

SPECweb99 Result

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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:
TCP/IP/Parameters/NumTcbTablePartitions=16, sets number of independent TCB table segments, default 4.
TCP/IP/Parameters/MaxFreeTwTcbs=400000, sets maximum number of Time_Wait tcbs to 400,000.
TCP/IP/Parameters/TcpTimedWaitDelay=60, sets TIME_WAIT parameter to 60 seconds(non-RFC1122), default 240.
TCP/IP/Parameters/MaxHashTableSize=0x2710, sets TCB hash table size to 10000 entries, default 512.
TCP/IP/Parameters/TCPWindowSize= 17520, sets TCP send/receive window size, default 8192.
TCP/IP/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= 0xffff, 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.
ChecksumRxTcps= 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.

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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.