

SPECweb99 Result

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IBM: IBM pSeries 660 Model 6H1
Zeus Technology Ltd.: Zeus 3.3.8

SPECweb99 = 4522

Test Date: Mar-2001
Tester: IBM

Hardware Avail: Apr-2001 OS Avail: Apr-2001 HTTP Software Avail: Feb-2001 Sup. Software Avail: Apr-2001 SPEC license #: 11

Hardware

Notes/Tuning Information

Vendor: IBM
Model: IBM pSeries 660 Model 6H1
Processor: IBM pSeries 660 Model 6H1
Processors: 6
Primary cache: 128KB L1+128KB on chip
Secondary cache: 8MB (80000) on chip
Other: maxconn=8192 (max listen backlog, default=1024)
Memory: nbc_max_cache=32GB (max file size for network buffer cache, default=1048576)
Disk Subsystem: 110000 (max file entries in private segment, default=0)
no -o tcp_timewait=5 (ensure that TIME_WAIT is at least 60 seconds, default=1)
Interrupt affinity - bind 6 Ethernet interrupts to 6 cpu's (1 interrupt to 1 cpu)
Processor affinity - bind 6 Zeus instances to 6 cpu's (1 instance to 1 cpu)
maxpgahead=64 (the maximum number of pages to be read ahead, default=8)
maxfree=304 (the number of frames on the free list at which page stealing is to stop, default 256)
minperm=5% (the point below which the page-stealer will steal file of computational pages, default=20%)
maxperm=95% (the point above which the page stealing algorithm steals only file page, default=80%)
Set Gigabit Ethernet driver attribute copy_bytes=256 (copy packet from system memory to Gigabit Ethernet adapter if this many or less bytes, default=2048)
6 different logs for 6 zeus instances (1 log per zeus instance)
Disk layout: 1 disk for OS, 1 disk for webserver, 7 disks striped for file_set, 1 disk for logfile)

HTTP API Notes

Zeus ISAPI interface used for dynamic content
FastCGI used as communication method to manage all the independent CGI processes
IBM-20001225.tar.gz dynamic API used

Client Notes

no (network option) tuning:
no -o delayack=3 (delay ack for connection setup and shutdown, default=0)
no -o delayackports={80} (delay ack ports, default={ })
no -o tcp_timewait=5 (ensure that TIME_WAIT is at least 60 seconds, default=1)

Other Notes

Starts 6 instances of Zeus sharing a common docroot
The two children of each Zeus instance are bound to a unique IP address
Zeus 3.3.8 global.cfg:
tuning!bind_any no
tuning!cache_files 120011
tuning!cache_large_file 92160
tuning!cache_small_file 9216
tuning!cache_stat_expire 180000
tuning!cache_flush_interval 180000
tuning!cache_max_bytes 0
tuning!num_children 2
tuning!keepalive yes
tuning!keepalive_max -1
tuning!listen_queue_size 8192
tuning!cbuff_size 1048576
tuning!multiple_accept yes
tuning!sendfile yes
tuning!sendfile_maxsize 1048576
tuning!sendfile_minsize 9216
tuning!sendfile_reservefd 12000
tuning!so_nagle_off no
tuning!so_rbuff_size 65535
tuning!softservers no

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Notes/Tuning Information (Continued)

Other Notes (Continued)

tuning!unique_bind yes
tuning!use_poll no
tuning!cache_cooling_time 0
tuning!modules!cgi!cleansize 0
tuning!modules!stats!enabled no
tuning!modules!isapi!enabled no
Zeus_Site_Configuration:
modules!cgi!enabled yes
modules!fastcgi!enabled yes
modules!isapi!enabled yes