SPECweb99 Result

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Compaq Computer Corp.: Alphaserver ES45
Zeus Ltd: Zeus 3.3.8.1

SPECweb99 = 4482

Test Date: Jun-2001
Tester: Compaq

Hardware Avail:	Oct-2001	OS Avail:	Sep-2001	HTTP Software Avail:	Mar-2001	Sup. Software Avail:	Sep-2001	SPEC license #:	2

Hardware

Vendor:	Compaq Computer Corp.
Model:	Alphaserver ES45
Processor:	1000 MHz 21264B
# Processors:	4 cores, 4 chips, 1 core/chip
Primary Cache:	64KBI+64KBD on chip
Secondary Cache:	8MB off chip
Other Cache:	none
Memory:	32 GB
Disk Subsystem:	15 x(COMPAQ BB00912301 9GB SCSI)
Disk Controllers:	2 x QLOGIC ISP1040B/V2 FW SCSI
Other Hardware:	3 x ALTEON ACEswitch 180 GbE Switch

Software

Operating System:	Compaq Tru64 UNIX V5.1A Spiked
File System:	UFS & AdvFS
Other Software:	none

HTTP Software

Vendor:	Zeus Ltd
HTTP Software:	Zeus 3.3.8.1
API:	ISAPI
Server Cache:	none
Log Mode:	Binary Log Format

Test Sponsor

Test Date:	Jun-2001
Tested By:	Compaq
SPEC License:	2

Network

# of Controllers:	3
Network Controllers:	3 x DEGPA-SA
# of Nets:	3
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:	9
Model:	Compaq DS20E
Processor:	667MHz 21264
# of Processors:	2
Memory:	1GB
Network Controller:	DEGPA-SA
Operating System:	Compaq Tru64 UNIX V5.1
Compiler:	Compaq C V6.3-026

Notes/Tuning Information

SUT Notes

Operating System Notes

OS Tuning parameters:

vm:
swapdevice=/dev/disk/dsk14c,/dev/disk/dsk15c

vm_swap_eager = 0

proc:
max_per_proc_address_space = 0x40000000000
max_per_proc_data_size = 0x40000000000
max_proc_per_user = 2048
max_threads_per_user = 0
per_proc_address_space = 0x40000000000
per_proc_data_size = 0x40000000000

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Notes/Tuning Information (Continued)

Operating System Notes (Continued)

inet:
ipqmaxlen = 2000
ipqs = 16
tcbhashnum = 16
tcbhashsize = 8192

tcp_sendspace = 1048576

net:
netisrthreads=2
netisrwakeupthreshold = 96

socket:
somaxconn = 32765
sominconn = 32765
umc = 1

vfs:
name_cache_hash_size = 16384
namei_cache_valid_time = 8400

advfs:
AdvfsCacheHashSize = 32768
AdvfsCacheMaxPercent = 25

alt:
minimal_isr = 0
send_coal = 500
send_ticks = 31250
recv_coal = 500
recv_ticks = 200

Additional kernel tuning:
Spike feedback-based optimization applied to kernel.

HTTP Software Notes

Zeus Tuning
runningsites/<host>: bindaddr text 10.76.76.76,11.76.76.76,12,76.76.76
global.cfg:
tuning!bind_any yes
tuning!cache_files 192461
tuning!cache_flush_interval 86400
tuning!cache_large_file 1048576
tuning!cache_max_bytes 0
tuning!cache_small_file 8192
tuning!cache_stat_expire 86400
tuning!num_children 6
tuning!so_wbuff_size 1048576
tuning!softservers no
tuning!unique_bind no
tuning!use_poll no

tuning!cache_cooling_time 0
tuning!cbuff_size 65536

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Notes/Tuning Information (Continued)

Hardware Notes

"Disk Configuration:
" disk1: OS (/, /usr) [Controller 1]
" disk2: URLroot (/www) [2]
" disk3, disk9: http logging (log_dmn#log_fs) [2,3]
" disk4-7, disk10-13 wwwdomain#file_set rw,noatimes [2,3]

" disk14, disk15: swap [3]

Network Notes

Network Tuning: N/A

Client Notes

max-proc-per-user = 0
proc:
maxusers = 1024
max-threads-per-user = 1024
socket:
sominconn = 32765
somaxconn = 32765
inet:
ipport_userreserved = 65000
tcp_recvspace = 60000

Other Notes

Tuning Disclosure: Compaq-20010614.txt
Dynamic API: Compaq-ES45-20010614.tar.gz