COMPAQ
Benchmark Summary

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Prepared by Industry Standard Server Group

Compaq Computer Corporation

Contents

Compaq ProLiant ML330 Outperforms IBM Netfinity 1000 on NetBench 6.0

Abstract: Compaq continues to meet small and medium business needs for the latest technology and best performance value for file/print applications by offering ***best-in-class performance*** in the ProLiant ML330. The performance of the ProLiant ML330 with a 667-MHz Pentium III processor is demonstrated by the industry-standard NetBench 6.0 benchmark run under Windows NT 4.0 Server, Service Pack 6.0a.

ProLiant ML330 Outclasses the IBM Netfinity 1000

In the latest NetBench performance testing results, the ProLiant ML330 reveals its true server value and underscores the re-engineered desktop PC design of the IBM Netfinity 1000. The ProLiant ML330 achieved its outstanding results configured with a 667-MHz Pentium III processor, 133-MHz front side bus, and 7200-rpm Wide Ultra2 SCSI drive. The IBM Netfinity 1000 was configured with a 650-MHz Pentium III processor, 100-MHz front side bus, and 7200-rpm IDE drive.

NetBench 6.0 Benchmark

Overview

NetBench is a portable benchmark program that measures how well a file server handles file I/O requests from 32-bit Windows clients, which pelt the server with requests for network file operations. NetBench reports throughput and client response time measurements. To run NetBench, you need a file server, a PC running Windows 95 or Windows for Workgroups (called the controller) to start and monitor the tests, and clients to actually run the tests. Version 6.0 of NetBench has the following new features:

- New response time measures for NetBench clients that show how long a server takes to respond to each client's requests.
- Support for the 32-bit Windows client only. That client runs on Windows 95, Windows 98, or Windows NT. There is no longer support for the 16-bit Windows, DOS, or Mac OS clients.
- Fixes for all known bugs.

Results

The Compaq ProLiant ML330 delivers outstanding performance in its class. The test was performed using NetBench 6.0 and Windows NT 4.0 Server.

On average, the Compaq ProLiant ML330 with 667-MHz Pentium III processor outperforms the IBM Netfinity 1000 with 650-MHz processor, 256 KB L2 cache, and 64 MB RAM by:

- **61% when averaged over 1 to 60 clients**
- **69% when comparing only the peak**

On average, the Compaq ProLiant ML330 with 667-MHz Pentium III processor outperforms the IBM Netfinity 1000 with 650-MHz processor, 256 KB L2 cache, and 128 MB RAM by:

- **60% when averaged over 1 to 60 clients**
- **79% when comparing only the peak**

Figure 1. ProLiant ML330 vs. IBM Netfinity 1000 on NetBench 6.0 and Windows NT 4.0 Server, 64 MB RAM

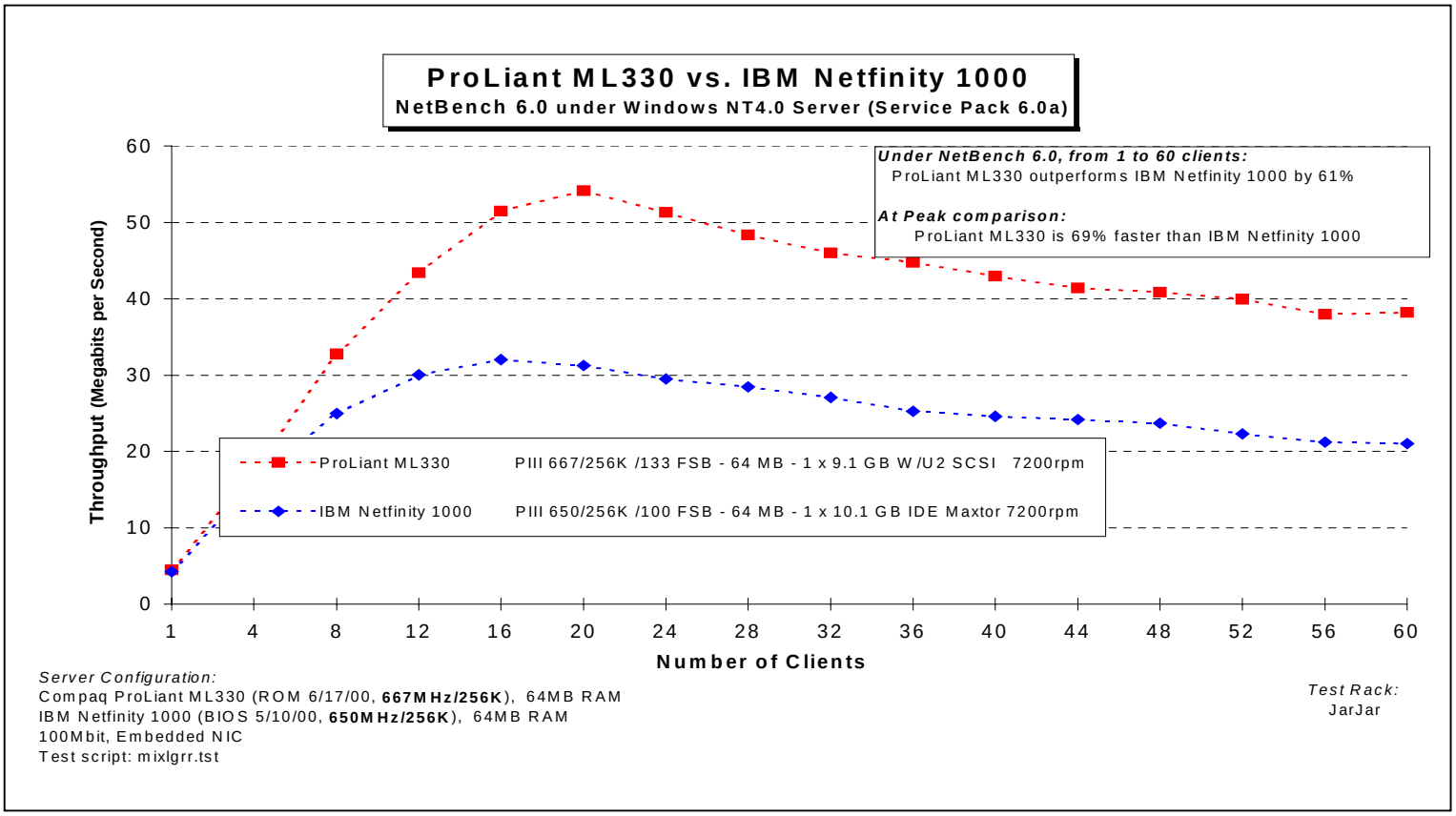
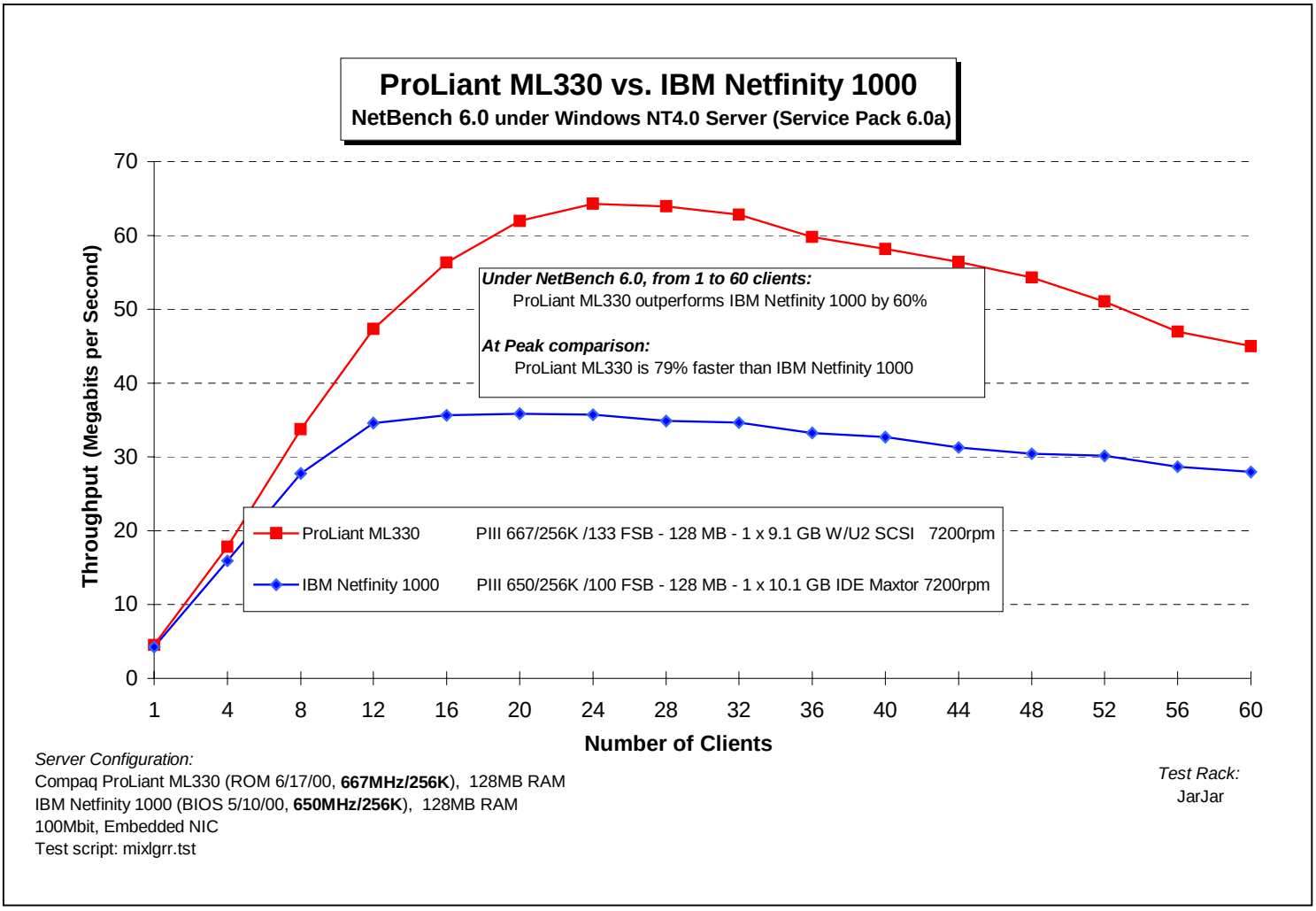


Figure 2. ProLiant ML330 vs. IBM Netfinity 1000 on NetBench 6.0 and Windows NT 4.0 Server, 128 MB RAM



Server Configuration:
Compaq ProLiant ML330 (ROM 6/17/00, **667MHz/256K**), 128MB RAM
IBM Netfinity 1000 (BIOS 5/10/00, **650MHz/256K**), 128MB RAM
100Mbit, Embedded NIC
Test script: mixlgrr.tst

Test Rack:
JarJar

Interpreting the Results

The performance that Compaq achieves with the ProLiant ML330 clearly indicates that this server is an outstanding solution in its class for small and medium businesses that need leading file/print to Internet technology. The hardware differences in the IBM Netfinity 1000 including the 650-MHz processor, 100-MHz front side bus, and IDE drive, contributed to their lower performance result. This configuration leads to lower performance and therefore higher cost of ownership. To simulate environments that are "typical," Compaq ran NetBench 6.0 under Windows NT 4.0 Server (Service Pack 6.0a) on the Compaq ProLiant ML330 and the IBM Netfinity 1000 to measure the effectiveness of each server.

For More Information

Complete benchmark descriptions for NetBench 6.0 can be obtained from the Ziff-Davis Web site.

http://www.zdnet.com/zdbop/

Disclosure Information

NetBench 6.0 Configurations Tested

Table 1. NetBench 6.0 Configurations Tested

Server under test	**Compaq ProLiant ML330**	**IBM Netfinity 1000**
Number of processors	1 Pentium III 667 MHz /256K/ 133MHz front-side bus	1 Pentium III 650MHz/256K/ 100MHz front-side bus
Amount of memory	PC133-MHz 64MB, 128MB Registered ECC SDRAM	PC100-MHz 64MB, 128MB Registered ECC SDRAM
Type of I/O bus	PCI	PCI
Number and type of hard disk controllers	Embedded Single Channel Ultra2 SCSI controller, C895	EIDE (on planar)
Number and type of hard disks	1 x 9.1GB W/U2 SCSI 7200rpm (non hot plug)	1 x 10.1GB IDE UltraATA/66 7200rpm
Disk organization		
Disk controller driver version	cpq32fs2.sys v4.04.04.00	atapi.sys v4.00
Number and type of network controllers	Embedded Compaq NC3163 Fast Ethernet NIC PCI 10/100 WOL	Embedded 10/100 Ethernet NIC
Network controller driver version	n100nt.sys v4.29.01.0011	ibmfent.sys v4.02.27.0000
NOS name and version	Windows NT4.0 Server (build 1381) and Service Pack 6.0a	Windows NT4.0 Server (build 1381) and Service Pack 6.0a
Any relevant modifications to default NOS parameters		

Testbed Disclosure

Table 2: Testbed disclosure

Network type (10Base T, Token Ring, etc.)	100 Base-TX
Number and type of clients	(60) DeskPro 4000S
Number and type of hubs/concentrators (full duplex, switching, etc.)	(4) Synoptic 28115 switches
Number of clients/segment	60 @ 1 segment
Client CPU type and speed	200MHz Pentium
Client network controller broken down by percentages	Compaq Netelligent 10/100
Client network software name and version W95 (drivers, protocols, redirector)	Native W98 Drivers, TCP/IP Only
Size of any client network cache	N/A
Disk controller software	W98 IDE/Atapi Driver Native
Network controller software	W98 Compaq Netflex Driver Native

NetBench Disclosure	
NetBench version	6.0
Description of the test parameters for each mix in the test suite	mixlgrr.tst

Notice

Printed in the U.S.A.

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