

intel.



Press and Analyst Briefing

Intel® Xeon™ processor MP 3.0 GHz 4M iL3 cache

Hosted by Thomson Financial, NY

March 2, 2004



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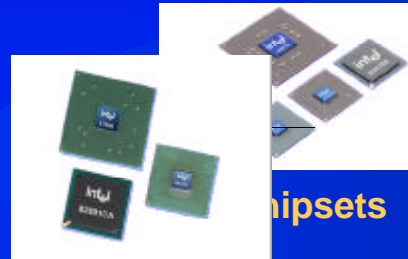
Agenda

- **What's new today**
 - Intel® Xeon™ processor MP 3GHz with 4M of L3 cache
- **Thomson Financial**
 - Success with Intel Xeon processor MP-based platforms
- **Summary**

Competitive Strategy: Beyond Processors



Intel Capital



Chipsets

Validation
25,000 Hours



Boards &
Server Systems



Solutions Blueprints
432 Wins \$1.98 B



Enterprise Competitiveness:
A Total Vertical Approach



Software Tools

Developer Services



Intel® Solutions
Services



Software
Vendor
Alliances

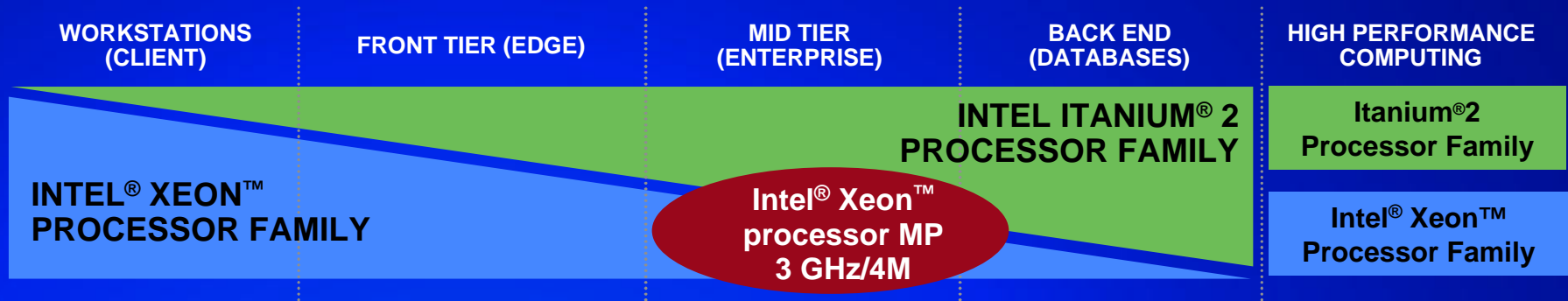


Intel
Software
College

Early
Access
Program



Intel Platforms: Spanning the Enterprise



Attribute	Intel® Xeon™ Processor- Based Platform	Intel® Itanium® 2 Processor-Based Platform
Performance	Optimized for workgroup, workstation, web & IA-32 apps	Optimized for largest enterprise, database & technical computing workloads
RAS	Reliable data integrity	RISC / mainframe replacement
Physical Addressing	Up to 1 Terabyte of addressable memory	Up to 1 Petabyte (1000 Terabytes) of addressable memory
Platform	High performance & balanced platform bandwidth	High bus bandwidths, scalability and platform longevity

Intel strategy: optimized architectures for server and workstation solutions





Server Platform Summary: Intel® Xeon™ Processor MP Introducing 3 GHz/4M, 2.7 GHz/2M, 2.2 GHz/2M

- Outstanding performance & price/perf for enterprise application tier
 - Up to 25% perf gain vs. Intel Xeon processor MP 2.8 GHz/2M¹
 - Improved price/performance with same platforms
- Ideal platform for application consolidations
 - Thousands of mid-tier apps for ERP, SCM, Biz Intelligence, & CRM
 - Greater choice of Operating systems vs. RISC
 - Solution breadth enables faster TTM
- Stable, Evolutionary platform
 - Compatible with today's Intel Xeon processor MP-based platforms
 - Leading RAS capabilities on MP platforms
 - Available from leading OEMs and solution providers

Source: Intel Corporation (Sep, 2002). Comparisons based on Intel internal measurements w/pre-production hardware

1) Intel® Xeon™ processors 2.0GHz with 2MB L3 cache in an Intel® SSH4-based server with 4GB of main memory, Microsoft® .NET Server 2003 Enterprise Edition, Microsoft® SQL Server® 2000 Enterprise Edition.

2) Intel® Xeon™ processors 2.0GHz with 2MB L3 cache in an Intel® SSH4-based server with 24GB of main memory, Microsoft® Windows® 2000 Datacenter Edition, Microsoft® SQL Server® 2000 Enterprise Edition.

3) Intel® Xeon™ processors 2.0GHz with 2MB L3 cache in an Intel® SSH4-based server with 6GB of main memory, Microsoft® .NET Server 2003 Enterprise Edition, Microsoft® SQL Server® 2000 Enterprise Edition.

Pro1000 Intel® Gigabit NIC, 1 QL2200 FiberChannel® disk adapter.

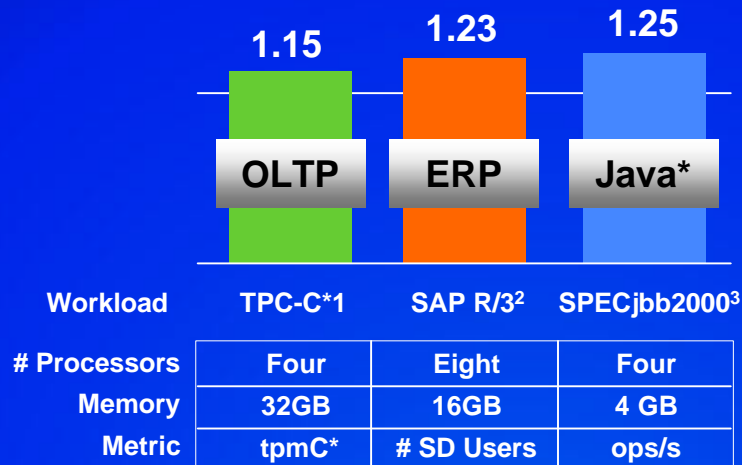
4) Intel® Xeon™ processors 2.0GHz with 2MB L3 cache in an Intel® SSH4-based server with 4GB of main memory, Microsoft® .NET Server 2003 Enterprise Edition, JRockit Juno 1447_20020717

Baseline configurations: Same as each above except with Intel® Xeon™ processor MP 1.6 GHz with 1M L3 Cache

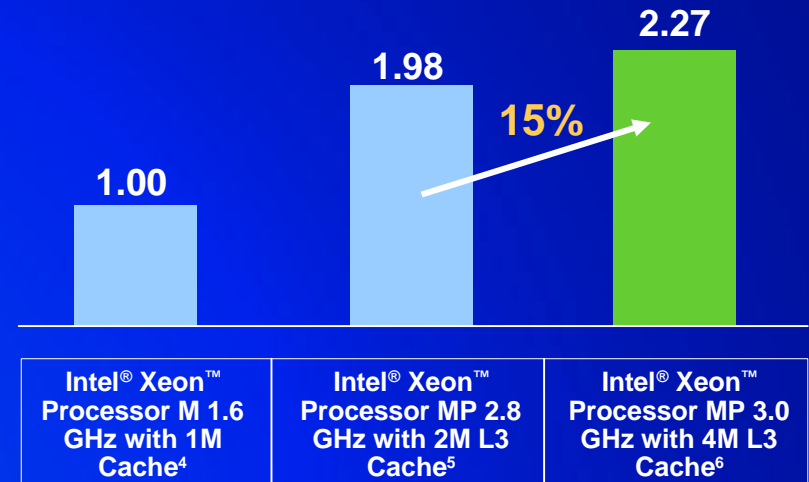


Value of Intel® Xeon™ processor MP investment protection

Intel® Xeon™ Processor MP 3.0 GHz/4M vs. 2.8 GHz/2M



4P Intel® Xeon™ Processor MP TPC-C* Performance Over Time



- Significant platform performance gains over time
- Up to 25% gains over 2.8/2M
- Strong industry support & benchmark publications at launch

[LINK](#)

Intel® Xeon™ Processor MP Platform Performance Increased Over 2X In 2 Years

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> or call (U.S.) 1-800-628-8686 or 1-916-356-3104. ^{1,2,3,4,5,6} System Configuration Details in Backup

ENTERPRISE PLATFORMS GROUP

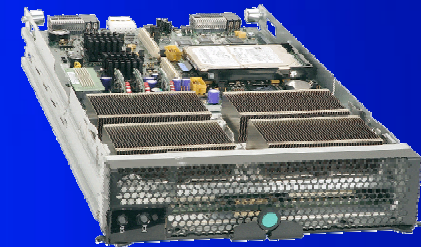
*Other names and brands may be claimed as the property of others.



Enterprise Modular Computing

Highlighting the New 4-way Compute Blade

- Foundation architecture for Utility/ Grid /Autonomic computing
 - Strong end-user TCO benefits
 - Robust networking and storage ecosystem offerings
- Intel extending modular blade offerings with new building blocks
 - Intel® Server Compute Blade SBX44
 - Accommodates up to 4 Intel® Xeon™ processors MP



Intel driving blades as a key vehicle for delivering new IA platform capabilities

Intel® Xeon™ Processor MP End-User Success

FINANCIAL Thomson Financial (Unisys)	FINANCIAL AIG SunAmerica (Unisys)	FINANCIAL Deutsche Post AG (IBM)
DIGITAL MEDIA Electronic Arts (Dell)	HPC CISER (Unisys)	HEALTHCARE Partners Healthcare (HP)
GOVT/EDUCATION Western Heights Public Schools (Dell)	ENERGY China State Power (HP)	COMMUNICATIONS China Telecom Corp. (HP)
GOVT/EDUCATION Oxford University (Dell)	MANUFACTURING Qualcomm (IBM)	MANUFACTURING FEMSA Cerveza (HP)
DISTRIBUTION Mohawk Industries (IBM)	FINANCIAL Vietnam Incombank (HP)	

**Replacing RISC & enabling server consolidation...
Across Vertical Markets and Geographies**





Why Thomson Chose Intel and Unisys

- Thomson Financial performed one of the largest migrations in industry history
 - Grew Thomson ONE Analytics from 500 to 55,000 users in months
 - Transformed static data to integrated workflow
 - Required flawless scalability and reliability
- Intel and Unisys met needs
 - From a business perspective, Intel delivered TCO & agility
 - Technically, we saw Intel as ready for the enterprise
 - Unisys showed sustainable ability to lead on high end Windows
 - Both demonstrated they could be effective business partners




ABCD COMPANY [ABCD]

UNITED STATES OF AMERICA / ENERGY / OIL
Currency USD

Select New by: Local Market Ticker

Contains
 Begins With
 Is Exactly

Use Default Country

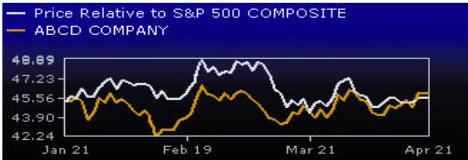
Price	46.62	12/03 EPS Estimate Comparison	Median Price Target:	55.00
Change	0.59 (1.28%)	Consensus	Diff from Prev Close:	8.97
Prev Close	46.03	Your Est.	% Difference:	19.49
High	46.67	Lancer Est.		
Low	45.76			
Date	4/22/2003	Last Reported EPS [12/02]:	3.21	
Time	7:59:36 PM			

Reference Index:	STANDARD & POORS 500	MCAP (Mil):	11,458	BETA:	0.55
Exchange:	REPORTED New York	Shares Outstanding(Mil):	248.93		

Business Description

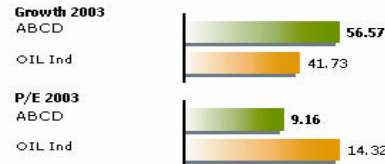
ABCD Company. The Group's principal activities are the exploration, development, production and marketing of oil and gas. It operates in three segments: oil and gas operation, marketing and minerals. Oil and Gas segment finds and produces natural gas, crude oil, condensate and natural gas liquids. The Marketing segment is responsible for selling natural gas production as well as purchased volumes of third-party gas and oil. The Minerals segment finds and produces minerals in several coal, industrial minerals and trona (natural soda ash) mines. The Group's major areas of operations are located in the United States, primarily in Texas, Louisiana, the mid-continent and Rocky Mountain regions, Alaska, Gulf of Mexico, Canada, Algeria, Guatemala, Venezuela and other international areas. On 06-Dec-2002, the Group acquired Howell Corporation. Oil and Gas exploration and production accounted for 95% of 2002 revenues; Marketing and Trading, 4%, Minerals, 1% and Other, nominal.

Datastream Price (3M)



[View Pricing](#)

Growth and P/E



Recent Worldscope Fundamentals

	2001	2002
Sales (Mil)	8,369	3,860
Operating Income (Mil)	2,228	1,478
Net Income (Mil)	-176	831
Total Assets (Mil)	16,771	18,248
Total Liabilities (Mil)	10,406	11,276
EBITDA (Mil)	-298	1,410

[View Fundamentals](#)

Recent Research



[View Research](#)

Upcoming Events

- 4/25/03 - ABCD Q1 2003 Financial Release
- 4/25/03 - ABCD Q1 2003 Financial Release Conference Call

[View All Events](#)

Recent Filings

- 12/31/02 [10-K](#)
- 9/30/02 [10-Q](#)



Thomson ONE Analytics Enables Workflow

How Thomson Used Intel Architecture

- **“Scale up” approach for consolidation and simplicity**
- **Web/application tier has 12 servers each with 2 Intel® Xeon™ processors**
 - Intel’s high clock speeds are a distinct advantage
- **Data tier provides near real time response**
 - Application is extremely demanding on the databases
 - Cluster of two ES7000 each with 16 Xeon processors MP
 - One ES7000 with 8 Intel Itanium® 2 processors for memory-intensive application querying 5 years worth of investment management research



Benefits to Thomson

- **Results**
 - 100x in users with faster speed while adding features
 - 400% faster speed
 - 100% uptime
- **Plans**
 - T1A: Thomson Financial is planning to deploy the new Intel Xeon processors MP at 3GHz with 4M iL3 cache within 3 months – planning on 20% faster speed
 - Portfolio analysis and portfolio management

Results as reported by customer. Intel has not verified these results. Results may not be representative and may vary. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing.



Summary

- **Today, Intel launching new Intel® Xeon™ processor MP 3.0 GHz with 4M of iL3 cache**
 - Up to 25+% performance increase
 - Common platform provides stability to IT
- **Thomson Financial very successful with Intel Xeon processor MP-based platforms**

Back-up

Pricing/Availability

- Intel[®] Xeon[™] processor MP SKUs available March 2, 2004
 - 3.0 GHz/4M \$3,692*
 - 2.7 GHz/2M \$1,980*
 - 2.2 GHz/2M \$1,177*

*Pricing listed when purchased in quantities of 1,000



Thomson Financial Intel® Architecture Deployment (background)

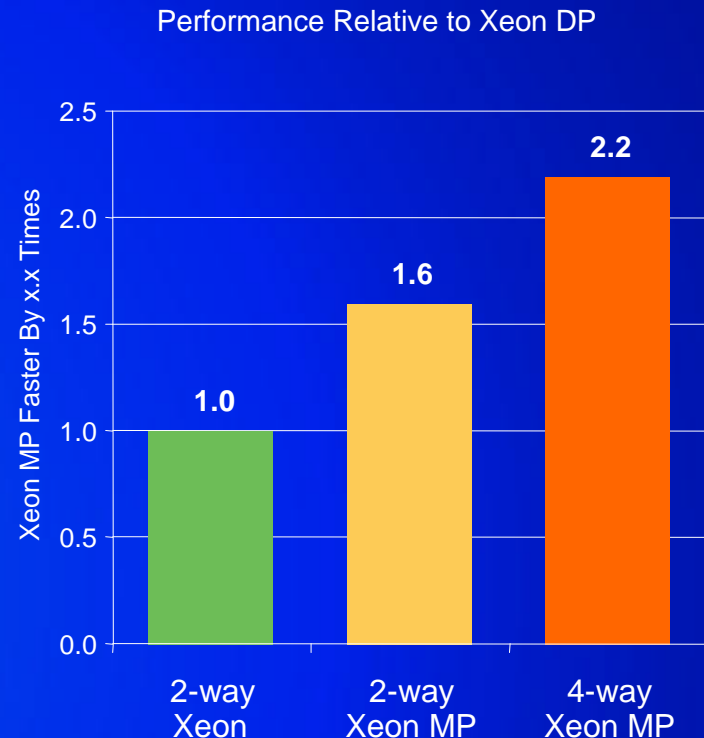
- Two clustered 16 way Intel® Xeon™ processor MP-based Unisys ES7000 platforms
 - Containing 6 months of historical data
- One 8-way Itanium 2-based Unisys ES7000 platform
 - Containing over 5 years of historical data
- Running Thomson ONE Analytics, an integrated research and analytical application that offers world class content for large investment community
- Microsoft SQL, Windows DataCenter 2000

Scalability Advantages of Intel® Xeon™ Processor MP with Sybase* Adaptive Server Enterprise* on Linux

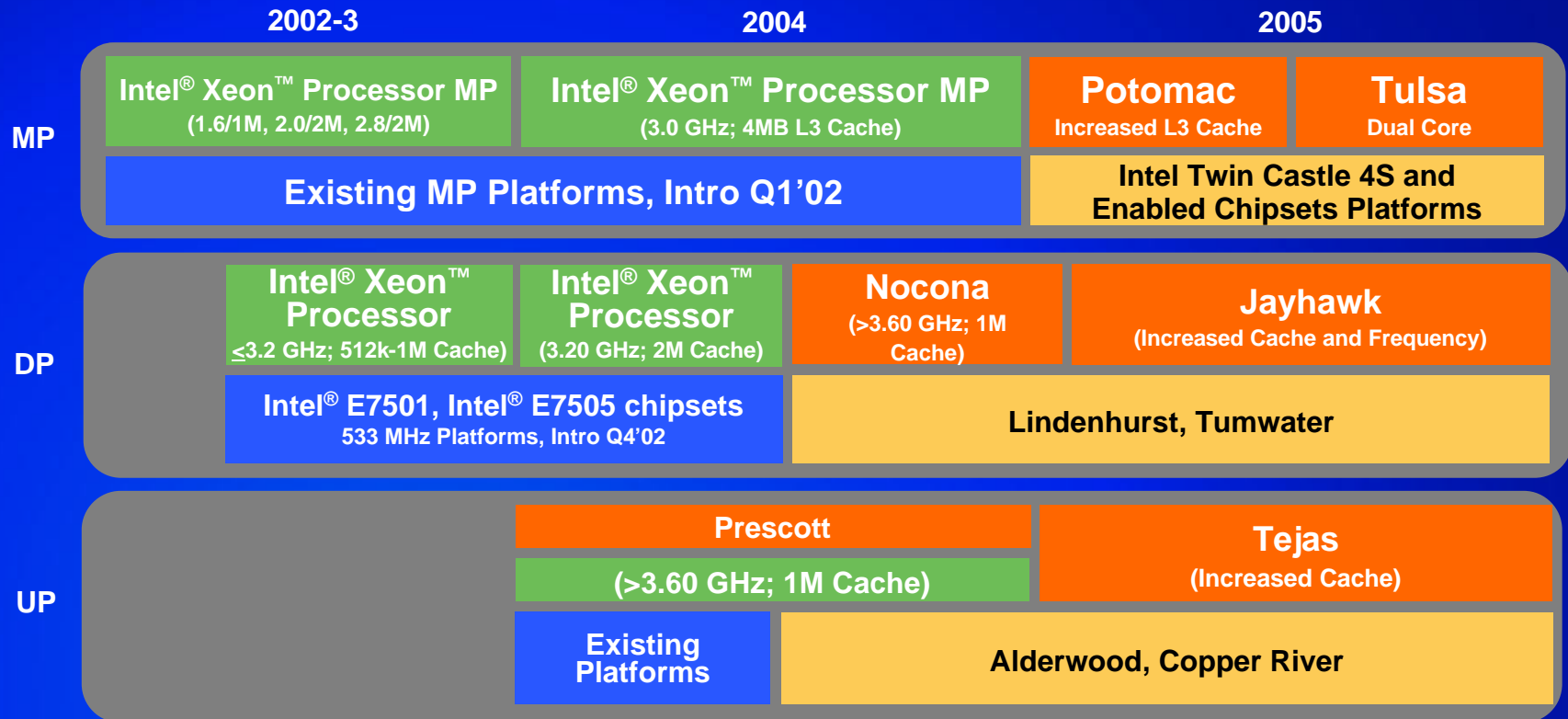
- 50% greater transaction throughput on Intel® Xeon™ processor MP platform
- Sybase ASE on Linux on scales on IA
- The Xeon™ MP provides additional capacity and headroom

[1] The Financial Fusion simulated workload is a proprietary application created by Financial Fusion, Inc. for performance testing with database servers. This simulated workload is not commercially available.
[2] Data is provided for informational purposes only. Data was derived using a simulated workload. Any difference in system hardware or software design or configuration may affect actual performance. 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.

Sybase ASE on Linux Database Scaling



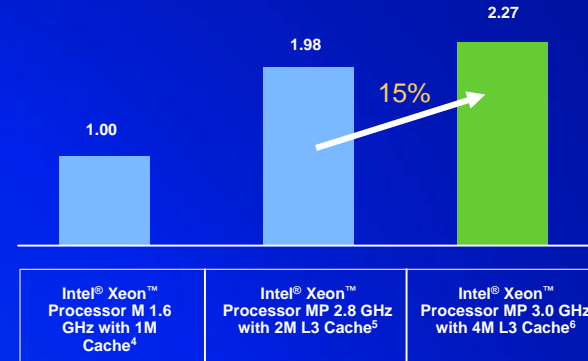
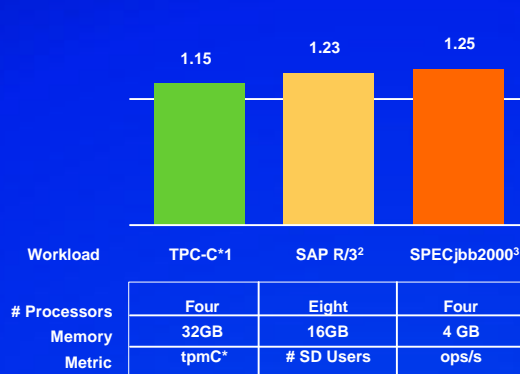
IA-32 Server and Workstation Platform Roadmap '04-'05



BACK



Performance System Configuration Details and Disclaimers



1. TPC-C*: Four Intel® Xeon™ processors MP 3.0GHz with 4MB L3 cache in an IBM eServer® xSeries® 365 server with 32GB main memory, Microsoft Windows® Server 2003 Enterprise Edition, Microsoft SQL Server 2000 Enterprise Edition SP3. Referenced as published: 102,667.42 tpmC; \$3.52/tpmC; System available March 31, 2004**
 - Baseline: Four Intel® Xeon™ processors MP 2.8 GHz with 2MB L3 cache in an IBM eServer® xSeries® 365 server with 32GB main memory, Microsoft Windows® Server 2003 Enterprise Edition, Microsoft SQL Server 2000 Enterprise Edition SP3. Referenced as published: 89,616.32 tpmC; \$3.72/tpmC; System available Feb 27, 2004**
2. SAP R/3*: Eight Intel® Xeon™ processors MP 3.0GHz with 4MB L3 cache in an IBM xSeries 445 Model 8870-42X, 8-way SMP with 16GB main memory, Microsoft Windows® Server 2003 Datacenter, DB2 UDB 8.1. For more information, see www.sap.com/benchmark
 - Baseline: Eight Intel® Xeon™ processors MP 2.8GHz with 2MB L3 cache in an IBM eServer® xSeries® 445 server with 16GB main memory, Microsoft Windows® Server 2003 Enterprise Edition, DB2 UDB 8.1.
3. SPECjbb2000*: Four Intel® Xeon™ processor MP 3.0GHz with 4MB L3 cache in a Dell PowerEdge 6600, 4GB main memory, Microsoft® Windows® 2000 Advanced Server (SP3), BEA Weblogic® JRockit® 1.4.2_03 32-bit JVM
 - Baseline: Four Intel® Xeon™ processor MP 2.8GHz with 2MB L3 cache in a Dell PowerEdge 6650, 4GB main memory, Microsoft® Windows® 2000 Advanced Server (SP3), BEA WebLogic JRockit 32-bit JVM

4. Four Intel® Xeon™ processors MP 1.6 GHz with 1MB L3 cache in an IBM eServer® xSeries® 360 server with 8GB main memory, Microsoft Windows® 2000 Advanced Server, Microsoft SQL Server 2000 Enterprise Edition. Referenced as published: 45,230.03 tpmC; \$4.52/tpmC; System available Aug 30, 2002**
5. Four Intel® Xeon™ processors MP 2.8 GHz with 2MB L3 cache in an IBM eServer® xSeries® 365 server with 32GB main memory, Microsoft Windows® Server 2003 Enterprise Edition, Microsoft SQL Server 2000 Enterprise Edition SP3. Referenced as published: 89,616.32 tpmC; \$3.72/tpmC; System available Feb 27, 2004**
6. Four Intel® Xeon™ processors MP 3.0GHz with 4MB L3 cache in an IBM eServer® xSeries® 365 server with 32GB main memory, Microsoft Windows® Server 2003 Enterprise Edition, Microsoft SQL Server 2000 Enterprise Edition SP3. Referenced as published: 102,667.42 tpmC; \$3.52/tpmC; System available March 31, 2004**

**Data is current as of 03/02/04. Previously published TPC results. Data obtained from publicly available information and is subject to change without notice. Contact the manufacturer for the most recent information. TPC-C, tpmC, \$/tpmC, TPC-H, QphH, \$/QphH, TPC-W, WIPS, and \$/WIPS are trademarks of the Transaction Processing Performance Council. For more information, see: www.tpc.org.

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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> or call (U.S.) 1-800-628-8686 or 1-916-356-3104.

