SPECweb99 Result

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Dell: PowerEdge 4400/800
Microsoft: IIS 5.0

SPECweb99 = 1060

Test Date: Jun-2000
Tester: Dell

Hardware Avail:	Apr-2000	OS Avail:	Feb-2000	HTTP Software Avail:	Feb-2000	Sup. Software Avail:	Feb-2000	SPEC license #:	55

Hardware

Vendor:	Dell
Model:	PowerEdge 4400/800
Processor:	800MHz Pentium III Xeon
# Processors:	2 cores, 2 chips, 1 core/chip
Primary Cache:	16KBI+16KBD on chip
Secondary Cache:	256KB(I+D) ATC
Other Cache:	None
Memory:	4 GB
Disk Subsystem:	5 9GB 10KRPM drives
Disk Controllers:	Onboard Adaptec AIC-7899 SCSI
Other Hardware:	1 Alteon ACEswitch 180

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:	W3C Extended Log File Format

Test Sponsor

Test Date:	Jun-2000
Tested By:	Dell
SPEC License:	55

Network

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

Clients

# of Clients:	7
Model:	Dell Precision 410
Processor:	450MHz Pentium II
# of Processors:	2
Memory:	128MB
Network Controller:	Alteon ACEnic 1000-SX
Operating System:	Windows 2000 Professional
Compiler:	Microsoft Visual C++ 6.0

Notes/Tuning Information

SUT Notes

IIS settings: maximum performance.
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.

Operating System Notes

Tuning parameters:
- Tcpip/Parameters/MaxHashTableSize=0x2000, sets TCB hash table size to 8,192 entries, default 512.
- Tcpip/Parameters/TcpTimedWaitDelay=0x3c, sets TIME_WAIT parameter to 60 seconds (non-RFC 1122), default 240.
- Tcpip/Parameters/MaxFreeTwTcbs=400000, sets maximum number of TIME_WAIT TCBs to 400,000.
- Tcpip/Parameters/MaxUserPort = 0xfffe, sets maximum open ports to 65534.
- Tcpip/Parameters/TcpWindowSize = 65535, sets TCP send/receive window size, default 8192.
- Tcpip/Parameters/NumTcbTablePartitions = 32, sets number of independent TCB table segments, default 4.
- Inetinfo/Parameters/ObjectCacheTTL=0xffffff, sets IIS object cache timeout, default 10 minutes
- Inetinfo/Parameters/ListenBacklog=1000, default 25.
- Inetinfo/Parameters/MemCacheSize=2000, sets IIS cache to 2 gigabytes, default 50% of available memory.
- Inetinfo/Parameters/MaxCachedFileSize=1000000, sets max file size IIS caches to 1,000,000 bytes, default 256KB.
- Inetinfo/Parameters/MaxPoolThreads=20, maximum network request threads per processor, default 10.
- Inetinfo/Parameters/PoolThreadLimit=20, maximum pool threads in system, default 2*(amount of memory in MB).
- Inetinfo/Parameters/AcceptExTimeout=1, sets time for accept ex socket to wait for receive, default 120.

Alteon NIC registry settings:
- StatTicks=0, default 100000.
- RxFlowControl=0 (off), default 1

Network interrupts affinitized one per CPU

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 and logs, 4 disk software RAID0 stripe for file set.