

SPECweb99_SSL Result

© Copyright 1999-2004, Standard Performance Evaluation Corporation

Hewlett-Packard Company: HP ProLiant BL20p G3
Zeus Technology Limited: Zeus V4.2r4 (64 bit)

SPECweb99_SSL =2394

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

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

Hardware

Vendor: Hewlett-Packard Company
Model: HP ProLiant BL20p G3
Processor: 3.6GHz Intel Xeon
Processors: 2 cores, 2 chips, 1 core/chip (Hyper-Threading enabled)
Primary Cache: 12KBI+16KBD
Secondary Cache: 2MB L2
Other Cache: none
Memory: 8GB (4x2GB PC3200 DDR2)
Disk Subsystem: 2x72.8GB Ultra320 15Krpm
Disk Controllers: HP Smart Array 6i with 128MB BBWC
Other Hardware: 2xHP BladeSystem Patch Panel

Software

Operating System: SuSE Linux Enterprise Server 9 (x86_64) SP1
File System: ext2
Other Software: NC7781 - BCM5700 v8.1.55 (04-08-2005)
NC320i - BNX2 v1.1.15a (03-09-2005)

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: Jun-2005
Tested By: Hewlett-Packard Company
SPEC License: 3

Network

of Controllers: 4
Network Controllers: 2xIntegrated NC7781, 2xIntegrated NC320i
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: 4
Model: HP ProLiant DL360 G3
Processor: 3.06GHz 1MB L3 cache Intel Xeon
of Processors: 2 cores, 2 chips, 1 core/chip
Memory: 1024MB
Network Controller: Integrated NC7781
Operating System: Windows Server 2003 Std. Edition
Compiler: Microsoft Visual C++ 6.0

Notes/Tuning Information

SUT Notes

Each drive in blade server connected to the HP SA-6i controller and setup as RAID 0
1. drive used for OS and access-log; 2. drive used for the file-set
1xHP BladeSystem p-Class enclosure
1xHP BladeSystem p-Class power subsystem

Operating System Notes

File system mounted with noacl,noatime,nodiratime - no access control lists, no inode access time updating
irq_balancer daemon disabled, default enabled
Each NIC IRQ bound to a separate logical CPU, default round-robin
Each NIC's TX queue length set to 40000, default 100
ulimit -n 12000, 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_max_tw_buckets= 456000 ,sets TCP time-wait buckets pool size, default 180000
/proc/sys/net/ipv4/tcp_rmem= 3000000 3000000 30000000 ,maximum TCP read-buffer space allocatable, default 4096 87380 174760
/proc/sys/net/ipv4/tcp_wmem= 3000000 3000000 30000000 ,maximum TCP write-buffer space allocatable, default 4096 16384 131072
/proc/sys/net/ipv4/tcp_mem= 3000000 3000000 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 ,maximum amount of option memory buffers, default 20480
/proc/sys/fs/file-max= 509059 ,maximum number of open files, default 1024
/proc/sys/net/ipv4/tcp_max_syn_backlog= 8192 ,sets length of per-socket backlog queue, default 1024
Timer IRQ bound to logical processor #3, default round-robin
Storage IRQ bound to logical processor #2, default round-robin
TSO turned off on all 4 NICs, default on

SPECweb99_SSL Result

© Copyright 1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

HTTPS Software Notes

Zeus Web Server Tunables (\$ZEUSHOME/web/gloabl.cfg)

tuning!listen_queue_size 8192

tuning!so_wbuff_size 1048576

tuning!so_rbuff_size 0

tuning!maxaccept 2500

tuning!clientfirst_optimise yes

tuning!unique_bind no

tuning!cache_stat_expire 31536000

tuning!cache_max_bytes 0

tuning!cache_flush_interval 31536000

tuning!cache_files 282011

tuning!cache_cooling_time 0

tuning!sendfile yes

tuning!sendfile_minsize 1

tuning!softservers no

tuning!keepalive_timeout 30

tuning!keepalive_max -1

tuning!ssl_sessioncache_size 7507

tuning!cbuff_size 65536

tuning!isapi!enabled yes

tuning!modules!stats!enabled no

tuning!modules!cgi!enabled yes

tuning!modules!cgi!cleansize 0

tuning!modules!security!enabled yes

See HP-20030414-tunings.txt for a description of these Zeus tuning parameters

HTTP API Notes

Dynamic API: HP-20020724-API.tgz

API configured with --ssl=yes

Client Notes

The alternate performance neutral alt.Win32 client was used.

Tcpip\Parameters\MaxUserPort=0xffff, sets maximum open ports to 65534

Tcpip\Parameters\TcpTimedWaitDelay=60, sets TIME_WAIT parameter to 60 seconds (non-RFC 1122), default 240

Tcpip\Parameters\MaxFreeTwtcb=100000, sets maximum number of TIME_WAIT tcbs to 100,000

Tcpip\Parameters\TcpWindowSize=65535, sets TCP receive window size, default 8192

Other Notes

Server kernel: default SLES 9 SP1 (2.6.5-7.139-smp)