Cisco UCS B200 M3 (Intel Xeon E5-2697 v2, 2.70 GHz)

<table>
<thead>
<tr>
<th>SPECint®_rate2006</th>
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</tr>
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<tbody>
<tr>
<td>SPECint_rate_base2006</td>
<td>940</td>
</tr>
</tbody>
</table>

**Test Information**

- **CPU2006 license:** 9019
- **Test sponsor:** Cisco Systems
- **Tested by:** Cisco Systems
- **Test date:** Aug-2013
- **Hardware Availability:** Sep-2013
- **Software Availability:** Aug-2013

**Software**

- **Operating System:** Red Hat Enterprise Linux Server release 6.4 (Santiago)
- **Compiler:** C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux
- **Auto Parallel:** No
- **File System:** ext4
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 32-bit
- **Peak Pointers:** 32/64-bit
- **Other Software:** Microquill SmartHeap V10.0

**Hardware**

- **CPU Name:** Intel Xeon E5-2697 v2
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.50 GHz
- **CPU MHz:** 2700
- **FPU:** Integrated
- **CPU(s) enabled:** 24 cores, 2 chips, 12 cores/chip, 2 threads/core
- **CPU(s) orderable:** 1.2 chips
- **Primary Cache:** 32 KB I + 32 KB D on chip per core
- **Secondary Cache:** 256 KB I+D on chip per core
- **L3 Cache:** 30 MB I+D on chip per chip
- **Other Cache:** None
- **Memory:** 128 GB (16 x 8 GB 2Rx4 PC3-14900R-11, ECC)
- **Disk Subsystem:** 1 X 300 GB 15000 RPM SAS
- **Other Hardware:** None

**Results**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>SPECint_rate_base2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>perlbench</td>
<td>48</td>
<td>209</td>
</tr>
<tr>
<td>bzip2</td>
<td>48</td>
<td>511</td>
</tr>
<tr>
<td>gcc</td>
<td>48</td>
<td>729</td>
</tr>
<tr>
<td>mcf</td>
<td>48</td>
<td>1370</td>
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<tr>
<td>gobmk</td>
<td>48</td>
<td>717</td>
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<td>hmer</td>
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</tr>
<tr>
<td>libquantum</td>
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<td>h264ref</td>
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<tr>
<td>omnetpp</td>
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<td>498</td>
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<tr>
<td>astar</td>
<td>48</td>
<td>516</td>
</tr>
<tr>
<td>xalancbmk</td>
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</table>

SPECint_rate_base2006 = 940
Cisco Systems
Cisco UCS B200 M3 (Intel Xeon E5-2697 v2, 2.70 GHz)

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

SPECint_rate2006 = Not Run
SPECint_rate_base2006 = 940

Test date: Aug-2013
Hardware Availability: Sep-2013
Software Availability: Aug-2013

Results Table

<table>
<thead>
<tr>
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<th>Seconds</th>
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</tr>
</tbody>
</table>

Peak

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes
The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes
Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

BIOS Settings:
CPU performance set to HPC
Processor C State set to Disabled
Processor C1E set to Disabled
Processor C6 report set to Disabled
Energy Performance Policy set to Performance
Memory RAS configuration Set to Max-Performance
LV DDR Mode set to Performance-mode
DRAM Refresh Rate Set to 1x
Intel HT Technology = Enable
Sysinfo program /opt/cpu2006-1.2/config/sysinfo.rev6818
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
http://www.spec.org/cpu2006/Docs/config.html#sysinfo
Continued on next page
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SPECint_rate2006 = Not Run
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CPU2006 license: 9019
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Platform Notes (Continued)

From /proc/cpuinfo
    model name : Intel(R) Xeon(R) CPU E5-2697 v2 @ 2.70GHz
    2 "physical id"s (chips)
    48 "processors"
    cores, siblings (Caution: counting these is hw and system dependent. The
    following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
        cpu cores : 12
        siblings : 24
            physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13
            physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13
        cache size : 30720 KB

From /proc/meminfo
    MemTotal: 132085336 kB
    HugePages_Total: 0
    Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
    Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release* /etc/*version*
    redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
    system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)

uname -a:
    Linux SPEC-RHEL 2.6.32-358.el6.x86_64 #1 SMP Tue Jan 29 11:47:41 EST 2013
    x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Aug 28 13:18

SPEC is set to: /opt/cpu2006-1.2
    Filesystem Type Size Used Avail Use% Mounted on
    /dev/sda2 ext4 274G 48G 212G 19% /

Additional information from dmidecode:
    BIOS Cisco Systems, Inc. B200M3.2.1.2.12.080620131158 08/06/2013
    Memory:
        16x 0xAD00 HMT31GR7EFR4C-RD 8 GB 1866 MHz 2 rank
        8x NO DIMM NO DIMM

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/opt/cpu2006-1.2/libs/32:/opt/cpu2006-1.2/libs/64:/opt/cpu2006-1.2/sh"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
Continued on next page
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### General Notes (Continued)

- memory using RedHat EL 6.4
- Transparent Huge Pages enabled with:
  - echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
- Filesystem page cache cleared with:
  - echo 1> /proc/sys/vm/drop_caches
- runspec command invoked through numactl i.e.:
  - numactl --interleave=all runspec <etc>

### Base Compiler Invocation

<table>
<thead>
<tr>
<th>C benchmarks:</th>
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<tr>
<td>icc -m32</td>
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</tbody>
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<thead>
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<th>C++ benchmarks:</th>
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<tr>
<td>icpc -m32</td>
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</table>

### Base Portability Flags

- perlbench: -DSPEC_CPU_LINUX_IA32
- libquantum: -DSPEC_CPU_LINUX
- xalancbmk: -DSPEC_CPU_LINUX

### Base Optimization Flags

<table>
<thead>
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<tr>
<td>-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3</td>
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</tr>
<tr>
<td>-Wl,-z,muldefs -L/sh -lsmartheap</td>
</tr>
</tbody>
</table>

### Base Other Flags

<table>
<thead>
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<th>C benchmarks:</th>
</tr>
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<tbody>
<tr>
<td>gcc: -Dalloca=_alloca</td>
</tr>
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The flags files that were used to format this result can be browsed at

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You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.xml
http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.20130717.xml

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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