SPECweb99 Result

© Copyright 1999, Standard Performance Evaluation Corporation

IBM: RS/6000 7044-170
Zeus Technology Ltd.: Zeus 3.3.8.4

SPECweb99 = 816

Test Date: Aug-2001
Tester: gcocco software, inc.

Hardware Avail:	Feb-2001	OS Avail:	Jun-2001	HTTP Software Avail:	May-2001	Sup. Software Avail:	--	SPEC license #:	76

Hardware

Vendor:	IBM
Model:	RS/6000 7044-170
Processor:	450 MHz POWER3-II
# Processors:	1 core, 1 chip, 1 core/chip
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	4MB(I+D) off chip
Other Cache:	None
Memory:	2 GB
Disk Subsystem:	1x9GB, 1x18GB, 14x9GB 16Bit Ultra2 SCSI Disk
Disk Controllers:	Internal Ultra SCSI, External Ultra-2 SCSI
Other Hardware:	HP ProCurve 6208m Switch

Software

Operating System:	AIX 4.3.3 ML_8
File System:	JFS
Other Software:	None

HTTP Software

Vendor:	Zeus Technology Ltd.
HTTP Software:	Zeus 3.3.8.4
API:	ISAPI - Zeus PEPP 0.6
Server Cache:	None
Log Mode:	Binary Common Log Format

Test Sponsor

Test Date:	Aug-2001
Tested By:	gcocco software, inc.
SPEC License:	76

Network

# of Controllers:	1
Network Controllers:	Gigabit Ethernet-SX PCI
# of Nets:	1
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:	2
Model:	Sun Enterprise 420R
Processor:	450MHz UltraSPARC II
# of Processors:	4
Memory:	2GB
Network Controller:	Sun Gigabit Adapter 2.0/P
Operating System:	Solaris 8 - 04/2001
Compiler:	Forte C/6.1

Notes/Tuning Information

SUT Notes

AIX 4.3.3 Maintenance Level 8
Network Tuning options (/usr/sbin/no)
__ no -o send_file_duration = 180,000 (cache time for sendfile, def: 300)

__ no -o somaxconn = 8,192 (max connections, def: 1024)
__ no -o tcp_timewait = 5 (ensure TIMEWAIT 60 secs)
__ no -o nbc_limit = 0 (turn off Network Buffer Cache)
Network Switch - HP Procurve6208m
__ Single switch, one subnet
Disk Layout (hdisk0 and 1 are Internal)
__ hdisk0 - OS, paging and Zeus
__ hdisk1 - /log filesystem (Zeus Webserver Binary CLF files)
Disk Array (2104-DL1 Ultra3 SCSI, 10K RPM drives)
__ hdisk2 - AIX journaled file system (jfs) log for /log filesystem
__ hdisk3 - AIX jfs log for /ex filesystem
__ hdisk4 - /ex filesystem (R/W portion of docroot - eg. post.log)
__ hdisk5 - AIX jfs log for /ex/file_set (only necessary in R/W mode)
__ hdisk6-15 - /ex/file_set (R/O docroot) - 210 16MB partions spread across 10 volumes

HTTP Software Notes

Zeus 3.3.8.4 Global.cfg performance parameters
__ Refer to: http://support.zeus.com/faq/entries/tuning.html
__
__ tuning!num_children 1
__
__ tuning!cache_files 120123

© Copyright 1999, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

HTTP Software Notes (Continued)

__ tuning!cache_large_file 1048576
__ tuning!cache_small_file 4096
__ tuning!cache_max_bytes 0
__ tuning!cache_cooling_time 0
__ tuning!cache_stat_expire 31536000
__ tuning!cache_flush_interval 31536000
__
__ tuning!keepalive yes
__ tuning!keepalive_max -1
__
__ tuning!sendfile yes
__ tuning!sendfile_maxsize 1048576
__ tuning!sendfile_minsize 1
__ tuning!sendfile_reservefd 3276
__
__ tuning!listen_queue_size 8192
__ tuning!multiple_accept yes
__ tuning!bind_any yes
__ tuning!use_poll no
__
__ tuning!so_wbuff_size 1048576
__ tuning!so_rbuff_size 0
__ tuning!so_nagle_off no
__
__ tuning!modules!cgi!cleansize 0
__ tuning!cbuff_size 1048576
__ tuning!softservers no
__
Zeus 3.3.8.4 virtual_server performance parameters
__ dnslookup no
__ docroot /ex
__
__ modules!cgi!allowanywhere yes
__ modules!cgi!allowcmd yes
__ modules!cgi!enabled yes
__ modules!get!enabled yes
__ modules!isapi!enabled yes
__ modules!log!enabled yes
__ modules!log!filename /log/binlog
__ modules!log!format %B
__ modules!map!enabled yes
__ modules!mime!enabled yes
__ modules!index!enabled yes
__ modules!index!files index.html, index.htm, index.shtml, index.cgi
__
__ modules!access!enabled no
__ modules!access!ldap!enabled no
__ modules!dirlist!enabled no
__ modules!distributed!enabled no
__ modules!errors!enabled no
__ modules!fastcgi!enabled no
__ modules!frontpage!enabled no
__ modules!htaccess!enabled no
__ modules!imagemap!enabled no
__ modules!jserv!enabled no
__ modules!map!homedir!enabled no
__ modules!nsapi!enabled no
__ modules!put!enabled no
__ modules!put!save_as_user no
__ modules!referrer!enabled no

SPECweb99 Result

© Copyright 1999, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

HTTP Software Notes (Continued)

__ modules!search!enabled no
__ modules!spelling!enabled no
__ modules!stats!enabled no
__ modules!subserver!enabled no
__ modules!throttle!enabled no
__ modules!throttle!subserver no
__ modules!usertrack!enabled no
__ modules!usertrack!expire no
__
__ security!client_cert 0
__ security!enabled no

__
__ modules!map!alias!/!filepath /ex/
__ modules!map!alias!/!type simple
__ modules!map!alias!/cgi-bin/!filepath /ex/cgi-bin/
__ modules!map!alias!/cgi-bin/!type cgi
__ modules!map!alias!/isapi-bin/!filepath /ex/isapi-bin/
__ modules!map!alias!/isapi-bin/!type isapi
__
__ modules!map!alias_types!cgi application/x-httpd-cgi
__ modules!map!alias_types!fastcgi application/x-httpd-fcgi
__ modules!map!alias_types!simple application/x-httpd-alias
__
__ modules!mime!default text/plain
__ modules!mime!types! ** no changes to mime types **

HTTP API Notes

Zeus PEPP SPECweb99 toolkit (0.6) used for dynamic content
__ ./Configure --sendfile=no --locking=semop

Client Notes

Solaris 8 - 4/01 + patch 108813-06 (Sun Gigabit fix)
Operating system changes in (/etc/system)
__ set sq_max_size = 0 (unlimited messages allowed on each IP queue)
__ set hires_tick = 1 (def: 0, 10 ms resolution, set to 1 ms resolution)
__ set rlim_fd_max = 50000 (def: 1024 file descriptors)
__ set rlim_fd_cur = 50000 (def: 256 or rlim_fd_max, whichever is smaller)
Network Tuning parameters (/usr/sbin/ndd)
__ ndd -set /dev/tcp tcp_time_wait_interval 60000 (def: 240000 ms = 4 mins.)
__ ndd -set /dev/tcp tcp_smallest_anon_port 5001 (def: 32768)
__ ndd -set /dev/tcp tcp_conn_req_max_q 1024 (def: 128)
__ ndd -set /dev/tcp tcp_rexmit_interval_min 40 (def: 400 ms)
SPECweb99 V1.02 src.alt
__ Sun WorkShop 6 update 1 C 5.2 2000/09/11
__ Client build: