

# SPECweb99\_SSL Result

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Hewlett-Packard Company: HP ProLiant DL320 G3  
Zeus Technology Limited: Zeus V4.3r1 (64 bit)

SPECweb99\_SSL =1100

Test Date: Jun-2005  
Tester: Hewlett-Packard Company

Hardware Avail: Sep-2005 OS Avail: Aug-2004 HTTPS Software Avail: Nov-2003 Sup. Software Avail: Nov-2003 SPEC license #: 3

## Hardware

Vendor: Hewlett-Packard Company  
Model: HP ProLiant DL320 G3  
Processor: 3.6GHz Intel Pentium 4  
# Processors: 1 core, 1 chip, 1 core/chip (Hyper-Threading enabled)  
Primary Cache: 12KBI+16KBD  
Secondary Cache: 2MB L2  
Other Cache: none  
Memory: 4GB (4x1GB PC3200 DDR)  
Disk Subsystem: 1x80GB Serial ATA 7,200 rpm HDD  
Disk Controllers: Integrated 2-port Serial ATA Controller  
Other Hardware: none

## Software

Operating System: SuSE Linux Enterprise Server 9 (x86\_64)  
File System: ext3  
Other Software: none

## HTTPS Software

Vendor: Zeus Technology Limited  
HTTPS Software: Zeus V4.3r1 (64 bit)  
API: Zeus PEPP 0.9pre1 ISAPI for dynamic content  
Server Cache: none  
Log Mode: Binary Common Log Format

## Test Sponsor

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

## Network

# of Controllers: 2  
Network Controllers: Integrated NC7782  
# 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: 2  
Model: HP ProLiant DL360 G3  
Processor: 3.06GHz 1MB L3 cache Intel Xeon  
# of Processors: 2 cores, 2 chips, 1 core/chip (Hyper-Threading enabled)  
Memory: 1024MB  
Network Controller: Integrated NC7782  
Operating System: Windows Server 2003 Std. Edition  
Compiler: Microsoft Visual C++ 6.0

## Notes/Tuning Information

### SUT Notes

OS, access log and file-set on one Serial ATA drive

### Operating System Notes

File system mounted with noacl,noatime,nodiratime - no inode access time updateing, no access control lists,  
irq\_balancer daemon disabled, default enabled  
Each NIC IRQ bound to a seperate logical CPU, default round-robin  
Each NIC's TX queue length set to 40000, default 100  
ulimit -n 72720, sets number of open files, default 1024  
/proc/sys/net/ipv4/conf/all/rp\_filter= 1, enables source route verification, default 0  
/proc/sys/net/ipv4/tcp\_max\_tw\_buckets= 2000000, sets TCP time-wait buckets pool size, default 180000  
/proc/sys/net/ipv4/tcp\_rmem= 30000000 30000000 30000000, maximum TCP read-buffer space allocatable, default 4096 87380 174760  
/proc/sys/net/ipv4/tcp\_wmem= 30000000 30000000 30000000, maximum TCP write-buffer space allocatable, default 4096 16384 131072  
/proc/sys/net/ipv4/tcp\_mem= 30000000 30000000 30000000, maximum TCP buffer space allocatable, default 31744 32256 32768  
/proc/sys/net/core/rmem\_max= 10000000, maximum receive socket buffer size, default 65535  
/proc/sys/net/core/rmem\_default= 10000000, default receive socket buffer size, default 65535  
/proc/sys/net/core/wmem\_max= 10000000, maximum send socket buffer size, default 65535  
/proc/sys/net/core/wmem\_default= 10000000, default send socket buffer size, default 65535  
/proc/sys/net/core/optmem\_max= 10000000, default 10240  
/proc/sys/fs/file-max= 291879, maximum number of open files, default 1024

### HTTPS Software Notes

Zeus Web Server Tuneables (\$ZEUSHOME/web/global.cfg)  
tuning!bind\_any no  
tuning!unique\_bind yes  
tuning!cache\_cooling\_time 0  
tuning!cache\_files 282011  
tuning!cache\_flush\_interval 360000

For more  
Information  
Contact

SPEC

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## Notes/Tuning Information (Continued)

### HTTPS Software Notes (Continued)

tuning!cache\_small\_file 40000  
tuning!cache\_large\_file 1048576  
tuning!cache\_max\_bytes 17179869184  
tuning!cache\_stat\_expire 360000  
tuning!cbuff\_size 65536  
tuning!clientfirst\_optimise yes  
tuning!keepalive yes  
tuning!keepalive\_max -1  
tuning!keepalive\_timeout 3600  
tuning!listen\_queue\_size 8192  
tuning!maxaccept 2048  
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  
runningsite/wstest: bindaddr IP address 1, IP address 2  
See HP-20030414-tunings.txt for a description of these Zeus tuning parameters

### HTTP API Notes

Dynamic API: HP-20020724-API.tgz  
API configured with --ssl=yes

### Client Notes

The alternate performance neutral alt.Win32 client was used.  
Tcpip\Parameters\MaxUserPort = 0xffff, sets maximum open ports to 65534  
Tcpip\Parameters\TcpTimedWaitDelay = 60, sets TIME\_WAIT parameter to 60 seconds (non-RFC 1122), default 240  
Tcpip\Parameters\MaxFreeTwtcb= 100000, sets maximum number of TIME\_WAIT tcbs to 100,000  
Tcpip\Parameters\TcpWindowSize= 65535, sets TCP receive window size, default 8192

### Other Notes

Server kernel: default SLES 9 (2.6.5-7.97-smp)