

# SPECweb99\_SSL Result

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Hewlett-Packard Company: ProLiant BL20p G2  
Zeus: Zeus 4.2r2

SPECweb99\_SSL =1454

Test Date: Feb-2004  
Tester: Hewlett-Packard Company

Hardware Avail: Mar-2004 OS Avail: Jul-2004 HTTPS Software Avail: Jan-2004 Sup. Software Avail: Jan-2004 SPEC license #: 3

## Hardware

Vendor: Hewlett-Packard Company  
Model: ProLiant BL20p G2  
Processor: 3.2 GHz Intel Xeon  
# Processors: 2 cores, 2 chips, 1 core/chip (Hyper-Threading enabled)  
Primary Cache: 12KBI+8KBD on chip  
Secondary Cache: 512KB(I+D) on chip  
Other Cache: 2MB L3  
Memory: 8GB  
Disk Subsystem: 2x36GB SCSI (15K rpm)  
Disk Controllers: HP Smart Array 5i Plus  
Other Hardware: Anritsu Multiflow 5128 Switch

## Software

Operating System: Red Hat Linux 8.0  
File System: ext2  
Other Software: None

## HTTPS Software

Vendor: Zeus  
HTTPS Software: Zeus 4.2r2  
API: ISAPI  
Server Cache: None  
Log Mode: Zeus Binary

## Test Sponsor

Test Date: Feb-2004  
Tested By: Hewlett-Packard Company  
SPEC License: 3

## Network

# of Controllers: 2  
Network Controllers: Integrated NC7781  
# 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

## Clients

# of Clients: 6  
Model: Compaq ProLiant DL360  
Processor: 1.0GHz Intel Pentium III  
# of Processors: 2  
Memory: 128MB  
Network Controller: Alteon ACENIC 1000SX  
Operating System: Red Hat 7.3  
Compiler: gcc 2.96

## Notes/Tuning Information

### SUT Notes

### Operating System Notes

Tuning parameters:  
ulimit -n 10000, set number of open files to 10000, default 8192  
net.core.optmem\_max=1000000, maximum amount of option memory buffers, default 10240  
net.core.rmem\_default=131071, default receive socket buffer size, default 65535  
net.core.rmem\_max=131071, maximum receive socket buffer size, default 131071  
net.core.wmem\_default=1000000, default send socket buffer size, default 65535  
net.core.wmem\_max=1000000, maximum send socket buffer size, default 131071  
net.core.hot\_list\_length=300000, maximum number of skb-heads to be cached, default 128  
net.core.netdev\_max\_backlog=300000, number of unprocessed input packets before kernel starts dropping them, default 300  
net.ipv4.tcp\_max\_tw\_buckets=2000000, set TCP time-wait buckets pool size, default 180000  
net.ipv4.tcp\_rmem=10000000 10000000 10000000, maximum TCP read-buffer space allocatable, default 4096 87380 174760  
net.ipv4.tcp\_wmem=10000000 10000000 10000000, maximum TCP write-buffer space allocatable, default 4096 16384 131072  
net.ipv4.tcp\_mem=10000000 10000000 10000000, maximum TCP buffer space allocatable, default 195584 196096 196608  
net.ipv4.tcp\_timestamps=0, turns TCP timestamp support off, default on  
File system mounted with nodiratime and noatime, no inode access time updating  
One NIC IRQ bound per logical CPU; timer bound to logical CPU 2, cciss bound to logical CPU 3

### HTTPS Software Notes

Zeus configuration:  
errlog %zeushome%/web/log/errors  
gid nobody  
uid nobody  
controlport 9080

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## Notes/Tuning Information (Continued)

### HTTPS Software Notes (Continued)

```
controlallow localhost
tuning!bind_any yes
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!num_children 2
tuning!so_wbuff_size 1048576
tuning!softservers no
tuning!use_poll yes
tuning!cache_cooling_time 0
tuning!cbuff_size 65536
tuning!ssl_sessioncache_size 5011
tuning!ssl_sessioncache_expiry 120
tuning!ssl_keepalive yes
tuning!ssl_diskcache yes
tuning!keepalive yes
tuning!sendfile yes
tuning!sendfile_minsize 1
tuning!sendfile_maxsize 2147483647
tuning!listen_queue_size 8192
tuning!so_rbuff_size 0
tuning!modules!cgi!cleansize 0
tuning!clientfirst_optimise yes
tuning!maxaccept 64
```

### HTTP API Notes

```
Zeus ISAPI interface
Zeus PEPP Toolkit 0.8 used for dynamic content
./Configure --sendfile=yes --checkconfig=yes
```

### Network Notes

```
txqueuelen=20000, transmit queue length, default 100
```

### Client Notes

```
Client code generated with ./configure --enable-posix-threads
net.ipv4.ip_local_range=1024 65535
```

### Other Notes

```
Tuning Disclosure: See above
ISAPI: HP-20020723-API.tar.gz
ISAPI tuning descriptions: HP-20030414-tunnings.txt
Kernel config: HP-20030414-BL20p_G2.config
```