SPEC® CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

Cisco UCS C240 M3 (Intel Xeon E5-2650L 1.80 GHz)

$SPECint^{®}_rate2006 = $ 462

$SPECint_rate_base2006 = $ 443

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

Test date: May-2012
Hardware Availability: Jun-2012
Software Availability: Dec-2011

Copies

400.perlbench: 32 / 368, 32 / 314
401.bzip2: 32 / 250, 32 / 243
403.gcc: 32 / 364, 32 / 365
429.mcf: 32 / 735
445.gobmk: 32 / 332, 32 / 324
456.hmmer: 32 / 645, 32 / 534
458.sjeng: 32 / 327, 32 / 316
462.libquantum: 32 / 2560
464.h264ref: 32 / 537, 32 / 530
471.omnetpp: 32 / 306, 32 / 286
473.astar: 32 / 266
483.xalancbmk: 32 / 493

SPECint_rate_base2006 = 443

SPECint_rate2006 = 462

Hardware

CPU Name:	Intel Xeon E5-2650L
CPU Characteristics:	Intel Turbo Boost Technology up to 2.30 GHz
CPU MHz:	1800
FPU:	Integrated
CPU(s) enabled:	16 cores, 2 chips, 8 cores/chip, 2 threads/core
CPU(s) orderable:	1,2 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:	20 MB I+D on chip per chip
Other Cache:	None
Memory:	128 GB (16 x 8 GB 2Rx4 PC3-12800R-11, ECC)
Disk Subsystem:	1 X 600 GB 10000 RPM SAS
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 6.2 (Santiago) 2.6.32-220.el6.x86_64
Compiler:	C/C++: Version 12.1.3.293 of Intel C++ Studio XE for Linux
Auto Parallel:	No
File System:	ext4
System State:	Run level 3 (multi-user)
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V9.01

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

Cisco UCS C240 M3 (Intel Xeon E5-2650L 1.80 GHz)

SPECint_rate2006 = 462

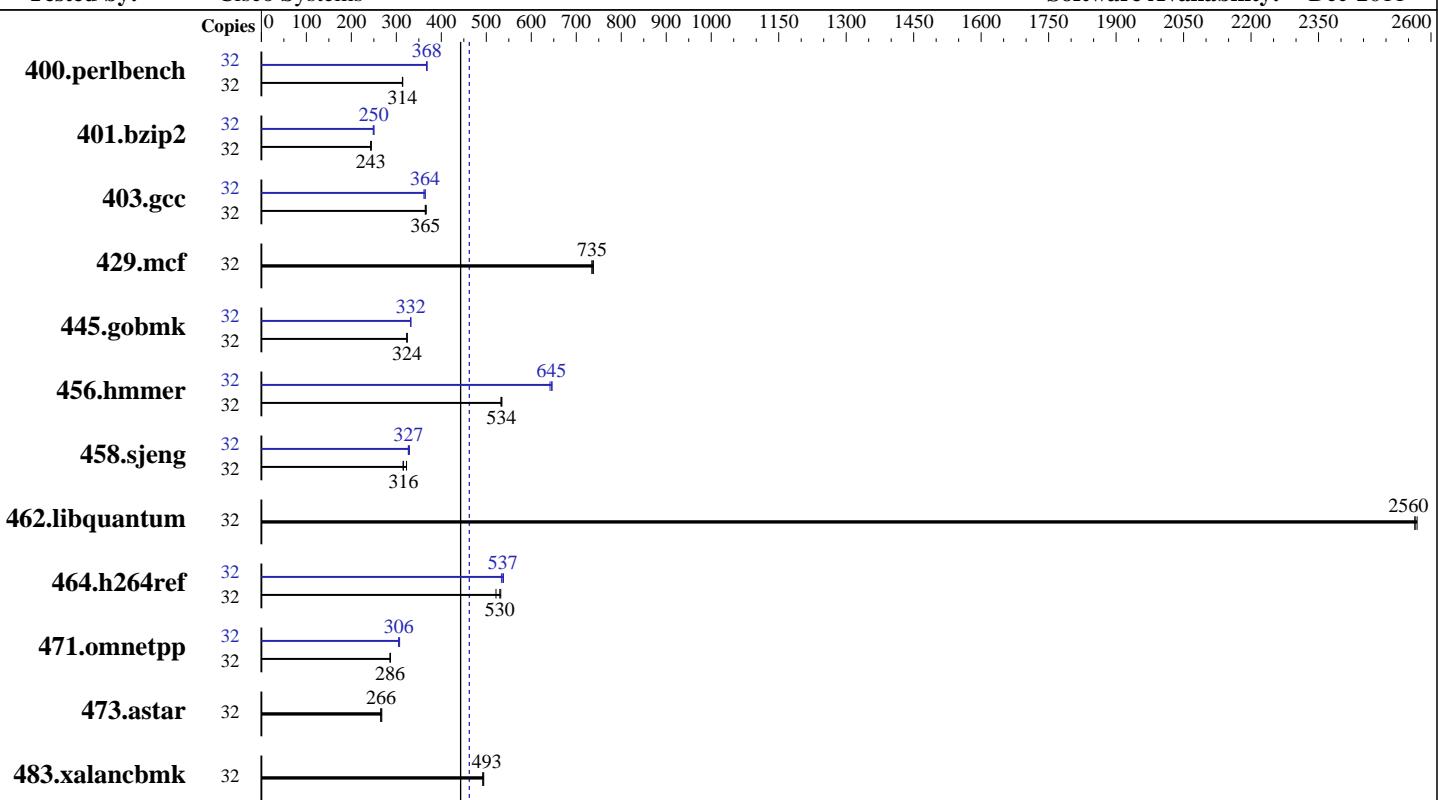SPECint_rate_base2006 = 443

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

Test date: May-2012
Hardware Availability: Jun-2012
Software Availability: Dec-2011

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	32	997	313	**996**	**314**	995	314	32	**850**	**368**	849	368	851	367
401.bzip2	32	1264	244	1270	243	**1269**	**243**	32	1235	250	1242	249	**1235**	**250**
403.gcc	32	**706**	**365**	703	366	707	364	32	**708**	**364**	708	364	713	361
429.mcf	32	**397**	**735**	395	738	397	735	32	**397**	**735**	395	738	397	735
445.gobmk	32	**1037**	**324**	1036	324	1038	323	32	1011	332	1011	332	**1011**	**332**
456.hmmer	32	561	533	558	535	**559**	**534**	32	465	642	**463**	**645**	462	646
458.sjeng	32	**1226**	**316**	1200	323	1229	315	32	**1184**	**327**	1185	327	1176	329
462.libquantum	32	258	2570	259	2560	**259**	**2560**	32	258	2570	259	2560	**259**	**2560**
464.h264ref	32	**1336**	**530**	1331	532	1358	522	32	**1320**	**537**	1327	534	1316	538
471.omnetpp	32	697	287	**698**	**286**	699	286	32	**654**	**306**	656	305	651	307
473.astar	32	**845**	**266**	839	268	847	265	32	**845**	**266**	839	268	847	265
483.xalancbmk	32	**448**	**493**	449	492	447	494	32	**448**	**493**	449	492	447	494

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

```
    BIOS Configuration:
    Processor Power State C6 set to Disabled
    Processor Power State C1 Enhanced set to Disabled
    Power Technology set to Custom
    Energy Performance set to Performance
    DRAM Clock Throttling set to Performance
     Sysinfo program /opt/cpu2006-1.2/config/sysinfo.rev6800
     $Rev: 6800 $ $Date:: 2011-10-11 #$ 6f2ebdff5032aaa42e583f96b07f99d3
     running on localhost.localdomain Wed May 30 14:00:20 2012

     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 E5-2650L 0 @ 1.80GHz
           2 "physical id"s (chips)
```
Continued on next page

Cisco Systems

Cisco UCS C240 M3 (Intel Xeon E5-2650L 1.80 GHz)

SPECint_rate2006 = 462

SPECint_rate_base2006 = 443

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

Test date: May-2012
Hardware Availability: Jun-2012
Software Availability: Dec-2011

Platform Notes (Continued)

```
     32 "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 : 8
     siblings  : 16
     physical 0: cores 0 1 2 3 4 5 6 7
     physical 1: cores 0 1 2 3 4 5 6 7
   cache size : 20480 KB

 From /proc/meminfo
   MemTotal:       132100612 kB
   HugePages_Total:        0
   Hugepagesize:        2048 kB

 /usr/bin/lsb_release -d
   Red Hat Enterprise Linux Server release 6.2 (Santiago)

 From /etc/*release* /etc/*version*
   redhat-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
   system-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
   system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

 uname -a:
   Linux localhost.localdomain 2.6.32-220.el6.x86_64 #1 SMP Wed Nov 9 08:03:13
   EST 2011 x86_64 x86_64 x86_64 GNU/Linux

 run-level 3 May 30 13:41

 SPEC is set to: /opt/cpu2006-1.2
   Filesystem     Type     Size  Used Avail Use% Mounted on
   /dev/sda1      ext4     550G  9.9G  512G   2% /

 Additional information from dmidecode:
   Memory:
   16x 0xCE00 M393B1K70DH0-YK0 8 GB 1600 MHz 1 rank

 (End of data from sysinfo program)
```

General Notes

```
 Environment variables set by runspec before the start of the run:
 LD_LIBRARY_PATH = "/opt/cpu2006-1.2/libs/32:/opt/cpu2006-1.2/libs/64"
 Intel HT Technology = enable
  Binaries compiled on a system with 2 X Intel Xeon E5-2690 CPU + 128 GB memory using RHEL 6.2
  Transparent Huge Pages enabled with:
  echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
  Filesystem page cache cleared with:
  echo 1>        /proc/sys/vm/drop_caches
```

SPEC CINT2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

Cisco UCS C240 M3 (Intel Xeon E5-2650L 1.80 GHz)

SPECint_rate2006 =   462

SPECint_rate_base2006 = 443

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

Test date: May-2012
Hardware Availability: Jun-2012
Software Availability: Dec-2011

Base Compiler Invocation

C benchmarks:
     icc -m32

C++ benchmarks:
     icpc -m32

Base Portability Flags

    400.perlbench: -DSPEC_CPU_LINUX_IA32
    462.libquantum: -DSPEC_CPU_LINUX
    483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
     -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3

C++ benchmarks:
     -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3
     -Wl,-z,muldefs -L/smartheap -lsmartheap

Base Other Flags

C benchmarks:

       403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
     icc -m32

   400.perlbench: icc -m64

     401.bzip2: icc -m64

   456.hmmer: icc -m64

     458.sjeng: icc -m64

C++ benchmarks:
     icpc -m32

SPEC CINT2006 Result

Cisco Systems

Cisco UCS C240 M3 (Intel Xeon E5-2650L 1.80 GHz)

SPECint_rate2006 =   462

SPECint_rate_base2006 = 443

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

Test date: May-2012
Hardware Availability: Jun-2012
Software Availability: Dec-2011

Peak Portability Flags

```
   400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
      401.bzip2: -DSPEC_CPU_LP64
      456.hmmer: -DSPEC_CPU_LP64
      458.sjeng: -DSPEC_CPU_LP64
  462.libquantum: -DSPEC_CPU_LINUX
  483.xalancbmk: -DSPEC_CPU_LINUX
```

Peak Optimization Flags

C benchmarks:

```
   400.perlbench: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
                  -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
                  -auto-ilp32

      401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
                  -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
                  -opt-prefetch -auto-ilp32 -ansi-alias

        403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div

        429.mcf: basepeak = yes

      445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
                  -ansi-alias -opt-mem-layout-trans=3

      456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32

      458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
                  -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
                  -unroll4 -auto-ilp32

  462.libquantum: basepeak = yes

     464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
                  -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
                  -unroll2 -ansi-alias
```

C++ benchmarks:

```
     471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
                  -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
                  -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
                  -L/smartheap -lsmartheap

       473.astar: basepeak = yes
```

Continued on next page

Cisco Systems

Cisco UCS C240 M3 (Intel Xeon E5-2650L 1.80 GHz)

SPECint_rate2006 = **462**

SPECint_rate_base2006 = **443**

CPU2006 license: 9019
Test sponsor: Cisco Systems
Tested by: Cisco Systems

Test date: May-2012
Hardware Availability: Jun-2012
Software Availability: Dec-2011

Peak Optimization Flags (Continued)

483.xalancbmk: basepeak = yes

Peak 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-ic12.1-official-linux64.20120425.html
http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.20130607.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20120425.xml
http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.20130607.xml

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

Tested with SPEC CPU2006 v1.2.
Report generated on Thu Jul 24 08:48:43 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 22 June 2012.