



# HP ProLiant DL380 G5 takes top two-processor Dual-Core performance with #1 result on Lotus 7.0.1 benchmark



The HP ProLiant DL380 G5 is a versatile, dependable, workhorse server.

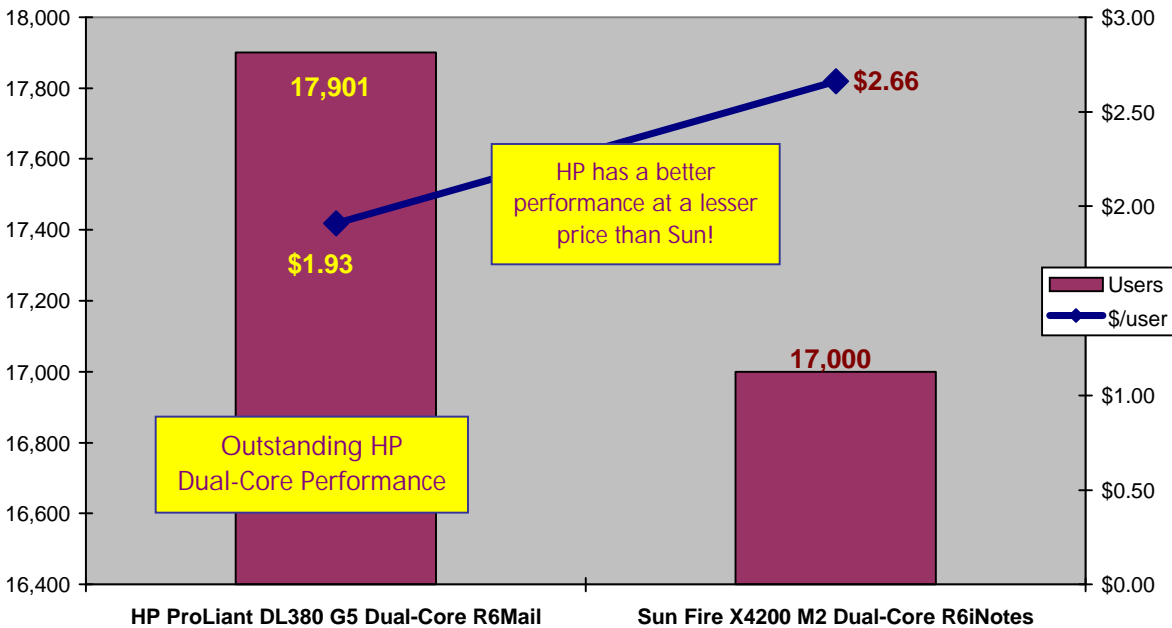
Key benefits include Multi-Core Intel Xeon performance for demanding scale-out applications and virtualization projects.

## Key results at a glance:

- The HP ProLiant DL380 G5 topped all other competitors in the two-processor, Dual-Core performance Lotus 7.0.1 benchmark category with 17,901 users.
- The results prove ProLiant leadership over competitor Sun with its Sun Fire X4200 M2 server.

Again, HP ProLiant DL380 G5 shows its performance invincibility, earning a #1 two-processor benchmark result on the Lotus Domino Notesbench test in April 2007. The R6Mail workload simulated 17,901 R6Mail users against three Domino 7.0.1 Partitioned Servers running Red Hat Enterprise Linux 4. The test ran six hours, ten minutes during which the system under test achieved a leading 23,695 NotesMark transactions per minute (tpm) with an average response time of 0.167 seconds. Based on these results, the price/performance ratio is \$1.91/User (or \$1.44/NotesMark).

Figure 1. Comparison of performance results of HP ProLiant DL380 G5 two-processor R6Mail workload vs. Sun Microsystems Sun Fire X4200 two-processor R6iNotes workload on the Lotus Domino Notesbench Benchmark.



More information about all servers can be found at the following Web page: <http://www.notesbench.org/bench.nsf?OpenDatabase>  
Results as of 5-29-07.

Note: HP believes that the information provided in this report will help customers in their planning processes. Based on testing performed in the Nashua, New Hampshire labs during April 2007, HP provides this unofficial, non-audited performance results document for use in comparing the performance of this server with other Lotus Domino results. It is not intended to be used as a sizing guideline, as many Domino Server tasks are removed to help facilitate a smoother run from the testing tool. In real world sizing, items like variable mail box sizes, third-party applications (such as Virus Scanning), and transaction logging should be taken into consideration before making a sizing decision.

## ProLiant server configurations

The server was configured with two Intel Xeon 5160 Dual-Core 3.0GHz processors with 1333MHz FSB, 12GB RAM, and two 72GB Small Form Factor SAS hard disks. The server used HP Smart Array P400 controllers and three HP Smart Array 6400 disk controllers connected to three HP StorageWorks 30 Modular Smart Array (MSA30) storage enclosures.

## ProLiant DL380 G5 server leads competitors

Table 1. Results of ProLiant DL380 G5 R6Mail transactions and response times vs. Sun Fire X4200 M2 R6iNotes transactions and response times

System	Users	NotesMark Transactions	Response Times	\$/NotesMark	\$/User	OS
HP ProLiant DL380 G5 Intel Xeon 5160 3.0GHz, 12GB RAM, DC	17,901	23,695	0.167 sec	\$1.44	\$1.91	Red Hat Advanced Server Linux 4.0
SunFire X4200 M2, AMD Opteron 2220 SE 2.8GHz, 16GB RAM, DC	17,000	14,347	0.496 sec	\$3.15	\$2.66	Red Hat Advanced Server Linux 4.0

### Interpreting the results

The ProLiant DL380 G5 accomplished the following excellent performance deltas vs. the Sun Fire X4200 M2, topping it:

- o by 901 users (14% faster)
- o by 9,348 transactions (39% faster)
- o by .329 seconds (66% faster)

The ProLiant DL380 G5 also tested less expensive than the Sun Fire X4200 M2:

- o by \$1.71/NotesMark
- o by \$.75/User

# The HP ProLiant Advantage

## HP ProLiant DL380 G5

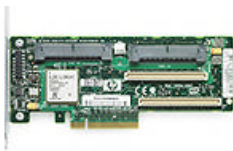


Once again, the HP ProLiant DL380, the world's server sales leader, distinguishes itself as a high-performing server with its latest benchmark result.

The newest Multi-Core Intel Xeon version of the HP ProLiant DL380 G5 model is designed for improved server responsiveness, enhanced multi-tasking capabilities, and improved performance for the most demanding applications and virtualization projects. The ProLiant DL380 G5 is configured with up to two Intel Xeon 5000 series processors with Hyper Threading and Intel VT technology to improve performance in a virtual environment. The server includes up to 32MB of PC2-5300 DDR2 Fully Buffered DIMMs with 4:1 interleaving, mirrored memory, online spare capability, four PCI-Express expansion slots standard, and optional PCI-X.

## Other reasons we win in performance and price-performance

### HP Smart Array P400



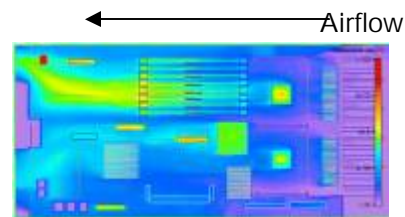
The HP Smart Array P400, used in this benchmark, is HP's first PCI-E SAS RAID controller and provides new levels of performance and reliability for HP servers through its support of the latest SCSI technology and advanced RAID capabilities. The Smart Array P400 is ideal for SAS-based servers and storage enclosures that require mission-critical reliability and high performance.

### HP SFF SAS: leading the future of storage



The transition to SFF SAS drives is one of the most significant transitions in the industry's history, fueled by the biggest required leap in storage capacity ever experienced along with the need for faster access to stored data.

- Higher reliability
  - 1.7 million mean time between failures (MTBF) vs. 1.5 million for 3.5" SCSI
- Better performance
  - Serial point-to-point connections
  - More spindles per platform
- Greater efficiency and improved thermals with SFF drives
  - Half the power consumption – 9 Watts
  - SFF enables better airflow



### HP StorageWorks 30 Modular Smart Array Enclosure (MSA 30)



The HP MSA30 family is the latest HP Ultra320 SCSI disk drive storage enclosure, delivering industry-leading data performance, availability, storage capacity, and upgradeability to meet demanding and growing storage needs.

# The benefits of partnership between HP and Lotus Domino

Today's Lotus Domino server products make it easier to manage the complexities of your business, reliably deliver information, increase employee productivity, and communicate/collaborate in real time with tools that simplify system management tasks and increase network performance and uptime. Coupled with the latest and powerful HP ProLiant servers and Adaptive Infrastructure technologies, customers can now build robust environments that are second-to-none in manageability, serviceability, availability, and cost efficiency.

## Why HP?

- ▢ ProLiant servers are the #1 server platform for Lotus Domino, hosting more than 40 million Lotus Notes seats globally.
- ▢ ProLiant servers consistently set new standards of Lotus Domino performance in two-, four-, and eight-processor servers.
- ▢ HP has 20 years of experience developing and improving cluster technology and implementations – more than any other company.

<http://h71028.www7.hp.com/enterprise/cache/3838-0-0-225-121.html>

## For more information

HP ProLiant DL380 G5: [www.hp.com/proliantdl380g5](http://www.hp.com/proliantdl380g5)

Details about IBM Lotus software are available at the following URL:

<http://www.lotus.com/engine/jumpages.nsf/wdocs/aboutlotus>

For more information on HP solutions for IBM Lotus software, visit:

<http://www.hp.com/go/activeanswers/lotus>

For more information on the Lotus Domino Notesbench result, visit:

<http://www.notesbench.org/bench.nsf?OpenDatabase>

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