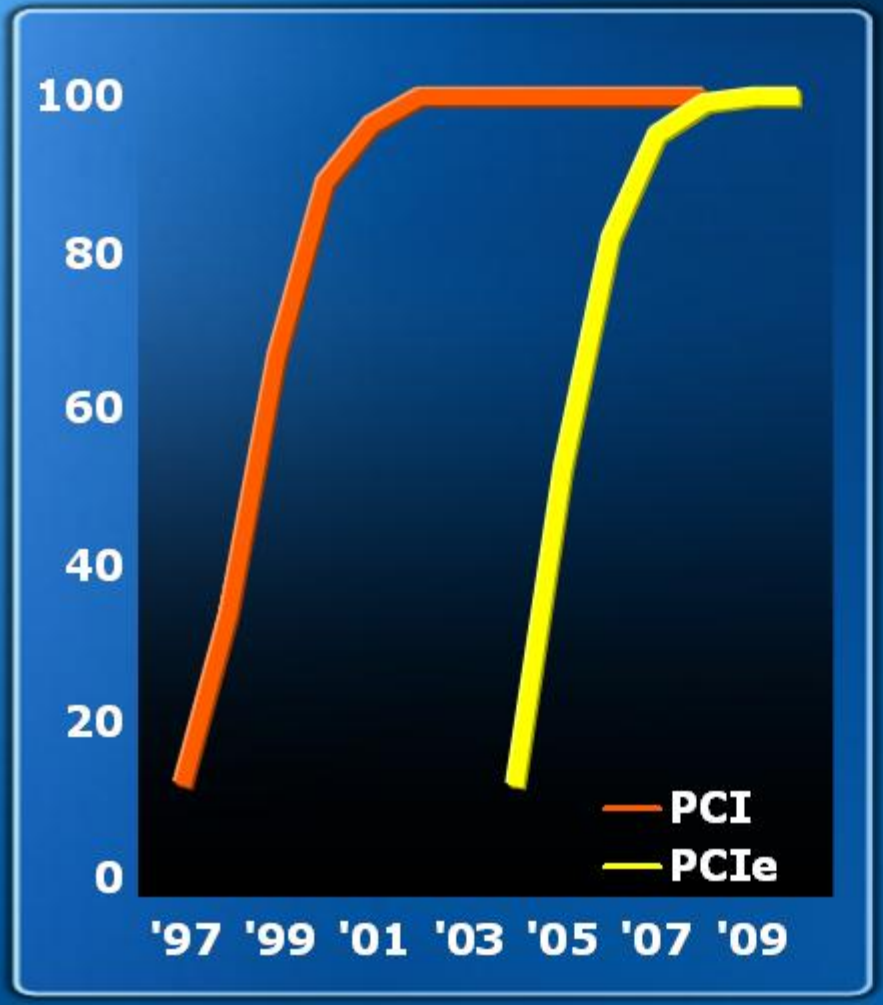
I/O for Compute Platforms



PCI & PCIe Growth



100% of Graphics Suppliers

Fiber Channel Storage Products

SCSI/RAID

SAS

SATA

Dual and Multiport 1Gb

All 10Gb

Television Tuners

Accelerators

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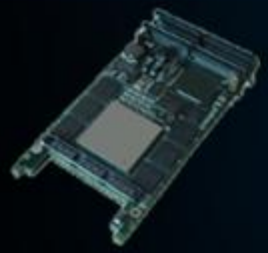
IBM
T.M.S. Bradicich, Ph.D.
IBM Fellow,
Chief Technology Officer,
System x / BladeCenter Servers
intel
Other names and brands may be claimed as the property of others

Growing Interest in Accelerators

Math-Intensive Transactions
Financial, scientific, economic models

Visualization and Media Processing
Graphics, video, speech



Embedded Content Processing
Data mining, encryption, compression, XML

Broad Industry Support

As a leading provider in high performance networking, QLogic supports Intel in its pursuit to provide higher bandwidth and lower latency access to processor platforms in order to address the I/O interconnect requirements of the future.

QLOGIC

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Amazing products

… done efficiently

… with the industry

… for the customer

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Years of Research

Customer Concerns Go Beyond Price and Performance

Security

- $81M in losses reported in 2004 due to virus & DoS attacks[2]
- Time to exploit after fix availability rapidly shrinking[3]

TCO

- Over 15% of assets not discoverable down-the-wire due to removed agents, OS/power state[4]
- 5% of support incidents are desk side visits resulting in 52% of support costs

Complexity

- Cutting hardware configurations in half can lower support costs by 10% to 55%[5]
- Additional OS version can increase TCO by $135 to $203 per PC/year[1]

Productivity & Connectivity

- 90% of business process lost to lag time–task travel from one person to another[6]

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[1] Source: Wipro NerveWire Study, "New Insights on PC Management: Benefits of Controlling PC Hardware Diversity", Q1, 2004
[2] Source: 2004 CSI/FBI Computer Crime and Security Survey [3] Source: Microsoft, 2004 [4] Source: 2003: Intel IT manual inventory of assets
[5] Source: Wipro NerveWire Study, "New Insights on PC Management: Benefits of Controlling PC Hardware Diversity", Q1, 2004 [6] Source: Ultimus, 2001

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Intel® vPro™ Technology-based Platform

Capital Times

vPro: The Next Generation of Business PCs

POD TECH network

Fight Worms While You Sleep

TechNewsWorld™
ALL TECH, ALL THE TIME

Intel Secures the Desktop

Daily Channel News
eChannelLine

Intel's Great Leap Forward

CRN

VARs, MSPs Bank on Intel's vPro To Reduce On-Site Service Calls

eWEEK.com

Intel vPro Promises IT Managers Less Needy Desktops

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2006 Usages
Audit a Powered-down PC
Remotely Repair A Down System
Keep Software Agents Active
Securely Wake & Update Systems
Virtual Security and Management Appliances
Stunning Performance
Energy Efficiency
intel

Broad Industry Support

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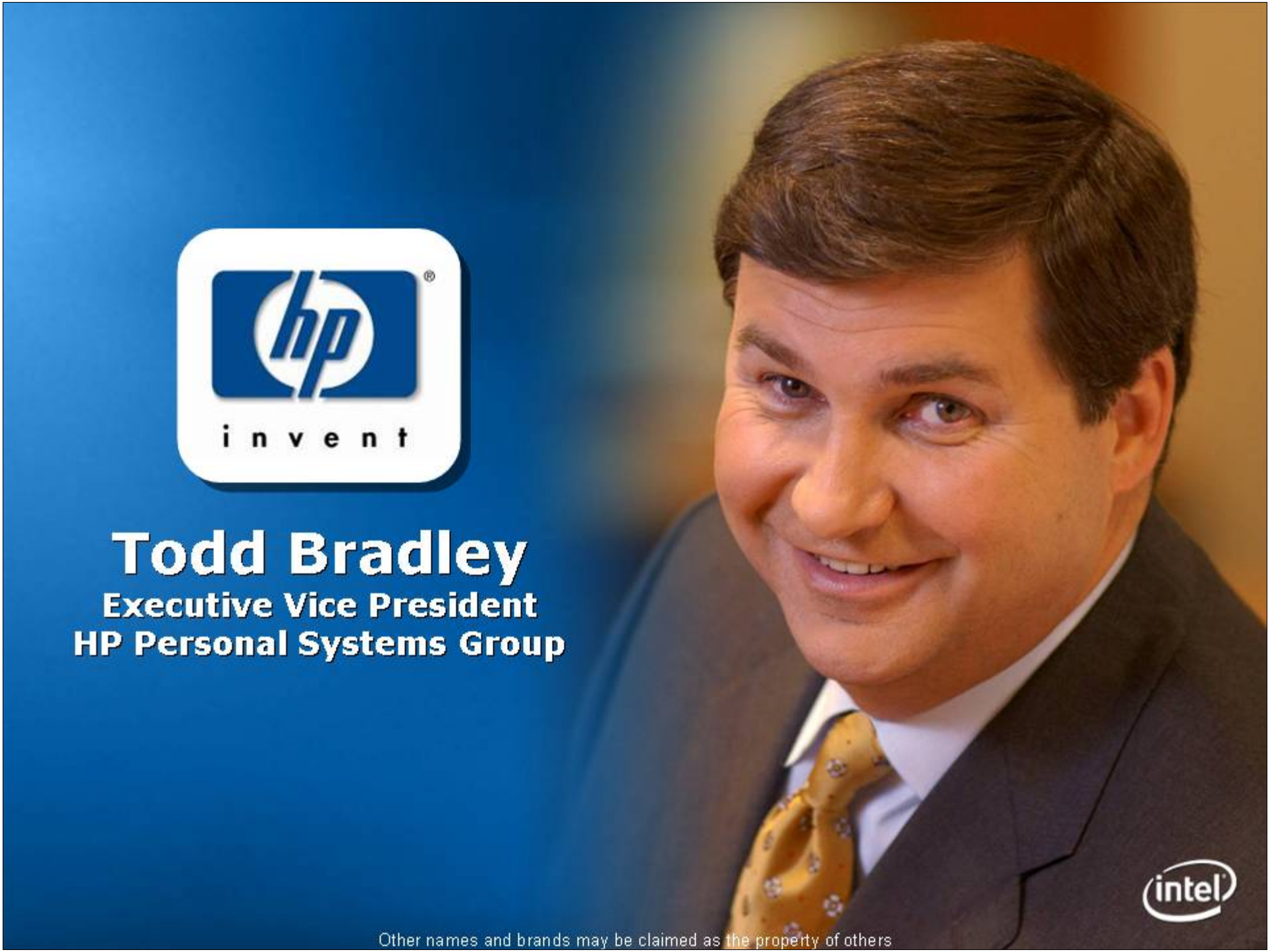
*Other names and brands may be claimed as the property of their respective owners.


invent
Todd Bradley
Executive Vice President
HP Personal Systems Group
intel
Other names and brands may be claimed as the property of others

"...adoption of Intel vPro technology will significantly improve (our) ability to cost-effectively, more securely, and efficiently manage our global fleet."

BMW Group

"There's a whole range of things that Symantec and Intel can accomplish given the new Intel vPro technology ..."

symantec.

"Capgemini is well positioned to take advantage of the remote management capabilities embedded in Intel® vPro™ technology. We believe that it will provide our customers with an exceptional user experience with less downtime, lower support costs, increased performance and a significant reduction in power consumption."

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

intel

Looking Ahead … 2007

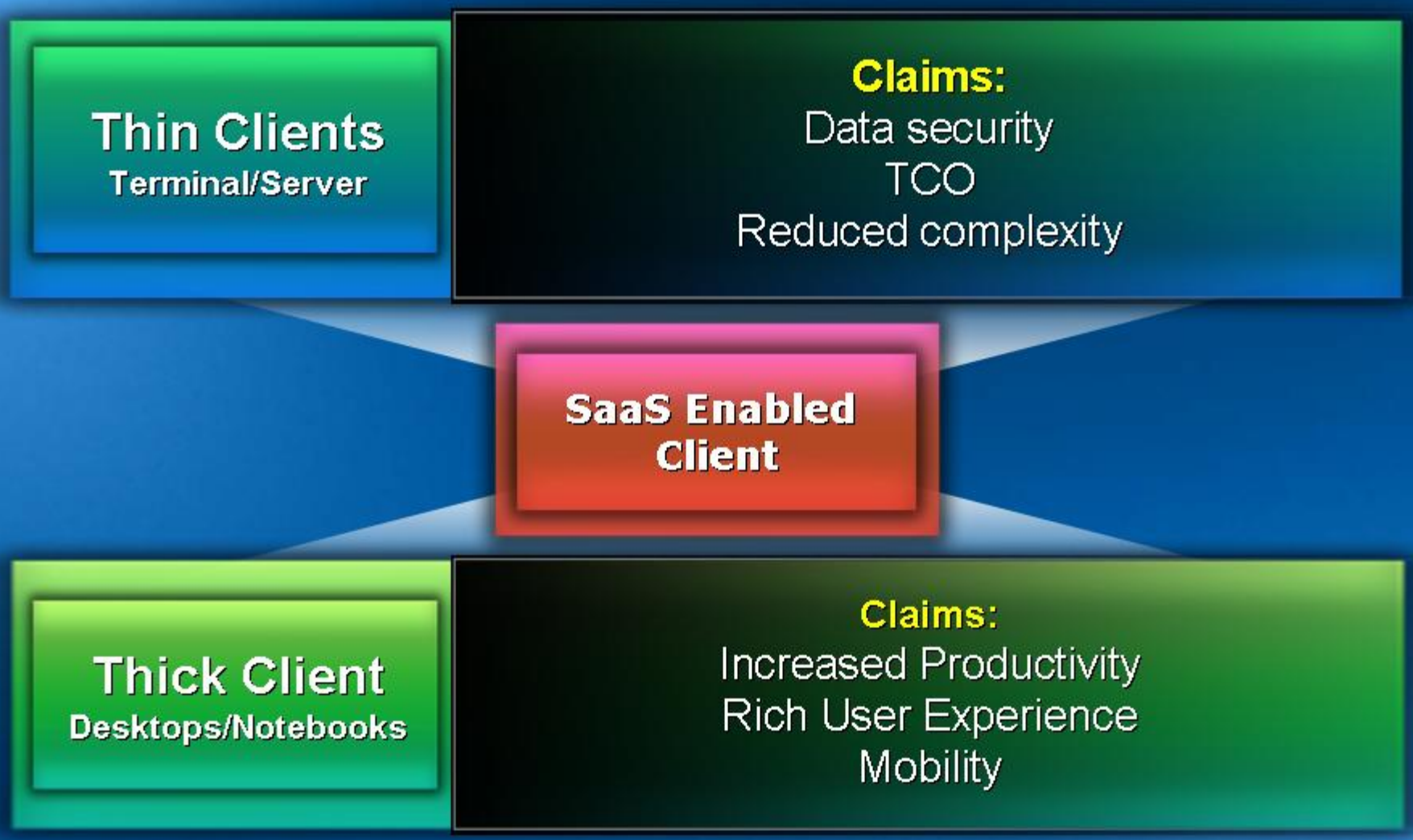
Go Mobile & Wireless

New Hardware Based Security

Additional Deployment Options

Support for Web Services Management Interface

Traditional Client Compute Models



SaaS Enabling Architecture

… with the industry

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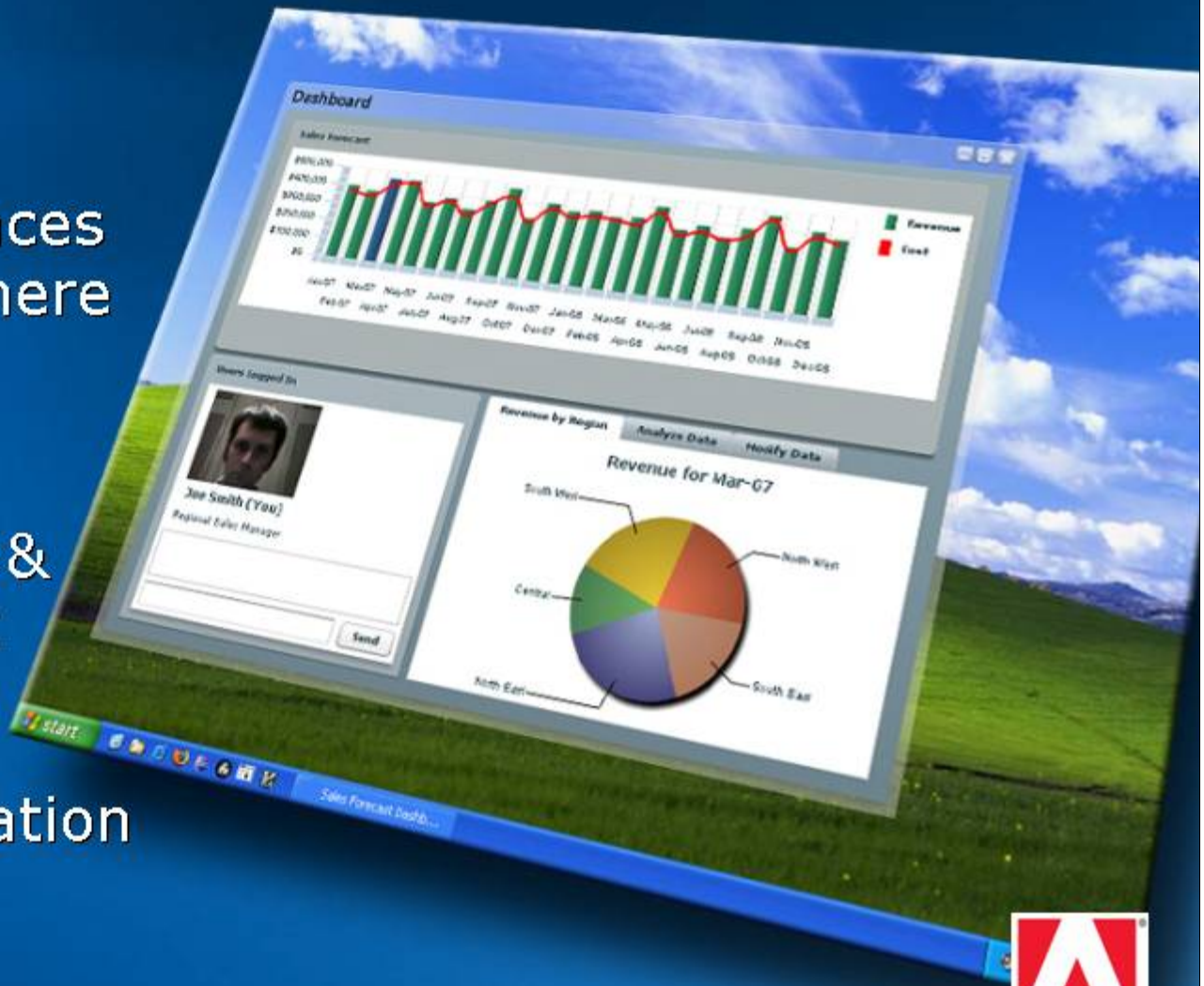

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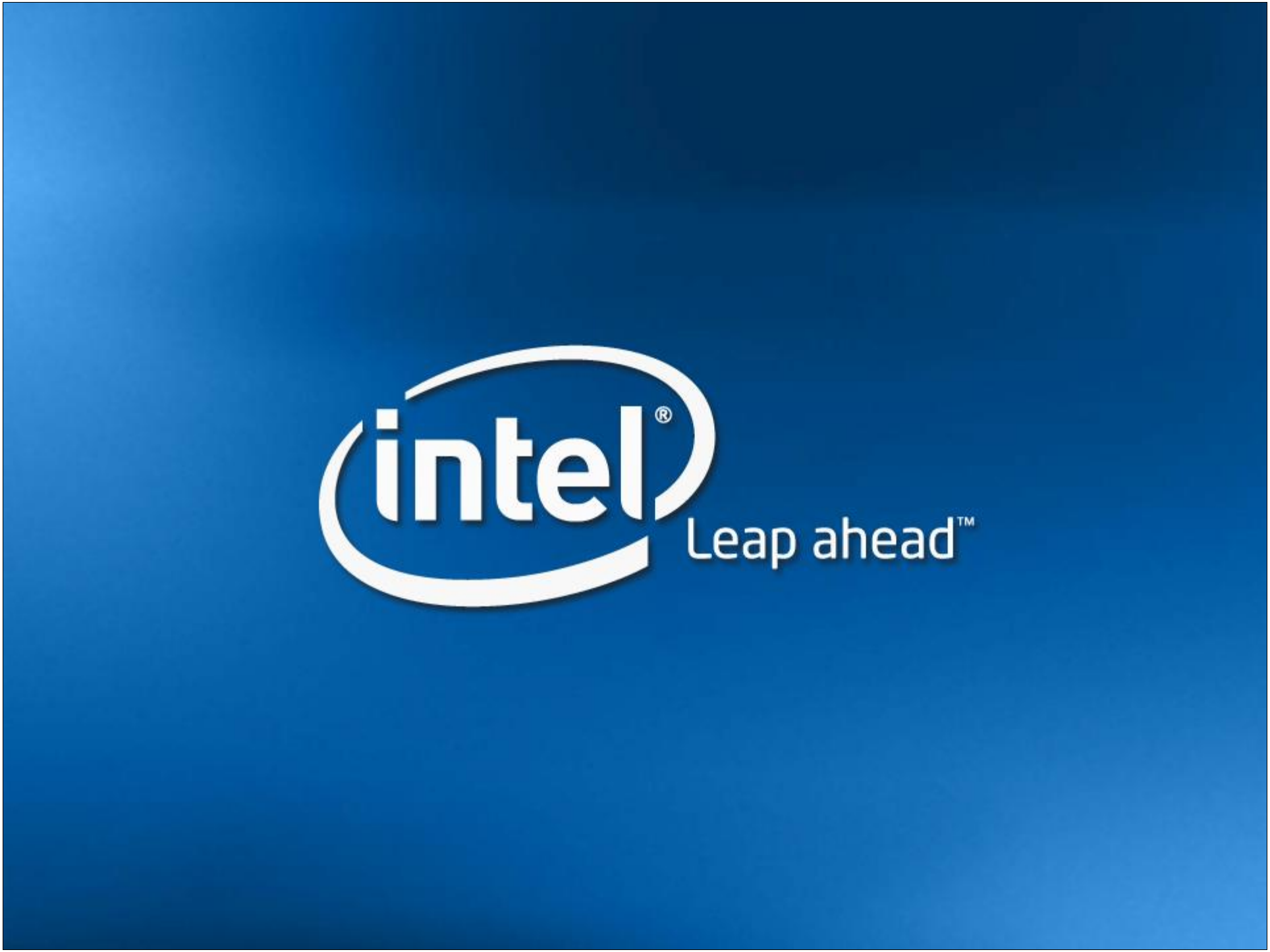
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