

# SPECweb99\_SSL Result

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

SPECweb99\_SSL =1340

Test Date: Jul-2003  
Tester: Hewlett-Packard Company

Hardware Avail: Sep-2003 OS Avail: Jul-2003 HTTPS Software Avail: Jul-2003 Sup. Software Avail: Jul-2003 SPEC license #: 3

## Hardware

Vendor: Hewlett-Packard Company  
Model: ProLiant BL20p G2  
Processor: 3060MHz Intel Xeon  
# Processors: 2 cores, 2 chips, 1 core/chip  
Primary Cache: 12KBI+8KBD on chip  
Secondary Cache: 512KB  
Other Cache: 1024KB L3  
Memory: 8 GB  
Disk Subsystem: 2x36.4GB 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: Jul-2003  
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: 7  
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

- 1 HW RAID 0 drive:
- 1 partition for OS and logs
- 1 partition for fileset

### Operating System Notes

Tuning parameters:  
ulimit -n 10000, set number of open files to 10000, default 8192  
net.core.optmem\_max=10000000, 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=10000000, default send socket buffer size, default 65535  
net.core.wmem\_max=10000000, 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

### HTTPS Software Notes

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

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## Notes/Tuning Information (Continued)

### HTTPS Software Notes (Continued)

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 4  
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 32

### 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-BL20pG2.config