SPECweb99 Result

Hewlett-Packard: HP 9000 Model L3000
Zeus Technology Limited: Zeus 3.3.7

SPECweb99 = 3835

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 L3000
Processor:	PA8600 550Mhz
# Processors:	4 cores, 4 chips, 1 core/chip
Primary Cache:	512KBI+1024KBD on chip
Secondary Cache:	None
Other Cache:	None
Memory:	16 GB
Disk Subsystem:	1x9GB, 2x36GB (10K rpm)
Disk Controllers:	1 HP FWD SCSI, 1 HP Ultra2 SCSI
Other Hardware:	None

Software

Operating System:	HP-UX 11.ACE (64-bit)
File System:	See Notes
Other Software:	HP A4926A PCI Gb Ethernet, B3929BA HP OnLineJFS

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:	4
Network Controllers:	HP A4926A PCI Gb Ethernet
# of Nets:	4
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:	48
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

chatr +r enable +pd 16M +pi 16M zeus.web to enable branch prediction and set pagesize
OnlineJFS used for /logs filesystem
All other filesystems are HP-UX HFS; no options specified

Operating System Notes

HP-UX Patches
PHNE_20125 - NDD General Patch
PHNE_20316 - Cumulative Streams Patch
PHNE_21217 - LAN product cumulative patch
PHNE_21865 - 1000Base-SX/T cumulative patch
PHCO_20765 - libc cumulative patch
PHNE_22397 - cumulative ARPA Transport patch
HP-UX Tunable Parameters
tcphashsz=16384, ninode=105000, nfile=185000
maxfiles=60000,maxfiles_lim=60000,dbc_max_pct=82
dbc_min_pct=82,maxdsiz=0x18000000, maxdsiz_64bit=0X0000000180000000
maxswapchunks=4096,vps_pagesize=32, vps_ceiling=4096

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
tuning!cache_stat_expire 864000
tuning!cache_flush_interval 864000

SPECweb99 Result

Notes/Tuning Information (Continued)

HTTP Software Notes (Continued)

tuning!listen_queue_size 1024
tuning!multiple_accept yes
tuning!so_rbuff_size 32768
tuning!cbuff_size 1048576
tuning!keepalive yes
tuning!keepalive_timeout 1200
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!sendfile_maxsize 1048576
tuning!modules!cgi!cbuff_size 921632
tuning!modules!cgi!cleansize 0
tuning!softservers no
tuning!use_poll no
tuning!modules!stats!enabled no
tuning!modules!nsapi!enabled no
tuning!modules!isapi!enabled yes
tuning!modules!fastcgi!enabled yes
Starts 4 unique instances of Zeus sharing a common
doc root, and each binds to an unique network address

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

4 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 timeouts)
max_thread_proc 800 (allow more threads per process)
nkthread 2048 (maximum number of threads system-wide)