

SPECweb99\_SSL Result

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Hewlett-Packard : HP Integrity server rx7620      ||      NC      SPECweb99_SSL
Zeus Technology Limited : Zeus 4.3r2             ||
=====

```

SPEC has determined that this result was not in compliance with the SPECweb99\_SSL run and reporting rules. Specifically, the result did not meet the 3 month availability requirement in the SPECweb99\_SSL run rules due to a change in availability of a dependency of the web server.

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PERFORMANCE

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

=====

Availability Dates

```

All Hardware          Dec-2004
HTTPS Software        Oct-2005
Operating System      Jul-2005
Supplemental System   Jul-2005

```

Hardware

```

Vendor                Hewlett-Packard
Model                 HP Integrity server rx7620
Processor              Itanium2 1.6 GHz
# Processors           8 cores, 8 chips, 1 core/chip
Primary Cache          16KBI + 16KBD on chip
Secondary Cache        256KB unified on chip
Other Cache            6144KB unified on chip
Memory                64 GB (32x2GB)
Disk Subsystem         2x73GB(15K RPM)
Disk Controllers       Internal SCSI
Other Hardware         8 x HP Procurve 2724 Switch

```

Software

```

Operating System      SuSE SLES9 SP2
File System           See Notes
Other Software        gcc from distro

```

HTTPS Software

```

Vendor                Zeus Technology Limited
HTTPS Software        Zeus 4.3r2

```

API ISAPI  
Server Cache none  
Log Mode Binary Log Format

Test Sponsor

Test Date Sep-2005  
Tested By Hewlett-Packard Company  
SPEC License 3

Network

# of Controllers 8  
Network Controllers A9900A PCI-X Gigabit Ethernet  
# of Nets 8  
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 32  
Model HP Integrity rx2600  
Processor Intel Itanium2 1.0GHz  
# of Processors 2  
Memory 6GB  
Network Controller HP A6825A  
Operating System HPUX 11i V2  
Compiler B3901BA HP C/ANSI C

Benchmark Configuration

Requested Connections 7750  
Fileset Size (MB) 24917.28

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Notes/Tuning information

SUT Notes

1 ReiserFS partition on Disc 1 for OS  
1 ext2 partition on Disc 1 for logs, mounted noatime,nodiratime  
1 ext2 partition on Disc 2 for fileset, mounted noatime,nodiratime  
Two separate instances of Zeus started via numactl --membind=N --cpubind=N  
corresponding to its NIC via taskset.  
Each Zeus.cgi bound to one CPU, and client loading adjusted accordingly

Operating System Notes

ulimit -n 500000, default 1024  
NIC Transmit queue lengths set to 20000 via ifconfig, default 100  
NIC InterruptThrottleRate set to 700 via modprobe  
NIC RxDescriptors set to 512 via modprobe  
TSO disabled via ethtool, default enabled  
sysctl settings:  
net.core.rmem\_max=1048576  
net.core.rmem\_default=1048576  
net.core.wmem\_max=1048576  
net.core.wmem\_default=1048576  
net.ipv4.tcp\_max\_syn\_backlog=20480  
fs.file-max=2000000  
net.ipv4.tcp\_syncookies=0

```
net.ipv4.tcp_timestamps=0
net.ipv4.tcp_max_tw_buckets=2000000
net.core.netdev_max_backlog=20000
net.core.somaxconn=20480
echo `expr 128 \* 1024` > /proc/sys/vm/max_map_count
7/8 of RAM configured for Cell Local Memory
```

#### HTTPS Software Notes

```
Zeus Global Parameters:
tuning!bind_any          no
tuning!cache_cooling_time 0
tuning!cache_files       569263
tuning!cache_flush_interval 180000
tuning!cache_large_file  1048576
tuning!cache_max_bytes   0
tuning!cache_small_file  16384
tuning!cache_stat_expire 180000
tuning!cbuff_size        65536
tuning!fadvise!max_unflushed 2147483647
tuning!keepalive         yes
tuning!keepalive_timeout 1200
tuning!keepalive_max     -1
tuning!listen_queue_size 8192
tuning!maxaccept         2048
tuning!max_connections   -1
tuning!modules!cgi!cleansize 0
tuning!modules!isapi!enabled yes
tuning!modules!nsapi!enabled no
tuning!modules!stats!enabled no
tuning!multiple_accept   yes
tuning!sendfile          no
tuning!sendfile_reservefd 56000
tuning!softservers       no
tuning!so_rbuff_size     0
tuning!so_wbuff_size     1048576
tuning!ssl_keepalive     yes
tuning!ssl_sessioncache_size 9109
tuning!ssl_diskcache     no
tuning!ssl_cbuff_size    103000
tuning!ssl_sessioncache_expiry 120
tuning!timeout           600
tuning!unique_bind       yes
tuning!modules!cgi!cbuff_size 1048576
tuning!num_children      4
Zeus runningsite configuration:
modules!cgi!enabled     yes
modules!isapi!enabled   yes
```

#### HTTP API Notes

```
Zeus ISAPI interfacce used
Zeus PEPP Toolkit (0.9) used for SPECweb99 dynamic content
./Configure --ssl=yes, compiled with gcc
HP-20020724-API.tgz
```

#### Network Notes

#### Client Notes

```
Client code generated with ./configure --enable-posix-threads
HP-UX Tunable Parameters:
max_thread_proc=4096 Number of threads per process (64)
```

#### Other Notes

Tuning Disclosure: HP-20040122.txt  
Dynamic API: HP-20020723-API.tar.gz

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Test Run Details

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