

SPECweb99_SSL Result

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Hewlett-Packard: HP 9000 Model A500
Zeus Technology Limited: Zeus 4.0r1 64bit

SPECweb99_SSL = 225

Test Date: Mar-2002
Tester: Hewlett-Packard Company

Hardware Avail: Nov-2000 OS Avail: Dec-2001 HTTPS Software Avail: Nov-2001 Sup. Software Avail: Dec-2001 SPEC license #: 3

Hardware

Vendor: Hewlett-Packard
Model: HP 9000 Model A500
Processor: 550 Mhz PA-8600
Processors: 1 core, 1 chip, 1 core/chip
Primary Cache: 512KBI+1024KBD on chip
Secondary Cache: None
Other Cache: None
Memory: 8 GB
Disk Subsystem: 1x18GB, 1x36GB (10K rpm)
Disk Controllers: 1 C87x UltraWide SE, 1 C896 UltraWide SE
Other Hardware: None

Software

Operating System: HP-UX 11.11i(64-bit)+patches
File System: See SUT Notes
Other Software: B3901BA B.11.11.04 HP C/ANSI C

HTTPS Software

Vendor: Zeus Technology Limited
HTTPS Software: Zeus 4.0r1 64bit
API: ISAPI
Server Cache: See Zeus parameters
Log Mode: Binary Log Format

Test Sponsor

Test Date: Mar-2002
Tested By: Hewlett-Packard Company
SPEC License: 3

Network

of Controllers: 1
Network Controllers: HP A4926A PCI Gigabit Ethernet
of Nets: 1
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: 1
Model: HP 9000/A500-5X
Processor: 550 Mhz PA-8600
of Processors: 2
Memory: 4 GB
Network Controller: HP A4926A, PCI Gigabit Ethernet
Operating System: HPUX 11.11i (64-bit)
Compiler: B3901BA B.11.11.04 HP C/ANSI C

Notes/Tuning Information

SUT Notes

All filesystems are HP-UX HFS
1 (36 GB) disk used for file_set

Operating System Notes

HP-UX Internet Operating Environment with following patches:
PHNE_25084 - Cumulative STREAMS Patch
PHNE_25642 - Cumulative ARPA Patch
HP-UX Tunable Parameters:
dbc_max_pct=65 Max Buffer Cache Size as Percent of RAM (50)
dbc_min_pct=65 Min bufer Cache Size as Percent of RAM (5)
maxfiles=60000 Soft File Limit per Process (60)
maxfiles_lim=60000 Hard File Limit per Process (1024)
maxssiz_64bit=0x10000000 Max Stack Size for 64-Bit Procs (0x00800000)
maxswapchunks=4868 Max number of swap chunks (256)
maxuprc=10000 Max number of user processes (75)
nfile=250000 Max number of open files (790)
ninode=150000 Max number of inodes (444)
nkthread=8000 Max number of kernel threads (499)
nproc=1000 Max number of processes (276)
tphashsz=16384 Relative Scaling Factor for TCP & IP Int. Tables(2048)
vps_ceiling=4096 Max System selected page size [KB] (16)
vps_pagesize=64 Default User page size [KB] (4)

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Notes/Tuning Information (Continued)

HTTPS Software Notes

Zeus Global Parameters:

```
tuning!cache_files      356750
tuning!cache_max_bytes  0
tuning!cache_small_file 0
tuning!cache_large_file 1048576
tuning!cache_stat_expire 86400
tuning!cache_flush_interval 86400
tuning!listen_queue_size 8192
tuning!multiple_accept  yes
tuning!so_rbuff_size    0
tuning!so_wbuff_size    1048576
tuning!cbuff_size       65536
tuning!keepalive        yes
tuning!keepalive_timeout 1200
tuning!keepalive_max    -1
tuning!timeout           600
tuning!unique_bind      yes
tuning!bind_any          no
tuning!modules!cgi!cbuff_size 1048576
tuning!modules!cgi!cleansize 0
tuning!ssl_keepalive    yes
tuning!softservers      no
tuning!use_poll          no
tuning!modules!stats!enabled no
tuning!modules!nsapi!enabled no
tuning!modules!isapi!enabled yes
tuning!cache_cooling_time 0
tuning!maxaccept        1024
```

HTTP API Notes

Zeus ISAPI interface used
Zeus PEPP Toolkit(0.6) used for SPECweb99_SSL dynamic content
./Configure --sendfile=no --checkconfig=yes --locking=semop

Network Notes

1 Alteon 180e switch
Networking Tunable Parameters:
tcp_xmit_hiwater_def=2000000 Max unsent data triggers flow control(32768)
tcp_conn_request_max=1024 Max outstanding connection reqs (20)
tcp_conn_strategy=1 Selects TCP connection strategy (0)
Gigabit Tunable Parameters:
send_max_buffers=32 Number of send buffers consumed to trigger interrupt (16)
recv_max_buffers=12 Number of send buffers consumed to trigger interrupt (1)
recv_coal_ticks=10000 Number of ticks to wait to trigger interrupt (0)
send_coal_ticks=1000 Number of ticks to wait to trigger interrupt (1000)

Client Notes

HP-UX Tunable Parameters:
max_thread_proc=800 Number of threads per process (64)
maxusers=256 Value of MAXUSERS macro (32)
ncallout=5000 Increase number of pending timeouts
nkthread=8000 Maximum number of system-wide threads

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Notes/Tuning Information (Continued)

Other Notes

Tuning Disclosure: HP-20020318.txt
Dynamic API: HP-20010917-API.tar.gz