SPECweb99_SSL Result

Hewlett-Packard : hp server rx2600
Zeus Technology Limited : Zeus 4.2r2

NC SPECweb99_SSL

SPEC has determined that this result was not in compliance with the SPECweb99_SSL run and reporting rules. Specifically, the result did not meet the 3 month availability requirement in the SPECweb99_SSL run rules due to a change in availability of the OS.

PERFORMANCE

Iteration	Conforming Simultaneous Connections
1	NC
2	NC
3	NC
Median	NC

Availability Dates

All Hardware	Jul-2003
HTTPS Software	Mar-2003
Operating System	Jul-2003
Supplemental System	Jul-2003

Hardware

Vendor	Hewlett-Packard
Model	hp server rx2600
Processor	1.5 GHz Intel Itanium 2
# Processors	2 cores, 2 chips, 1 core/chip
Primary Cache	16KBI+16KBD on chip
Secondary Cache	256KB unified on chip
Other Cache	6144KB unified on chip
Memory	12 GB (12x1GB)
Disk Subsystem	1x36GB (10K RPM) 2x36GB (15K RPM)
Disk Controllers	SCSI C896 UW SE (internal)
Other Hardware	2xAlteon 180e Switches

Software

Operating System	HP-UX 11i v2
File System	See SUT Notes
Other Software	B3913DB C.05.36 HP aC++/C

HTTPS Software

Vendor	Zeus Technology Limited
HTTPS Software	Zeus 4.2r2
API	ISAPI
Server Cache	None
Log Mode	Binary Log Format

Test Sponsor

Test Date	Apr-2003
Tested By	Hewlett-Packard Company
SPEC License	3

Network

```
# of Controllers              2
Network Controllers           HP A6847A PCI Gigabit Ethernet
# 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                         HP 9000/A500-5X
Processor                     550 Mhz PA-8600
# of Processors               2
Memory                        4 GB
Network Controller            HP A4926A Gigabit Ethernet
Operating System              HP-UX 11i
Compiler                      B3901BA B.11.11.04 HP C/ANSI C

                             Benchmark Configuration

Requested Connections         1873
Fileset Size (MB)             6114.64

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                           Notes/Tuning information

SUT Notes
    1 (36 GB 10K RPM) disk with vxfs used for HP-UX
    1 (36 GB 15K RPM) disk with hfs used for the file_set
    1 (36 GB 15K RPM) disk with hfs with largefiles, behind used for logs
    largefiles is an option used when making the hfs file system. When this
    option is used, the maximum size for the files created on the file system is
    not limited to the 2 GB limit.
    behind is an option used when mounting the hfs file system. This enables
    asynchronous writes to disk.
    Bound each Zeus instance to the processor corresponding to its NIC
    Processor binding is performed by: mpsched -c cpu# -p pid
    Set page size attribute for zeus.web and zeus.cgi binaries
    chatr +pd 64k +pi 4k zeus.cgi
    chatr +pd 64M +pi 64M zeus.web

Operating System Notes
    HP-UX Tunable Parameters:
    dbc_max_pct=25 Max Buffer Cache Size as Percent of RAM (50)
    dbc_min_pct=25 Min bufer Cache Size as Percent of RAM (5)
    maxfiles=60000 Soft File Limit per Process (60)
    maxfiles_lim=60000 Hard File Limit per Process (1024)
    nfile=120000 Max number of open files (790)
    ninode=120000 Max number of inodes (444)
    tcphashsz=16384 Relative Scaling Factor for TCP & IP Int. Tables(2048)
    vps_ceiling=4096 Max System selected page size [KB] (16)
    vps_pagesize=64 Default User page size [KB] (4)
    fs_async=1 Enables asynchronous writes of file-system data structures (metadata) to disk (0)

HTTPS Software Notes
    Zeus Global Parameters:
    tuning!cache_files       356750
    tuning!cache_max_bytes    0
    tuning!cache_small_file   0
    tuning!cache_large_file   1048576
    tuning!cache_stat_expire  86400
    tuning!cache_flush_interval  86400
    tuning!listen_queue_size  1024
    tuning!multiple_accept    yes
    tuning!so_rbuff_size     0
    tuning!so_wbuff_size      1048576
    tuning!cbuff_size         65536
    tuning!keepalive      yes
    tuning!keepalive_timeout      1200
```

```
    tuning!keepalive_max          -1
    tuning!timeout                600
    tuning!unique_bind      yes
    tuning!bind_any      no
    tuning!sendfile      no
    tuning!modules!cgi!cbuff_size  1048576
    tuning!modules!cgi!cleansize  0
    tuning!ssl_keepalive      yes
    tuning!ssl_sessioncache_size     256
    tuning!ssl_diskcache    no
    tuning!softservers      no
    tuning!use_poll         no
    tuning!modules!stats!enabled no
    tuning!modules!nsapi!enabled no
    tuning!modules!isapi!enabled yes
    tuning!cache_cooling_time 0
    tuning!maxaccept    1024
    security!enabled yes
    modules!cgi!enabled yes

HTTP API Notes
    Zeus ISAPI interface used
    Zeus PEPP Toolkit(0.6) used for SPECweb99_SSL dynamic content
    ./Configure --sendfile=no --checkconfig=yes --locking=semop

Network Notes
    Networking Tunable Parameters:
    tcp_xmit_hiwater_def=2000000 Max unsent data triggers flow control(32768)
    tcp_conn_request_max=1024 Max outstanding connection reqs (20)
    Gigabit Tunable Parameters:
    send_max_bufs=128 Number of sending buffers consumed to trigger interrupt (16)
    recv_max_bufs=128 Number of receiving buffers consumed to trigger interrupt (1)
    send_coal_ticks=5000 Number of ticks to wait to trigger interrupt (0)
    recv_coal_ticks=12000 Number of ticks to wait to trigger interrupt (0)

Client Notes
    Client code generated with ./configure --enable-posix-threads
    HP-UX Tunable Parameters:
    max_thread_proc=800  Number of threads per process (64)
    maxusers=256  Value of MAXUSERS macro (32)
    ncallout=5000  Increase number of pending timeouts
    nkthread=8000  Maximum number of system-wide threads (499)
    ninode=5000  Maximum number of inodes (444)
    nfile=4096  Maximum number of open files (790)
    maxswapchunks=2048  Maximum number of swap chunks (256)

Other Notes
    Tuning Disclosure: HP-20020708.txt
    Dynamic API: HP-20010917-API.tar.gz

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Test Run Details

    Run    Conforming  Percent  |  Throughput  Response ops/sec/  Kbits/
    Num    Connections Conform  |  ops/sec     msec     loadgen   sec
      1     NC          NC       |   NC           NC       NC        NC
  =>  2     NC          NC       |   NC           NC       NC        NC
      3     NC          NC       |   NC           NC       NC        NC
```