

SPECweb99 Result

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Hewlett-Packard: HP 9000 Model A500
Zeus Technology Limited: Zeus 3.3.7

SPECweb99 = 2109

Test Date: Oct-2000
Tester: Hewlett-Packard Company

Hardware Avail: Nov-2000 OS Avail: Feb-2000 HTTP Software Avail: Aug-2000 Sup. Software Avail: Aug-2000 SPEC license #: 3

Hardware

Vendor: Hewlett-Packard
Model: HP 9000 Model A500
Processor: PA8600 550Mhz
Processors: 2 cores, 2 chips, 1 core/chip
Primary Cache: 512KBI+1024KBD on chip
Secondary Cache: None
Other Cache: None
Memory: 8 GB
Disk Subsystem: 2 x 18GB (10K rpm)
Disk Controllers: 1 HP Ultra2 SCSI LVD
Other Hardware: None

Software

Operating System: HP-UX 11.ACE (64-bit)
File System: See Notes
Other Software: A4926A 1000 Base PCI Gb Ethernet
B3929BA HP OnLine JFS

HTTP Software

Vendor: Zeus Technology Limited
HTTP Software: Zeus 3.3.7
API: ISAPI
Server Cache: See Zeus parameters
Log Mode: Binary Log Format

Test Sponsor

Test Date: Oct-2000
Tested By: Hewlett-Packard Company
SPEC License: 3

Network

of Controllers: 2
Network Controllers: HP A4926A PCI Gigabit Ethernet
of Nets: 2
Type of Nets: Gigabit Ethernet
Network Speed: 1000 Mbps
MSL (sec): 30 (Non RFC1122)
Time-Wait (sec): 60 (Non RFC1122)
MTU: 1500

Clients

of Clients: 24
Model: HP 9000/B180L
Processor: 180Mhz PA7300LC
of Processors: 1
Memory: 128MByte
Network Controller: HP A5230A, PCI 100BaseT
Operating System: HPUX 11.0 ACE
Compiler: B3901BA B.11.01.20 HP C/ANSI C

Notes/Tuning Information

SUT Notes

chattr +pd 16M +pi 16M on zeus to set page sizes
OnLineJFS used for /logs
All other filesystems are HP-UX HFS; no options specified

Operating System Notes

HP-UX Patches
PHCO_22076 - Libc Cumulative Patch
PHKL_18541 - Updated Linkorder Files
PHNE_20125 - NDD General Patch
PHNE_20316 - Cumulative STREAMS Patch
PHNE_21865 - 1000Base-SX/T Cumulative Patch
PHNE_21905 - LAN Product Cumulative Patch
HP-UX Tunable Parameters
tphashsz=16384, ninode=92000, nfile=180000
maxfiles=60000, maxuprc=100, nproc=200
maxfiles_lim=60000, dbc_max_pct=83, dbc_min_pct=83
maxdsiz=0x18000000, maxssiz=0x10000000, maxswapchunks=4868
maxdsiz_64bit=0X0000000180000000, vps_pagesize=32
vps_ceiling=4096, maxssiz_64bit=0X0000000180000000

HTTP Software Notes

Zeus Global Parameters:
tuning!cache_files 85001
tuning!cache_max_bytes 0
tuning!cache_small_file 9216
tuning!cache_large_file 1048576

For more
Information
Contact

SPEC

info@spec.org
http://www.spec.org

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Notes/Tuning Information (Continued)

HTTP Software Notes (Continued)

```
tuning!cache_stat_expire 864000
tuning!cache_flush_interval 864000
tuning!listen_queue_size 8192
tuning!multiple_accept yes
tuning!so_rbuff_size 32768
tuning!so_wbuff_size 1048576
tuning!cbuff_size 1048576
tuning!keepalive yes
tuning!keepalive_timeout 600
tuning!keepalive_max -1
tuning!timeout 600
tuning!unique_bind yes
tuning!bind_any no
tuning!sendfile yes
tuning!sendfile_reservefd 49001
tuning!sendfile_minsize 9216
tuning!modules!cgi!cbuff_size 921632
tuning!modules!cgi!cleansize 0
tuning!softservers no
tuning!modules!stats!enabled no
tuning!modules!nsapi!enabled no
tuning!modules!isapi!enabled yes
tuning!modules!fastcgi!enabled yes
tuning!use_poll no
```

HTTP API Notes

Zeus ISAPI interface used for most dynamic content
FastCGI used as communication method to manage all the independent CGI processes

Network Notes

2 HP Procurve 1600M Switch
Networking Tuning parameters:
tcp_xmit_hiwater_def=2000000 (Default = 32K)
(Amount of unsent data that triggers write-side flow control)
tcp_conn_request_max=1024 (Default = 20)
(Maximum number of outstanding inbound connection requests.)
tcp_conn_strategy=1 (Default = 0)
(Selects tcp connection strategy.)
Gigabit Tuning parameters:
send_max_bufs=32, recv_max_bufs=12
recv_coal_ticks=10000, send_coal_ticks=1000

Client Notes

ncallout 5000 (increase number of pending timers)
max_thread_proc 800 (allow more threads per process)
nkthread 2048 (maximum number of threads system-wide)