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Demanding More in Today's Business World: IBM eServer Capabilities Proven Superior with Oracle Applications Standard Benchmark Performance

Introduction

"The device is inherently of no value to us," said Western Union of the telephone.

"A cookie store is a bad idea," said friends to Mrs. Debbie Fields.

"Heavier than air flying machines are impossible," said the Royal Society president in 1895.

Those transforming events did take place, and another powerful transformation is taking place today. Inspired by new ideas and powered by e-business, we are entering the on demand era.

e-business on demand

It is a time when customers will demand you be more responsive, flexible, and resilient than ever before. They will expect you to build products only when they are ordered and deliver products "on demand" with a level of mass customization never before seen.

Every department within your own organization, as well as suppliers, partners, and contractors, will demand tighter integration of critical processes. Shareholders will demand you remove inefficiencies from your business model and increase the value of your business.

IBM eServer performance on Oracle Applications Standard Benchmark

On Demand → Responsiveness → Performance

IBM @server systems leverage world-class technology to help customers transform their business environment and win in this marketplace. Responsiveness is a key requirement in the on demand era, and IBM @server delivers, as demonstrated by outstanding performance in industry standard and ISV benchmarking.

IBM has benchmarked IBM @server systems using the Oracle Applications Standard Benchmark (OASB), a standard workload that demonstrates the performance and scalability of Oracle Applications. On demand responsiveness is extremely important for your financial and supply chain management applications. The OASB is focused on ERP applications and represents a mixed workload intended to model the most common transactions operating on the seven most widely used enterprise application modules. See the Appendix for more details about the Oracle Applications Standard Benchmark workload.

Superior performance

The IBM @server systems demonstrate superior performance by holding five of the top six OASB results on Version 11.5.3:

- ▶ IBM @server pSeries servers dominate the OASB benchmark with the top four results by demonstrating superior scaling.
- ▶ IBM @server xSeries 440 delivers superior response times and demonstrates outstanding performance on the OASB benchmark, holding the top Intel result in the industry.

Results can be seen in Table 1. More details can be found at:

http://www.oracle.com/apps_benchmark/html/index.html?results.html

Table 1 Results

Company	System	User count	Average response time	Benchmark version	Date submitted
IBM	pSeries 690	19040	1.43	11.5.3	05/08/02
IBM	pSeries 670	12600	1.199	11.5.3	04/10/02
IBM	pSeries 680	10024	1.53	11.5.3	12/04/01
IBM	pSeries 690	6216	1.42	11.5.3	06/14/02
IBM	xSeries 440	3472	1.17	11.5.3	06/14/02

The configurations that were tested in the Oracle Applications Standard Benchmark are shown in Table 2.

Table 2 Configurations

pSeries	690	670	680	690
Processor	24 x 64-bit POWER4 1.1 GHz	16 x Power4 1.1 GHz	18 x PowerPC_RS64III at 600 MHz	8 x PowerPC_POWER4 at 1.1 GHz
L2 Cache	1.5 MB/Dual CPU chip	1.5 MB/Dual CPU chip	16 MB	1.5 MB/Dual CPU chip
L3 Cache	32 MB/Dual CPU chip	32 MB/Dual CPU chip		32 MB/Dual CPU chip
Memory	192 GB	128 GB	96 GB ECC	64 GB ECC
Disk	4 x 18 GB Wide/Ultra-3 SCSI	10 x 18 GB Wide/Ultra-3 SCSI	12 x 18.2 GB, 16-bit SCSI	12 x 18.2 GB, 16-bit SCSI
xSeries	440			
Processor	5 x Intel Xeon MP at 1.6 GHz			
L1 Cache	8 KB/CPU			
L2 Cache	256 KB/CPU			
L3 Cache	1 MB/CPU			
L4 Cache	64 MB system total			
Memory	32 GB			
Disk	2 x 18 GB Ultra160 SCSI			

Outstanding IBM eServer on demand features

In addition to superior performance, IBM @server offers features to meet the on demand requirements of your business:

- ▶ IBM @server pSeries servers are based on advanced technologies from IBM that provide additional benefits for customers, such as flexibility and reliability features, key requirements for e-business on demand.
- ▶ Compared to competing servers, the IBM @server pSeries delivers greater performance and, at the same time, offers outstanding reliability features. Fewer processors translates into a lower cost of ownership through lower electricity costs, lower maintenance expenses, and software acquisition cost saving for applications using processor-based pricing.
- ▶ The IBM @server xSeries boasts the industry's first Xeon MP-based 8-way server, powered by Enterprise X-Architecture technology. The award-winning xSeries blends exceptional scalability, industry-leading performance including the next-generation Xeon MP up to 2.4 GHz, and manageability to deliver a revolutionary economic model.
- ▶ The IBM @server xSeries is hardware designed for intelligent systems management. It offers the best tools in the industry and can save time and money by increasing availability, tracking assets, optimizing performance, and enabling remote maintenance. These components are essential for e-business on demand.

Self-managing technologies

In an on demand world, you must be efficient. In addition to superior systems performance, your technology will have to manage itself. The IBM @server e-business on demand range of products allow you to spend more time on your strategies and core competencies, instead of infrastructure maintenance and upkeep.

IBM @server incorporates technologies that are designed to fulfill the four characteristics of self-management: self-protecting, self-healing, self-configuring, and self-optimizing.

These technologies are designed to provide systems that can minimize downtime, suppress operating costs, and reduce administrative requirements.

IBM eServer systems: Leaders in the field

IBM has brought out the best in new technologies with its e-business on demand capabilities in the IBM @server series. pSeries and xSeries platforms offer outstanding Oracle Applications Standard Benchmark performance, as well as a host of additional features that help ensure flexibility and reliability as an enterprise-level solution.

By creating an intelligent, self-managing IT infrastructure that enables increased use without spiraling pressure on critical skills, software, and service and support costs, IBM @server can reduce overhead and manage your systems while increasing your reliability. IBM industry leading systems management capabilities provide for uninterrupted operation and a lower total cost of ownership, combined with worldwide, world-class sales, support, and service and a commitment to customer satisfaction.

The IBM @server range of products incorporate autonomic computing technologies than can make them self-healing, self-configuring, self-protecting, and self-optimizing. Phenomenal performance in benchmarks, along with these features and capabilities, demonstrates IBM @server leadership, enabling today's business leaders to make a smooth transition to an e-business on demand world.

Appendix

This appendix provides information about the Oracle Applications Standard Benchmark workload.

The Oracle Applications Standard Benchmark workload

Definitions of transactions that compose the OASB workload were obtained through collaboration with functional consultants and are representative of typical customer workloads, with batch transactions representing 25% of the total workload. The Oracle Applications Standard Benchmark workload description can be found in Table 3.

Table 3 Oracle Applications Standard Benchmark workload

A.	Oracle Financial Applications
	1. Accounts Payables (AP)
	2. Accounts Receivable (AR)
	3. Fixed Assets (FA)
	4. General Ledger (GL)
B.	Oracle Supply Chain Management Applications
	1. Inventory (Inv)
	2. Order Entry (OE)
	3. Purchase Orders (PO)
C.	18 OLTP transactions
D.	7 batch jobs

Disclosure reports of validated benchmark results are published on the OASB Web site at:

http://www.oracle.com/apps_benchmark/html/index.html?results.html

Performance metrics for Oracle Applications Standard Benchmark

The user count measures the number of concurrent Oracle Applications users that the system can sustain while response times are kept under a predefined maximum value. Each user maintains a minimum transaction-per-hour rate.

All references to the Oracle Applications Standard Benchmark in this brief refer to Version 11.5.3.

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