SPECweb99 Result

Advanced Micro Devices: Tyan Thunder K7/Athlon MP 1800+

Microsoft: IIS 5.0

SPECweb99 = 1510

Test Date: Oct-2001

Tester: Advanced Micro Devices

Hardware Avail:	Oct-2001	OS Avail:	Feb-2000	HTTP Software Avail:	Feb-2000	Sup. Software Avail:	--	SPEC license #:	49

Hardware

Vendor:	Advanced Micro Devices
Model:	Tyan Thunder K7/Athlon MP 1800+
Processor:	AMD Athlon MP 1800+, 1.53 GHz
# Processors:	2 cores, 2 chips, 1 core/chip
Primary Cache:	64KBI+64KBD on chip
Secondary Cache:	256KB
Other Cache:	None
Memory:	3 GB pc2100 DDR
Disk Subsystem:	5 18GB 15K Ultra160 SCSI
Disk Controllers:	AMI Elite 1600
Other Hardware:	1 Extreme Summit 7i Gigabit Switch

Software

Operating System:	Windows 2000 Advanced Server with SP2
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:	Oct-2001
Tested By:	Advanced Micro Devices
SPEC License:	49

Network

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

Clients

# of Clients:	5
Model:	Dell PE1400
Processor:	Intel Pentium III 800MHz
# of Processors:	2
Memory:	256MB
Network Controller:	Intel Gigabit Pro 1000F
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.

Operating System Notes

Tuning parameters:
TCPIP/Parameters/NumTcbTablePartitions=16, sets number of independent TCB table segments, default 4.
TCPIP/Parameters/MaxFreeTwTcbs=400000, sets maximum number of Time_Wait tcbs to 400,000.
TCPIP/Parameters/TcpTimedWaitDelay=60, sets TIME_WAIT parameter to 60 seconds(non-RFC1122), default 240.
TCPIP/Parameters/MaxHashTableSize=0x2710, sets TCB hash table size to 10000 entries, default 512.
TCPIP/Parameters/TCPWindowSize= 17520, sets TCP send/receive window size, default 8192.
TCPIP/Parameters/MaxUserPort= 0xfffe, sets maximum open ports to 65534.
Inetinfo/Parameters/AcceptExTimeout= 1, sets time for accept ex socket to wait for receive, default 120.
Inetinfo/Parameters/LogFileFlushInterval= 60, forces flush every 60 seconds, default 300
Inetinfo/Parameters/ListenBackLog= 1000, default 25
Inetinfo/Parameters/MaxPoolThreads= 20, maximum network request threads per processor, default 10.
Inetinfo/Parameters/ObjectCacheTTL= 0xfffff, sets IIS object cache timeout, default 10 minutes.
AFD/Parameters/TransmitWorker= 32, adjusts system default thread, default 16.
Control/FileSystem/NtfsDisableLastAccessUpdate= 1, prevents updating LastAccess time stamp on NTFS directories, default 0.
NDIS/Parameters/ProcessorAffinityMask= 0, forces processor that handled interrupt to also handle that DPC, default any processor.
Intel nic registry settings:
NumTxDescriptors= 768, Number of buffers available for transmit acceleration, default 256.
ChecksumRxTcp= 1, offloads RX checksums to nic, default 0.

Hardware Notes

1 18GB 15Krpm disk for OS and paging and 4 18GB 15Krpm striped disks for web pages.

SPECweb99 Result

Notes/Tuning Information (Continued)

Other Notes

SUT requires a Tyan Thunder K7 Motherboard, ATX case, Delta DPS-465AB power supply and a powered 4 hard drive capable case. Use Intfltr to bind NIC IRQ to CPU0.
Dynamic API: Dell-19991214.zip. Tuning Disclosure: See above.