

SPECweb99_SSL Result

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Hewlett-Packard Company: HP ProLiant DL585
Zeus Technology Limited: Zeus V4.2r4 (64-bit)

SPECweb99_SSL =5025

Test Date: Feb-2005
Tester: Hewlett-Packard Company

Hardware Avail: Feb-2005 OS Avail: Aug-2004 HTTPS Software Avail: Nov-2003 Sup. Software Avail: Nov-2003 SPEC license #: 3

Hardware

Vendor: Hewlett-Packard Company
Model: HP ProLiant DL585
Processor: AMD Opteron 852, 2.6GHz
Processors: 4 cores, 4 chips, 1 core/chip
Primary Cache: 64KBI+64KBD
Secondary Cache: 1MB on chip
Other Cache: none
Memory: 32 GB (16x2GB PC3200 DDR)
Disk Subsystem: 4x36.4GB U320 15000 rpm
Disk Controllers: SA-6i
Other Hardware: 2xProcurve 6108 switches

Software

Operating System: SuSE Linux Enterprise Server 9
File System: ext2
Other Software: none

HTTPS Software

Vendor: Zeus Technology Limited
HTTPS Software: Zeus V4.2r4 (64-bit)
API: Zeus PEPP 0.9pre1 ISAPI for dynamic content
Server Cache: none
Log Mode: Binary Common Log Format

Test Sponsor

Test Date: Feb-2005
Tested By: Hewlett-Packard Company
SPEC License: 3

Network

of Controllers: 4
Network Controllers: 1xNC7782 and 3xNC7170
of Nets: 4
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: 8
Model: HP ProLiant DL360 G3
Processor: 3.06GHz 1MB L3 cache Intel Xeon
of Processors: 2 cores, 2 chips, 1 core/chip
Memory: 512MB
Network Controller: Integrated NC7781
Operating System: Windows Server 2003 Std. Edition
Compiler: Microsoft Visual C++ 6.0

Notes/Tuning Information

SUT Notes

1 drive used for OS and log, 3 drives used for workload

Operating System Notes

Filesystem mounted with noatime,nodiratime - no inode access time updating
irq_balancer disabled
Each NIC irq bound to one CPU
Each NIC's TX queue length set to 40000, default 100
ulimit -n 72720, sets number of open files, default 1024
/proc/sys/net/ipv4/conf/all/rp_filter=1 #enables source route verification, default 0
/proc/sys/net/ipv4/tcp_timestamps=0 #turns TCP timestamp support off, default 1
/proc/sys/net/ipv4/tcp_max_tw_buckets=2000000 #sets TCP time-wait buckets pool size, default 180000
/proc/sys/net/ipv4/tcp_rmem=30000000 30000000 30000000 #maximum TCP read-buffer space allocatable, default 4096 87380 174760
/proc/sys/net/ipv4/tcp_wmem=30000000 30000000 30000000 #maximum TCP write-buffer space allocatable, default 4096 16384 131072
/proc/sys/net/ipv4/tcp_mem=30000000 30000000 30000000 #maximum TCP buffer space allocatable, default 31744 32256 32768
/proc/sys/net/core/rmem_max=10000000 #maximum receive socket buffer size, default 65535
/proc/sys/net/core/rmem_default=10000000 #default receive socket buffer size, default 65535
/proc/sys/net/core/wmem_max=10000000 #maximum send socket buffer size, default 65535
/proc/sys/net/core/wmem_default=10000000 #default send socket buffer size, default 65535
/proc/sys/net/core/optmem_max=10000000 #default 10240
/proc/sys/fs/file-max=291879 #maximum number of open files, default 1024

HTTPS Software Notes

tuning!bind_any no
tuning!unique_bind yes
tuning!cache_cooling_time 0

For more
Information
Contact

SPEC

info@spec.org
http://www.spec.org

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Notes/Tuning Information (Continued)

HTTPS Software Notes (Continued)

tuning!cache_files 282011
tuning!cache_flush_interval 180000
tuning!cache_small_file 90000
tuning!cache_large_file 1048576
tuning!cache_max_bytes 12884901888
tuning!cache_stat_expire 180000
tuning!cbuff_size 65536
tuning!clientfirst_optimise yes
tuning!keepalive yes
tuning!keepalive_max -1
tuning!keepalive_timeout 3600
tuning!listen_queue_size 8192
tuning!maxaccept 2048
tuning!modules!cgi!cleansize 0
tuning!sendfile no
tuning!sendfile_maxsize 0
tuning!sendfile_minsize 0
tuning!so_wbuff_size 1048576
tuning!softservers no
tuning!ssl_diskcache no
tuning!ssl_sessioncache_size 6037
tuning!ssl_cbuff_size 32840
tuning!modules!stats!enabled no
tuning!modules!nsapi!enabled no
See HP-20030414-tunings.txt for a description of the Zeus tuning parameters

HTTP API Notes

Dynamic API: HP-20020724-API.tgz
Zeus PEPP configured with the ./Configure --ssl=yes

Client Notes

The alternative performance neutral alt.Win32 client was used.
Tcipip\Parameters\MaxUserPort=0xffff, sets maximum open ports to 65534
Tcipip\Parameters\TcpTimedWaitDelay=60, sets TIME_WAIT parameter to 60 seconds (non-RFC 1122), default 240
Tcipip\Parameters\MaxFreeTwTcbs\100000, sets maximum number of TIME_WAIT tcbs to 100,000
Tcipip\Parameters\TcpWindowSize=65535, sets TCP receive window size, default 8192

Other Notes

Server kernel: default SLES 9 (2.6.5-7.97-smp)