### SPEC® OMPG2012 Result

**Cisco Systems**

Cisco UCS C460 M4 (Intel Xeon E7 - 4890 v2 @ 2.80 GHz)

<table>
<thead>
<tr>
<th>SPECompG_peak2012</th>
<th>SPECompG_base2012</th>
</tr>
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<tbody>
<tr>
<td>Not Run</td>
<td>17.9</td>
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**OMPG2012 license:**

9019

**Test sponsor:**

Cisco Systems

**Tested by:**

Cisco Systems

**Test date:**

Feb-2014

**Hardware Availability:**

Apr-2014

**Software Availability:**

Oct-2013

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**Hardware**

- **CPU Name:** Intel Xeon E7-4890 v2
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.40 GHz
- **CPU MHz:** 2800
- **CPU MHz Maximum:** 3400
- **FPU:** Integrated
- **CPU(s) enabled:** 60 cores, 4 chips, 15 cores/chip, 2 threads/core
- **CPU(s) orderable:** 1,2,3,4 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:** 38400 KB I+D on chip per chip
- **Other Cache:** None
- **Memory:** 512 GB (64 x 8 GB 2Rx4 PC3-12800R-11, ECC, and CL11)
- **Disk Subsystem:** 1 x 600 GB SAS SATA 10K RPM
- **Base Threads Run:** 120

**Software**

- **Operating System:** Red Hat Enterprise Linux Server release 6.4
- **Compiler:** C/C++/Fortran: Version 14.0.1.106 of Intel Composer XE for Linux Build 20131008
- **Auto Parallel:** No
- **File System:** Linux ext4
- **System State:** Default
- **Base Pointers:** 64-bit
- **Peak Pointers:** 64-bit
- **Other Software:** None
## SPEC OMPG2012 Result

### Cisco Systems

Cisco UCS C460 M4 (Intel Xeon E7 - 4890 v2 @ 2.80 GHz)

**SPECompG_peak2012 = Not Run**  
**SPECompG_base2012 = 17.9**

- **Test sponsor:** Cisco Systems  
- **Hardware Availability:** Apr-2014  
- **Software Availability:** Oct-2013

### Platform Notes

Sysinfo program /opt/omp2012/Docs/sysinfo

```bash
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963a1e67685e50647
running on localhost.localdomain Wed Feb 12 16:53:07 2014
```

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 E7-4890 v2 @ 2.80GHz
- 4 "physical id"s (chips)
- 120 "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 : 15  
- siblings : 30

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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.
Platform Notes (Continued)

From /proc/meminfo
   MemTotal:       529134384 kB
   HugePages_Total:       0
   Hugepagesize:       2048 kB

/usr/bin/lsb_release -d
   Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release* /etc/*version*
   redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
   system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)

uname -a:
   Linux localhost.localdomain 2.6.32-358.el6.x86_64 #1 SMP Tue Jan 29 11:47:41 EST 2013 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Feb 12 16:52

SPEC is set to: /opt/omp2012
   Filesystem    Type    Size  Used Avail Use% Mounted on
   /dev/sda2     ext4    549G   30G  492G   6% /

Additional information from dmidecode:
   BIOS Cisco Systems, Inc. C460M4.1.5.5.14.020620141111 02/06/2014
   Memory:
      64x  8 GB
      64x 0xCE00 M393B1K70QB0-YK0 8 GB 1333 MHz 2 rank
      32x NO DIMM NO DIMM

(End of data from sysinfo program)

General Notes

========================================================================
BIOS settings notes:
Intel Turbo Boost Technology (Turbo) : Enabled
CPU Performance set to HPC
Frequency Floor set to Disabled
Power Technology set to Custom
CPU C6 Report set to Enabled
Enhanced Halt State (C1E) set to Disabled
Package C State Limit set to C0/C1 State
Memory RAS Configuration set to Maximum Performance
DRAM Clock Throttling set to Balanced
echo never > /sys/kernel/mm/redhat_transparent_hugepage/enabled

========================================================================
General OMP Library Settings
   ENV_KMP_LIBRARY=throughput
   ENV_KMP_STACKSIZE=190M

(Continued on next page)
Cisco Systems
Cisco UCS C460 M4 (Intel Xeon E7 - 4890 v2 @ 2.80 GHz)

SPEC OMPG2012 Result

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 17.9

OMP2012 license: 9019
Test sponsor: Cisco Systems
Test date: Feb-2014
Tested by: Cisco Systems
Hardware Availability: Apr-2014
Software Availability: Oct-2013

General Notes (Continued)

ENV_KMP_BLOCKTIME=infinite
ENV_OMP_DYNAMIC=FALSE
ENV_OMP_NESTED=FALSE
ENV_OMP_SCHEDULE=static

========================================================================
General base OMP Library Settings
  ENV_KMP_AFFINITY=compact,0,granularity=fine

========================================================================
General peak OMP Library Settings
  ENV_KMP_AFFINITY=compact,0,granularity=fine

========================================================================
Per benchmark peak OMP Library Settings

351.bwaves:peak:
  ENV_KMP_AFFINITY=compact,1,granularity=fine
  ENV_OMP_SCHEDULE=static,1

359.botsspar:peak:
362.fma3d:peak:
  ENV_KMP_AFFINITY=compact,1,granularity=fine
  ENV_OMP_SCHEDULE=guided

ENV_OMP_SCHEDULE=static,1

363.swim:peak:
  ENV_KMP_AFFINITY=compact,1,granularity=fine

370.mgrid331:peak:
  ENV_KMP_AFFINITY=compact,1,granularity=fine

372.smithwa:peak:
  ENV_KMP_AFFINITY=compact,1,granularity=fine

Base Compiler Invocation

C benchmarks:
  icc

C++ benchmarks:
  icpc

Continued on next page
### Cisco Systems

Cisco UCS C460 M4 (Intel Xeon E7 - 4890 v2 @ 2.80 GHz)

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#### Base Compiler Invocation (Continued)

Fortran benchmarks:
ifort

#### Base Portability Flags

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

#### Base Optimization Flags

**C benchmarks:**
- -O2 -openmp -ipo -xAVX -ansi-alias

**C++ benchmarks:**
- -O2 -openmp -ipo -xAVX -ansi-alias

**Fortran benchmarks:**
- -O2 -openmp -ipo -xAVX -align array64byte

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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.