SPECweb99_SSL Result

IBM: eServer xSeries x336
Zeus: Zeus V4.2r4 (64-bit)

SPECweb99_SSL = 2369

Test Date:	Sep-2004
Tester:	IBM

Hardware Avail:	Dec-2004	OS Avail:	Aug-2004	HTTPS Software Avail:	Nov-2003	Sup. Software Avail:	Nov-2003	SPEC license #:	11

Hardware

Vendor:	IBM
Model:	eServer xSeries x336
Processor:	3.6GHz Intel Xeon DP
# Processors:	2 cores, 2 chips, 1 core/chip (Hyper-Threading enabled)
Primary Cache:	12KB(I)+16KB(D) on chip
Secondary Cache:	1024KB
Other Cache:	None
Memory:	16GB
Disk Subsystem:	15 73GB 15k SCSI Drives
Disk Controllers:	Onboard SCSI
Other Hardware:	

Notes/Tuning Information

SUT Notes

1 disk for OS and web server
14 disks configured with software RAID0 for access log and file set
Memory configuration 8x2GB PC2-3200

Operating System Notes

Tuning parameters:
- net.ipv4.ip_forward=1, default 0
- net.ipv4.tcp_timestamps = 0, turns TCP timestamp support off, default 1
- net.ipv4.tcp_max_tw_buckets = 456000, sets TCP time-wait buckets pool size, default 180000
- net.core.wmem_max = 10000000, maximum send socket buffer size, default 65535
- net.core.wmem_default = 10000000, default send socket buffer size, default 65535
- net.core.optmem_max = 10000000, default 10240
- net.core.optmem_default = 10000000, maximum amount of option memory buffers, default 10240
- net.core.hot_list_length = 10000, maximum number of skb-heads to be cached, default 128
- net.core.netdev.max_backlog = 300000, default 300
- net.ipv4.tcp_rmem = 30000000 30000000 30000000, maximum TCP read-buffer space allocatable, default 4096 87380 174760
- net.ipv4.tcp_wmem = 30000000 30000000 30000000, maximum TCP write-buffer space allocatable, default 4096 16384 131072
- net.ipv4.tcp_mem = 30000000 30000000 30000000, maximum TCP buffer space, default 31744 32256 32768
- net.ipv4.tcp_max_syn_backlog = 8192
- fs.file-max = 254108, increases number of open file handles kernel allocates, default 4096
- Each NICs txqueuelen was set to 40000, default 100
- Each NICs IRQ was bound to separate logical CPUs (0 and 3), default unbound
- irqbalancer service was disabled during run
- ulimit -n 10000, sets number of open files, default 1024

Kernel is standard default SLES 9 (2.6.5-7.97-smp)

HTTPS Software Notes

Zeus Configuration
- 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
- tuning!num_children 8

ISAPI Source code is available in the SPECweb99_SSL support docs as HP-20020724-API.tar.gz

Notes/Tuning Information (Continued)

Client Notes

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