Cisco Systems
Cisco UCS C480 M5 (Intel Xeon Platinum 8153 2.00GHz)

<table>
<thead>
<tr>
<th>SPECint®2006</th>
<th>Not Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECint_base2006</td>
<td>60.7</td>
</tr>
</tbody>
</table>

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems
CPU Name: Intel Xeon Platinum 8153
CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
CPU MHZ: 2000
FPU: Integrated
CPU(s) enabled: 64 cores, 4 chips, 16 cores/chip
CPU(s) orderable: 2,4 chips
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 1 MB I+D on chip per core
L3 Cache: 22 MB I+D on chip per chip
Other Cache: None
Memory: 768 GB (48 x 16 GB 2Rx4 PC4-2666V-R)
Disk Subsystem: 1 x 600 GB SAS HDD, 10K RPM
Other Hardware: None

Hardware

Operating System: Red Hat Enterprise Linux Server release 7.3 (Maipo)
Compiler: C/C++: Version 17.0.3.191 of Intel C/C++ Compiler for Linux
Auto Parallel: Yes
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 32/64-bit
Peak Pointers: 32/64-bit
Other Software: Microquill SmartHeap V10.2

Software
Cisco Systems
Cisco UCS C480 M5 (Intel Xeon Platinum 8153 2.00GHz)

SPECint2006 = Not Run
SPECint_base2006 = 60.7

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

Test date: Aug-2017
Hardware Availability: Aug-2017
Software Availability: Apr-2017

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>Peak</td>
<td>Base</td>
<td>Peak</td>
<td>Base</td>
<td>Peak</td>
<td>Base</td>
<td>Peak</td>
<td>Base</td>
</tr>
<tr>
<td>400.perlbench</td>
<td>271</td>
<td>36.1</td>
<td>273</td>
<td>35.8</td>
<td>273</td>
<td>35.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>401.bzip2</td>
<td>438</td>
<td>22.0</td>
<td>438</td>
<td>22.0</td>
<td>438</td>
<td>22.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>403.gcc</td>
<td>226</td>
<td>35.7</td>
<td>226</td>
<td>35.7</td>
<td>225</td>
<td>35.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>429.mcf</td>
<td>136</td>
<td>67.0</td>
<td>135</td>
<td>67.5</td>
<td>136</td>
<td>67.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>445.gobmk</td>
<td>410</td>
<td>25.6</td>
<td>410</td>
<td>25.6</td>
<td>410</td>
<td>25.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>456.hmmer</td>
<td>127</td>
<td>73.3</td>
<td>127</td>
<td>73.5</td>
<td>127</td>
<td>73.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>458.sjeng</td>
<td>419</td>
<td>28.9</td>
<td>419</td>
<td>28.9</td>
<td>419</td>
<td>28.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>462.libquantum</td>
<td>2.83</td>
<td>7310</td>
<td>2.84</td>
<td>7300</td>
<td>2.85</td>
<td>7260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>464.h264ref</td>
<td>417</td>
<td>53.1</td>
<td>417</td>
<td>53.1</td>
<td>416</td>
<td>53.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>198</td>
<td>31.6</td>
<td>197</td>
<td>31.7</td>
<td>198</td>
<td>31.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>473.astar</td>
<td>231</td>
<td>30.4</td>
<td>231</td>
<td>30.4</td>
<td>232</td>
<td>30.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>104</td>
<td>66.1</td>
<td>104</td>
<td>66.1</td>
<td>104</td>
<td>66.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

Platform Notes
BIOS Settings:
Intel HyperThreading Technology set to Disabled
CPU performance set to Enterprise
Power Performance Tuning set to OS
SNC set to Disabled
IMC Interleaving set to Auto
Patrol Scrub set to Disabled
Sysinfo program /home/cpu2006-1.2/config/sysinfo.rev6993
Revision 6993 of 2015-11-06 (b5e8d4b4eb51ed28d7f98696cbe290c1)
running on rheil73-spec Mon Aug 14 18:59:40 2017

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

From /proc/cpuinfo
model name : Intel(R) Xeon(R) Platinum 8153 CPU @ 2.00GHz
4 "physical id"s (chips)
64 "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 : 16

Continued on next page
Cisco Systems  
Cisco UCS C480 M5 (Intel Xeon Platinum 8153 2.00GHz)  

<table>
<thead>
<tr>
<th>CPU2006 license:</th>
<th>9019</th>
<th>Test date:</th>
<th>Aug-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test sponsor:</td>
<td>Cisco Systems</td>
<td>Hardware Availability:</td>
<td>Aug-2017</td>
</tr>
<tr>
<td>Tested by:</td>
<td>Cisco Systems</td>
<td>Software Availability:</td>
<td>Apr-2017</td>
</tr>
</tbody>
</table>

| SPECint2006 = | Not Run |
| SPECint_base2006 = | 60.7 |

Platform Notes (Continued)

siblings : 16  
physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
physical 2: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
physical 3: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
cache size : 22528 KB

From /proc/meminfo  
MemTotal: 790981192 kB  
HugePages_Total: 0  
Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*  
os-release:  
NAME="Red Hat Enterprise Linux Server"  
VERSION="7.3 (Maipo)"  
ID="rhel"  
ID_LIKE="fedora"  
VERSION_ID="7.3"  
PRETTY_NAME="Red Hat Enterprise Linux Server 7.3 (Maipo)"  
ANSI_COLOR="0;31"  
CPE_NAME="cpe:/o:redhat:enterprise_linux:7.3:GA:server"  
redhat-release: Red Hat Enterprise Linux Server release 7.3 (Maipo)  
system-release: Red Hat Enterprise Linux Server release 7.3 (Maipo)  

uname -a:  
Linux rhel73-spec 3.10.0-514.el7.x86_64 #1 SMP Wed Oct 19 11:24:13 EDT 2016  
x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Aug 14 14:56

SPEC is set to: /home/cpu2006-1.2  
Filesystem Type Size Used Avail Use% Mounted on  
/dev/sdb5 xfs 503G 19G 485G 4% /home

Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

BIOS Cisco Systems, Inc. C480M5.3.1.0.272.0613172154 06/13/2017Cisco Systems, Inc. C480M5.3.1.0.272.0613172154 06/13/2017  
Memory:  
96x 0xCE00 M393A2G40EB2-CTD 16 GB 2 rank 2666 MHz

(End of data from sysinfo program)

The correct amount of Memory installed is 768 GB (48 x 16 GB)  
and the dmidecode is reporting invalid number of DIMMs installed  
Installed Memory:  
48x 0xCE00 M393A2G40EB2-CTD 16 GB 2 rank 2666 MHz
Cisco Systems
Cisco UCS C480 M5 (Intel Xeon Platinum 8153 2.00GHz)

SPECint2006 = Not Run
SPECint_base2006 = 60.7

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

General Notes
Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/home/cpu2006-1.2/lib/ia32:/home/cpu2006-1.2/lib/intel64:/home/cpu2006-1.2/sh10.2"
OMP_NUM_THREADS = "64"

Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32GB RAM
memory using Redhat Enterprise Linux 7.2
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/transparent_hugepage/enabled

Base Compiler Invocation
C benchmarks:
icc -m64

C++ benchmarks:
icpc -m64

Base Portability Flags
400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags
C benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -qopt-prefetch
-auto-p32

C++ benchmarks:
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -auto-p32
-W1,-z,muldefs -L/sh10.2 -lsmartheap64
## Cisco Systems

Cisco UCS C480 M5 (Intel Xeon Platinum 8153 2.00GHz)  

<table>
<thead>
<tr>
<th>SPECint2006</th>
<th>Not Run</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECint_base2006</td>
<td>60.7</td>
<td></td>
</tr>
</tbody>
</table>

### CPU2006 license: 9019  
**Test date:** Aug-2017  
**Test sponsor:** Cisco Systems  
**Tested by:** Cisco Systems  
**Hardware Availability:** Aug-2017  
**Software Availability:** Apr-2017

### Base Other Flags

C benchmarks:  
403.gcc: -Dalloca=_alloca

The flags files that were used to format this result can be browsed at  

You can also download the XML flags sources by saving the following links:  

---

SPEC and SPECint are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.2.  
Originally published on 5 September 2017.