



SPEC® OMPG2012 Result

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Cisco Systems

Cisco UCS C480 M5 (Intel Xeon Platinum 8180, 2.50 GHz)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 39.0

OMP2012 license:9019

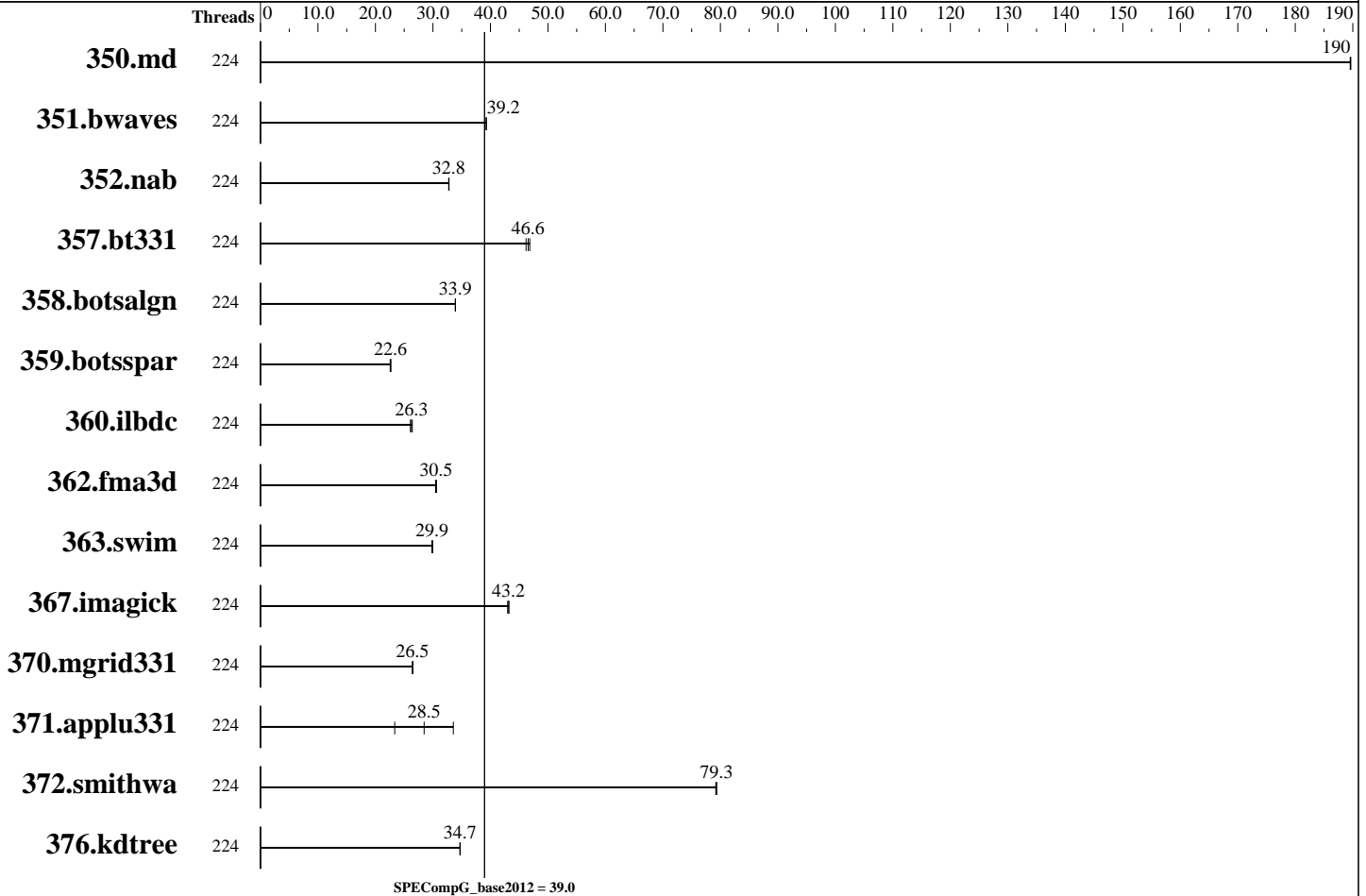
Test sponsor: Cisco Systems

Tested by: Cisco Systems

Test date: Jun-2017

Hardware Availability: Aug-2017

Software Availability: Sep-2017



Hardware

CPU Name: Intel Xeon Platinum 8180
 CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz
 CPU MHz: 2500
 CPU MHz Maximum: 3800
 FPU: Integrated
 CPU(s) enabled: 112 cores, 4 chips, 28 cores/chip, 2 threads/core
 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: 38.5 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 400 GB SSD SAS
 Other Hardware: None
 Base Threads Run: 224
 Minimum Peak Threads: --

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Software

Operating System: SUSE Linux Enterprise Server 12 SP2 (x86_64)
 Compiler: C/C++/Fortran: Version 18.0.0.082 of Intel Composer Beta for Linux Build 20170510
 Auto Parallel: No
 File System: xfs
 System State: Run Level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: Not Applicable
 Other Software: None



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Maximum Peak Threads: --

Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|--------------|---------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|---------|---------|-------|---------|-------|---------|-------|
| | Threads | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Threads | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 350.md | 224 | <u>24.4</u> | <u>190</u> | 24.4 | 190 | 24.4 | 190 | | | | | | | |
| 351.bwaves | 224 | 116 | 39.0 | <u>115</u> | <u>39.2</u> | 115 | 39.3 | | | | | | | |
| 352.nab | 224 | 119 | 32.8 | 119 | 32.7 | <u>119</u> | <u>32.8</u> | | | | | | | |
| 357.bt331 | 224 | 103 | 46.2 | 101 | 46.8 | <u>102</u> | <u>46.6</u> | | | | | | | |
| 358.botsalgn | 224 | 128 | 33.9 | <u>128</u> | <u>33.9</u> | 128 | 33.9 | | | | | | | |
| 359.botsspar | 224 | 232 | 22.7 | 233 | 22.6 | <u>232</u> | <u>22.6</u> | | | | | | | |
| 360.ilbdc | 224 | <u>136</u> | <u>26.3</u> | 135 | 26.4 | 137 | 26.1 | | | | | | | |
| 362.fma3d | 224 | <u>124</u> | <u>30.5</u> | 125 | 30.5 | 124 | 30.6 | | | | | | | |
| 363.swim | 224 | <u>152</u> | <u>29.9</u> | 151 | 30.0 | 152 | 29.8 | | | | | | | |
| 367.imagick | 224 | 164 | 43.0 | <u>163</u> | <u>43.2</u> | 163 | 43.2 | | | | | | | |
| 370.mgrid331 | 224 | <u>167</u> | <u>26.5</u> | 167 | 26.5 | 167 | 26.4 | | | | | | | |
| 371.applu331 | 224 | <u>213</u> | <u>28.5</u> | 181 | 33.5 | 260 | 23.4 | | | | | | | |
| 372.smithwa | 224 | <u>67.6</u> | <u>79.3</u> | 67.6 | 79.3 | 67.7 | 79.2 | | | | | | | |
| 376.kdtree | 224 | 130 | 34.7 | 130 | 34.7 | <u>130</u> | <u>34.7</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 $# 8f8c0fe9e19c658963a1e67685e50647
running on linux-wjnw Tue Jun 20 22:49:25 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/omp2012/Docs/config.html#sysinfo>

From /proc/cpuinfo

```

model name : Intel(R) Xeon(R) Platinum 8180 CPU @ 2.50GHz
 4 "physical id"s (chips)
 224 "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 : 28
siblings : 56
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
physical 2: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30

```

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Platform Notes (Continued)

```
physical 3: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24
25 26 27 28 29 30
cache size : 39424 KB
```

```
From /proc/meminfo
MemTotal:      791190864 kB
HugePages_Total:    0
Hugepagesize:    2048 kB
```

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

```
SuSE-release:
SUSE Linux Enterprise Server 12 (x86_64)
VERSION = 12
PATCHLEVEL = 2
# 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-SP2"
VERSION_ID="12.2"
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP2"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12:sp2"
```

```
uname -a:
Linux linux-wjnw 4.4.21-69-default #1 SMP Tue Oct 25 10:58:20 UTC 2016
(9464f67) x86_64 x86_64 x86_64 GNU/Linux
```

run-level 3 Jun 20 20:45

SPEC is set to: /opt/omp2012

```
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2        xfs   321G   60G  262G  19% /
```

Additional information from dmidecode:

BIOS Cisco Systems, Inc. C480M5.3.1.0.272.0613172154 06/13/2017

Memory:

48x 16 GB

48x 0xCE00 M393A2G40EB2-CTD 16 GB 2666 MHz 2 rank

(End of data from sysinfo program)

General Notes

```
=====
BIOS settings notes:
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/transparent_hugepage/enabled
BIOS settings notes:
```

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General Notes (Continued)

```

Intel Turbo Boost Technology (Turbo) : Enabled
CPU performance set to Enterprise
Power Performance Tuning set to OS
SNC set to Disabled
IMC Interleaving set to Auto
General OMP Library Settings
ENV_KMP_LIBRARY=turnaround
ENV_OMP_SCHEDULE=static
ENV_KMP_BLOCKTIME=200
ENV_KMP_STACKSIZE=16G
ENV_OMP_DYNAMIC=FALSE
ENV_OMP_NESTED=FALSE

```

```

=====
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:
  -O3 -qopenmp -ipo -xHOST -ansi-alias

C++ benchmarks:
  -O3 -qopenmp -ipo -xHOST -ansi-alias

Fortran benchmarks:
  -O3 -qopenmp -ipo -xHOST -align array64byte

```



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

<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20170711.00.html>

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

<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20170711.00.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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