SPECweb99 Result

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

SPECweb99 = 4482
Test Date: Jun-2001
Tester: Compaq

Hardware

- Vendor: Compaq Computer Corp.
- Model: Alphaserver ES45
- Processor: 1000 MHz 21264B
- # Processors: 4 cores, 4 chips, 1 core/chip
- Primary Cache: 64KBI+64KB 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
- 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:

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

vm_swap_eager = 0

proc:
max_per_proc_address_space = 0x400000000000
max_per_proc_data_size = 0x400000000000
max_proc_per_user = 2048
max_threads_per_user = 0
per_proc_address_space = 0x400000000000
per_proc_data_size = 0x400000000000
```
Notes/Tuning Information (Continued)

Operating System Notes (Continued)

inet:
ipqmaxlen = 2000
ipqs = 16
tc bahashnum = 16
tc bahashsize = 8192
tcp_send space = 1048576

net:
etisrthreads = 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/&lt;host&gt;: 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
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