Benchmark





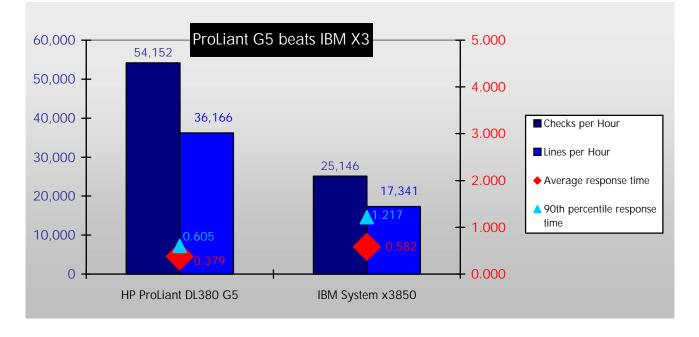
Key results at a glance:

- n ProLiant DL380 G5 takes #1 performance on Oracle EBS 11i Small Model Benchmark
- ProLiant DL380 G5 two processor Quad-Core server beats competitor IBM x3850 four processor Dual-Core x86 server, proving HP superiority over IBM's X3 architecture

HP ProLiant DL380 G5 Quad-Core server earns

#1 spot on Oracle E-Business Suite 11i Small Model





The ProLiant DL380 G5 achieved superior results as compared to the IBM x3850 in each of the following four key measurements:

- N 34.8% faster in Average Response Time
- **n** Twice as fast in 90th percentile Response Time
- n 18,825 more Lines per Hour Batch Throughput (More than twice as much!)
- n 29,006 more Checks per Hour Batch Throughput (More than twice as much!)

The results show the superior optimization of the ProLiant two processor Quad-Core server architecture versus IBM's X3 four processor Dual-Core architecture.

Table 1. Result summary of the HP ProLiant DL380 G5 two processor server to the IBM x3850 four processor results on the 1,000-userOracle EBS 11i Small Model Benchmark.

Summary of results for DL380 G5 vs. IBM x3850 on Oracle EBS 11i Small Model Benchmark		
1,000 Concurrent Users – 4-processor results		
	DL380 G5	IBM x3850
Average Response Time	0.379	0.582 sec
90 th percentile Response Time	0.605	1.217 sec
Order-to-Cash Lines/Hour Batch Throughput	36,166	17,341
Payroll Checks/Hour Batch Throughput	54,152	25,146

The ProLiant Advantage

These stellar results were achieved using the HP ProLiant DL380 G5 server as the database tier combined with HP ProLiant BL25p server blades in the applications tier. The HP ProLiant BL25p Generation 2 server blade delivers maximum dual-processor performance, enterprise manageability and availability, and superior server design to the datacenter, including:

- Uncompromising dual-processor performance for the most demanding applications
- Enterprise-class manageability and availability to keep operations up and running smoothly
- Superior ProLiant design to enable highly flexible, reliable, and efficient server deployments
- Multi-server and high performance dual-processor applications

Also included behind the scenes of these results are many high quality HP storage products, such as the HP Smart Array P400 Controller, HP Storage Works 4Gb PCI-E Fibre Channel controller, and a Storage Works EVA6000 disk array.

The advantages of the partnership between HP and Oracle

Strategic partners for over 25 years, HP and Oracle have more than 100,000 joint customers. Our accomplishments together are numerous. Here are just a few:

- A strong breadth and depth of platform, software, and services offerings
- Joint development, testing, and optimization
- Performance and price/performance leadership validated by industry and Oracle Applications benchmarking
- Oracle's Database is the most popular database among HP-UX customers
- HP Consulting and Integration Services deliver solutions for Enterprise Integration and Service Oriented Architecture with Oracle Fusion Middleware
- HP is a leading Oracle Applications Infrastructure Partner
- There are 13 HP/Oracle solution and demo centers worldwide
- Oracle Fusion Middleware is showcased in HP's SOA Competency Centers around the world
- Oracle chose HP to be a key platform provider for its development of Itanium®-based databases for Linux, Unix, and Windows
- The partners provide executive alignment that starts at the top and runs through both organizations

HP Performance Brief - for External Publication

HP and Oracle aim to address today's business challenges by enabling the synchronization of infrastructure, applications, services, and business processes – from suppliers through to customers – to help organizations reduce the cost of change, reduce total cost of ownership, simplify IT management complexity, and rapidly implement solutions that provide a competitive advantage.

For more information

HP ProLiant DL380 G5: www.hp.com/proliantdl380g5

HP ProLiant BL25p: <u>http://www.hp.com/bladeservers</u>

HP ProLiant storage solutions: www.hp.com/go/serial and http://h18004.www1.hp.com/products/servers/platforms/storage.html

OASB information is available at http://www.oracle.com/apps_benchmark/html/results.html

HP and Oracle partnership: http://h71028.www7.hp.com/enterprise/cache/6606-0-0-225-121.html?jumpid=reg_R1002_USEN

More information about all servers can also be found at the following web page: http://www.oracle.com/apps_benchmark/html/results.html#small

Server configurations

HP ProLiant DL380 G5: In March 2007, Oracle and Hewlett-Packard conducted a benchmark in Cupertino, California, to measure the online and batch performance of the Oracle Applications Standard Benchmark processes in an environment running Oracle E-Business Suite (EBS) 11i (11.5.10) with Oracle Database 10g[™] (10.1.0.4) 64-bit and Red Hat® Enterprise Linux® Advanced Server release 4.0 Update 4, and achieved 36,166 Lines per Hour, 54,152 Checks per Hour, a 90th percentile response time of 0.605 seconds, and an average response time of 0.379 seconds. This result, submitted 03-22-07, was achieved on a Hewlett-Packard® ProLiant[™] DL380 G5 database server configured with 2 x 2.66GHz Intel® Xeon X5355 Quad-Core processors (2 processors/8 cores/8 threads) with 2 x 4MB Level 2 cache, 32GB memory, and PC2-5300 667MHz DDR2 fully-buffered DIMMs. The system used 8 x 72GB SFF SAS internal disk drives attached to an integrated HP Smart Array P400 Controller, and 1 x HP Storage Works EVA6000 disk array attached to 1 HP Storage Works 4Gb PCI-e Fibre Channel controller for data and logs. Four HP ProLiant BL25p blade servers were used as application and web servers and one HP ProLiant BL25p blade server was used as the CM/NFS server.

vs. IBM System x3850 1,000-user results on Oracle EBS 11i Benchmark: In May and June 2006, Oracle and IBM conducted a benchmark in Research Triangle Park, North Carolina, to measure the online and batch performance of the Oracle Applications Standard Benchmark processes in an environment running Oracle E-Business Suite (EBS) 11i (11.5.10) with Oracle Database 10g[™] (10.1.0.4) and Red Hat® Enterprise Linux Advanced Server release 3.0 Update 6, and achieved 17,341 Lines per Hour, 25,146 Checks per Hour, a 90th percentile response time of 1.217 seconds, and an average response time of 0.582 seconds. This result, submitted 06-20-06, was achieved on an IBM System x3850 database server configured with 4 x 3.0GHz Dual-Core Intel® Xeon® 7040 Processor (4 processors/8 cores/16 threads) with 2 x 2MB L2 cache per Core, and 32GB memory. Two IBM TotalStorage DS4500s were used for data storage. A second IBM System x3850 four-processor, Dual-Core server was used as an application/web server.

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