SPECweb99 Result

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IBM: eServer xSeries 330
Microsoft: IIS 5.0

SPECweb99 = 1026

Test Date: Oct-2000
Tester: IBM

Hardware Avail:	Oct-2000	OS Avail:	Feb-2000	HTTP Software Avail:	Feb-2000	Sup. Software Avail:	--	SPEC license #:	11

Hardware

Vendor:	IBM
Model:	eServer xSeries 330
Processor:	800MHz Pentium III
# Processors:	2 cores, 2 chips, 1 core/chip
Primary Cache:	16KBI+16KBD on chip
Secondary Cache:	256KB
Other Cache:	None
Memory:	4GB
Disk Subsystem:	1 CDROM, 2 9GB SCSI Drives
Disk Controllers:	IBM ServeRAID 4L
Other Hardware:	1 Alteon ACEswitch 180 GbE Switches

Software

Operating System:	Windows 2000 Advanced Server
File System:	NTFS
Other Software:	None

HTTP Software

Vendor:	Microsoft
HTTP Software:	IIS 5.0
API:	ISAPI
Server Cache:	None
Log Mode:	W3SVC

Test Sponsor

Test Date:	Oct-2000
Tested By:	IBM
SPEC License:	11

Network

# of Controllers:	1
Network Controllers:	Alteon ACEnet PCI
# of Nets:	1
Type of Nets:	Gigabit Ethernet
Network Speed:	1000Mb/s
MSL (sec):	30 (Non RFC1122)
Time-Wait (sec):	60 (Non RFC1122)
MTU:	1500

Clients

# of Clients:	6
Model:	IBM IntelliStation Z Pro
Processor:	450MHz Pentium III Xeon
# of Processors:	2
Memory:	256MB
Network Controller:	Alteon ACEnic PCI
Operating System:	Microsoft Windows 2000 Professional
Compiler:	Microsoft VC++ v6.0

Notes/Tuning Information

SUT Notes

System: Set as file server (background services), the default
Embedded 100Base-TX network adapters were disabled for the test

Operating System Notes

Tuning Parameters:
- Tcpip/Parameters/MaxFreeTwTcbs=220000, sets maximum number of TIME_WAIT tcbs to 220,000
- Tcpip/Parameters/MaxHashTableSize=0x8000, sets TCB hash table size to 16,384 entries, default 512
- Tcpip/Parameters/MaxUserPort=0xfffe, sets maximum open ports to 65534
- Tcpip/Parameters/NumTcbTablePartions=16, sets number of independent TCB table segments, default 4
- Tcpip/Parameters/TcpTimedWaitDelay=60, sets TIME_WAIT parameter to 60 seconds (non-RFC 1122), default 240
- Inetinfo/Parameters/AcceptExTimeout=1, sets time for accept ex socket to wait for receive, default 120
- Inetinfo/Parameters/ListBacklog=1000, default 25
- Inetinfo/Parameters/LogFileFlushInterval=60, forces flush every 60 seconds, default 300
- Inetinfo/Parameters/ObjectCacheTTL=0xfffff, sets IIS object cache timeout, default 10 minutes
- Inetinfo/Parameters/MaxPoolThreads=4, maximum network request threads per processor, default 10
- Inetinfo/Parameters/PoolThreadLimit=8, maximum pool threads in system, default 2*#MB
- Inetinfo/Parameters/MemCacheSize=1800, maximum amount of memory that IIS will use for its file cache, default 50% of available memory
- Inetinfo/Parameters/MaxCachedFileSize=650000, maximum size of file in bytes that can be placed in the cache, default 262144

Alteon NIC settings:
- RxFlowControl=0 (off), default 1 (On)
- IntCount=10000, sets total number loops DPC would process before interupting, default 1000
- RecvCoalMax=80, sets number of buffers received before notifying host, default 20
- RecvCoalTicks=10000, sets number of microsec before recv buffers are given to host, default 1000
- SendCoalMax=40, sets number of buffers sent before notifying host, default 20
- SendCoalTicks=10000, sets number of microsec before send buffers are returned to host, default 1000
- StatTicks=0, Default 100000

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Notes/Tuning Information (Continued)

HTTP Software Notes

IIS set for more than 100,000 hits/day
IIS Home Directory: Access for Read & Write, Scripts & Executables
IIS Virtual Directory spec99 points back to web server root, low application protection
IIS Logging: W3C Extended logging, defaults plus bytes sent; minus user agent

HTTP API Notes

Microsoft ISAPI for IIS 5.0 compiled with VC++6.0 code optimization=Pentium Pro
CGI program is in IBM-20000612-ISAPI.zip

Hardware Notes

2 disk in RAID0 64K stripe, write through mode, rebuild priority low, 8 MB cache
All drives formated NTFS
System on "C" with default file allocation size
Benchmark files on "E" with file allocation size 128K
Logfile on "F" with file allocation size 32K

Client Notes

Tcpip/Parameters/MaxUserPort = 0xfffe, sets maximum open port to 65534