## SPECweb99_SSL Result

**IBM: pSeries 630 Model 6E4(1000MHz)**

**Zeus Technology Ltd.: Zeus 4.1r5**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Test Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor: IBM</td>
<td>Test Date: Aug-2002</td>
</tr>
<tr>
<td>Model: pSeries 630 Model 6E4(1000MHz)</td>
<td>Tested By: IBM</td>
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<tr>
<td>Processor: 1000MHz POWER4</td>
<td>SPEC License: 11</td>
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<tr>
<td># Processors: 4 cores, 1 chip, 2 cores/chip, 1 chip/SCM</td>
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<tr>
<td>Primary Cache: 64KBI+32KBD (on chip) per core</td>
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<tr>
<td>Secondary Cache: 1440KB unified (on chip) per chip</td>
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<tr>
<td>Other Cache: 32MB unified (off chip)/SCM, 2SCM in SUT</td>
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<tr>
<td>Memory: 16GB</td>
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<tr>
<td>Disk Subsystem: 11x9.1GB 16Bit SCSI Disk, 1x18.2GB 16bit SCSI Disk, 1x36.4GB 16bit SCSI Disk</td>
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<tr>
<td>Disk Controllers: 2 Wide/Ultra-3 SCSI I/O Controllers</td>
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<tr>
<td>Other Hardware: 1 x Alteon ACESwitch 180</td>
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<tr>
<td>Operating System: AIX 5L V5.1(64bit)</td>
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<tr>
<td>File System: JFS2</td>
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<tr>
<td>Other Software: None</td>
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</table>

### HTTPS Software

| Vendor: Zeus Technology Ltd. | |
| HTTPS Software: Zeus 4.1r5 | |
| API: ISAPI | |
| Server Cache: None | |
| Log Mode: Binary CLF | |

### SUT Notes

APAR IY31315 was applied to AIX5L V5.1
bindintcpu [interrupt level] [cpu] (Interrupt affinity - bind 4 Ethernet interrupts to 4 cpu's(1 interrupt to 1 cpu))
bindprocessor [process] [cpu] (Process affinity - bind 4 Zeus child processes to 4 CPU's(1 process to 1 cpu))
maxpgahead=64 (the maximum number of pages to be read ahead, default=8)
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%)
lgpg_size=16777216 (large page size in bytes, default=0)
lgpg_regions=256 (reserve 4GB=256*16MB for large_page pool, default=0)
4 different logs for 4 Zeus instances (1 log per Zeus instance)
Disk layout: 1 disk for OS, 1 disk for webserver, 10 disks striped for file_set, 1 disk for weblog
Set Gigabit Ethernet driver attribute copy_bytes=256 (copy packet into contiguous buffer on transmit if this many or less bytes, Set Gigabit Ethernet driver attribute large_send=yes (turn on large_send capability of TCPIP, default=no)
no(network option) tuning:
no -o tcp_sendspace=131072 (default socket send buffer size, default=16384)
no -o tcp_recvspace=131072 (default socket receive buffer size, default=16384)
no -o somaxconn=10240 (max listen backlog, default=1024)
no -o tcp_timewait=5 (ensure that TIME_WAIT is at least 60 seconds, default=1)
no -o tcp_newreno=0 (disables the modification to TCPIP's Fast Recovery algorithm as described in RFC 2582, default=1)

### HTTP API Notes

Zeus PEPP-06 SPECweb99 toolkit used for dynamic content
post.log in /weblog directory instead of doc_root
/Configure --sendfile=no --locking=semop
Compiled with IBM Cset++ Version 5.1
Client Notes
APAR IY17356 was applied to AIX 4.3.3
no (network option) tuning:
  no -o delayack=3 (delay ack for connection setup and shutdown, default=0)
  no -o delayackports={443} (delay ack ports, default={})
  no -o tcp_timewait=5 (ensure that TIME_WAIT is at least 60 seconds, default=1)
  no -o tcp_sendspace=131072 (default socket send buffer size, default=16384)
  no -o tcp_recvspace=131072 (default socket receive buffer size, default=16384)

Other Notes
Starts 4 unique instances of Zeus sharing a common docroot
The 1 child iprocesses of each Zeus instance bind to 1 unique IP address
Zeus 4.1r5 global.cfg (one per instance)
  tuning!bind_any no
  tuning!cache_files 100003
  tuning!cache_large_file 1048576
  tuning!cache_small_file 9216
  tuning!cache_stat_expire 180000
  tuning!cache_flush_interval 180000
  tuning!cache_max_bytes 0
  tuning!num_children 1
  tuning!keepalive yes
  tuning!ssl_keepalive yes
  tuning!ssl_diskcache no
  tuning!keepalive_timeout 300
  tuning!keepalive_max -1
  tuning!listen_queue_size 9216
  tuning!cbuff_size 1048576
  tuning!multiple_accept yes
  tuning!sendfile no
  tuning!so_rbuff_size 32768
  tuning!softservers no
  tuning!unique_bind yes
  tuning!use_poll no
  tuning!cache_cooling_time 0
  tuning!modules!cgi!cleansize 0
  tuning!modules!cgi!cbuff_size 921632
  tuning!modules!stats!enabled no
  tuning!modules!nsapi!enabled no
Zeus_Site_Configuration (one per instance):
  modules!cgi!enabled yes
  modules!isapi!enabled yes
  bindaddr ip_addr1
Tuning Disclosure: IBM-20011019.txt
Dynamic API: IBM-20011019_2-API.tar.gz