## SPEC® CINT2006 Result

### Cisco Systems

Cisco UCS C460 M4 (Intel Xeon E7-8891 v3, 2.80 GHz)

<table>
<thead>
<tr>
<th>SPECint®2006</th>
<th>Not Run</th>
</tr>
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<tbody>
<tr>
<td>SPECint_base2006</td>
<td>64.5</td>
</tr>
</tbody>
</table>

**CPU2006 license:** 9019  
**Test date:** Apr-2015  
**Test sponsor:** Cisco Systems  
**Hardware Availability:** May-2015  
**Tested by:** Cisco Systems  
**Software Availability:** Sep-2014

### SPECint_base2006 = 64.5

**400.perlbench**  
**401.bzip2**  
**403.gcc**  
**429.mcf**  
**445.gobmk**  
**456.hmmer**  
**458.sjeng**  
**462.libquantum**  
**464.h264ref**  
**471.omnetpp**  
**473.astar**  
**483.xalancbmk**

### Hardware

- **CPU Name:** Intel Xeon E7-8891 v3  
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.50 GHz  
- **CPU MHz:** 2800  
- **FPU:** Integrated  
- **CPU(s) enabled:** 40 cores, 4 chips, 10 cores/chip  
- **CPU(s) orderable:** 1.2.3.4 chip  
- **Primary Cache:** 32 KB I + 32 KB D on chip per core  
- **Secondary Cache:** 256 KB I+D on chip per core  
- **L3 Cache:** 45 MB I+D on chip per chip  
- **Other Cache:** None  
- **Memory:** 1 TB (64 x 16 GB 2Rx4 PC4-2133P-R, running at 1600 MHz)  
- **Disk Subsystem:** 1 x 400 GB SSD SAS  
- **Other Hardware:** None

### Software

- **Operating System:** SUSE Linux Enterprise Server 12 (x86_64)  
- **Compiler:** C/C++: Version 15.0.0.090 of Intel C++ Studio XE for Linux; Fortran: Version 15.0.0.090 of Intel Fortran Studio XE for Linux  
- **Auto Parallel:** Yes  
- **File System:** xfs  
- **System State:** Run level 3 (multi-user)  
- **Base Pointers:** 32/64-bit  
- **Peak Pointers:** Not Applicable  
- **Other Software:** Microquill SmartHeap V10.0
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Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Seconds</th>
<th>Ratio</th>
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<td>40.3</td>
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<td>40.2</td>
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<td>401.bzip2</td>
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<td>24.5</td>
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<td>403.gcc</td>
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<tr>
<td>458.sjeng</td>
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<td>462.libquantum</td>
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<td>464.h264ref</td>
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<td>471.omnetpp</td>
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<td>473.astar</td>
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<tr>
<td>483.xalancbmk</td>
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<td>65.4</td>
<td>104</td>
<td>66.4</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
CPU performance set to Enterprise
Power Technology set to Energy-Efficient
Energy Performance BIAS setting set to Balanced Performance
Memory RAS configuration set to Maximum Performance
Memory Power Saving Mode set to Disabled
Intel Hyper-Threading Technology option set to Disabled
Sysinfo program /opt/cpu2006-1.2/config/sysinfo.rev6914
$Rev: 6914 $ $Date:: 2014-06-25 #$ e3fbb8667b5a285932ceab81e28219e1
running on linux-gj2z Mon Apr 20 00:48:06 2015

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) CPU E7-8891 v3 @ 2.80GHz
  4 "physical id"s (chips)
  40 "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 : 10
siblings : 10

Continued on next page
Cisco Systems
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Platform Notes (Continued)

physical 0: cores 0 1 2 4 6 8 17 19 20 23
physical 1: cores 0 1 2 4 6 8 17 19 20 23
physical 2: cores 0 1 2 4 6 8 17 19 20 23
physical 3: cores 0 1 2 4 6 8 17 19 20 23

cache size : 46080 KB

From /proc/meminfo
MemTotal: 1058834680 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
SuSE-release:
SUSE Linux Enterprise Server 12 (x86_64)
VERSION = 12
PATCHLEVEL = 0
# This file is deprecated and will be removed in a future service pack or release.
# Please check /etc/os-release for details about this release.
os-release:
NAME="SLES"
VERSION="12"
VERSION_ID="12"
PRETTY_NAME="SUSE Linux Enterprise Server 12"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12"

uname -a:
Linux linux-gj2z 3.12.28-4-default #1 SMP Thu Sep 25 17:02:34 UTC 2014
(9879bd4) x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Apr 19 23:19

SPEC is set to: /opt/cpu2006-1.2

Filesystem Type Size Used Avail Use% Mounted on
/dev/sda2 xfs 229G 59G 170G 26% /

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. C460M4.2.0.4.20.040420150215 04/04/2015
Memory:
64x 0xCE00 M393A2G40DB0-CPB 16 GB 2 rank 1600 MHz
32x NO DIMM NO DIMM 1600 MHz

(End of data from sysinfo program)
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General Notes
Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/opt/cpu2006-1.2/libs/32:/opt/cpu2006-1.2/libs/64:/opt/cpu2006-1.2/sh"
OMP_NUM_THREADS = "40"

Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB memory using RedHat EL 7.0
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 -opt-prefetch -auto-p32
C++ benchmarks:
   -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
   -Wl,-z,muldefs -L/sh -lsmartheap64
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### Base Other Flags

- **C benchmarks:**
  
  403.gcc: -Dalloca=_alloca

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

- [http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.html](http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.html)

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

- [http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.xml](http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.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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