SPECweb99 Result

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IBM: Netfinity 6000R
Microsoft: IIS 5.0

SPECweb99 = 1582

Test Date: Jun-2000
Tester: IBM

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

Hardware

Vendor:	IBM
Model:	Netfinity 6000R
Processor:	700MHz Pentium III Xeon
# Processors:	4 cores, 4 chips, 1 core/chip
Primary Cache:	16KBI+16KBD on chip
Secondary Cache:	2MB
Other Cache:	None
Memory:	8GB
Disk Subsystem:	1 CDROM, 8 9GB 10K RPM SCSI Drives
Disk Controllers:	IBM ServeRAID 3H
Other Hardware:	2 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:	Jun-2000
Tested By:	IBM
SPEC License:	11

Network

# of Controllers:	4
Network Controllers:	Alteon ACEnic PCI
# of Nets:	4
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:	12
Model:	IBM IntelliStation Z Pro
Processor:	450MHz Pentium III Xeon
# of Processors:	2
Memory:	256MB
Network Controller:	Alteon AceNIC
Operating System:	Microsoft Windows 2000 Professional
Compiler:	Microsoft VC++ v6.0

Notes/Tuning Information

SUT Notes

IIS settings: Maximum Performance
IIS Home Directory: Access for Read & Write, Scripts & Executables
IIS Virtual Directory sprc99 points back to web server root, low application protection
IIS Logging: W3C Extended logging, defaults plus bytes sent

Operating System Notes

Tuning Parameters:
- Tcpip/Parameters/MaxFreeTwTcbs=1000000, sets maximum number of TIME_WAIT tcbs to 400,000
- Tcpip/Parameters/MaxHashTableSize=0x10000, sets TCB hash table size to 65,536 entries, default 512
- Tcpip/Parameters/MaxUserPort=0xfffe, sets maximum open ports to 65534
- Tcpip/Parameters/NumTcbTablePartions=32, sets number of independent TCB table segments, default 4
- Tcpip/Parameters/TcpTimedWaitDelay=0x3c, sets TIME_WAIT parameterto 60 seconds (non-RFC 1122), default 240
- Tcpip/Parameters/TcpWindowSize=0xffff, sets TCP send/receive window size to 65535, default 8192
- 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=0xffff, sets IIS object cache timeout, default 10 minutes
- Inetinfo/Parameters/MaxPoolThreads=1, maximum network request threads per processor, default 10.
- Inetinfo/Parameters/PoolThreadLimit=4, maximum pool threads in system, default 2*#MB
- Inetinfo/Parameters/MemCacheSize=2000, maximum amount of memory that IIS will use for its file cache, default 50% of available memory
- Inetinfo/Parameters/MaxCachedFileSize=550000, maximum size of file in bytes that can be placed in the cache, default 262144

Alteon NIC settings:
- Rx Flow Control=Off, default On

Network interrupts affinitized one NIC per processor using Microsoft Intfiltr

HTTP API Notes

Microsoft ISAPI for IIS 5.0 compiled with VC++6.0 code optimization=Pentium Pro

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Notes/Tuning Information (Continued)

Hardware Notes

1 disk for OS & pagefiles, 4 disks for web pages, 3 disks for log file

Client Notes

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