

SPECweb99_SSL Result

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IBM : xSeries 360
Zeus : Zeus V4.1R1
CD SPECweb99_SSL
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SPEC has discovered a bug in the SPECweb99_SSL test harness run on the client systems used in this result. The bug prevents these client systems from generating the correct SPECweb99_SSL workload. Specifically, the bug 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          Sep-2002
HTTPS Software        Mar-2002
Operating System      Dec-2000
Supplemental System   May-2002

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Hardware

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Vendor                IBM
Model                 xSeries 360
Processor             1.6 GHz Intel Xeon MP
# Processors          4 cores, 4 chips, 1 core/chip
Primary Cache         12KBI+8KBD on chip
Secondary Cache       256KB L2
Other Cache           1MB L3 cache
Memory                8 GB
Disk Subsystem        5 x 18GB ST318451LC
Disk Controllers      1 IBM ServeRAID 4Lx
Other Hardware        2 x Alteon ACEswitch 180,
                    1 IBM EXP-300 Drive Bay

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Software

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Operating System      Red Hat Linux 7.3
File System           Ext. 2
Other Software        None

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HTTPS Software

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Vendor                Zeus
HTTPS Software        Zeus V4.1R1
API                   Zeus PEPP 0.8 ISAPI used for dynamic content
Server Cache         None
Log Mode              Zeus Binary CLF

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Test Sponsor

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Test Date             Sep-2002
Tested By             IBM
SPEC License          11

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Network

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# of Controllers      2
Network Controllers   Intel Pro 1000
# of Nets             2
Type of Nets          2
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          10
Model                 IBM xSeries 330
Processor             1.13 Ghz Pentium III
# of Processors       1

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Memory 256MB
Network Controller Alteon ACENIC
Operating System Windows 2000
Compiler Visual C++ 6.0

Benchmark Configuration

Requested Connections 1330
Fileset Size (MB) 4377.36

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Notes/Tuning information

SUT Notes
1 Disk OS, 2 Disk RAID0 for webpages, 2 disk RAID0 for logfiles

Operating System Notes
Tuning parameters:
-net.ipv4.ip_forward = 1, default 0
-net.ipv4.conf.all.rp_filter = 1, enables source route verification, default 0
-net.core.optmem_max=10000000, default 10240
-net.core.rmem_default=10000000, default receive socket buffer size, default 65535
-net.core.rmem_max=10000000, maximum receive socket buffer size, default 65535
-net.core.wmem_default=10000000, default send socket buffer size, default 65535
-net.core.wmem_max=10000000, maximum send socket buffer size, default 65535
-net.core.hot_list_length=10000, maximum number of skb-heads to be cached, default 128
-net.core.netdev_max_backlog=10000
-net.ipv4.tcp_max_tw_buckets=2000000, sets TCP time-wait buckets pool size, default 180000
-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_timestamps=0, turns TCP timestamp support off, default 1

HTTPS Software Notes
Zeus Configuration
-tuning!so_wbuff_size 1048576
-tuning!softservers no
-tuning!cbuff_size 65536
-tuning!ssl_sessioncache_size 5011
-tuning!sendfile_minsize 1
-tuning!listen_queue_size 8192
-tuning!so_rbuff_size 0
-tuning!modules!cgi!cleansize 0
-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!sendfile yes

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Test Run Details

Run Num	Conforming Connections	Percent Conform	Throughput ops/sec	Response msec	ops/sec/ loadgen	Kbits/sec
=> 1	CD	CD	CD	CD	CD	CD
2	CD	CD	CD	CD	CD	CD
3	CD	CD	CD	CD	CD	CD