

SPECweb99\_SSL Result

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RackSaver : RSN-1164/op                ||
Zeus Technology Ltd. : Zeus Web Server V4.2r2  ||      CD  SPECweb99_SSL
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SPEC has discovered a code defect in the SPECweb99\_SSL test harness run on the client systems used in this result. The defect prevents these client systems from generating the correct SPECweb99\_SSL workload. Specifically, the defect in the SPECweb99\_SSL code results in the clients not generating any of the required SSL ClientKeyExchanges during the benchmark. Therefore, the results presented here are not comparable with any other SPECweb99\_SSL results.

PERFORMANCE

Iteration	Conforming Simultaneous Connections
1	CD
2	CD
3	CD
Median	CD

Availability Dates

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All Hardware           Apr-2003
HTTPS Software        Mar-2003
Operating System      May-2003
Supplemental System   May-2003

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Hardware

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Vendor           RackSaver
Model            RSN-1164/op
Processor        AMD Opteron 244, 1.8 GHz
# Processors     2 cores, 2 chips, 1 core/chip
Primary Cache    64KBI+64KBD
Secondary Cache  1MB on chip
Other Cache      none
Memory           16 GB PC2100 DDR
Disk Subsystem   2 18GB 15K RPM Ultra 320 SCSI Drives
Disk Controllers Onboard LSI SCSI
Other Hardware   1 Extreme Networks Summit 5i GbE Switch

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Software

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Operating System   SuSE Linux Enterprise Server 8 for AMD64
File System        ext2
Other Software     None

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HTTPS Software

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Vendor           Zeus Technology Ltd.
HTTPS Software    Zeus Web Server V4.2r2 (64-bit)
API              Zeus PEPP 0.8 ISAPI used for Dynamic content
Server Cache     None
Log Mode         Binary Log Format

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Test Sponsor

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Test Date        Apr-2003
Tested By        RackSaver/Newsys
SPEC License     2686

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Network

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# of Controllers  1
Network Controllers Intel Pro/1000 MT Server Adapter
# 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

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Clients

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# of Clients      8
Model            Tyan Tiger/AMD Athlon MP
Processor        AMD Athlon MP 1900+
# of Processors   2
Memory           1024MB
Network Controller Intel Pro/1000 XT
Operating System Windows 2000 Professional, w/ SP3
Compiler         Microsoft Visual C++ 6.0

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Benchmark Configuration

Requested Connections 1760
Fileset Size (MB) 5753.52

Notes/Tuning information

SUT Notes

- 1 U320 15K 18GB SCSI disk for OS/log
1 U320 15K 18GB SCSI disk for fileset

Operating System Notes

One NIC bound per CPU
Each NIC's TX queue length set to 8192 via ifconfig, default 100
File systems mounted with "noatime,nodiratime", no inode access time updating
Tuning Parameters:

- net.ipv4.ip\_forward = 0
- net.ipv4.conf.all.rp\_filter = 1, enables source route verification, default 0
- net.ipv4.tcp\_timestamps = 0, turns TCP timestamp support off, default 1
- net.ipv4.tcp\_max\_tw\_buckets = 2000000, sets TCP time-wait buckets pool size, default 180000
- net.core.rmem\_max = 10000000, maximum receive socket buffer size, default 65535
- net.core.rmem\_default = 10000000, default receive socket buffer size, default 65535
- 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.hot\_list\_length = 10000, maximum number of skb-heads to be cached, default 128
- 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
- fs.file-max = 524288, maximum number of open files, default 1024

HTTPS Software Notes

- Zeus Configuration:
- tuning!bind\_any no
- tuning!unique\_bind yes
- tuning!cache\_cooling\_time 0
- tuning!cache\_files 95989
- tuning!cache\_flush\_interval 86400
- tuning!cache\_max\_bytes 12884901888
- tuning!cache\_stat\_expire 86400
- tuning!cbuff\_size 65536
- tuning!clientfirst\_optimise yes
- tuning!keepalive\_max -1
- tuning!keepalive\_timeout 20
- tuning!listen\_queue\_size 8192
- tuning!maxaccept 64
- 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 2617
- tuning!ssl\_cbuff\_size 32840
- tuning!modules!stats!enabled no
- tuning!modules!nsapi!enabled no
- tuning!modules!isapi!enabled no

HTTP API Notes

Zeus PEPP configured with command: ./Configure --ssl=yes

Client Notes

Clients require a Tyan Tiger motherboard and an ATX capable case.
Case uses 300W ATX power supply, Clients use a 40G ATA 133 IDE hard drive.
Clients use DDR PC2100 memory.

Other Notes

Tuning Disclosure: See above.
Dynamic API: HP-20020724-API.tgz
Kernel config: default config

Test Run Details

Table with 5 columns: Run Num, Conforming Connections, Percent Conform, Throughput ops/sec, Response msec, ops/sec/loadgen, Kbits/sec. Rows 1-3 show 'CD' for all metrics.