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

For more Information
Contact

SPEC

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Specweb99 = 1305
Test Date: Nov-2000
Tester: Hewlett-Packard Company

Hardware
Vendor: Hewlett-Packard
Model: HP 9000 Model A500
Processor: PA8600 550Mhz
# 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: 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:

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

Notes/Tuning Information

SUT Notes
Set LargePage attribute on all Zeus Binaries [chatr +pd 16M +pi16M]
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:
tcphashsz=16384, ninode=92000, nfile=180000
maxfiles=60000, maxuprc=100, nproc=200
maxfiles_lim=60000, dcb_max_pctl=85, dcb_min_pctl=85
maxsz=0x18000000, maxssiz=0x10000000, maxswapchunks=4868
maxsz=64bit=0x1000000018000000, vps_pagesize=32
maxssiz=64bit=0x1000000018000000, vps_ceiling=4096

HTTP Software Notes
Zeus Global Parameters:
tuning/cache_files 85001
tuning/cache_max_bytes 0
tuning/cache_small_file 5001
tuning/cache_large_file 1048576
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  45001
- tuning!sendfile_minsize   5001
- 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 Switches
- 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)