

SPEC® CINT2006 Result

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Cisco Systems

Cisco UCS B260 M4 (Intel Xeon E7-2890 v2 @ 2.80GHz)

SPECint®_rate2006 = Not Run

SPECint_rate_base2006 = 1170

CPU2006 license: 9019

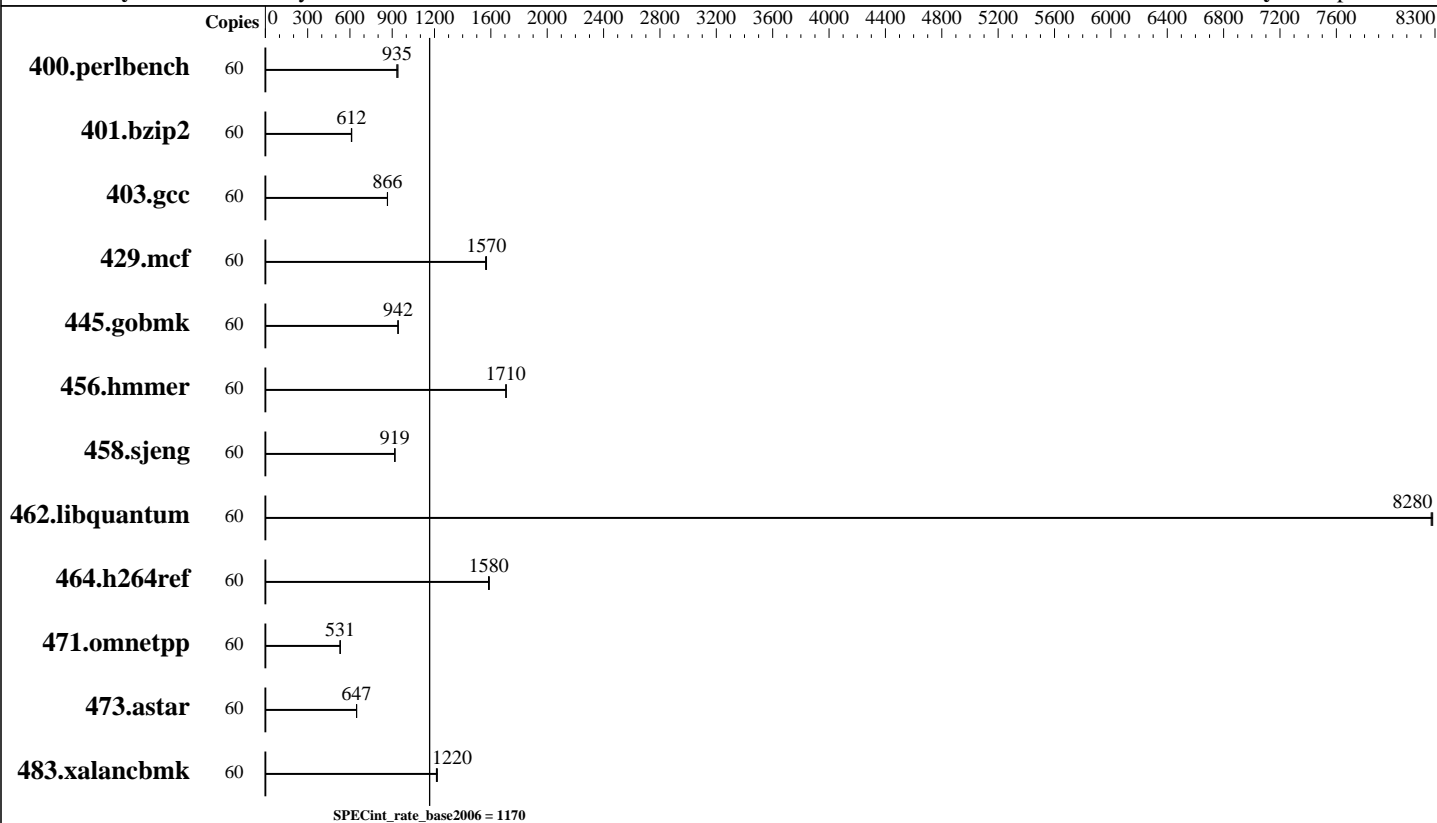
Test sponsor: Cisco Systems

Tested by: Cisco Systems

Test date: Feb-2014

Hardware Availability: May-2014

Software Availability: Sep-2013



Hardware

CPU Name: Intel Xeon E7-2890 v2
 CPU Characteristics: Intel Turbo Boost Technology up to 3.40 GHz
 CPU MHz: 2800
 FPU: Integrated
 CPU(s) enabled: 30 cores, 2 chips, 15 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 MB I+D on chip per core
 L3 Cache: 38400 KB I+D on chip per chip
 Other Cache: None
 Memory: 256 GB (32 x 8 GB 2Rx4 PC3-12800R-11, ECC, and CL11)
 Disk Subsystem: 1 X 300 GB 15000 RPM SAS
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.5 (Santiago)
 2.6.32-431.el6.x86_64
 Compiler: C/C++: Version 14.0.0.080 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 V10.0

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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	60	<u>627</u>	<u>935</u>	628	934	623	941							
401.bzip2	60	945	612	<u>946</u>	<u>612</u>	949	610							
403.gcc	60	<u>558</u>	<u>866</u>	558	866	557	867							
429.mcf	60	350	1560	<u>349</u>	<u>1570</u>	349	1570							
445.gobmk	60	<u>669</u>	<u>942</u>	669	941	668	942							
456.hmmr	60	327	1710	<u>328</u>	<u>1710</u>	328	1710							
458.sjeng	60	790	919	<u>790</u>	<u>919</u>	791	918							
462.libquantum	60	<u>150</u>	<u>8280</u>	150	8280	150	8270							
464.h264ref	60	838	1580	835	1590	<u>838</u>	<u>1580</u>							
471.omnetpp	60	<u>706</u>	<u>531</u>	707	531	706	531							
473.astar	60	<u>651</u>	<u>647</u>	651	647	650	648							
483.xalancbmk	60	<u>340</u>	<u>1220</u>	339	1220	341	1210							

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

CPU performance set to HPC
Power Technology set to Performance
CPU Power State C6 set to Disabled
CPU Power State C1 Enhanced set to Disabled
Energy Performance policy set to Performance
Memory RAS configuration set to Maximum Performance
DRAM Clock Throttling Set to Performance
LV DDR Mode set to Performance-mode
DRAM Refresh Rate Set to Auto
Package C State Limit set to C0/C1 State
Sysinfo program /opt/cpu2006-1.2/config/sysinfo.rev6818
\$Rev: 6818 \$ \$Date:: 2012-07-17 #\$ e86d102572650a6e4d596a3cee98f191
running on YOS-2S Tue Feb 11 19:43:53 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/cpu2006/Docs/config.html#sysinfo>

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Platform Notes (Continued)

```
From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E7-2890 v2 @ 2.80GHz
 2 "physical id"s (chips)
 60 "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
  physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
  physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
cache size : 38400 KB

From /proc/meminfo
MemTotal:      264067100 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.5 (Santiago)

From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:
Linux YOS-2S 2.6.32-431.el6.x86_64 #1 SMP Sun Nov 10 22:19:54 EST 2013 x86_64
x86_64 x86_64 GNU/Linux

run-level 3 Feb 11 19:41

SPEC is set to: /opt/cpu2006-1.2
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sdb1       ext4  275G  32G   229G  13% /

Additional information from dmidecode:
BIOS Cisco Systems, Inc. EXM4-1.2.2.1.12.012920142034 01/29/2014
Memory:
 32x      8 GB
 32x 0xCE00 M393B1K70QB0-YK0 8 GB 1333 MHz 2 rank
 16x NO DIMM NO DIMM

(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:/opt/cpu2006-1.2/sh"

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General Notes (Continued)

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RedHat EL 6.4
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>

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/sh -lsmartheap

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

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For other inquiries, please contact webmaster@spec.org.

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