

SPECweb99 Result

© Copyright 1999, Standard Performance Evaluation Corporation

Compaq Computer Corp.: Alphaserver ES45 2-cpu
Zeus Ltd: Zeus 4.0r1

SPECweb99 = 2598

Test Date: Nov-2001
Tester: Compaq

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

Hardware

Vendor: Compaq Computer Corp.
Model: Alphaserver ES45 2-cpu
Processor: 1000 MHz 21264B
Processors: 2 cores, 2 chips, 1 core/chip
Primary Cache: 64KBI+64KBD on chip
Secondary Cache: 8MB off chip
Other Cache: none
Memory: 32 GB
Disk Subsystem: 1xBD018635C4 + 12xBB00911CA0(18&9GB)
Disk Controllers: 2 x QLOGIC ISP1040B/V2 FW SCSI
Other Hardware: 2 x ALTEON ACEswitch 180 GbE Switch

Software

Operating System: Compaq Tru64 UNIX V5.1A Spiked
File System: UFS & AdvFS
Other Software: Compaq C V6.4-009

HTTP Software

Vendor: Zeus Ltd
HTTP Software: Zeus 4.0r1
API: ISAPI
Server Cache: none
Log Mode: Binary Log Format

Test Sponsor

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

Network

of Controllers: 2
Network Controllers: 2 x DEGPA-SA
of Nets: 2
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: 8
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 V6.3-027

Notes/Tuning Information

SUT Notes

Operating System Notes

Kernel (vmunix) tuning using Spike:

Spike is a tool that performs feedback-based code optimization on programs. To optimize the kernel a profile was taken using the Continuous Profiling Infrastructure (DCPI) tool while running a static HTTP workload. For details see the tuning disclosure.

OS Tuning parameters:

```
vm:  
swapdevice=/dev/disk/dsk7c
```

```
vm_swap_eager = 0
```

```
proc:  
max_per_proc_address_space = 0x4000000000  
max_per_proc_data_size = 0x4000000000  
max_proc_per_user = 2048  
max_threads_per_user = 0  
per_proc_address_space = 0x4000000000  
per_proc_data_size = 0x4000000000
```

SPECweb99 Result

© Copyright 1999, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

Operating System Notes (Continued)

inet:
ipqmaxlen = 2000
ipqs = 16
tcblhashnum = 16
tcblhashsize = 8192

tcp_sendspace = 1048576

net:
netisrthreads=2
netisrwakeuptreshold = 96

socket:
somanconn = 32765
sominconn = 32765
umc = 1

vfs:
name_cache_hash_size = 131071
namei_cache_valid_time = 16800

vnode_age=120:

alt:
minimal_isr=0
send_coal = 128

recv_ticks = 125000

advfs:
AdvfsSyncMmapPages=0 (use smooth sync)

HTTP Software Notes

Zeus Tuning
runningsites/<host>; bindaddr text 10.76.76.76,11.76.76.76
global.cfg:
tuning!bind_any no
tuning!cache_files 192461
tuning!cache_flush_interval 86400
tuning!cache_large_file 1048576
tuning!cache_max_bytes 0
tuning!cache_small_file 0
tuning!cache_stat_expire 86400
tuning!num_children 2
tuning!so_wbuff_size 1048576
tuning!softservers no
tuning!unique_bind yes
tuning!use_poll no

tuning!cache_cooling_time 0
tuning!cbuff_size 65536
tuning!keepalive yes
tuning!keepalive_max -1
tuning!modules!isapi!writeclient_limit 104857600
tuning!modules!isapi!enabled no

SPECweb99 Result

© Copyright 1999, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

HTTP Software Notes (Continued)

tuning!modules!isapi!enabled no
tuning!modules!stats!enabled no
tuning!cgid!enabled no

Hardware Notes

Disk Configuration:
disk1: OS (/, /usr) [Controller 1]
disk2,13, http logging (striped /log rw,noatimes) [1,2]
disk3: URLroot (/www rw,noatimes) [2]
disk4-7, disk8-11 wwwdomain#file_set ro,noatimes [1,2]
disk12: swap [1]

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