



SPEC® CINT2006 Result

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Cisco Systems

SPECint®_rate2006 = 1040

Cisco UCS C460 M2 (Intel Xeon E7-8867L, 2.13 GHz)

SPECint_rate_base2006 = 983

CPU2006 license: 9019

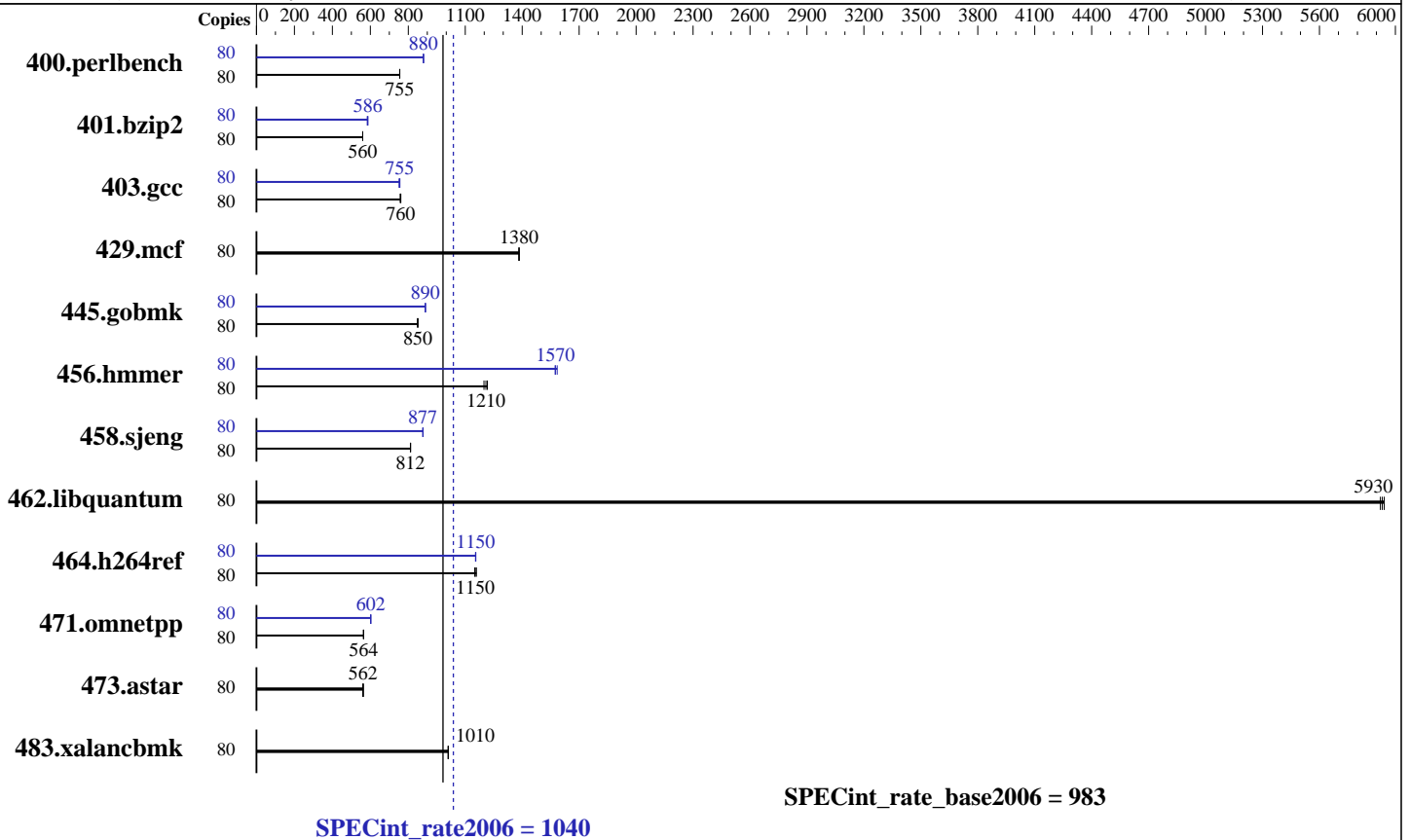
Test date: Jan-2012

Test sponsor: Cisco Systems

Hardware Availability: May-2011

Tested by: Cisco Systems

Software Availability: Oct-2011



Hardware

CPU Name: Intel Xeon E7-8867L
 CPU Characteristics: Intel Turbo Boost Technology up to 2.53 GHz
 CPU MHz: 2133
 FPU: Integrated
 CPU(s) enabled: 40 cores, 4 chips, 10 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: 30 MB I+D on chip per chip
 Other Cache: None
 Memory: 1 TB (64 x 16 GB 4Rx4 PC3-8500R-9, ECC)
 Disk Subsystem: 600 GB SAS 10K RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.1 (Santiago)
 2.6.32-131.0.15.el6.x86_64
 Compiler: C/C++: Version 12.1.0.225 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



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Results Table

Benchmark	Base						Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	80	1035	755	1036	754	1036	755	80	888	880	889	879	889	880
401.bzip2	80	1379	560	1379	560	1380	560	80	1317	586	1316	587	1323	584
403.gcc	80	847	761	851	757	848	760	80	853	755	853	755	858	751
429.mcf	80	528	1380	527	1380	527	1380	80	528	1380	527	1380	527	1380
445.gobmk	80	989	848	988	850	986	851	80	942	891	944	889	943	890
456.hammer	80	614	1220	623	1200	617	1210	80	471	1580	474	1570	474	1570
458.sjeng	80	1194	811	1193	812	1192	812	80	1104	877	1104	876	1103	877
462.libquantum	80	280	5920	279	5930	279	5940	80	280	5920	279	5930	279	5940
464.h264ref	80	1535	1150	1539	1150	1528	1160	80	1532	1160	1533	1150	1534	1150
471.omnetpp	80	887	564	886	564	886	564	80	830	602	831	602	830	602
473.astar	80	997	563	1003	560	999	562	80	997	563	1003	560	999	562
483.xalancbmk	80	546	1010	547	1010	546	1010	80	546	1010	547	1010	546	1010

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

Sysinfo program /opt/cpu2006/config/sysinfo.rev6800
\$Rev: 6800 \$ \$Date:: 2011-10-11 #\$ 6f2ebdff5032aaa42e583f96b07f99d3
running on localhost.localdomain Wed Dec 26 22:04:07 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 E7-L8867 @ 2.13GHz
4 "physical id"s (chips)
80 "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 : 10
siblings : 20
```

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Platform Notes (Continued)

```

physical 0: cores 0 1 2 8 9 16 17 18 24 25
physical 1: cores 0 1 2 8 9 16 17 18 24 25
physical 2: cores 0 1 2 8 9 16 17 18 24 25
physical 3: cores 0 1 2 8 9 16 17 18 24 25
cache size : 30720 KB

```

From /proc/meminfo

```

MemTotal:      1058715304 kB
HugePages_Total:    0
Hugepagesize:    2048 kB

```

/usr/bin/lsb_release -d

Red Hat Enterprise Linux Server release 6.1 (Santiago)

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

```

redhat-release: Red Hat Enterprise Linux Server release 6.1 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.1 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

```

uname -a:

```

Linux localhost.localdomain 2.6.32-131.0.15.el6.x86_64 #1 SMP Tue May 10
15:42:40 EDT 2011 x86_64 x86_64 x86_64 GNU/Linux

```

run-level 3 Dec 26 21:58

SPEC is set to: /opt/cpu2006

```

Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sdal        ext4      550G   60G  462G  12% /

```

Additional information from dmidecode:

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/opt/cpu2006/libs/32:/opt/cpu2006/libs/64"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
memory using RHEL5.5

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

runspec command invoked through numactl i.e.:

numactl --interleave=all runspec <etc>



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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



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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

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Peak Optimization Flags (Continued)

483.xalanbmk: 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-linux64.20111122.html>

<http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml>

<http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.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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