Cisco Systems

Cisco UCS C200 M2 (Intel Xeon X5675, 3.07 GHz)

<table>
<thead>
<tr>
<th>SPECint®_rate2006</th>
<th>397</th>
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<tbody>
<tr>
<td>SPECint_rate_base2006</td>
<td>372</td>
</tr>
</tbody>
</table>

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

CPU Name: Intel Xeon X5675
CPU Characteristics: Intel Turbo Boost Technology up to 3.47 GHz
CPU MHz: 3067
FPU: Integrated
CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core
CPU(s) orderable: 1,2 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: 12 MB I+D on chip per chip
Other Cache: None
Memory: 48 GB (12 x 4 GB 2Rx4 PC3L-10600R-9, ECC)
Disk Subsystem: 73 GB SAS, 15K RPM
Other Hardware: None

Hardware

Operating System: SUSE Linux Enterprise Server 11 (x86_64) with SP1, Kernel 2.6.32.12-0.7-default
Compiler: Intel C++ Compiler XE for applications running on IA-32
Version 12.0.1.116 Build 20101116
Auto Parallel: No
File System: ext3
System State: Run level 3 (multi-user)
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: Microquill SmartHeap V9.01
Binaries compiled on RHEL5.5 with binutils-2.17.50.0.6-14.el5

Software
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Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
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</tr>
</tbody>
</table>

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

Submit Notes
The config file option 'submit' was used.
numactl was used to bind copies to the cores

Operating System Notes
ulimit -s unlimited was used to set the stacksize to unlimited prior to run
Large pages were not enabled for this run

Platform Notes
BIOS Configuration : Data Reuse Optimization = Disabled

Base Compiler Invocation
C benchmarks:
icc -m32

C++ benchmarks:
icpc -m32
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Test date: Feb-2011
Hardware Availability: Mar-2011
Software Availability: Jan-2011

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
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/smartheap -lsmartheap
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

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

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64

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 CPUs

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Startoportability Flags (Continued)

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) -B/usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT
401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -opt-prefetch -auto-ilp32 -ansi-alias -B/usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT
403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -B/usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT
429.mcf: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -ansi-alias -auto-ilp32
445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -ansi-alias -auto-ilp32
456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32 -B/usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT
458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -unroll4 -auto-ilp32 -B/usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT
462.libquantum: basepeak = yes
464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -ansi-alias -opt-ra-region-strategy=block -L/smartheap -lsmartheap

C++ benchmarks:

471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -ansi-alias -opt-ra-region-strategy=block -L/smartheap -lsmartheap

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Peak Optimization Flags (Continued)

473.astar: basepeak = yes
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-ic12.0-linux64-revB.html
http://www.spec.org/cpu2006/flags/Intel-Platform-Settings.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.xml
http://www.spec.org/cpu2006/flags/Intel-Platform-Settings.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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