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

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<tr>
<td>483.xalancbmk</td>
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</tr>
</tbody>
</table>

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
SPEC CINT2006 Result

Cisco Systems

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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

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
Continued on next page
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)

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"

Continued on next page
## Cisco Systems

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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
```

---

Standard Performance Evaluation Corporation  
info@spec.org  
http://www.spec.org/
## SPEC CINT2006 Result

### Cisco Systems

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

Tested with SPEC CPU2006 v1.2.