SPECweb99_SSL Result

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

SPECweb99_SSL =1454

Test Date: Feb-2004
Tester: Hewlett-Packard Company

Hardware Avail:	Mar-2004	OS Avail:	Jul-2004	HTTPS Software Avail:	Jan-2004	Sup. Software Avail:	Jan-2004	SPEC license #:	3

Hardware

Vendor:	Hewlett-Packard Company
Model:	ProLiant BL20p G2
Processor:	3.2 GHz Intel Xeon
# Processors:	2 cores, 2 chips, 1 core/chip (Hyper-Threading enabled)
Primary Cache:	12KBI+8KBD on chip
Secondary Cache:	512KB(I+D) on chip
Other Cache:	2MB L3
Memory:	8GB
Disk Subsystem:	2x36GB SCSI (15K rpm)
Disk Controllers:	HP Smart Array 5i Plus
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 Binary

Test Sponsor

Test Date:	Feb-2004
Tested By:	Hewlett-Packard Company
SPEC License:	3

Network

# of Controllers:	2
Network Controllers:	Integrated NC7781
# 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:	6
Model:	Compaq ProLiant DL360
Processor:	1.0GHz Intel Pemtium 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

Operating System Notes

Tuning parameters:
ulimit -n 10000, set number of open files to 10000, default 8192
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, maximm 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
File system mounted with nodiratime and noatime, no inode access time updating
One NIC IRQ bound per logical CPU; timer bound to logical CPU 2, cciss bound to logical CPU3

HTTPS Software Notes

Zeus configuration:
errlog %zeushome%/web/log/errors
gid nobody
uid nobody
controlport 9080

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Notes/Tuning Information (Continued)

HTTPS Software Notes (Continued)

controlallow localhost
tuning!bind_any yes
tuning!cache_files 8192
tuning!cache_flush_interval 31536000
tuning!cache_large_file 1048576
tuning!cache_max_bytes 0
tuning!cache_small_file 4096
tuning!cache_stat_expire 31536000
tuning!num_children 2
tuning!so_wbuff_size 1048576
tuning!softservers no
tuning!use_poll yes
tuning!cache_cooling_time 0
tuning!cbuff_size 65536
tuning!ssl_sessioncache_size 5011
tuning!ssl_sessioncache_expiry 120
tuning!ssl_keepalive yes
tuning!ssl_diskcache yes
tuning!keepalive yes
tuning!sendfile yes
tuning!sendfile_minsize 1
tuning!sendfile_maxsize 2147483647
tuning!listen_queue_size 8192
tuning!so_rbuff_size 0
tuning!modules!cgi!cleansize 0
tuning!clientfirst_optimise yes
tuning!maxaccept 64

HTTP API Notes

Zeus ISAPI interface
Zeus PEPP Toolkit 0.8 used for 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_range=1024 65535

Other Notes

Tuning Disclosure: See above
ISAPI: HP-20020723-API.tar.gz
ISAPI tuning descriptions: HP-20030414-tunnings.txt
Kernel config: HP-20030414-BL20p_G2.config