

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

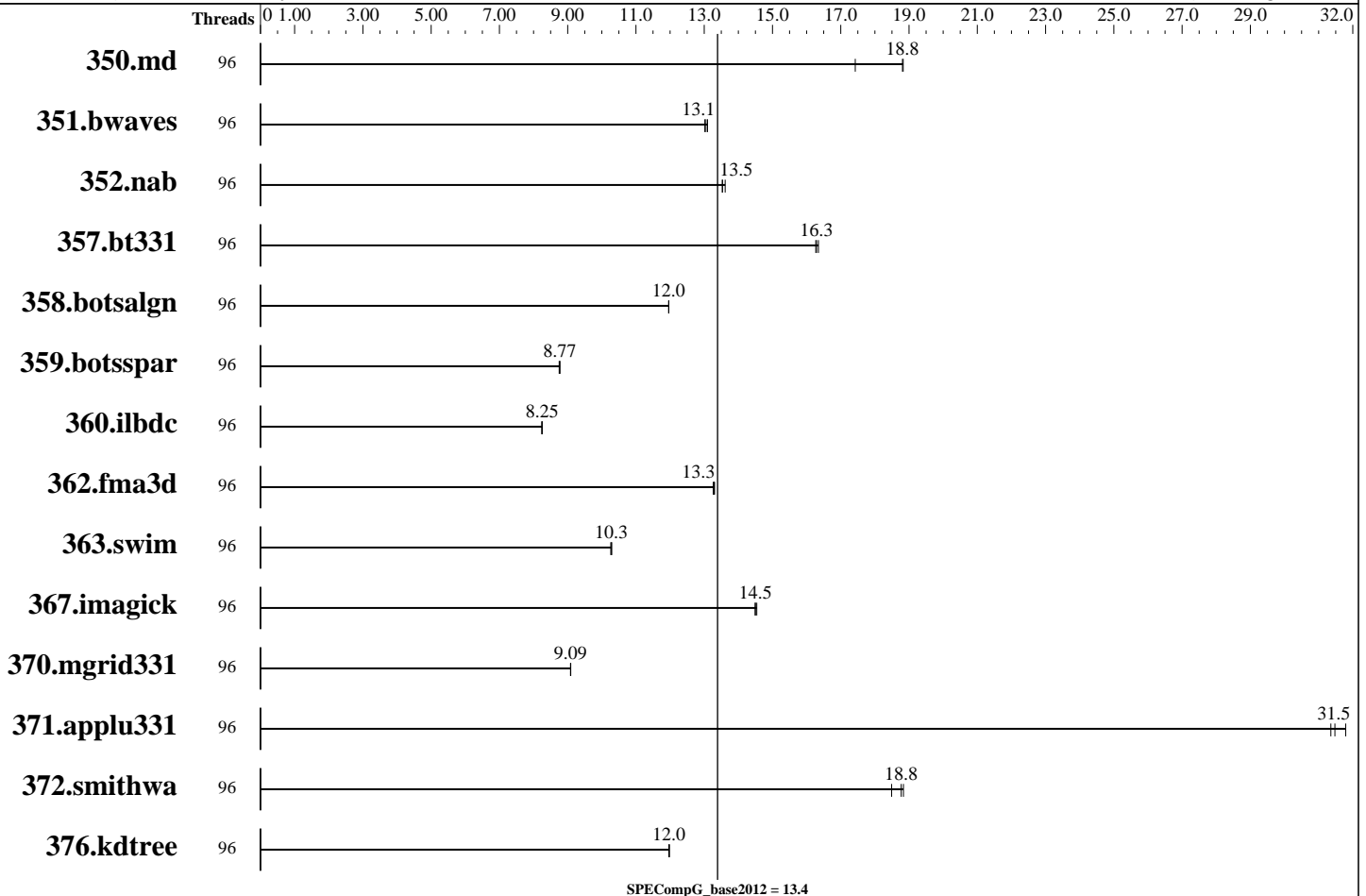
Test sponsor: Cisco Systems

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

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
```

Continued on next page

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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
```

Continued on next page

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Page 3

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General Notes (Continued)

General base OMP Library Settings

ENV_KMP_AFFINITY=compact,1

Submitted_by: "Rajendra Yogendra (ryogendr)" <ryogendr@cisco.com>

Submitted: Wed May 18 17:07:51 EDT 2016

Submission: omp2012-20160511-00073.sub

Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Base Portability Flags

350.md: -FR
351.bwaves: No flags used
352.nab: No flags used
357.bt331: -mmodel=medium
358.botsalgn: No flags used
359.botsspar: No flags used
360.ilbdc: No flags used
362.fma3d: No flags used
363.swim: -mmodel=medium
367.imagick: -std=c99
370.mgrid331: No flags used
371.applu331: No flags used
372.smithwa: No flags used
376.kdtree: No flags used

Base Optimization Flags

C benchmarks:

-O2 -openmp -ipo -xCORE-AVX2 -ansi-alias

C++ benchmarks:

-O2 -openmp -ipo -xCORE-AVX2 -ansi-alias

Continued on next page

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Base Optimization Flags (Continued)

Fortran benchmarks:

-O2 -openmp -ipo -xCORE-AVX2 -align array64byte

The flags file that was used to format this result can be browsed at

<https://pro.spec.org/private/hpg/submit/omp2012/flags/Intel-ic13.0-linux64.20140219.00.html>

You can also download the XML flags source by saving the following link:

<https://pro.spec.org/private/hpg/submit/omp2012/flags/Intel-ic13.0-linux64.20140219.00.xml>

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

Tested with SPEC OMP2012 v1.0.
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