

SPECweb99 Result

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Hewlett-Packard : HP Integrity rx4640          ||      NC      SPECweb99
Zeus Technology Limited : Zeus 4.3r2         ||
=====
  
```

SPEC has determined that this result was not in compliance with the SPECweb99 run and reporting rules. Specifically, the result did not meet the 3 month availability requirement in the SPECweb99 run rules due to a change in availability of a dependency of the web server.

PERFORMANCE

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

Availability Dates

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All Hardware          Dec-2004
HTTP Software         Oct-2005
Operating System      Jul-2005
Supplemental System   Jul-2005
  
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Hardware

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Vendor                Hewlett-Packard
Model                 HP Integrity rx4640
Processor              1.6 GHz Intel Itanium2 9M
# Processors           1 core, 1 chip, 1 core/chip
Primary Cache          16KBI + 16KBD on chip
Secondary Cache        256KB unified on chip
Other Cache            9216KB unified on chip
Memory                 32 GB (32x1GB)
Disk Subsystem         2x73GB(15K RPM)
Disk Controllers       1 SCSI C1010 Fast Wide LVD (Internal)
Other Hardware         2 x HP Procurve 2724 Switches
  
```

Software

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Operating System      SuSE SLES 9 SP2
File System            See Notes
Other Software         gcc 3.3.3 from distro
  
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HTTP Software

```

Vendor                Zeus Technology Limited
HTTP Software          Zeus 4.3r2
API                   ISAPI
Server Cache           none
Log Mode               Binary Log Format
  
```

Test Sponsor

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Test Date              Apr-2005
Tested By              Hewlett-Packard Company
SPEC License           3
  
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Network

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# of Controllers       2
Network Controllers    A9900A PCI-X 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

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# of Clients           6
Model                  HP Integrity rx2600
Processor              1.0GHz Intel Itanium2
# of Processors        2
Memory                 6GB
Network Controller     HP A6825A
Operating System        HPUX 11i V2
  
```

Compiler B3901BA HP C/ANSI C

Benchmark Configuration

Requested Connections 4050
Fileset Size (MB) 13078.4

Notes/Tuning information

SUT Notes

Two 73GB 15K RPM SCSI
1x73GB disk partitioned for OS and logs
OS ReiserFS with defaults
Log filesystem ext2 with noatime,nodiratime - no inode access time updates, no access control lists
1x73GB disk used for file_set
file_set filesystem ext2 mounted noatime,nodiratime - no inode access time updates, no access control lists

Operating System Notes

sysctl tunes:
net.core.rmem_max=1048576, maximum receive socket buffer size (default 65535)
net.core.rmem_default=1048576, default receive socket buffer size (default 65535)
net.core.wmem_max=1048576, , maximum send socket buffer size (default 65535)
net.core.wmem_default=1048576, default send socket buffer size (default 65535)
net.ipv4.tcp_max_syn_backlog=20480, sets length of per-socket backlog queue (default 1024)
net.ipv4.tcp_syncookies=0, Disable TCP SYN Cookie Protection (default 1)
net.ipv4.tcp_timestamps=0, turns TCP timestamp support off (default 1)
net.ipv4.tcp_max_tw_buckets=2000000, sets TCP time-wait buckets pool size (default 180000)
net.core.netdev_max_backlog=20000, number of unprocessed input packets before kernel starts dropping them (default 300)
net.core.somaxconn=20480, maximum length of the listen queue (128)
sys.vfs.max_map_count=131072, maximum number of active map areas (65536)
fs.file-max=2000000, maximum number of open files (default 1024)
ulimit -n 500000 (prior to launching web server), sets number of open files (default 1024)

HTTP Software Notes

Zeus Global Parameters:
tuning!modules!cgi!minuid 0
tuning!modules!cgi!mingid 0
tuning!bind_any yes
tuning!cache_cooling_time 0
tuning!cache_files 569263
tuning!cache_flush_interval 180000
tuning!cache_large_file 1048576
tuning!cache_max_bytes 0
tuning!cache_small_file 4096
tuning!cache_stat_expire 180000
tuning!cbuff_size 65536
tuning!clientfirst_optimize yes
tuning!max_connections 20000
tuning!keepalive_max -1
tuning!keepalive_timeout 1200
tuning!keepalive yes
tuning!listen_queue_size 16384
tuning!modules!log!cache_size 131072
tuning!maxaccept 2048
tuning!modules!cgi!cbuff_size 1048576
tuning!modules!cgi!cleansize 0
tuning!modules!isapi!enabled yes
tuning!modules!nsapi!enabled no
tuning!modules!stats!enabled no
tuning!multiple_accept yes
tuning!so_nagle_off no
tuning!sendfile_maxsize 1048576
tuning!sendfile_minsize 1024
tuning!sendfile_reservefd 321912
tuning!sendfile yes
tuning!softservers no
tuning!so_rbuff_size 0
tuning!so_wbuff_size 1048576
tuning!unique_bind no
Zeus runningsite configuration:
modules!cgi!enabled yes
modules!isapi!enabled yes

HTTP API Notes

Zeus ISAPI interface used
Zeus PEPP Toolkit (0.9) used for SPECweb99 dynamic content
./Configure
compiled with gcc

Network Notes

Networking Tunable Parameters:
Ethtool used to disable TSO on all NICs (default enabled)
InterruptThrottleRate=700 (via modprobe) Set maximum interrupt rate for NIC (default dynamic)
RxDescriptors=512 (via modprobe) Number of receive descriptors allocated (default 256)
txqueuelen=20000 (via ifconfig) Sets transmit queue length (default 100)

Client Notes

Client code generated with ./configure --enable-posix-threads
HP-UX Tunable Parameters:
max_thread_proc=4096 Number of threads per process (64)

Other Notes

Tuning Disclosure: HP-20050901.txt
Dynamic API: HP-20050901-API.tgz

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Test Run Details

Run Num	Conforming Connections	Percent Conform	Throughput ops/sec	Response msec	ops/sec/ loadgen	Kbits/ sec
1	NC	NC	NC	NC	NC	NC
1	NC	NC	NC	NC	NC	NC
1	NC	NC	NC	NC	NC	NC