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Performance Brief

New IBM @server *xSeries 330 Delivers Solid Performance for e-business*

October 2000

IBM @server *xSeries Model 330 delivers solid performance and excellent functionality. The xSeries 330 packs an amazing amount of power and functionality into an ultra-thin, 1U (1.75 inches) rack-drawer footprint. This new rack-optimized platform features two-way, SMP-capable power, high availability, scalability, and a surprisingly large internal data storage capacity. It is ideal for compute-intensive Web-based or enterprise network applications where space is of primary importance.*

IBM Server Performance Laboratory evaluated the xSeries 330 800MHz, 866MHz, 933MHz and 1GHz systems (Models 8654-11Y, 8654-31Y, 8654-41Y and 8654-51Y) using Ziff-Davis' benchmark, WebBench** Version 3.0.

The results show that this economical Web server can easily keep pace with customers' increasing needs for higher processor performance.

Test Environments and Results
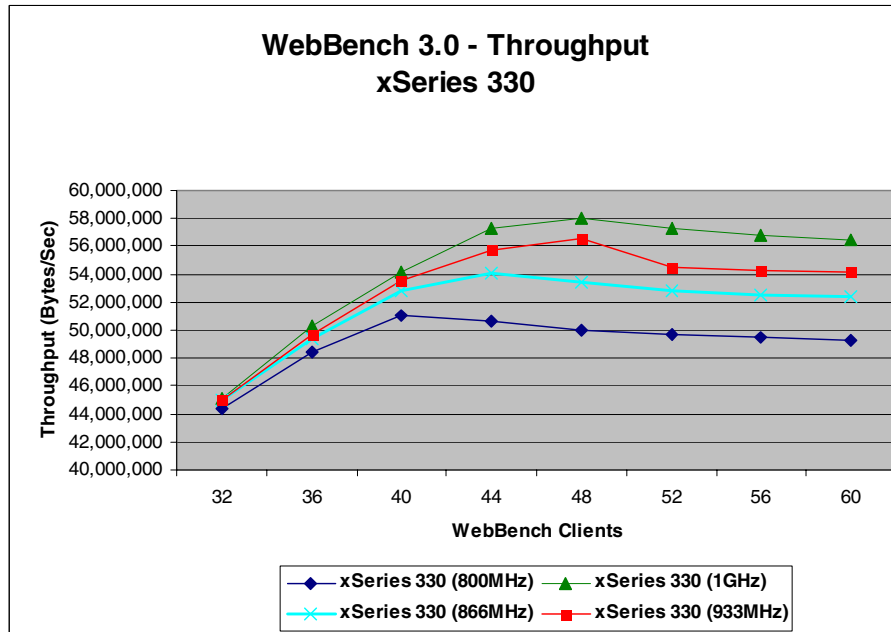
WebBench 3.0

The WebBench 3.0 test suite ZD_NT_SIMPLE_ISAPI_V30.TST was used to measure the performance of the four xSeries models as one-way Web servers. This test suite performs both static HTML page requests and dynamic Internet Server API(ISAPI) requests, which represent the primary functions of an enterprise Web server.

Note: Each WebBench client simulates a workload of many "real-world" users. The WebBench specification does not identify the exact number of users simulated by each client.

Features	IBM xSeries 330 Model 8654-11Y	IBM xSeries 330 Model 8654-31Y	IBM xSeries 330 Model 8654-41Y	IBM xSeries 330 Model 8654-51Y
Processor / L2 Cache	One 800MHz / 256KB Pentium III	One 866MHz / 256KB Pentium III	One 933MHz / 256KB Pentium III	One 1GHz / 256KB Pentium III
Memory	512MB 133MHz ECC SDRAM RDIMM	512MB 133MHz ECC SDRAM RDIMM	512MB 133MHz ECC SDRAM RDIMM	512MB 133MHz ECC SDRAM RDIMM
RAID Level	RAID-1	RAID-1	RAID-1	RAID-1
Disk Drive	Two 9.1GB 10K-4 Ultra160 SCSI Drives	Two 9.1GB 10K-4 Ultra160 SCSI Drives	Two 9.1GB 10K-4 Ultra160 SCSI Drives	Two 9.1GB 10K-4 Ultra160 SCSI Drives
Disk Drive Adapter	One ServeRAID-4L Ultra160 SCSI Controller	One ServeRAID-4L Ultra160 SCSI Controller	One ServeRAID-4L Ultra160 SCSI Controller	One ServeRAID-4L Ultra160 SCSI Controller
Disk Driver	nfrd960.sys 4.20.12	nfrd960.sys 4.20.12	nfrd960.sys 4.20.12	nfrd960.sys 4.20.12
Network Adapter	One Netfinity Gigabit Ethernet Adapter SX	One Netfinity Gigabit Ethernet Adapter SX	One Netfinity Gigabit Ethernet Adapter SX	One Netfinity Gigabit Ethernet Adapter SX
Network Driver Version	Default Driver from Windows 2000 Server	Default Driver from Windows 2000 Server	Default Driver from Windows 2000 Server	Default Driver from Windows 2000 Server
NOS	Windows 2000 Server	Windows 2000 Server	Windows 2000 Server	Windows 2000 Server
Page File Size	750MB	750MB	750MB	750MB
File System	NTFS	NTFS	NTFS	NTFS
Allocation Unit Size	4KB	4KB	4KB	4KB
Web Server	Microsoft Internet Information Server 5.0	Microsoft Internet Information Server 5.0	Microsoft Internet Information Server 5.0	Microsoft Internet Information Server 5.0

Note: The graphs on the next page show results for clients 32 - 60 only because there was virtually no differentiation in the results for clients 1 - 33.

Throughput

WebBench 3.0 - Throughput
xSeries 330

Requests per Second

WebBench 3.0 - Requests per Second
xSeries 330
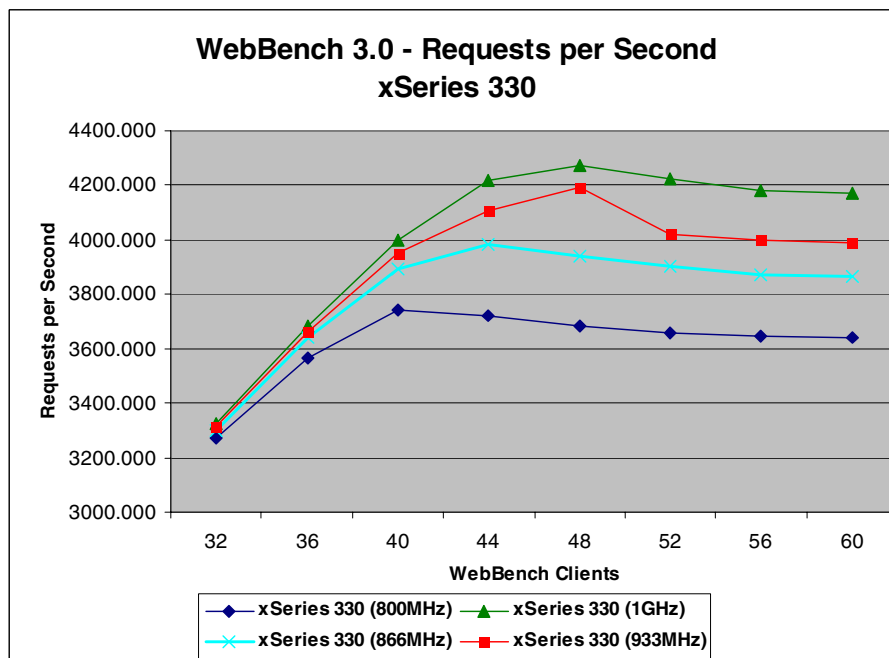
Test Disclosure Information

WebBench 3.0

Version: WebBench 3.0

Mixes:

- ZD_NT_SIMPLE_ISAPI_V30.TST
- Clients: 1, 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60
- Ramp up: 30 seconds
- Ramp down: 30 seconds
- Length: 300 seconds
- Delay: 0
- Think: 0
- Threads per client: 1
- Receive buffer size: 4KB

Network Operating System: Microsoft Windows 2000 Server

- Network speed: 100Mbps at clients, 1000Mbps at server
- Duplex mode: Full

Web Server: Microsoft Internet Information Server 5.0

- Web server logging: Disabled
- Web server tuning: >100,000 hits/day
- Directory logging: Disabled
- Directory indexing: Disabled

Testbed Disclosure

Planned availability for the 800MHz and 866MHz processor models is October 17, 2000, in the USA and November 7, 2000, for the 933MHz and 1GHz processor models in the USA. All measurements were performed without independent verification by Ziff-Davis.

Client Network	100Mbps Ethernet, 1000Mbps uplink
Number of Clients	60
Switches	Four 3COM 3300 100Mbps Ethernet One Alteon ACEswitch 180
Number of Segments	1
CPU / Memory	450MHz Pentium II / 128MB
Network Adapter	Integrated 100/10 PCI Ethernet Controller
Client Operating System	Windows 2000 Professional
Cache	L2 = 512KB
Controller Operating System	Windows 2000 Professional

Notes

[1] MHz denotes the internal/external clock speed of the microprocessor only, not application performance. Many factors affect application performance.

[2] When referring to hard disk capacity, GB, or gigabyte, means one billion bytes. Total user-accessible capacity may vary depending on operating environment.

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