

SPECweb99 Result

© Copyright 1999, Standard Performance Evaluation Corporation

Dell: PowerEdge 2550
Microsoft: Internet Information Server 5.0

SPECweb99 = 1454

Test Date: Sep-2001
Tester: Dell

Hardware Avail: Aug-2001 OS Avail: Feb-2000 HTTP Software Avail: Feb-2000 Sup. Software Avail: -- SPEC license #: 55

Hardware

Vendor: Dell
Model: PowerEdge 2550
Processor: 1.26GHz Pentium III
Processors: 2 cores, 2 chips, 1 core/chip
Primary Cache: 16KBI+16KBD on chip
Secondary Cache: 512KB ATC
Other Cache: None
Memory: 4 GB
Disk Subsystem: 1 9GB 15K RPM, 4 18GB 15KRPM drives
Disk Controllers: Onboard Adaptec 7899
Other Hardware: 1 Alteon ACEswitch 180

Software

Operating System: Windows 2000 Server SP2
File System: NTFS
Other Software: None

HTTP Software

Vendor: Microsoft
HTTP Software: Internet Information Server 5.0
API: ISAPI
Server Cache: None
Log Mode: W3C Extended Log File Format

Test Sponsor

Test Date: Sep-2001
Tested By: Dell
SPEC License: 55

Network

of Controllers: 1
Network Controllers: Intel Gigabit 1000SX
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 Precision 410
Processor: 450MHz Pentium II
of Processors: 2
Memory: 128MB
Network Controller: Alteon AceNIC 1000SX
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

IntFilter tool used to bind NIC IRQ to first CPU.
Tuning parameters:
- AFD/Parameters/TransmitWorker = 32, adjusts system default thread, default 16.
- Control/FileSystem/NtfsDisableLastAccessUpdate = 1, prevents updating LastAccess time stamp on NTFS directories, default 0.
- Inetinfo/Parameters/ObjectCacheTTL=0xfffff, sets IIS object cache timeout, default 10 minutes
- Inetinfo/Parameters/ListenBackLog = 1000, default 25.
- Inetinfo/Parameters/AcceptExTimeout = 1, sets time for accept ex socket to wait for receive, default 120.
- Inetinfo/Parameters/MaxPoolThreads = 20, maximum network request threads per processor, default 10.
- NDIS/Parameters/ProcessorAffinityMask = 0, forces processor that handled interrupt to also handle that DPC, default any processor.
- Tcipip/Parameters/MaxHashTableSize=0x10000, sets TCB hash table size to 65,536 entries, default is 512.
- Tcipip/Parameters/MaxFreeTwTcbs=400000, sets maximum number of TIME_WAIT tcbs to 400,000.
- Tcipip/Parameters/MaxUserPort = 0xffff, sets maximum open ports to 65534.
- Tcipip/Parameters/NumTcbTablePartitions = 16, sets number of independent TCB table segments, default 4.
- Tcipip/Parameters/TcpTimedWaitDelay = 0x3c, sets TIME_WAIT parameter to 60 seconds (non-RFC 1122), default is 240.
- Tcipip/Parameters/TcpWindowSize = 17520, sets TCP send/receive window size, default 8192.
Intel NIC registry settings:
- NumTxDescriptors = 768, Number of buffers available for transmit acceleration, default 256.
- ChecksumRxTcp = 1, offloads RX checksums to NIC, default 0.

HTTP API Notes

Microsoft ISAPI for IIS 5.0 compiled with VC++ 6.0.

SPECweb99 Result

© Copyright 1999, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

Hardware Notes

One 9GB disk for OS and logs, 4 18GB disks striped for web pages

Other Notes

Tuning Disclosure: See above
Dynamic API: Dell-19991214.zip