



# SPEC® OMPG2012 Result

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## Cisco Systems

Cisco UCS B260 M4 (Intel Xeon E7-8890 v4, 2.20 GHz)

SPECompG\_peak2012 = Not Run

SPECompG\_base2012 = 13.4

OMP2012 license:9019

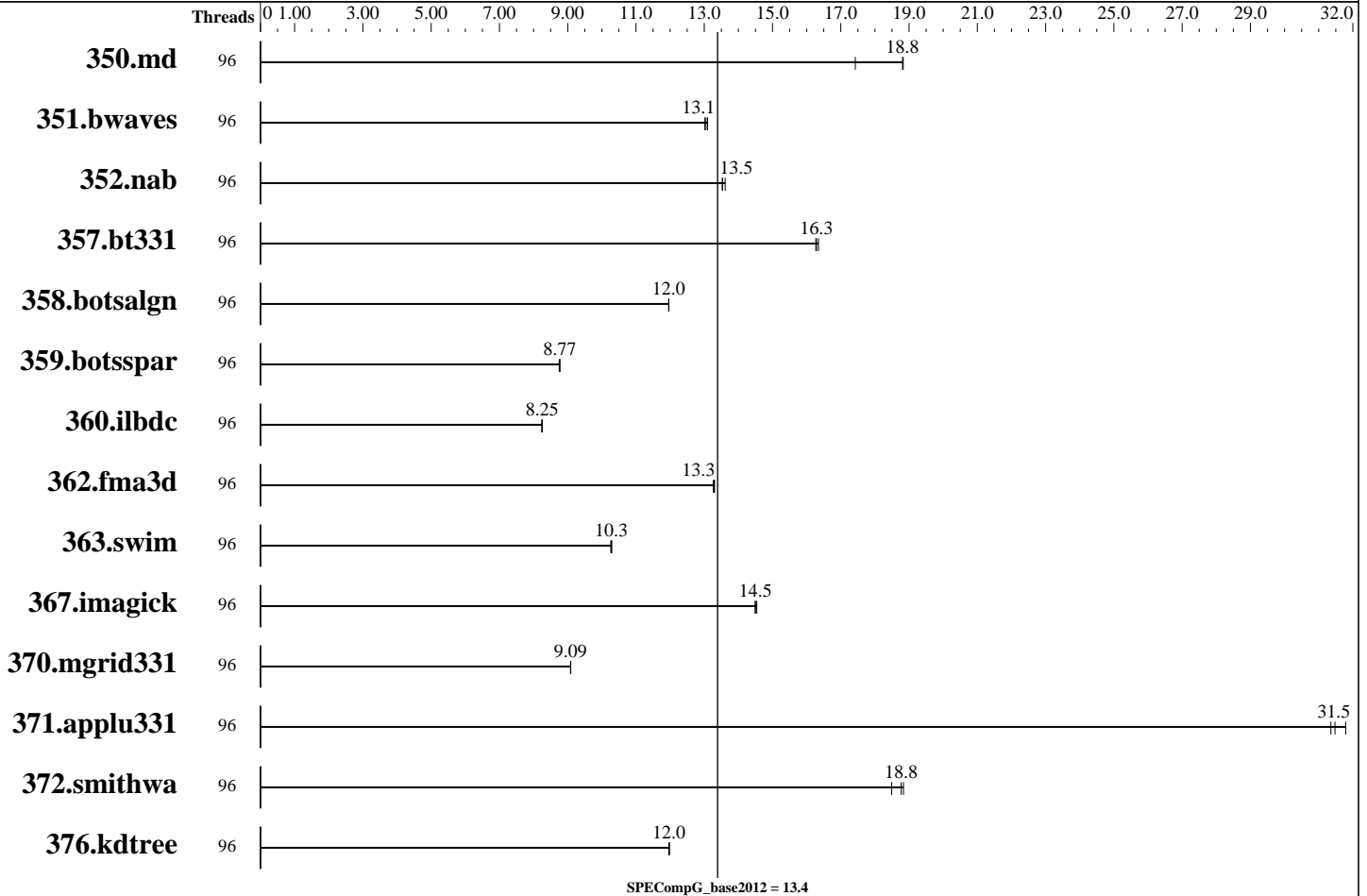
Test sponsor: Cisco Systems

Tested by: Cisco Systems

Test date: May-2016

Hardware Availability: Jul-2016

Software Availability: Aug-2015



### Hardware

CPU Name: Intel Xeon E7-8890 v4  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.40 GHz  
 CPU MHz: 2200  
 CPU MHz Maximum: 3400  
 FPU: Integrated  
 CPU(s) enabled: 48 cores, 2 chips, 24 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: 60 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 256 GB (16 x 16 GB 2Rx4 PC4-2400T-R, running at 1600 MHz)  
 Disk Subsystem: 1 X 400 GB SSD SAS  
 Other Hardware: None  
 Base Threads Run: 96

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### Software

Operating System: Red Hat Enterprise Linux 6.7 (Santiago), Kernel 2.6.32-573.el6.x86\_64  
 Compiler: C/C++/Fortran: Version 16.0.0.109 of Intel Composer for Linux Build 20150815  
 Auto Parallel: No  
 File System: Linux ext3  
 System State: Default  
 Base Pointers: 64-bit  
 Peak Pointers: 64-bit  
 Other Software: None



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Minimum Peak Threads: --  
Maximum Peak Threads: --

## Results Table

Benchmark	Base								Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
350.md	96	246	18.8	<b><u>246</u></b>	<b><u>18.8</u></b>	266	17.4									
351.bwaves	96	<b><u>347</u></b>	<b><u>13.1</u></b>	348	13.0	346	13.1									
352.nab	96	<b><u>287</u></b>	<b><u>13.5</u></b>	286	13.6	287	13.5									
357.bt331	96	291	16.3	290	16.3	<b><u>291</u></b>	<b><u>16.3</u></b>									
358.botsalgn	96	364	12.0	<b><u>364</u></b>	<b><u>12.0</u></b>	364	12.0									
359.botsspar	96	600	8.75	599	8.77	<b><u>599</u></b>	<b><u>8.77</u></b>									
360.ilbdc	96	<b><u>432</u></b>	<b><u>8.25</u></b>	431	8.25	432	8.24									
362.fma3d	96	287	13.3	<b><u>286</u></b>	<b><u>13.3</u></b>	286	13.3									
363.swim	96	<b><u>441</u></b>	<b><u>10.3</u></b>	440	10.3	441	10.3									
367.imagick	96	<b><u>485</u></b>	<b><u>14.5</u></b>	484	14.5	485	14.5									
370.mgrid331	96	<b><u>487</u></b>	<b><u>9.09</u></b>	486	9.09	487	9.08									
371.applu331	96	193	31.4	191	31.8	<b><u>193</u></b>	<b><u>31.5</u></b>									
372.smithwa	96	<b><u>286</u></b>	<b><u>18.8</u></b>	290	18.5	285	18.8									
376.kdtree	96	376	12.0	376	12.0	<b><u>376</u></b>	<b><u>12.0</u></b>									

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

## Platform Notes

```
Sysinfo program /opt/omp2012/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963ale67685e50647
running on RHEL Thu May 05 21:08:56 2016
```

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/omp2012/Docs/config.html#sysinfo>

```
From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E7-8890 v4 @ 2.20GHz
 2 "physical id"s (chips)
96 "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 : 24
siblings : 48
physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13 16 17 18 19 20 21 24 25 26
27 28 29
physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13 16 17 18 19 20 21 24 25 26
27 28 29
cache size : 61440 KB
```

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### Platform Notes (Continued)

From /proc/meminfo

MemTotal: 264225480 kB

HugePages\_Total: 0

Hugepagesize: 2048 kB

/usr/bin/lsb\_release -d

Red Hat Enterprise Linux Server release 6.7 (Santiago)

From /etc/\*release\* /etc/\*version\*

redhat-release: Red Hat Enterprise Linux Server release 6.7 (Santiago)

system-release: Red Hat Enterprise Linux Server release 6.7 (Santiago)

system-release-cpe: cpe:/o:redhat:enterprise\_linux:6server:ga:server

uname -a:

Linux RHEL 2.6.32-573.el6.x86\_64 #1 SMP Wed Jul 1 18:23:37 EDT 2015 x86\_64 x86\_64 x86\_64 GNU/Linux

run-level 3 May 05 20:56

SPEC is set to: /opt/omp2012

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/sdal	ext4	367G	28G	321G	8%	/

Additional information from dmidecode:

BIOS Cisco Systems, Inc. EXM4.3.1.1.3.042620161123 04/26/2016

Memory:

16x 16 GB

16x 0xCE00 M393A2G40EB1-CRC 16 GB 1600 MHz 2 rank

32x NO DIMM NO DIMM

(End of data from sysinfo program)

### General Notes

=====

Transparent Huge Pages enabled with:

echo always > /sys/kernel/mm/redhat\_transparent\_hugepage/enabled

BIOS settings notes:

Intel Turbo Boost Technology (Turbo) : Enabled

CPU performance set to Enterprise

Power Technology set to Performance

Memory RAS configuration set to Maximum Performance

Energy Performance BIAS setting set to OS

General OMP Library Settings

ENV\_KMP\_LIBRARY=turnaround

ENV\_OMP\_SCHEDULE=static

ENV\_KMP\_BLOCKTIME=200

ENV\_KMP\_STACKSIZE=8192M

ENV\_OMP\_DYNAMIC=FALSE

ENV\_OMP\_NESTED=FALSE

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## General Notes (Continued)

=====  
General base OMP Library Settings  
ENV\_KMP\_AFFINITY=compact,1

## Base Compiler Invocation

C benchmarks:  
icc

C++ benchmarks:  
icpc

Fortran benchmarks:  
ifort

## Base Portability Flags

350.md: -FR  
357.bt331: -mmodel=medium  
363.swim: -mmodel=medium  
367.imagick: -std=c99

## Base Optimization Flags

C benchmarks:  
-O2 -openmp -ipo -xCORE-AVX2 -ansi-alias

C++ benchmarks:  
-O2 -openmp -ipo -xCORE-AVX2 -ansi-alias

Fortran benchmarks:  
-O2 -openmp -ipo -xCORE-AVX2 -align array64byte

The flags file that was used to format this result can be browsed at  
<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20140219.html>

You can also download the XML flags source by saving the following link:  
<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20140219.xml>



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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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