

SPECweb99_SSL Result

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Hewlett-Packard Company: ProLiant BL20p G2
Zeus: Zeus 4.2r2

SPECweb99_SSL =1242

Test Date: Apr-2003
Tester: Hewlett-Packard Company

Hardware Avail: Jun-2003 OS Avail: Nov-2002 HTTPS Software Avail: Mar-2003 Sup. Software Avail: Mar-2003 SPEC license #: 3

Hardware

Vendor: Hewlett-Packard Company
Model: ProLiant BL20p G2
Processor: 3060MHz Intel Xeon
Processors: 2 cores, 2 chips, 1 core/chip
Primary Cache: 12KBI+8KBD on chip
Secondary Cache: 512KB
Other Cache: None
Memory: 8 GB
Disk Subsystem: 2x36.4GB SCSI (15K rpm)
Disk Controllers: HP Smart Array 5i Controller
Other Hardware: Anritsu MultiFlow 5128 Switch

Software

Operating System: Red Hat Linux 8.0
File System: ext2
Other Software: None

HTTPS Software

Vendor: Zeus
HTTPS Software: Zeus 4.2r2
API: ISAPI
Server Cache: None
Log Mode: Zeus CLF

Test Sponsor

Test Date: Apr-2003
Tested By: Hewlett-Packard Company
SPEC License: 3

Network

of Controllers: 2
Network Controllers: Integrated NC7781 1000TX
of Nets: 2
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: 4
Model: Compaq ProLiant DL380
Processor: 1.0GHz Intel Pentium III
of Processors: 2
Memory: 128MB
Network Controller: Alteon ACENIC 1000SX
Operating System: Red Hat 7.3
Compiler: gcc 2.96

Notes/Tuning Information

SUT Notes

- 1 disk for OS and logs
- 1 disk for fileset

Operating System Notes

Tuning parameters:
ulimit -n 10000, set number of open files to 10000, default 1024
net.core.optmem_max=10000000, maximum amount of option memory buffers, default 10240
net.core.rmem_default=131071, default receive socket buffer size, default 65535
net.core.rmem_max=131071, maximum receive socket buffer size, default 131071
net.core.wmem_default=10000000, default send socket buffer size, default 65535
net.core.wmem_max=10000000, maximum send socket buffer size, default 131071
net.core.hot_list_length=300000, maximum number of skb-heads to be cached, default 128
net.core.netdev_max_backlog=300000, number of unprocessed input packets before kernel starts dropping them, default 300
net.ipv4.tcp_max_tw_buckets=2000000, set TCP time-wait buckets pool size, default 180000
net.ipv4.tcp_rmem=10000000 10000000 10000000, maximum TCP read-buffer space allocatable, default 4096 87380 174760
net.ipv4.tcp_wmem=10000000 10000000 10000000, maximum TCP write-buffer space allocatable, default 4096 16384 131072
net.ipv4.tcp_mem=10000000 10000000 10000000, maximum TCP buffer space allocatable, default 195584 196096 196608
net.ipv4.tcp_timestamps=0, turns TCP timestamp support off, default on
net.ipv4.ip_nonlocal_bind=1, allows processes to bind to non-local IP addresses
net.ipv4.tcp_sack=0, turn SACK support off, default on
net.ipv4.tcp_window_scaling=0, turn TCP window scaling support off, default on
File systems mounted with "noatime,nodiratime", no inode access time updating
NICs bound to CPUs 0 and 1

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Notes/Tuning Information (Continued)

HTTPS Software Notes

Zeus Configuration
tuning!listen_queue_size 8192
tuning!so_wbuff_size 1048576
tuning!so_rbuff_size 0
tuning!clientfirst_optimise yes
tuning!cache_files 8192
tuning!cache_stat_expire 31536000
tuning!cache_max_bytes 0
tuning!cache_flush_interval 31536000
tuning!sendfile_minsize 1
tuning!softservers no
tuning!ssl_diskcache yes
tuning!ssl_sessioncache_size 5011
tuning!ssl_sessioncache_expiry 120
tuning!num_children 4
tuning!cache_cooling_time 0
tuning!cbuff_size 65536
tuning!modules!cgi!cleansize 0

HTTP API Notes

Zeus ISAPI interface used
Zeus PEPP Toolkit(0.8) used for SPECweb99_SSL dynamic content
./Configure --sendfile=yes --checkconfig=yes

Network Notes

txqueuelen=20000, transmit queue length, default 100

Client Notes

Client code generated with ./configure --enable-posix-threads
net.ipv4.ip_local_port_range = 1024 65535

Other Notes

Tuning Disclosure: See Above
ISAPI: HP-20020723.-API.tar.gz
ISAPI tuning descriptions: HP-20030414-tunings.txt
Kernel config: HP-20030414-BL20pG2.config