

SPEC® CINT2006 Result

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Cisco Systems

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

SPECint®_rate2006 = Not Run

SPECint_rate_base2006 = 2320

CPU2006 license: 9019

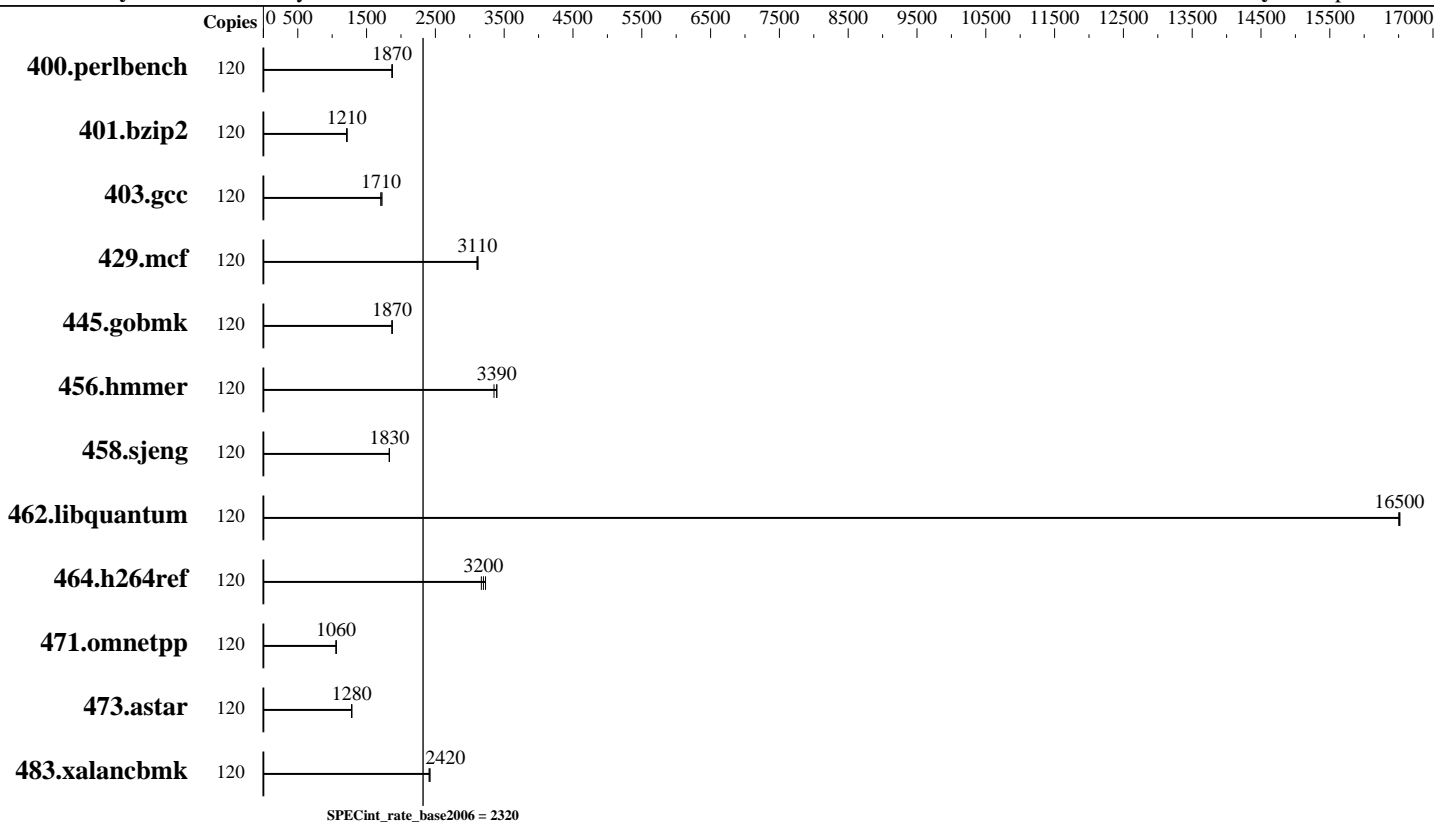
Test sponsor: Cisco Systems

Tested by: Cisco Systems

Test date: Feb-2014

Hardware Availability: Apr-2014

Software Availability: Sep-2013



Hardware

CPU Name: Intel Xeon E7-4890 v2
 CPU Characteristics: Intel Turbo Boost Technology up to 3.40 GHz
 CPU MHz: 2800
 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 MB 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 15K RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.4 (Santiago)
 2.6.32-358.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	120	626	1870	627	1870	625	1870							
401.bzip2	120	953	1210	952	1220	957	1210							
403.gcc	120	565	1710	566	1710	560	1720							
429.mcf	120	351	3120	352	3110	352	3100							
445.gobmk	120	673	1870	672	1870	673	1870							
456.hmmr	120	334	3350	330	3390	330	3390							
458.sjeng	120	793	1830	792	1830	793	1830							
462.libquantum	120	151	16500	151	16500	151	16500							
464.h264ref	120	838	3170	822	3230	830	3200							
471.omnetpp	120	709	1060	709	1060	709	1060							
473.astar	120	657	1280	656	1280	656	1280							
483.xalancbmk	120	342	2420	342	2420	344	2410							

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

```
Power Technology set to Custom
CPU Power State C6 set to Enabled
CPU Power State C1 Enhanced set to Disabled
Package C State Limit set to C0/C1 State
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 1x
Sysinfo program /opt/cpu2006-1.2/config/sysinfo.rev6818
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
running on localhost.localdomain Wed Feb 12 07:50:15 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 E7-4890 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
 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
 physical 2: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
 physical 3: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
cache size : 38400 KB

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)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

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 07:42

SPEC is set to: /opt/cpu2006-1.2
Filesystem      Type      Size Used Avail Use% Mounted on
/dev/sda2       ext4      549G  13G  509G   3% /

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)
```

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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"

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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