In January 2006, HP announced new Microsoft® Exchange MAPI Messaging Benchmark (MMB3) results using Microsoft Windows® Server 2003 and Microsoft Exchange Server 2003, on an HP ProLiant ML310 G3 server powered by a Dual Core Intel® Pentium® D Model 840 processor (3.2GHz/800 - 2 x 1MB L2). The MMB3 benchmarking workload and methodology serves as the standard for Microsoft Exchange Server 2003 MAPI server comparison. The MMB3 workload is characteristic of a medium-sized business corporate mail environment. Using the Microsoft LoadSim utility, the ProLiant ML310 server was tested at the HP Performance Center in Nashua, New Hampshire.

**HP achieved world-class Microsoft Exchange Server 2003 scalability results of 5,500 MMB3.**

The ProLiant ML310 G3 server was equipped with one Dual-Core Intel Pentium D Model 840 processor 3.2 GHz, 1 MB L2 per core, 163 – 72.8 GB 10K hard drives for the database files and transaction log files, and 4 – 36.4 GB 15K serial attached SCSI (SAS) hard disk drives for the Exchange files, operating systems and Active Directory files.

The ProLiant ML310 G3 server achieved an average CPU utilization rate of 84.8% during the 5,500 MMB3 test, weighted 95th percentile response-time score of 318 milliseconds (s), and average send-queue size of 46 messages for the four-hour steady-state period.

Interpreting the results

The ProLiant ML310 G3 achieved superior performance versus its single processor competitors, both Single-core and Dual-core, showing that Dual-core performance is compelling, and also that ProLiant servers are designed to optimize this latest technology in processing.

**The ProLiant ML310 G3 achieved the following superior performance deltas:**

- **10% vs. the IBM eServer xSeries 206m with Intel Pentium D (Dual-core) processor.**
- **27% vs. the Fujitsu-Siemens PRIMERGY TX150 S2 with Intel Pentium IV (Single-core) processor.**

For more information


**Test methodology**

The MMB3 workload, for LoadSim 2003, is a modification of the previous MMB2 workload, and replaces the previous MMB2 standard. For Microsoft Exchange 2000 Server, the benchmarks were measured using the MAPI Messaging Benchmark 2 (MMB2). With MMB3, the workload and methodology has changed to be more reflective of production environments. It is designed to include new features from Microsoft Exchange 2003 Server and Outlook 2003.

© 2005, 2006 Hewlett-Packard Company. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation. Intel, Celeron, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.